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In order to deter offensive actions of Chinese growing blue-water forces in maritime campaigns, the Japan Ground Self-Defense Force (GSDF) should proactively engage in maritime issues by building "the Japan's Great Wall" or protective barrier with land-based assets on its coastal sea areas. The comprehensive missile defense capabilities could strongly support the national resolution and actions.

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**TITLE:**

*NEW DETERRENCE STRATEGY ON CHINESE BLUE-WATER NAVY  
WITH JAPAN'S GROUND FORCE*

SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF MILITARY STUDIES

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## Executive Summary

**Title:** New Deterrence Strategy on Chinese Blue-Water Navy with Japan's Ground Force

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**Thesis:** The Japan Ground Self-Defense Force (GSDF) should proactively engage in maritime issues by building “the Japan's Great Wall” or protective barrier with land-based assets on its coastal sea areas to deter offensive actions of Chinese blue-water forces in maritime campaigns.

**Discussion:** One of the most concerning security issues regarding Japan is undoubtedly China. One of the growing concerns is that its navy is shifting its nature and capabilities from “near sea” to “far seas” without showing its purpose well.

Japan is reacting to its change by building a “Dynamic Joint Defense Force,” which focuses on optimizing trans-sea mobility and strengthening cross-domain synergy to counter-A2/AD. However, it is still arguable about whether Japan's ongoing defense strategy works well against China's growing strategy and capabilities, and otherwise, how Japan, especially the GSDF should respond.

Through the analysis, China's maritime strategy is definitely to become a global sea power to maintain its nation with the powerful blue-water navy and other strategic capabilities in an indirect manner to exploit its economic and security interests. Additionally the strategy could make unfavorable impacts on Japan's sea-lanes as well as industrial/population centers and the US bases by using submarines and follow-on carrier strike group.

Japan's recognition and preparation about China's future naval advance to Tokyo seems insufficient on protection of Japan's Pacific Coast if China achieves qualitative and quantitative submarine capabilities. Therefore, as one of the suggestions, the building of protective missile barrier capabilities is necessary for Japan to protect the US bases in Japan as well as Japanese population and industries, and eliminate China's pressure.

The ground force should take charge of all directional missile capabilities in the light of unity of command and technological advantages like electronic protection and future direct-energy weapons. The other suggestion is to possess the limited counter attack capabilities, which just aim China's aircraft carriers in the Western Pacific. It is necessary because aircraft carriers are cores of national power projection capabilities, in short, theater-level centers of gravity.

**Conclusion:** The GSDF should make efforts to eliminate foreseeable sources of threats by establishing a comprehensive missile defense system, “The Japan's Great Wall.” These capabilities could strongly support the national resolution and actions.

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## *Preface*

One book which I encountered in a seminar inspired me to write this paper. It was *Naval Strategy and Operations in Narrow Seas* written by Millan N. Vego, a faculty of the United States (US) Naval War College. His hypothesis was impressive for an army officer to understand an overview on naval affairs: “Most naval encounters will most likely take place in the relative proximity of the world’s continents, that is, in the areas colloquially called ‘narrow seas.’”<sup>1</sup> I came to understand what maritime warfare is and how a land component is combined with a naval component on geographical features through the book.

Turning back to my service education, most of the curriculum about operations in the Japanese Ground Staff College, corresponding to the Command and Staff College of the US Marine Corps, was about genuine land warfare. All we had to learn was Army’s combined arms operations, and Army’s support operations to naval warfare were regarded as secondary in the curriculum because land maneuver elements were capable of just base security in naval defensive operations, and this kind of scenario would not be suitable to learn the employment of combined arms.

However, considering geography and changing environment of military powers in East Asia, ‘Land’ and ‘Sea’ have to be closer together because ‘narrow seas’, major maritime battlefields, are composed of ‘Land’ and ‘Sea’. Therefore, one of the purposes of this study is to clarify the roles for Japan’s ground force in maritime warfare based on military theories. The other purpose is to understand China’s naval threat from a viewpoint of an army officer. Major issues on military operations along the first island chain are about how to secure the sea control and the air superiority by mainly the maritime and air forces in the sea area. Even territorial security, a

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<sup>1</sup> Milan N. Vego, *Naval Strategy and Operations in Narrow Seas*, (Portland, OR: Frank Cass. 1999), Preface, xv.

primary job for the ground force, is highly dependent on their superiorities. On the contrary, given that China's blue-water navy reached Japanese main islands with controlling sea areas, roles of the ground force might be different from those in the remote islands.

This paper is written from a Japanese standpoint, assuming defensive campaigns unlike amphibious operations by marines. But hopefully it would be valuable for any readers to redefine roles of ground forces.

Yoshikazu Nishida, at Quantico, VA, the United States

## ***I. Introduction***

One of the most concerning security issues regarding Japan is undoubtedly China. The remarkable issues are that not only is China developing its Anti-Access/Area Denial (A2/AD) including missiles, fighters, bombers, and electronic warfare (EW) capabilities in peripheral seas and strategic cyber and satellite attacks, but is its navy shifting its nature and capabilities from “near sea” to “far seas” without showing its purpose well. Although the Chinese government repeatedly announces that “China never engages in aggression or expansion, never seeks hegemony, and remains a staunch force for upholding regional and world peace and stability,” it is dubious whether China would continue a peaceful posture toward the neighbors because historically it sometimes provoked military conflicts against Taiwan, Vietnam, India, and Soviet Union.<sup>1</sup> Therefore, the Japanese annual defense whitepaper evaluates China’s rapid and continuous growth of military capabilities without enough transparency and increasing provocative activities in peripheral seas as “great concerns.”<sup>2</sup>

Japan is reacting to the shift by building a “Dynamic Joint Defense Force,” which focuses on optimizing trans-sea mobility and strengthening cross-domain synergies mainly in terms of counter-A2/AD. In the new concept of force-building, the Ground Self-Defense Force (GSDF), a land component, takes charge of creation of an amphibious brigade, and relocations of tactical surface-to-ship and surface-to-air missiles along the first island chain area southwest of Japan. It would be significant, and appropriate for the service to attempt to involve itself in naval disputes through the reform. On the other hand it is still unclear and arguable about whether Japan’s ongoing defense strategy works well against China’s growing strategy and capabilities, and otherwise, how Japan, especially the GSDF should response.

