

Submarine Procurement in Southeast Asia: Potential for Conflict and Prospects for Cooperation

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Abstract:

The acquisition of submarines by so many Southeast Asian countries represents a sudden proliferation of a new capability throughout the region. Fuelling this dynamic is a lack of trust and transparency. As Southeast Asian countries that possess submarines continue to cooperate on different naval operations, including areas of water space management, as well as submarine emergency and rescue. Eventually, establishment of these collaborations would assist in lowering insecurities and anxieties, and help to diminish the potential for further escalation of arms dynamic.

Key words: Arms Race; Military Modernization; Southeast Asia; Submarine Warfare

INTRODUCTION

A spate of recent submarine acquisitions in Southeast Asia, together with declarations for future purchases, could result in at least five nations operating submarines by 2020.¹ The end of 2012, saw Indonesia, Singapore and Malaysia already operating submarines. Vietnam has placed orders for submarines and Thailand has also made clear its intentions to pursue the purchase of a submarine capability. Other than submarines, major arms purchases such as fighter aircraft, helicopters, coastal defense systems and armored vehicles have resulted in Southeast Asian defense expenditures rising by 13.5 per cent to nearly US\$24.5 billion between 2010 and 2011.² While some observers have warned of the potential for an arms race in the region, the majority of analysts have concluded that the conditions for a full-blown arms race have not yet developed.³ Instead, the current defense spending spree has been characterized as a period of modernization for Southeast Asian militaries,⁴ in which

new platforms are not being bought “in numbers large enough to seriously affect the regional balance of power,”⁵ and where most of these “acquisitions could also be perceived as inherently defensive in nature.”⁶

However, the acquisition of submarines by so many Southeast Asian countries represents a sudden proliferation of a new capability throughout the region. Also, a pattern of tit-for-tat buying appears to be developing with regard to submarines and anti-submarine warfare (ASW) capabilities, fuelled by a mutual lack of trust and suspicion about the intended use of submarines in the region. At the same time, given the nascent stage of submarine operations within Southeast Asia, there also exists significant potential for cooperation among the Southeast Asian nations. This, in turn, could serve as a platform for confidence-building among Southeast Asian nations and help to remedy the mutual suspicion and lack of trust, which has limited the potential for further stability within Southeast Asia.

EXAMINING THE SUBMARINE PROCUREMENTS OF SOUTHEAST ASIAN NATIONS

Indonesia

The Indonesian Navy (*Tentara Nasional Indonesia Angkatan Laut* or TNI-AL) has been continuously operating submarines since the 1960s and is the oldest submarine operator in Southeast Asia. As part of its current fleet, the TNI-AL operates two *Type 209* boats, which were commissioned in the early 1980s.

Developing a conventional surface navy of sufficient size and capability to ensure deterrence over the country's vast maritime territory will take many years and a large financial investment. However, the submarine's stealthy nature provides an ability to be viewed as a credible deterrent with a much smaller force.

With more than 17,000 islands and vast interconnecting archipelagic waterways, Indonesia's focus on building up a strong navy is understandable. Although the TNI-AL operates a relatively large number of platforms compared to its neighbors, its fleet is considered inadequate for patrolling Indonesia's vast coastline and internal waters. As far back as 2004, former Indonesian Navy chief of staff Admiral Sondakh told his parliament that the navy had 117 ships of all types and readiness status, but that effective security of the country's huge maritime expanse required 762 ships.⁷ While budgetary and financial considerations have previously led to delays and postponement of force renewal projects desired by the TNI-AL leadership, a slate of project acquisitions since 2009 indicate that the seeds of the green-water capability are being sown, and that Indonesia is trying to play catch-up and secure its maritime territory.

