Security Environment surrounding Japan: Gray Zone, A2/AD and Nuclear Threat

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Introduction

The Asia-Pacific is the most dynamic region in the world, with its remarkable region-wide economic development since the mid-1980s. Despite this economic success story, however, the security environment in this region is not necessarily stable. Even immediately after the end of the Cold War, the 1995 version of Japan's National Defense Program Guidelines (NDPG), the capstone document of Japan's defense strategy, described the Asia-Pacific region as "unclear and uncertain." In the 21st century, this "unclear and uncertain" situation is getting even worse due to China's rapid military modernization and its assertive military and paramilitary activities in this region as well as North Korea's nuclear and missile developments. These trends pose significant challenges to the regional security environment. This paper is to analyze how these challenges can be characterized in terms of security of Japan.

1. Gray Zone Challenges in the East China Sea¹

One of the key features of the contemporary security environment around the world is that the dichotomy between peacetime and wartime is no longer relevant; serious security challenges occur in a kind of "gray-zone" between wartime and peacetime. The recently released U.S. National Security Strategy also emphasized the importance of such non-dichotomy approach.²

The Asia-Pacific security environment is no exception to this trend. The showdown between Japanese and Chinese coast guards in the East China Sea, friction between

¹ For a more detailed analysis on gray zone, please see Sugio Takahashi, "Challenges to Extended Deterrence in the Japan-U.S. Alliance: From Gray Zone to Nuclear Deterrence," in Thomas G. Mahnken, ed., "American, Australian, and Japanese Perspectives on a Changing Security Environment," *CCC PASCC Reports*, 2016-02 (February 2016) (https://calhoun.nps.edu/bitstream/handle/10945/50224/Mahnken America Australia Japan PASCC Report.pdf). This chapter is based on the analysis of this paper.

² President of the United States, *National Security Strategy of the United States of America*, (December 17, 2017) (https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf).

China and Southeast Asian countries in the South China Sea, and North Korea's provocations in the Korean Peninsula are such "gray zone security challenges." Due to the absence of kinetic conflict, these are definitely not wartime situations; however, in the sense that military/paramilitary showdowns are observed casting a shadow of military options, and that a diplomatic solution is not yet abandoned but nobody is optimistic, it is not necessarily appropriate to define them as peacetime situations either.

In the East China Sea, there are two security challenges. The first one is the now well known Senkaku Islands issue. About a century ago, the Government of Japan surveyed the Senkaku Islands multiple times from 1885 to 1895, and confirmed that the Senkaku Islands were not only uninhabited but showed no trace of having been under the control of the Qing Dynasty of China. Following this confirmation, the Government of Japan made a Cabinet Decision on January 14, 1895, which is based on "occupation of terra nullius," formally to incorporate these islands into the territory of Japan.³ Since then, including the San Francisco Peace Treaty of 1955 after World War II, no country challenged it. It was not until a U.N. agency (Economic Commission for Asia and the Far East: ECAFE) indicated the possibility of the existence of petroleum resources on the East China Sea in the 1970s that Taiwan and China started to assert that the Senkaku Islands are their territory.⁴

After September 2010, when a Chinese fishing boat intentionally clashed with a Japan Coast Guard (JCG) vessel to escape from Japanese territorial waters and was arrested by the JCG after that clash, the Senkaku Islands became a hot issue. In September 2012, the Government of Japan purchased the Senkaku Islands from a private Japanese citizen, who owned these islands. Since then, China has continuously dispatched government vessels near the Senkaku Islands to challenge the status quo. A showdown between these vessels and the JCG has continued ever since. In addition to these vessels, assertive military activities in these areas have been observed, including fire control radar illumination from a PLA destroyer of a JMSDF destroyer in January 2013 and infringement of Japanese territorial airspace in December 2012, and China's unilateral declaration of an Air Defense Identification

³ Ministry of Foreign Affairs, "Senkaku Q and A," (June 5, 2013), (http://www.mofa.go.jp/region/asia-paci/senkaku/qa_1010.html#q9).

⁴ Ministry of Foreign Affairs, "Senkaku Q and A," (June 5, 2013), (http://www.mofa.go.jp/region/asia-paci/senkaku/qa_1010.html#q4).

Zone (ADIZ) including the Senkaku Islands in November 2013.