Primarily, the Japanese navy, the Maritime Self-Defense Force (MSDF), should deal with the issues relating to China's naval development in the service-to-service context. However, a land force could also play a certain role in maritime campaigns because an army is one of the core actors in a maritime strategy. Julian S. Corbett affirms, "The paramount of maritime strategy is to determine the mutual relations of your army and navy in plan of war."<sup>3</sup> Therefore, the GSDF should proactively engage in maritime issues by building "the Japan's Great Wall," or protective barrier with land-based assets on its coastal sea areas to deter offensive actions of Chinese blue-water forces in maritime campaigns. In order to support this idea, the first chapter will cover China's overall maritime strategy. Then the second one will analyze its influence on Japan's security, and finally in the third chapter, effective deterrent measures for Japan's land domain will be developed to counter it.

## ***II. China's Maritime Strategy – A Global Sea Power in Indirect Approach***

The initial step to define the GSDF roles/capabilities in naval campaigns is to figure out China's goals in its maritime strategy. In other words, it is to identify what China's strategic ends, ways and means would be. In the strategic context, China's maritime strategy is definitely to become a global sea power which is prosperous through the increased seaborne trades protected by its powerful blue-water navy in a manner to exploit its economic and security interests while avoiding major wars. To support the hypothesis, this chapter covers why China wants to be a global sea power and build a powerful blue-water navy at first, and why China will behave in such a way in the next part.

### ***A. China's Strategic Ends and Means—A Global Sea Power with Blue-Water Navy***

The first question is why China attempts a global sea power, not a land power, and builds a powerful blue-water navy. Simply, the answer is because Chinese leaders have believed that the more maritime trades and the stronger navy are, the more prosperous the country could be. It goes without saying that the idea was advocated by Alfred T. Mahan as "Sea Power." Indeed, In 1958 Mao Zedong called for China to develop "railways on the high seas."<sup>4</sup> Jiang Zemin also urged the navy in 1997 to "build up the nation's Great Wall."<sup>5</sup> In particular, Deng Xiaoping and Hu Jintao are more remarkable in terms of apparently directing the nation to the 'Sea' with their unique policies. Among the military leadership, Liu Huaqing, a prominent naval staffer under Deng played a key role in building Chinese blue-water navy.

The former Chinese communist leader Deng Xiaoping is one of the key individuals to get China on a track of sea power through "Reform and Opening up" policy, and "Four Modernizations." After Mao Zedong's dictatorship, an urgent task the following leader faced was to reunite the chaotic country, especially peasants who supported communists' initial

struggle from 1930s to 1950s. Hence, he required the bold economic reform to regain the support. It is not sure whether he knows the Mahan's theory, but it was sure that he knew the inter-relations among national economic development, maritime trades, and a strong navy. Actually he encouraged external trades as well as merchandise shipbuilding, renovation of port facilities, and modernization of the People's Liberation Army's Navy (PLAN). Finally he successfully transitioned its self-sufficient and internal communist economy into more mass-productive and external market economy.<sup>6</sup>

The other distinguished leader who shifted the country to the "sea power" is the former President Hu Jintao. He apparently called China a "sea power" and advocated a "powerful people's navy" to "uphold our maritime rights and interests" during a 2006 speech at a Navy Chinese Communist Party Congress, connecting its protection of the access and use of sea with its economic growth.<sup>7</sup> Actually he prioritized the navy by exemplifying the development of the United States as a global sea power.<sup>8</sup>

Besides those national leaders, General Liu Huaqing was also a key to steer the country to a global sea power nation. He served as the PLAN commandant, and became vice chairman of the Chinese Military Committee (CMC) from 1980s to 1990s based on Deng's appointment. The position is one of the highest for military officials, and it was the first case that a general from the PLAN took the post. He was the man not just who promoted the PLAN higher in the military organization, but also who clarified what the PLAN should be as primarily responsible in national defense with his concept like the People's Liberation Army's Army. His noteworthy work is to make the following three-stage naval development concept in 1980s (Figure 1 on the page 11 shows.):

- By 2000, the PLAN would be capable of exerting sea control out to the First Island Chain, defined by the Kurile Islands, Japan and the Ryukyu Islands, the Philippines, and the Indonesian archipelago.
- By 2020, sea control would be enforced out to the Second Island Chain, defined by the Kuriles, Japan and the Bonin Islands, the Marianas Islands, Palau, and the Indonesian archipelago.
- By 2050, the PLAN would operate globally, with aircraft carrier battle groups.<sup>9</sup>