This includes three *Chang Bogo*-class submarines, to be delivered by 2020.⁸ An eventual complement of 10 submarines has been articulated. This is the number of boats deemed necessary to sustain patrols throughout the nation's waters, with additional boats to be used as backup and for training.⁹

Developing a conventional surface navy of sufficient size and capability to ensure deterrence over the country's vast maritime territory will take many years and a large financial investment. However, the submarine's stealthy nature provides an ability to be viewed as a credible deterrent with a much smaller force. This is because submarines can be discreetly deployed, *en masse* if needed, to various locations within the archipelago. Unlike the surface fleet, which needs to be visible in order to deter, submarines can threaten a potential adversary by their mere presence. Thus, having a small but capable submarine force will allow the TNI-AL to quickly leapfrog its current inadequacies and provide an interim solution to fulfill its mission of protecting territorial integrity while it continues to build-up and modernize its remaining force structure.

Singapore

The uniqueness of Singapore's geostrategic predicament is that despite its miniscule size and small territorial boundaries, the island's area of concern stretches much further across the expanses of water on its East (the South China Sea) and West (the Malacca Strait) where most of its trade and imports flow from. The stated mission of the Singapore Navy is to "to provide for the seaward defense and ensure the safety and security of Singapore's vital Sea Lines of Communication (SLOCs)."¹⁰ Of note, the Republic of Singapore Navy (RSN) is the only Southeast Asian naval force to include SLOCs, and not merely its own maritime territory, within the scope of its mission, due to the island's heavy reliance on trade. Some observers have described the RSN's force structure as having



The RSN crew returning to Karlskrona, Sweden, after a training exercise on board the Swedish training submarine, HMS Östergötland.

undergone a “golden era” since the beginning of the twenty first century.¹¹ Significant acquisitions have included six *Formidable*-class frigates with significant anti-air, anti-surface and anti-submarine capabilities, and *Seahawk* S70B Naval helicopters which extend the Frigates’ ability to conduct standoff ASW and anti-surface warfare.

But the most noteworthy acquisition was of two second-hand Swedish submarines of the *Vastergotland*-class.¹² These boats join Singapore’s ex-Swedish *Sjoorman* submarines which were purchased in the mid-1990s and operationalized in the early-2000s. Beginning with its force modernization in the late-1980s and early-1990s, and continuing to its more recent acquisitions, the RSN has continually improved its capability to project presence in the South China Sea and the Straits of Malacca and Singapore.¹³ The recent acquisition of the ex-*Vastergotland* submarines to supplement the ex-*Sjoorman* boats is in line with this development trajectory. Indeed, the primary stated purpose of Singapore’s submarines is to “enable the RSN to better fulfill its mission of protecting Singapore’s sea lines of communication and territorial integrity.”¹⁴

Coupled with deterrence, the second pillar of Singapore’s larger defense policy is diplomacy. Unique among the current submarine operators in

Southeast Asia, the Singapore Navy’s submarines have participated in a number of bilateral exercises with India,¹⁵ the United States,¹⁶ as well as multilateral exercises with countries including Malaysia, New Zealand, the United Kingdom, Australia, Japan and the Republic of Korea.¹⁷ This indicates that Singapore’s submarines, like its other platforms, are not merely viewed as a deterrent capability, but also as a means of engaging and increasing interoperability with its friends and partners, and to build confidence with other militaries.¹⁸

Malaysia

The core mission of the Royal Malaysian Navy (RMN) is to prepare and deploy naval forces to protect Malaysia’s maritime interests in peacetime and in times of conflict.¹⁹ Malaysian maritime territorial claims contested by other nations include the Spratly Islands (with China, Brunei, Vietnam and the Philippines), the Ambalat Island Block (with Indonesia), and the Ko Kra and Ko Losin Islands in the Gulf of Siam (with Thailand).²⁰ Of note, Malaysia has maintained a military presence on the Ardasier Bank, Mariveles Reef, and the Swallow Reef in the Spratlys where they built an air strip and diving resort on the Swallow Reef.²¹ This may signal the importance which Malaysia attaches to its claims in the Spratlys.