The other issue in the East China Sea between Japan and China concerns demarcation of Economic Exclusive Zones (EEZs). Under UNCLOS, a country can extend its EEZ 200 nautical miles from territorial ground. In some cases, however, since the distance between two countries is shorter than 400 nautical miles, these two countries need to agree about demarcation to solve issues that arise from overlapping EEZs. In the case of the East China Sea between Japan and China, the Government of Japan's position is that "boundary delimitation based on the geographical equidistance line is regarded as an equitable solution in the delimitation of such maritime area." On the other hand, China claims the natural prolongation of its continental shelf to the Okinawa Trough, which gives a vast area of EEZ to China compared to demarcation based on the geographical equidistance line. Without the two countries' agreement on demarcation, China has built many rigs to drill natural gas from that area. Despite Japan and China having issued a joint press statement for East China Sea cooperation and agreed on joint development in one specific zone and Japanese corporation(s)' participation in the development of the existing oil and gas field in June 2008⁶, China continues to install rigs (as of September 2017, 16 rigs are installed)⁷ without any follow-up efforts for joint development and Japanese corporation(s)' participation.

According to deterrence theory, there are some "window of deterrence" situations where deterrence hardly works, including fait accompli and probing.⁸ Fait accompli is a situation whereby the adversary adopts a strategy in which it attempts to change the status quo before the deterring state can start to respond militarily. If the challenger estimates that he can act quicker than the deterrer and there is a high probability of occupying an island or some piece of land before the deterrer's reaction, or if the aggressor expects no military reaction from the deterrer's side once the status quo has physically been changed, this kind of challenge is highly difficult to deter.

⁵ Ministry of Foreign Affairs, "Japan's legal position on the development of natural resources in the East China Sea," (August 6, 2015), (http://www.mofa.go.jp/a_o/c_m1/page3e_000358.html).

[&]quot;Japan-China Joint Press Statement: Cooperation between Japan and China in the East China Sea," (June 18, 2008); "Understanding on Japan-China Joint Development in the East China Sea," (June 18, 2008); "Understanding on the development of Shirakaba (Chinese name: Chunxiao) oil and gas field" (June 18, 2008), (http://www.mofa. go.jp/files/000091726.pdf).

Ministry of Foreign Affairs, "The Current Status of China's Unilateral Development of Natural Resources in the East China Sea," (September 28, 2017), (http://www.mofa.go.jp/a_o/c_m1/page3e_000356.html).

⁸ Alexander L. George and Richard Smoke, Deterrence in American Foreign Policy: Theory and Practice, (New York: Columbia University Press, 1974).

Probing is a situation whereby the adversary launches challenges to find out the lower ceiling of deterrence commitment. This form of challenge intends to "probe" to determine under what circumstances the deterrer responds with a military reaction. If the defender reacts appropriately, the challenger stops trying to change the status quo. In this sense, by definition, this kind of challenge cannot be deterred, because that challenge only occurs below the deterrence commitment.

These two forms of creeping expansion are often referred to as "salami tactics." Thomas Schelling referred to "salami tactics" as "invented by a child," who is told not to go into the water by his parents and gradually tries to go into the water. He pointed out that most commitments are ultimately ambiguous in detail. That ambiguity means that there exist some room for a challenger to "test" the deterrer's commitment through probing aggression, like "pretending the trespass was inadvertent or unauthorized if one meets resistance, both to forestall the reaction and to avoid backing down." Once a challenger clarifies the deterrer's commitment in such a way, next time it may challenge again by slicing the salami in a thinner way.

The serious challenge for deterrence of such "salami tactics" comes from the deterrer's difficulty of responding after the challenger has already sliced the salami. Once the salami is sliced, what is expected for deterrence is to prevent another slice, rather than to put the sliced salami back together. To return to the pre-sliced situation, the deterrenced sto put its hand into the challenger's stomach and bring it back from that stomach. This is "compellence" rather than deterrence.

Japan's effort to develop robust deterrence against gray-zone security challenges and recent developments in the Japan-U.S. Alliance could be one of the cases to build a gray-zone deterrence structure. In Japan, creeping gray-zone expansion has been at the top of the agenda of its recent security and defense strategy. For example, Japan's 2010 NDPG for the first time referred to the importance of gray zone security situations. Given the strategic environment of that time, NDPG 2010 intended to enhance Japan's deterrence posture against opportunistic creeping expansion by rolling out a concept of "dynamic deterrence," which complements a traditional

Thomas Schelling, Arms and Influence, with a new preface and afterword, kindle edition, (New Haven: Yale University Press, 2008), location 1103.