It is unclear whether Liu's depiction intended to strengthen its maritime defensive buffer, or to establish its extended periphery in just several years after normalization of the US-People's Republic of China (PRC) tie in 1979. In either way his concept became doctrinal and institutional foundations. Doctrinally his three-stage development has been China's sequential objective of navy-building, and institutionally the PLAN came to be regarded as a major entity among Chinese military components. Bernard Cole analyzes that Liu's greatest achievement was to establish a long-term scheme that the PLAN becomes a globally operable, or global blue-water navy, enabling it to acquire more of the budgets.<sup>10</sup>

Evidently Liu's concept is still working in China's policies. Indeed some of his core ideas are included in President Xi Jinping's concepts of "Chinese dream" and "new type of major power relations" with the United States. In his "Chinese dream," "the great rejuvenation of the Chinese nation" is to be achieved by 2049, which is almost same timeline as what Liu depicted in his doctrine.<sup>11</sup> Moreover, China's latest military whitepaper, *Chinese Military Strategy*, shows that the PLAN strengthens the extensive capabilities by shifting its doctrine from "offshore waters defense" to the combination of "offshore waters defense" with "open seas protection" as Liu depicted. The other evidence is that "new type of major power relations"

indicates China might attempt to control over the western pacific area like Liu's description. Actually Xi said that the vast Pacific Ocean has enough space for the two large countries of China and the United States in June 2013, and the security of Asia should be done by the people of Asia at the Conference on Interaction and Confidence Building Measures in Asia (CICA) in 2014.<sup>12</sup>

In this way it turns out that China's strategic end is to be a global sea power with a means of a global blue-water navy. Through the analysis of China's maritime strategy, there are two considerations figured out: The first one is, as Liu's idea indicates, that the US would be seen as at least a rival in the strategy. "New type of major power relations" implies that China and the United States can be coexistent as far as it does not intervene in China's interests in the Western Pacific. Therefore, the Japan-US alliance, which made an opposing impact on China's maritime strategy, would be the most obstructive. The second one is that the strategy has originated from gaining support of the major audience like peasants. This implies that gaining public support in China has a special meaning in the light of the national unity. These considerations should be critical to analyze China's ways and influence in follow-on sections.

### ***B. Chinese Strategic Ways to Achieve the Ends —Indirect Approach***

Based on China's strategic ends and means of a global sea power with a powerful blue-water navy, China would exploit the interests while avoiding major wars as its strategic ways. This, especially 'avoiding major wars' might be a unique way compared with some historical competitors like Germany and Japan, which resorted to war to take a hegemony. On the other hand, some contradictions have been seen in the past like China's offensive actions in South China Sea and border areas with India and Vietnam, despite its repeated announcement

that it follows peaceful development. Therefore, the next question is how the China's ways should be interpreted.

There are two perspectives to interpret China's strategic propensity. The first one is that Andrew Scobell describes China's dualistic strategic culture as a "Chinese Cult of Defense," which is "the outcome of the interplay between two distinct and enduring strands of 'Confucian,' based on moral, and 'Realpolitik,' based on relations of power."<sup>13</sup> Simply Chinese policies and behaviors are the outcomes collaborated by idealists and realists. The other perspective is that China's policies are based on a thought that war should be avoided, but the ethnocentric nationalism has to be highly considered.

Firstly, the interplay of 'Confucian' and 'Realpolitik' can be seen in official documents. China has followed a doctrinal thought of "active defense" as its Chinese traditional strategic guideline. A whitepaper, *China's Military Strategy*, mentions "active defense adheres to the unity of strategic defense and operational/tactical offense, and the stance that 'We will not attack unless we are attacked, but we will surely counterattack if attacked.'"<sup>14</sup> Seemingly it sounds defensive; however, Scobell views the line between offense and defense in the doctrine as blurred. Indeed, China's attack against Vietnam in February 1979, which was triggered by Vietnam's invasion of Cambodia, was officially labeled as a "self-defensive counterattack."<sup>15</sup>

Another case makes the China's defensive stance more inconsistent. In 2004 a Chinese Han-class nuclear-powered submarine (SSN) was identified and chased by the MSDF because of its apparent incursion to Japanese undisputed territorial sea around Ryukyu Islands through promulgated maritime patrol. After the incident the Chinese government just made a comment, "regrettable," about its unjustifiable maritime behavior.<sup>16</sup> Regardless of whether Chinese central

government directed the Han's incursion or not, these facts prove that China's offensive actions could be probable while stressing its peaceful and defensive nature repeatedly.

The second perspective on China's strategic ways is that its policies are directed that war should be avoided, but the ethnocentric nationalism has to be highly considered. This perspective is focusing on motives in policy-making, while the first perspective is on the outcome and the process of policy-making. The propensity of the Chinese leadership is attributed to a common understanding of war as a costly political method in terms of causing national instabilities and their nature of ethnocentrism.

A phrase of "War is costly" is usually interpreted as what war would spend/waste national resources too much; however, the Chinese leadership also view 'war' as a risk for the unity of country, namely the ramification of other serious domestic instabilities. Historically China has suffered from internal conflicts, and some of them were inspired by external ones. Both the Warring States period (475–211 BC), and the "Century of Humiliation," which is the era from mid nineteenth to former twentieth centuries, are good examples that external war affected to internal instabilities.<sup>17</sup> Those domestic instabilities were rooted on political, economic and ethnic grievances, and they sometimes caused devastative conflicts. Hence, the Chinese leadership recognize that great chaotic incidents like external major wars make the government difficult to sustain the governance.