The RMN’s two French-built *Scorpene*-class submarines, acquired in 2002, returned to Malaysia between 2009 and 2010. Even before the introduction of the submarines, the RMN already operated a well-balanced and capable naval force including frigates, corvettes and next-generation patrol vessels with a credible capability to project power and enforce its maritime claims. On the submarine acquisitions, then-Malaysian Defense Minister (now Prime Minister) Najib Tun Razak said, “This is a new capability for the RMN. It will not only allow our navy to have the capability

to operate in a sub-surface dimension but more importantly will allow us to play a more significant role in ensuring our national sovereignty and national interests are protected ... [it] should also be seen as our contribution towards peace, security and stability.”²²

The basing of both submarines at Kota Kinabalu Naval Base in Sabah, East Malaysia, indicates that one key mission is to protect Malaysia’s sovereignty in the South China Sea. They provide an alternative to projecting presence and assert its maritime claims. This makes sense given that many countries lay claim to territory in the South China Sea and these disputes are unlikely to be resolved soon.

Vietnam

Vietnam is one of two Southeast Asian nations that have engaged in major naval confrontations with China over disputed territory in the South China Sea (the other nation being the Philippines).²³ Vietnam’s worries over incursions into its territory were articulated in its 2009 national defense policy which states that territorial disputes in the East Sea (the term which Vietnam uses to refer to the South China Sea) have been increasing and thus have “seriously affected many activities and the maritime economic development of Vietnam.”²⁴ However, until recently, the Vietnam People’s Navy (VPN) only had a limited capability to protect its territories in the South China Sea, especially compared to the naval strength of China. Underscoring this point in comments made following Vietnam’s thirteenth National Assembly, Defense Minister General Phung Quang Thanh said

This is perhaps the clearest indication of the emergence of an unintended consequence—the security dilemma which occurs when an “arms acquisitions by one state, even if it has no desire to threaten its neighbors, can often lead to anxieties and insecurities being felt by nearby states.”

that building up a modern navy was a priority, but this would require time and significant amounts of capital.²⁵

In 2009, Vietnam signed a comprehensive defense deal with Russia, which included six Kilo-class diesel-electric submarines to be delivered between 2013 and 2020. In addition to torpedoes, it has been reported that these boats will be fitted to operate the Club anti-ship missile.²⁶ This submarine purchase comes on the heels of a slew of recent naval acquisitions including corvettes, frigates and patrol crafts. Similar to Indonesia, Vietnam’s acquisition of a significant submarine force has been a way to develop an interim deterrent capability rapidly. This can be used to enforce, and if needed, contest its sovereignty in the South China Sea. Even with the operationalization of all its recent surface platform acquisitions, the VPN will still be significantly inferior to China’s naval forces. The ability to deploy submarines provides the VPN with a means to undertake a sea denial strategy against China in the disputed territory, instead of having to go into head-to-head in a naval conflict.

Thailand

The Royal Thai Navy (RTN) has responsibility to provide littoral and Exclusive Economic Zone (EEZ) maritime security because of Thailand’s significant maritime interests, including the protection of offshore oil and gas reserves, counter-terrorism, counter-piracy and countering illegal trafficking in its territorial waters.²⁷ The RTN operates a capable

maritime force, one of the largest in Southeast Asia in terms of number of platforms, with assets including an aircraft carrier, frigates and offshore patrol vessels.