¹⁰ Ibid., location 1115.

posture to deter high-end conventional conflict.¹¹ In particular, through continuous steady-state ISR, information gathering, military exercises and demonstration of operational effectiveness and readiness, dynamic deterrence seeks to sensitize a challenger that they are always being watched over and there are no "windows of opportunity" for them to carry out a fait accompli or probing.

Two years following the NDPG 2010, in September 2012, after Japan purchased the Senkaku Islands, China began continuously dispatching government vessels to the vicinity of the islands. In a sense, "dynamic deterrence" as described in the NDPG 2010 did not effectively work to deter China's challenge to the status quo, because Japan did not show any physical window of opportunity at that time. Under such a security environment, Japan reviewed the NDPG again and released a new version of the NDPG in December 2013. 12 As with its 2010 version, the NDPG 2013 also emphasized gray-zone security challenges, stating "there are ongoing regional conflicts involving various countries as well as an increase in the number of socalled 'gray-zone' situations, that is, neither pure peacetime nor contingencies over territory, sovereignty and maritime economic interests," and also expressed concern as such gray-zone security challenges in the Asia-Pacific region "tend to linger, raising concerns that they could develop into more serious contingencies." As this suggests, the NDPG 2013 recognizes that, compared to the time when the NDPG 2010 was formulated, there was increasing "gray-ness" of the gray zone.

Given this situation, the NDPG 2013 redefines gray zone deterrence and states that "the SDF will conduct strategic training and exercises in accordance with the development of the situation and swiftly build a response posture including advance deployment of units in response to the security environment and rapid deployment of adequate units. Thus Japan will demonstrate its will and highly developed capability to prevent further escalation." This could be interpreted as sending a signal to the other party by swiftly conducting military operations, including exercises in response to the development of a situation, in other words, flexible deterrent option (FDO).

¹¹ Regarding the concept of "dynamic deterrence," see National Institute for Defense Studies, East Asian Strategic Review 2011, (Tokyo: The Japan Times, 2011), pp. 255-257, (http://www.nids.go.jp/english/publication/ east-asian/pdf/2011/east-asian_e2011_08.pdf).

¹² Government of Japan, "The National Defense Program Guidelines, for FY 2014 and beyond," (December 17, 2013), (http://www.mod.go.jp/j/approach/agenda/guideline/2014/pdf/20131217_e2.pdf). 13 Ibid.

2, A2/AD Threats14

A2/AD threats have become a hot topic in the current strategic debate, as a debate on "Air-Sea Battle," following the QDR 2010 and the CSBA report about them. ¹⁵ The *Joint Operational Access Concept*, published by the Joint Staff, defines anti access (A2) as "actions and capabilities, usually long-range, designed to prevent an opposing force from entering an operational area" and area denial (AD) as "actions and capabilities, usually of shorter range, designed not to keep an opposing force out, but to limit its freedom of action within the operational area." ¹⁶ This paper uses these definitions as its working definition.

Attention to A2/AD threats had been paid even before the recent concerns over China's military modernization. Or rather, concern over the proliferation of such capabilities arose at the beginning of the 21st century. QDR 2001, which was released on September 30, 2001, devoted one chapter to emphasizing the importance of A2 threats, while most readers focused on how the Pentagon describes "war on terror." In that chapter, "Creating the U.S. Military of the 21st Century," the document indicates concern over future U.S. power projection through saturation attacks with ballistic and cruise missiles; AD by advanced air defense systems against non-stealthy aircraft; threats against naval forces by anti-ship cruise missiles, advanced diesel submarines, and advanced mines; and space denial capabilities such as ground based laser systems. Although it did not discuss anti-ship ballistic missiles (ASBMs), QDR 2001's concern over A2/AD threats was soon realized.

A more updated concern of the Pentagon about A2/AD threats can be found in its annual report on Chinese military modernization. The latest one, the 2017 version, specifically describes China's A2/AD capabilities as: long-range strike capability by ballistic and cruise missiles; surface and underwater capability by ASBM, cruise

¹⁴ For a more detailed analysis on A2/AD threats, please see Takahashi, "Challenges to Extended Deterrence in the Japan-U.S. Alliance."