On the other hand, there is a strong belief among Chinese people on their cultural superiority to peripheral nations in the long history, and that generally makes them supportive to any behavior on the China-centered international regime. Thomas G. Mahnken describes the nature as "ethnocentrism" based on Confucian ideology. As an example, China's attempt to

control over the Western Pacific area suggested by President Xi written above could be also viewed as the outcome of the nature.<sup>18</sup>

Therefore, Sun Tzu's indirect approach could be a clue for the Chinese leadership to exploit the interests without war. One of Sun Tzu's tenets is to break the enemy's will without war, which focuses on creating conditions in advance that force the enemy to bend its will before he resorts to war, by way of alignment with other countries, deceptions, demonstrations, and so forth.<sup>19</sup> In practice, the ethnocentrism would encourage the government to take an initiative, and even behave offensively along with the indirect approach. This indicates that China does not hesitate to conduct small wars which could be controlled, while avoiding major wars which would be hard to be controlled by the government.

Overall, the unique strategic culture drives China to be a global sea power with a powerful navy. Besides, in realpolitik China could behave offensively within the control of the government to exploit the interests, and achieve the China-centered regional regime. China's expansion on the will and capabilities would be greatly influential to Asian countries. Samuel P. Huntington predicts in his book: "The economic growth of Asia's largest power increases Chinese influence in the region and the likelihood of China reasserting its traditional hegemony in East Asia, thereby compelling other nations either to 'bandwagon' or 'balance.'"<sup>20</sup> Japan will maintain the stance to oppose to any action to change the status quo by forth, assuming China's behaviors; hence, China's influence to Japan would be negatively analyzed in the next section.

### ***III. Influence on Japan's Security – Chinese-style U-Boats Saturation***

Through the analysis, China's maritime strategy is clarified to be a global sea power with its strengthened navy by increasing maritime merchandises and exploiting the interests without major wars. Then the following question is how the strategy would influence on Japan's security. As the answer, the strategy could impose unfavorable impacts on Japan's sea-lanes as well as territories to change the status quo including the US-led regional security regime for "Chinese Dream." Presumably, the Japan-US alliance could be the most hampering for the dominance in the West Pacific. In addition to that, Japan humiliated China in the former part of twentieth century, and the United States is capable of hindering China's dominance in the region. Thus, it would undoubtedly attempt to keep Japan down, and the United States out. Then, how will China do so? This chapter details China's way to keep Japan down, and the United States out in two sections. The first section covers how geographic features influence those actors. Then, the second section describes China's possible actions based on the geographic features and its growing capabilities and exploitative behaviors.

#### ***A. Geographical Features Influential to Maritime Campaigns***

Geographically Japan is in a unique position in the region, where it is generally insular from the continents by the Okhotsk Sea, the Sea of Japan, the East China Sea as well as the Pacific Ocean. This geographical environment provides some key features with regards to the maritime operations among the actors: elongated dispositions of the islands like covering the Eurasian Continent, openness/depth and demographic mass in Japan's Pacific Coast, and extensive sea lines of communications. (Figure 1 shows on the next page.)

First, Japanese islands, which are like covering the exits to Pacific Ocean of continental countries, are critically influential to maritime access from the Asian Continent. For

the Far East area of Russia, their ships have to pass through either of the straits of La Perouse, Tsugaru, and Tsushima (Korea) to be out to the Pacific Ocean. Likewise, Chinese vessels have to go through the first island chain. Indeed, in the end of the Cold War era Japan's defense plan was focused on securing straits in order to prevent the Soviet's naval deployment into the Pacific Ocean.<sup>21</sup> Numerous straits in Japan provide certain limits of access for any fleet.

The second key geographical feature is that Japan's Pacific coast is open to the Ocean, where 60% of overall populations and industries are intensified in the littoral areas. Hence, there shows quite a different aspect about national defense. One of the historical facts shows that in the mid and late Pacific War Japan's successive defensive operations were conducted along the first and



the second island chains to block or delay the US joint forces from using those islands as their maneuvering lodgments. The other fact is that four steam-engine battleships commanded by the US Navy Commodore Mathew Perry emerged in Tokyo Bay in 1853, and the emergence caused the Japanese feudal government to lift its traditional isolationism policy in the next year. These

cases imply that some islands in the Pacific Ocean can be lodgments for maritime access, and Japan's south coast is vulnerable to access by external navies.

An additional perspective regarding openness of Japan's Pacific Coast is that the Pacific Ocean provides a huge space between Japan and the United States. The US has engaged in the regional security through its 'forward deployment' beyond the distance, but it could be controversial whether the forward deployment is vital to the US national security because the huge space might mitigate the risk. As China also views the space as "vast" enough for China and the US, the feature provides the US with not just a long distance to face against China, but also geographical and political depth, or range of options.

The third geographical feature is the extending sea lane. Japan, and even China need a lot of various resources to maintain each economy through seaborne merchandise. A historical example proves that defense of the sea lanes is vitally important to avoid the national starvation. In 1944 in the Pacific War, the United Nations forces conducted the distant blockade, and it reduced Japanese imports from about 48 million tons in 1941 to only 17 million tons in 1944.<sup>22</sup> Even now around 70% of Japanese purchased petroleum is coming from the Middle East through Indian Ocean and South China Sea, which composes the critical sea lane. Hence, range of maritime defense area should be extended for both countries. Besides, China's sea lane in East China Sea is relatively exposed against the first island chain, meaning China's weakness.