To add to its force structure, the RTN has been pursuing the purchase of submarines since at least the early-1990s.²⁸ However, budgetary concerns have hampered the RTN's ability to obtain funding approval for their recent purchases. The latest acquisition plan is centered on the purchase of two ex-German Navy *Type 206A* diesel-electric platforms.²⁹ Interestingly, unlike the other Southeast Asian nations, Thailand's need to acquire submarines is not articulated as a capability requirement to achieve a specific mission. Instead, it is framed as a response to the submarine acquisitions of Thailand's neighbors. Thailand's Deputy Prime Minister Suthep Thaugsuban, who is in charge of national security affairs, said that submarines were "necessary for the Royal Thai Navy because countries in the immediate region—who could pose a threat—all have submarines. If we don't [acquire] submarines it will be difficult to protect our sovereignty and we will be at a disadvantage. We have natural resources and interests at sea that need protecting."³⁰ However, the RTN has not yet been able to convince the lawmakers of the need for this acquisition, and to obtain funding approval for this latest purchase because of the Thai cabinet's concerns over the cost of this purchase relative to the requirement for this capability.

THE ARMS DYNAMIC FRAMEWORK

The arms dynamic framework is useful to examine framework to examine the arms purchases between the Southeast Asian countries. At one end of the arms dynamic spectrum is an arms race, which denotes the "most extreme manifestations of the arms dynamic when actors are going flat out or almost flat out in major competitive investments in military capability."

At the other end of the spectrum is the "build down," which occurs when weapon systems are being phased out and replaced by new systems of smaller numbers, lower capabilities, or considered less destabilizing. At the mid-point is the normal equilibrium referred to as the "maintenance of the military status quo." Finally, the grey area that is between maintenance of the status quo but below a full-out arms race is termed "arms competition" or "arms build-up." As mentioned earlier, military commentators have generally agreed that the prevailing dynamic in Southeast Asia is somewhere above that of "maintenance of the military status quo" and in the realm of "arms competition."³¹

ASSESSING THE ARMS DYNAMIC

From the review above, it is clear that none of the Southeast Asian nations are "going flat out or almost flat out in major competitive investments in military capability."³² When examined in the context of each country's overall naval force structure, submarines are being purchased in relatively modest numbers, often to address an existing capability gap. As such, the prevailing arms dynamic for submarine acquisitions is less intense than that of an arms race. However, the acquisition of submarines by most of the navies represents the introduction of a significantly new capability and goes beyond the normal rearmament process. As such, it can also be concluded that the prevailing dynamic is not ohne of maintenance. Thus, the state of the arms dynamic lies in the grey area between maintenance and an arms race.

At first glance, one might be tempted to reach the same conclusion as Bitzinger in his general examination of Southeast Asian arms acquisitions. In that study, he concluded that the prevailing dynamic is one of *arms competition*— a state of reciprocal arms acquisitions that is dedicated mainly to the "maintenance of the

status quo.”³³ Supporting this view is the fact that the *expressed purpose (or strategic objective)* for submarine acquisition appears to be stabilizing and non-competitive in nature.³⁴ Submarines are viewed as a means to asymmetrically respond to perceived threats, and provide an alternative to building up a large surface fleet. For Indonesia, the acquisition of new submarines is a means to overcome the inherent limitations of its navy and to protect the country’s large maritime territory, while Singapore’s submarines add to its capability to guard its SLOCs. One could thus argue that the acquisition of submarines is stabilizing as the purchase of a small number of submarine platforms to overcome a perceived capability gap is less destabilizing than the acquisition of a large surface fleet to achieve the same effect.

Cooperation in submarine emergencies and rescue could thus form a second pillar for increased cooperation and confidence building among the Southeast Asian submarine operators.

However, in the Southeast Asian context, it must be understood that the acquisition of submarines has a very different character from the purchase of other weapon systems for two key reasons. First, unlike other defense procurements which serve to upgrade existing military capabilities such as newer fighter aircraft or more modern armored vehicles, the purchase of submarines represents the introduction of a new military technology for almost all of the Southeast Asian nations. From a capability perspective, the acquisition of submarines also provides navies with the means to undertake a sea denial strategy, as opposed to sea control—therefore a more “cost effective” means to secure influence over maritime terrain. While sea control requires the highly

visible presence of ships, flotillas and fleets to enforce the state’s dominance, sea denial only requires the perception of threat to cause unease in an opponent and deter any further hostile actions.³⁵