¹⁵ Department of Defense, "Quadrennial Defense Review Report," (February 2010), (http://www.defense.gov/qdr/images/QDR_as_of_12Feb10_1000.pdf); Jan van Tol with Mark Gunzinger, Andrew Krepinevich, and Jim Thomas, "AirSea Battle: A Point-of-Departure Operational Concept," (May 18, 2010), (http://www.csbaonline.org/wp-content/uploads/2010/05/2010.05.18-AirSea-Battle.pdf); T. X. Hammes, "Offshore Control: A Proposed Strategy for an Unlikely Conflict," *Strategic Forum*, No. 278, (June 2012).

Department of Defense, "Joint Operational Access Concept, version 1.0," (January 17, 2012) (http://www.defense.gov/Portals/1/Documents/pubs/JOAC_Jan%202012_Signed.pdf).

¹⁷ Department of Defense, *Quadrennial Defense Review Report*, (September 30, 2001), p.31, (http://www.defense.gov/pubs/pdfs/qdr2001.pdf).

missile, and torpedo; space operation capability including command and control and navigation; information operation capability including electro-magnetic operation, cyber and space capabilities; cyber operation capability to neutralize an adversary's information network; integrated air defense system with more than 500 km range; and air-operation capabilities with stealth fighters and UAVs.¹⁸

Ironically, but not surprisingly, these Chinese capabilities have been developed to counter U.S. high-tech conventional military capabilities. After the 1991 Gulf War, when the U.S. clearly demonstrated its dominant information-based precision strike capability, and the 1995-96 Taiwan Strait Crisis, when the U.S. sent two aircraft carriers, China established "local war under high-tech condition" as a key strategic concept and kicked off major research and development programs to develop "counter intervention" capability against potential U.S. military intervention in case of a Taiwan Strait contingency. 19 With such A2/AD capabilities, the U.S. may not be able to enjoy risk-free power projection as in the cases of the 1991 Gulf War and the 2003 Iraq War. Now it is the time of "going to war is the war" for the U.S. This raises at least three strategic challenges for regional security.

The first challenge comes from its implications for gray zone security challenges. Combining creeping gray-zone expansion with the development of A2/AD capability, the U.S. would face a dilemma over the optimal form of forward deployed force. One logical reaction against A2/AD threat is to disperse forward-deployed forces and avoid "putting all eggs in one basket." At the same time, however, one of the logical reactions to creeping expansion in the gray zone is to maintain significant forward presence, rather than light and dispersed presence, because the lack of significant forward presence would be perceived as a window of opportunity for creeping expansion. Given such competing demands, a combination of A2/AD threats and the gray zone security challenge complicates deterring countries' responses.

The second challenge from A2/AD threats is their implications for regional crisis stability. If all related parties have no first strike advantage, or if all parties are vulnerable to the other party's invulnerable second strike capability, crisis stability

19 See Tai Ming Cheng, Forging China's Military Might: A New Framework for Assessing Innovation, (Baltimore: Johns Hopkins University Press, 2014).

¹⁸ Office of Secretary of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2017 (May 15, 2017) (https://www.defense.gov/Portals/1/Documents/pubs/2017_ China_Military_Power_Report.PDF).

can be maintained, because first strike would not bring about any kind of advantage even in the case of a tense crisis. In this vein, a situation of vulnerability is one of the key elements of crisis stability.

By developing A2/AD capabilities, the PLA acquired significant strike capabilities against regional countries through ballistic and cruise missiles and bombers. By contrast, regional countries, including Japan, do not have such capabilities for counter-strike. In addition, most regional countries in the region are island nations that lack strategic depth, whereas China enjoys continental strategic depth. In this sense, U.S. air and maritime strike capabilities are indispensable to offset such an asymmetric level of vulnerability. Facing highly advanced U.S. strike capabilities, even China cannot be invulnerable. In other words, in a situation of such asymmetric vulnerability, U.S. strike forces are essential to regional crisis stability.²⁰

The third challenge that arises from China's A2/AD capability concerns its implications for regional perception on U.S. commitment. China's development of A2/AD capabilities will raise the potential cost and risk to the U.S. of intervening in regional conflicts. Regardless of how the U.S. government actually makes decisions in the event of a contingency under A2/AD threat, this situation would affect China and regional countries' views of U.S. strategic calculations. It is likely that regional states would perceive the United States as being more cautious than had been the case prior to the existence of the A2/AD threat. In other words, the "shadow" of the A2/AD threat could influence patterns of decision-making in China and other regional countries on U.S.-related security issues. For example, a challenger that possesses more advanced A2 capability could perceive a fait accompli-like challenge to the status quo to have a greater prospect for success than had previously been the case because his A2 capability would make the response more costly. Regardless of the deterrer's actual strategic calculation of the response, if a challenger perceives that it can deter the deterrer's reaction to a fait accompli through A2/AD capabilities, deterrence is less likely to succeed.