Theories clarifies the security issues on how to exploit those geographical features with joint-operational approach. First of all, Alfred T. Mahan suggested 'geographical position' as one of the five elements of sea power: "The geographical position may be such as of itself to promote a concentration, or to necessitate dispersion, of the naval forces."<sup>23</sup> Another theorist is Vego, presenting a detailed history-based hypothesis about 'Narrow Seas,' shown in

*Introduction.* He attributes the tendency of naval warfare in narrow seas to navy's enduring missions to protect for maritime transport or prevent enemy invasion from the sea. Therefore, he proclaims: "In peacetime, a maritime state should do everything possible to enhance its naval position within or in the proximity of narrow seas, where its naval forces and aircraft will be employed in wartime or even peacetime."<sup>24</sup>

With regards to the three geographical features suggested above, Vego's theory can be applied in terms of how to seize/maintain the sea control. According to his theory, elongated dispositions of Japanese islands as the first feature form straits or 'choke points' in enclosed or semi-enclosed seas such as South China Sea and Sea of Japan, of which the dominancy is critical for sea control in the respective sea areas. The second feature of openness and demographic mass can be evaluated as vulnerable in his theory. On the other hand, the theory also extends to a case of the remote islands in Pacific like Bonin Islands which provide the depth of maritime operations. As for the extensive sea lines of communication, he mentions that generally the importance of maritime trades depends on a country's geographic location and the level of its economic self-sufficiency, and an island nation depends much more on continuous seaborne trade than a continental state.<sup>25</sup>

Overall, there are three key geographic or geostrategic features figured out: elongated disposed islands as critical for the sea control: openness and depth in Japan's Pacific coast as vulnerable but containing some depth; extensive sea lines of communications as more dependent for island countries. Especially, Vego notifies securing control of the sea in narrow seas as a key in naval operations. Based on these features and principles, the following section covers the analysis of how China might achieve its ends.

### ***B. Sea Control ashore Japan's Centers with Chinese-style U-Boat Saturation***

The next step is how China could keep the US out, and Japan down with its strengthened navy on the geographical features. Vego's theory indicates that the sea control in the straits, Japan's Pacific Coastal Sea, and the sea lanes are critical, and especially taking the sea of the Pacific Coast, which is regarded as a vulnerability for Japan and as a geopolitical depth for the US, might be more feasible for China. Therefore, one of China's possible ways is to seize the sea control offshore Japan's centers with forward-guarding submarines and follow-on carrier groups to let the US recognize more risks through confrontation than gains, and to show the overwhelming capabilities to Tokyo. This section covers the attractiveness of sub-surface assets for China, the facts, the meanings to the security of Japan and the US, and China's other enabling actions.

First of all, submarines would be effective to achieve the sea control offshore Tokyo in terms of the stealthiness. Bernard Brodie shows a similar perspective on submarine strategy: "The great strategic value of the submarine lies in the fact that it is the only warship which can operate independently for extended periods in seas which are dominated by the enemy."<sup>26</sup> Historical examples prove that German navy in the both World Wars effectively competed against Anglo-American navies with U-boats, which sometimes imposed heavy damages on the Allies' sea lines of communications. German Admiral Karl Doenitz, who was a naval leader in World War II, touched on his perspective of how to fight against the superior enemy fleets as follows: "Only the U-boat is capable of remaining for any length of time and fighting in sea areas in which the enemy is predominant."<sup>27</sup>

As the Soviet Union tried to strengthen its subsurface capabilities led by Admiral Sergei Gorshkov, who was a prominent naval leader in the country and learned from German U-

boat tactics in 1980s, China followed those countries which challenged sea power nations. Chinese Naval Captain Shen Zhongchang, and other co-writers stress the building of submarine forces after mentioning a growing intelligence, surveillance, and reconnaissance capabilities under informational environment as follows:

Another feature is the development of submarine forces, which have higher covertness. It is difficult to determine if information technology will be developed to detect submarines effectively. Therefore, submarines will receive less impact from reconnaissance technology than other platforms. In addition, submarines have a greater attacking power under water. Accordingly, it is an important aspect of navy restructuring to develop and maintain submarine forces.<sup>28</sup>

In fact, *The US Annual Report to Congress on Chinese military in 2015* and experts on this issue verify the PLAN's high priority on shipbuilding and employment of submarines. Generally, it reports that the number of operable submarines including SSNs (nuclear powered submarines) and SSBNs (nuclear ballistic missile submarines) will be from 62 to between 69 and 78 including replacement of modernization by 2020, in just five years.<sup>29</sup> Additionally, according to Retired US Navy Capt. Jim Fanell, a former Pacific Fleet intelligence chief who is an expert in Chinese submarine forces, Beijing's submarines are the vanguard of the PLAN's expansive operations into the island chain near its coast and into distant seas.<sup>30</sup>

Furthermore, there might be two meanings threatening the US and Japan: The first one is that the China's freedom of actions in the sea area with the numerous and modernized submarines undoubtedly are intimidation for Japan and the US Navy. The Japan's Pacific Coastal Sea exposes its geostrategic vulnerability, and it is also where the US Seventh Fleet is

co-located. This means a critical threat not just for Tokyo, but also for the US fleet. A report that a Chinese attack submarine stalked the aircraft carrier USS *Ronald Reagan* south of Japanese coast in October 2015 implies Chinese submarine force might be capable of destroying the US carrier strike group in the sea.<sup>31</sup> Peter Howarth implies that there should be some limits to protect against submarines with the Aegis System, a comprehensive protection system for a fleet.<sup>32</sup> The operational/tactical supremacy in The Japan's Pacific Coastal Sea by the US and Japanese navies could be decreased by China's numerous and modernized submarines, and its follow-on its expeditionary fleet.