Second, given their design and capabilities it is difficult to portray submarines as benign platforms. The primary purpose of submarines is to lurk undetected and strike against surface shipping— both naval and merchant. Diesel-electric submarines, the only variety being considered by Southeast Asian nations, are particularly suited to this mission because they are quiet and stealthy, and are armed with heavyweight torpedoes and even anti-ship cruise missiles. Compared to nuclear-powered boats, diesel-electric submarines are more suited to operate in the littoral geography of Southeast Asia, which is characterized by areas of shallower and more confined waters.³⁶ Viewed against the backdrop of maritime competition in the South China Sea, where a number of maritime boundary claims remain unresolved, a maritime arms dynamic centered around submarines significantly increases the risk of an armed naval confrontation. Because of these reasons, the impact of Southeast Asian nations’ submarine purchases must be viewed in a different light from that of other arms acquisitions.

More worrying is the mistrust that has been sown by submarine acquisitions. Thailand has articulated its desire to obtain submarines based on the acquisition of this capability by its neighbors. This is perhaps the clearest indication of the emergence of an unintended consequence—the security dilemma which occurs when an “arms acquisitions by one state, even if it has no desire to threaten its neighbors, can often lead to anxieties and insecurities being felt by nearby states.”³⁷ These findings, coupled with the recent surge of interest in ASW platforms, suggest that a regional tit-for-tat might be emerging, with countries

investing in both submarines for themselves and various means of countering their neighbors' submarine capabilities. Singapore operates six S-70B Seahawk Naval Helicopters, which are configured for ASW missions. Vietnam has reportedly expressed interest in acquiring ASW aircraft, including the Lockheed Martin P-3 and Airbus Military C-295; Malaysia is also seeking to acquire ASW helicopters and is considering the Sikorsky MH-60R and the Agusta Westland AW159.³⁸

Thus, one could conclude that the prevailing arms dynamic for submarines in Southeast Asia, is significantly more intense and destabilizing than that of more generalized arms acquisitions. An accurate characterization could be of *accelerated arms competition*, because of the significant anxieties and insecurities that have emerged and for this reason the prevailing competition has accelerated beyond merely the maintenance of the status quo. While not yet in the realm of an arms race, which is an "inescapable vicious cycle,"³⁹ the potential for this dynamic to evolve into one is significant if concerted efforts are not taken to break or mitigate the cycle.

PROSPECTS FOR COOPERATION

Central to reducing the potential for further escalation of the arms dynamic is the building of trust and confidence to stymie the rise of anxiety and insecurity. Interestingly, the growth in the number of submarines within the region provides opportunities to introduce confidence-building measures through increased cooperation between nations. Water space management and submarine rescue are two areas for potential cooperation.

Water Space Management

If all, or even most, of the countries listed above go through with their submarine procurements, the underwater environment in Southeast Asia has the potential to get very crowded. Coupled with



LTC Jack Nyee, RSS Archer's commanding officer, checking the situation on the surface with the periscope while training in a Swedish submarine.

the presence of submarines from extra-regional powers, the risk of an underwater accident increases significantly. This creates the need for a system to manage the underwater environment and minimize the risk of submarine collision. For example, the countries of the North Atlantic Treaty Organization (NATO) created a Water Space Management (WSM) regime during the cold war to ensure the safety of NATO and allied submarines. Through an established set of protocols and procedures, submarine movements were de-conflicted to ensure that only one submarine operates in a defined area at any one time.⁴⁰