The other meaning on the security is that China could increase more nuclear retaliation capabilities against the US by deploying its modernized SSBNs in the sea. China's currently developing JL-3 installed on upgraded SSBNs, is estimated as a range of 10,000km, equal to between Hokkaido, a Japanese major island, and Washington D.C.<sup>33</sup> There are no solid perspectives on whether Chinese future SSBNs are effectively deployable, but even the gap of strategic capabilities between the US and China would be likely diminished by China's development of SSBNs. Those China's growing submarine capabilities might enable China to take a superior position in disputed issues toward Japan as well as to lead the US forces to be relocated away from the area.

As other enabling actions, China could exploit South China Sea to make more favorable condition in the Japanese coastal sea; to harass possibly only Japanese merchandise tankers around South China Sea to force the MSDF to disperse itself. In doing so, not only the MSDF would have to assign more flotillas to protect the civilian vessels, but supplies and price of oil might be instable in the case that those tankers use an alternative bypassing route to avoid

the harassment. Other measures such as robust cyberattacks, demonstrations with strategic strike assets, satellite destruction by missiles would be combined with those maritime actions.

Overall, China's great leap of naval capabilities would create more negative influence on Japan and the US, with its stealthy and saturated submarines, and follow-on carrier fleet to take the sea control of Japan's Pacific sea area. Its general strategic ways would also suggest the expansion of influence through peacetime activities by the submarines. Additionally it might attempt maritime harassments to Japanese sea lane in the South China Sea to fix some MSDF flotillas there. Does current Japan's strategy work well against the China's naval strategy?

#### ***IV. Japan's Ground Force Strategy on Maritime Defense: "The Japan's Great Wall"***

The final step is to define the GSDF roles/capabilities in the maritime campaigns. Through the analyses above, especially China's growing submarine capabilities could be a threat to Japan's centers and the US Navy. China's strategic ways would more likely attempt demonstrations with the blue-water navy near Tokyo and other strategic or theater-level intimidations including cyber-attacks without escalating to a major war. Therefore, the GSDF as a final defense shield should build the 'Great Wall' or comprehensive missile defense barrier on the Japan's coastal front to protect the US Bases in Japan as well as Japanese population and industrial centers, and to resist China's pressure. This deterrence concept is composed of two basic ideas; establishment of protective protection against trans-water threats, and limited land-based counter attack capabilities. Initially this chapter extends to the verification of Japan's current defense scheme, and the next suggests some required roles/capabilities to build the 'Wall.'

##### ***A. The Ongoing Scheme: National Defense Program Guidelines (NDPG)***

First of all, this paper should cover how Japan's current defense schemes are going on, and which area/capability is still effective or insufficient. The Japanese government has shown the latest defense scheme, *The National Defense Program Guidelines (NDPG) for FY 2014 and beyond*, covering the next ten years (Figure 2 shows on the next page). In the scheme, it highlights China's A2/AD, increasing aerial/maritime activities in the East/South China Seas, and distant sea areas as one of the major concerns. However, it does not seem to sufficiently cover a potential threat that Chinese growing submarines and blue-water navy could show the presence offshore Japan's mainland. It is because the scheme seems to excessively stress on maneuver elements firstly, and to reduce land-based fires secondly.

First, the concept of the NDPG is symbolized as a “Dynamic Joint Defense Force,” which stresses on command and control (C2), intelligence, surveillance and reconnaissance (ISR), and maneuver capabilities to employ the elements swiftly to operation areas. In this sense it is reasonable and applicable to China’s growing threat to some extent to strengthen destroyers installed “the Aegis System” which is a multi-targetable surveillance system, submarines, fighter planes, maneuver ground troops including an amphibious unit. However, these mobile forces might be forcibly dispersed

because of China’s massive mobile capabilities. As *The US Annual Report to Congress on Chinese military in 2015* reports, which is written above, China is estimated to build additional seven to sixteen



submarines (SSNs and SSBNs) apart from building for modernization by 2020,<sup>34</sup> while Japan is planning to build additional six submarines in the next ten years. Even though the US shift to the Asia-Pacific region and growing capabilities were taken into consideration, the gap of capabilities between the US and Japan, and China would be gradually lessened. Therefore, those maneuver elements would not always guarantee the stable sea control in the critical sea areas.<sup>35</sup>

The second reason is that land-based fires for protection are even or reduced in the NDPG. It tells that the GSDF will maintain surface-to-ship guided missile (SSM) units in order to prevent invasion of Japan’s remote islands, and also maintain surface-to-air guided missile

(SAM) units in order to effectively provide air defense to protect operational units and key areas. Besides, SAM units are supposed to be reduced from eight to seven, while five SSM regiments are preserved in ten years. Patriot PAC-3 missiles as terminal interceptors owned by the ASDF keeps six units with no change. These pieces of information imply that especially the GSDF's capabilities for protection in mainland Japan might be decreasing on the contrary to the increase on remote islands or the island chain.<sup>36</sup>

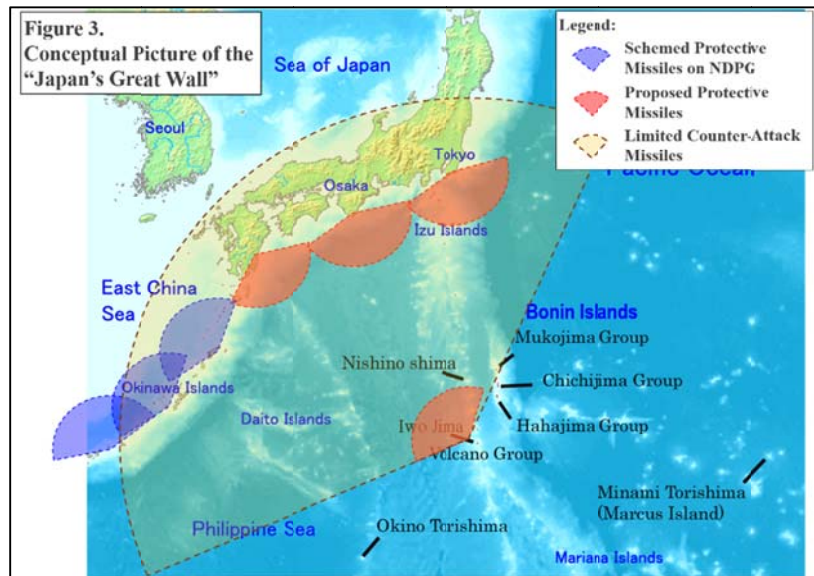
Above all, Japan might face a certain risk of China's future naval advance to Tokyo at sea without sufficient protection in the future. Aerial and maritime mobile forces are efficient to be employed in broad sea areas. However, in a situation that military balance is changing negatively like that in Cold War, especially Japan, for which the threat could be critical, would need to look back to its own protection as well.

### ***B. Protective Fires against Threats from the Sea***

The verification on the NDPG above shows the need to strengthen the protection capabilities on Japan's main islands. Like the Great Wall of China, which was built to protect against nomad invaders, Japan should also build the shield against a threat from the sea. Major sea-domain threats would be battleship/submarine-launched missiles, torpedoes, and carrier-based fighter bombers as well as unmanned aerial vehicles (UAVs)/ unmanned underwater vehicles (UUVs). Therefore, land-based protective missile capabilities are necessary for protection. If so, what kind of roles and capabilities should the ground force take? As the answer, the GSDF should take all the sectors of missile warfare of anti-aircraft, anti-surface, anti-submarine, and missile defense which are land-based in the light of the unity of command and technological advantages.

The first reason about GSDF’s full involvement in all the protective missile capabilities is that integration of those missile commands would be more efficient to deal with the crisis. Elinor C. Sloan mentions: “The idea of joint operations between different services is not new, however, technological innovations on information affairs from 1970s have enabled or urged armed forces to conduct operations

together.”<sup>37</sup> In fact, each service still tends to decline mutual operational cooperation with other services, and any country seems to struggle with integration of military doctrines. In this sense, integration of commands in one service



should be a better idea to avoid unnecessary frictions among the services and to conduct the critical operations smoothly.

Unification of command in a land component is also advantageous to employ those assets with other land elements. Each land-based missile could be deployed in the broad fields, and then they would need continuous support of security in firing positions and logistics. A land force is usually more flexible to provide security by infantries for the asset units, and to make networks of logistic support. Additionally as those missiles can be high value targets for enemy, they should be better protected with each other under a single command.

Secondly, land-based weapons are also advantageous in the light of security of communications and adaptability to future promising technologies. Jim Thomas, who strongly

recommends the US Army should possess land-based A2/AD system, shows these advantages in his paper:

Land-based weapons can rely on underground fiber-optic communications rather than satellite communications, making them less vulnerable to communications jamming and antisatellite operations. Directed-energy weapons, which channel electromagnetic radiation, particle beams, or microwaves to destroy targets generally on the missile defense and might be used within a decade, provide a significant advantage on ammunition cost, but depend on access to major power and cooling sources, indicating a land platform should be better.<sup>38</sup>

However, there are two challenges for the integration of those fires in a ground force. One of them is about surface-to-underwater missile (SUM) capabilities. There are fewer countries which possess land-based SUMs. Presumably the reason is because of inefficiency to destroy submarines which move broadly and stealthily under water with land-based fires. Several decades ago major submarine killers were torpedoes and rockets, but, SUMs with vertical launched system (VLS) has been a growing trend among naval ships for last several years. This implies land-based SUMs could extend the range by applying other missile technologies.

The second challenge is, relating to the first one, about technological difficulties of target acquisition to guide land-based SUMs. Generally ASW is one of the most challenging types of warfare for the navies and it does not seem easy to locate submarines in far distance. Even as the MSDF employs multiple mobile assets like patrol fixed-wing and rotary-wing aircrafts, battleships and submarines to spot enemy submarines, it would not be valid to launch SUMs from land. However, technology might make one solution on target acquisition. ASW

Continuous Trail Unmanned Vessel (ACTUV), being developed by Defense Advanced Research Projects Agency (DARPA) of US Department of Defense (DOD), is reported to be successfully operated with exploiting its latest sensors and stealthiness.<sup>39</sup> Innovation of ISR would enable a land force to be involve in ASW with extended land-based missiles in foreseeable future.

The more challenging than the technological innovations enabling the missile wall is to build joint systems to integrate all the information and fires on targets. The integration means mechanical and technological integration as well as doctrinal one among services. As a similar argument but much more global perspective, Robert Martinage in the Center for Strategic and Budgetary Assessments (CSBA) advocates “the Global Surveillance and Strike Concept” as a new offset strategy, which encourages to comprise a mix of low-end and high-end platforms aligned to widely and to expand influence on events in multiple locations around the world concurrently.<sup>40</sup> This concept shows one of the ultimate forms of warfare with all the service/functional components integrated.

Overall, The GSDF’s protective missile capabilities would be one of the prevailing concepts in terms of optimality and a technological perspective. At the same time the “Japan’s Great Wall” requires more joint-operabilities for effective targeting. It might be a preferable trend for land components to take a lead on the integration.