A similar system in Southeast Asia could help to ensure the safe operation of submarines during peacetime. It is important to recognize that there could be sensitivities about implementing such a system as it would require releasing information about a submarine's deployment and location. After all, the keys to effective submarine operations are stealth and secrecy. Thus, there could be strong resistance and reluctance to sharing the intended operating areas of each nation's submarines. However, there are a number of ways to mitigate these concerns and enact a workable system. One would be to try and create a neutral WSM agency, which could be formed by an extra-regional country or as a multilateral regional entity. It is vital that the WSM

agency obtain the trust of all participating nations. To do this, the WSM agency would need to be judicious in the way it discharges its duties, which will include refraining from disclosing information that is not vital to safe submarine operations. Furthermore, effective de-conflicting of submarine operating areas does not necessarily require all participating nations to have full knowledge of the location and positions of all submarines. Instead, an effective set of procedures could be implemented so as to achieve effective de-conflicting without requiring the complete disclosure of sensitive information.

Regardless of the intricacies of the structure and procedures of the WSM agency, the creation of an effective WSM regime would help to increase confidence and transparency among the Southeast Asian submarine operators, and reduce concerns about submarines operations and intentions of other countries. This would go some way to mitigating the anxiety and insecurities fuelling the evolving arms dynamic.

Submarine Emergency and Rescue

Among all the existing and potential Southeast Asian submarine operators, only Singapore has a full-fledged submarine rescue capability. None of the other countries have yet indicated plans to procure or develop a similar capability,⁴¹ possibly because of the high associated cost. Cooperation in submarine emergencies and rescue could thus form a second pillar for increased cooperation and confidence building among the Southeast Asian submarine operators. Pooling submarine rescue expertise and capabilities is common for other submarine-operating nations. For example, the United States (US), which has the world's most advanced submarine rescue capabilities, has entered into submarine rescue agreements with many other countries.⁴² Similarly, there are submarine

rescue agreements among NATO countries, and also between NATO and Russia.⁴³ As part of these agreements, participating countries agree to render assistance and provide rescue services in the event that a submarine is in distress. Participating countries also work on ensuring that equipment is interoperable and establishing common doctrine.

In order to develop and refine common doctrine, many countries also participate in joint submarine emergency and rescue exercises, such as the multinational *Pacific Reach* submarine rescue exercise. This was last hosted by Singapore in 2010 and attended by Australia, Japan, the Republic of Korea and the US. During the course of the exercise, the participating forces focused on working together in different submarine emergency and rescue scenarios. A similar exercise could be enacted among Southeast Asian submarine operators to develop common emergency and rescue procedures, allowing nations to pool resources when an emergency does occur. The development of common operating processes and procedures could subsequently lead to the establishment of a regional submarine emergency response framework covering emergency notification procedures, requests for assistance and the conduct of rescue operations.

The dearth of submarine rescue in Southeast Asia makes having a collective framework to respond to submarine emergencies an urgent requirement for safe submarine operations. Given the sensitive nature of submarines and their capabilities, submarine rescue is perhaps the best type of tangible cooperation: sufficiently benign, yet still able to attract participation from the various submarine operators as a start. Similar to WSM, such cooperation in submarine emergency and rescue would also serve as a platform to increase transparency and trust among the Southeast Asian nations.

CONCLUSION

Having examined the motivations, intended deployment and concerns underlying Southeast Asian nations' submarine procurements, it appears that a worrying state of affairs is developing. Unlike other military hardware purchases, the spate of submarine procurements in Southeast Asia represents the widespread introduction of a new capability in the region that is inherently offensive in nature. Southeast Asian countries appear to be caught in a security dilemma where the purchase of submarines by some states, to address legitimate defense concerns, has resulted in increased anxieties among neighbors. An arms dynamic of *accelerated arms competition* is at play. Fuelling this dynamic is a lack of trust and transparency. Notwithstanding this, significant prospects for cooperation among the submarine operating countries still exist, most tangibly in the areas of water space management, as well as submarine emergency and rescue. The establishment of cooperative frameworks and mechanisms in either of these areas would go a long way in reducing insecurities and anxieties, and help to diminish the potential for further escalation of the arms dynamic. 🌐

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