### ***C. Limited Land-Based Counter Attack Capabilities***

Another suggestion for the deterrence strategy is to possess limited land-based counter attack capabilities. Generally the Japan Self-Defense Forces (SDF) have to be defensive-oriented such as refraining from possession of strategic striking capabilities based on the context of constitution. However, China’s building of aircraft carriers is an unprecedented threat for Japan since World War II because the Soviet Union did not have carriers. *The US Annual Report to*

*Congress in 2015* stresses that China could build multiple aircraft carriers over the next 15 years. Indeed the media has reported that two more aircraft carriers were under construction in late 2015.<sup>41</sup> Therefore, Japan, or the GSDF, should possess limited land-based capabilities which directly destroy operational high-payoff targets, especially aircraft carriers. This section focuses on the details of the capabilities and considerations on possession.

The concept of the capabilities is to influence China's carriers located outrange of SSMs but around Japan's territorial water. China's growing submarines could be the powerful vanguard against Japanese and the US surface ships. Moreover China's follow-on carrier strike groups would be a greater threat for Japan because of its huge power projection capabilities. Hence, the counter attack capabilities are just to aim at China's aircraft carriers in the Western Pacific because they are cores of national power projection capabilities, in short, theater-level center of gravity. By Japan's possession, China's naval offensive behaviors around Japan would be more deterred.

Latest technology might underpin the Japan's missile shield. Reportedly, the DARPA is collaborating with the Office of Naval Research to accelerate deployment of the Long-Range Anti-Ship Missile (LRASM), a precision-guided anti-ship missile designed to address the growing need to be able to penetrate sophisticated enemy air defense systems from long standoffs.<sup>42</sup> Further as technology is developed, the more easily Japan could introduce the capabilities through domestic or international industries, or import from the US.

One concern on the Possession of those capabilities is influence to neighboring countries. The US would be basically welcome to what Japan takes more responsibilities and capabilities for security in East Asia as long as neighboring countries allows it. But having such long-range weapons usually inspire neighboring countries to conduct more arms expansion. Careful

selection of the assets disposition could mitigate the negative influence. One of the examples is that those missiles could be located in Bonin Islands, where the missiles could cover majority of the Western Pacific without reaching neighbors if their range were less than 2,000km.

Thus, Japan, especially the GSDF needs to take an initiative to build the “Japan’s Great Wall with protective and limited counter-attack land-based missiles to protect Japan’s main islands. It should be vitally important to promote joint-operabilities and exploit technology. This strategy would be feasible in the future, but there are still a lot of challenges. While army’s roles seem to lessen in regular warfare, army’s initiative for integration might be a breakthrough in the field.

## ***V. Conclusion***

Overall, China's naval expansion can be an unexperienced threat for Japan, and conflicts might happen unphysically over strategic and operational superiority rather than physically. Therefore Japan, in particular the GSDF should make efforts to eliminate foreseeable sources of the threat by establishing comprehensive missile defense system, "The Japan's Great Wall." Strengthened protection would bring enduring support from the US armed forces in the area. To promote those capabilities, the GSDF would face some challenges; integration of ISR and fire assets and systems with other services in soft and hardware; gaining budgetary sources; maintaining favorable opinions among the people and avoiding distrust or arms expansion among neighboring countries.

On the other hand, the possession of such weapons will enable the GSDF to engage more in peacetime operations for deterrence. Surrounding seas is geo-strategically a great advantage and fortunate for Japan, but the insulation from the continent might be a factor the GSDF is less engaged in peacetime deterrence. Thus, building the missile wall will be a better choice to prompt the ground force to be integrated into joint operations as well as to enhance the GSDF role on deterrence.

Finally, Japan's determined attitude toward China based on resilient deterrence forces would be one of the keys to maintain coalition among Asia-Pacific countries against China's expansionism. It is no doubt that China could be a global power like the United States, but no countries want a tributary or obedient relationship with China like in the old age. A strong national will and capabilities could facilitate Japan to build partnership with Asia-Pacific countries, and those ties could prevent China from behaving unilaterally and could urge China to be in an affirmative peaceful development with other nations. Therefore, Japan should resist

China's ethnocentric actions with the United States and other partners, and then, the GSDF's Great Wall could strongly support the national resolution and political initiatives.

## ***GLOSSARY***

A2/AD	Anti-Access/Area Denial
ACTUV	ASW Continuous Trail Unmanned Vessel
ASDF	Japan Air Self-Defense Force
ASW	Anti-Submarine Warfare
CMC	Chinese Military Committee
CICA	Confidence Building Measures in Asia
CSBA	Center for Strategic and Budgetary Assessments
C2	Command and control
DARPA	Defense Advanced Research Projects Agency
DOD	Department of Defense
EW	Electronic Warfare
GSDF	Japan Ground Self-Defense Force
ISR	Intelligence, surveillance and reconnaissance
LRASM	Long-Range Anti-Ship Missile
MSDF	Japan Maritime Self-Defense Force
MODJ	Ministry of Defense, Japan
NDPG	National Defense Program Guidelines
PLA	People's Liberation Army
PLAN	People's Liberation Army's Navy
PRC	The People's Republic of China
SAM	Surface (Ship) to Air Guided Missiles
SDF	Japan Self-Defense Forces

SLBN Submarine-Launched Ballistic Missile  
SSBN Nuclear ballistic missile submarine  
SSM Surface (ship) to Ship (surface) Guided Missile  
SSN Nuclear powered submarine  
SUM Surface (ship) to Underwater Missile  
UAV Unmanned Aerial Vehicle  
US The United States  
UUV Unmanned Underwater Vehicle  
VLS Vertical-Launched System

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