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Regarding this question, please see Sugio Takahashi, "Redefining Strategic Stability: A Japanese View," in James L. Schoff and Li Bin, "A Precarious Triangle: U.S.-China Strategic Stability and Japan," (Carnegie Endowment of International Peace, November 7, 2017) (http://carnegieendowment.org/2017/11/07/redefining-strategic-stability-japanese-view-pub-74631).

3. North Korea's Ballistic Missiles and Nuclear Weapons²¹

In terms of ballistic missile proliferation, Northeast Asia is a region of great concern. In addition to the PLA's rapidly modernizing conventional and nuclear missile forces, North Korea's nuclear and ballistic missile development is a source of even greater concern for stability in the region. North Korea is estimated to be developing and deploying several types of ballistic missiles. Most of these systems are road-mobile.

In parallel with its missile development, North Korea is also developing nuclear weapons. And since its first nuclear test in 2006, North Korea conducted six nuclear tests, as of January of 2018. Their goal is obviously to develop small nuclear warheads to load onto ballistic missiles. The question is whether, or when they will succeed. Regarding this question, the Japanese Ministry of Defense estimates "it is possible that North Korea has achieved the miniaturization of nuclear weapons and has developed nuclear warheads" in their Defense White Paper of 2017. This suggests that now regional countries and the U.S. need to be ready to treat North Korea as capable of launching nuclear tipped ballistic missiles.

Combined with the nuclear development program, North Korea's missile forces create serious security concerns in the region. However, North Korean thinking about its nuclear strategy is unclear. Looking at North Korea's behavior in this decade, the development of nuclear weapons itself is likely a part of a campaign of provocation. One possible observation is that North Korea's nuclear weapons are actually a part of their "provocation" rather than a distinct nuclear deterrence strategy.

If North Korea's leadership has thoughts about nuclear strategy, whether it sees a nuclear weapon as an instrument of deterrence or war-fighting rather than as a tool for provocation is an important question. Considering the huge gap in conventional military force between North Korea and the US-ROK alliance, the early employment of nuclear weapons in the event of a military conflict would be conceivable, just as it was for NATO in the Cold War. This question could be an important caveat when

Nuclear_Landscape_August2017.pdf). This chapter's analysis is based on this paper.

²¹ For a more detailed analysis of North Korea's nuclear threat, please see Sugio Takahashi, "Thinking about the Unthinkable: The Case of the Korean Peninsula," in Aaron L. Friedberg, Robert Jervis, J. James Kim, Jina Kim, Matthew Kroenig, Sugio Takahashi, Michito Tsuruoka, and Christopher Twomey, "North Korea and Asia's Evolving Nuclear Landscape: Challenges to Regional Stability," NBR Special Report, No.67 (August 2017) (http://www.nbr.org/publications/specialreport/pdf/Free/10012017/SR67_North_Korea_and_Asias_Evolving_

thinking about tailored deterrence and extended deterrence against North Korea.

At the same time, even though North Korea crosses the threshold of using nuclear weapons, the size of its nuclear arsenal will be limited. With such limited size, the only potential form of North Korea's nuclear strategy would be "minimum-deterrence," something like existential deterrence, which is based on the psychological effects of the existence of nuclear weapons on the others' mind and which seeks to restrict their range of behaviors, rather than a strategy based upon the actual physical effects and military utility of nuclear weapons.

Regardless of the actual content of North Korea's nuclear strategy and the physical characteristics of its nuclear force, North Korea's nuclear tipped theater ballistic missiles can be a geostrategic game changer in Northeast Asia. Since the 1950 Korean War, Northeast Asia had actually consisted of two sub-regional theaters: the Korean Peninsula and Japan. At the time of the Korean War, the battlefield was limited to the Korean Peninsula and the U.S. and the United Nations Command operated from Japan to support the battlefield on the Korean Peninsula. In other words, at that time the Korean Peninsula was a battlefield theater and Japan was a safe staging theater. Under such a geostrategic situation, the U.S. concluded two separate alliances with Japan and the Republic of Korea. This basic geostrategic format endured until the mid-1990s when the first North Korean nuclear crisis happened and Japan and the U.S. revised their Defense Guidelines in 1997.

North Korea's nuclear tipped theater ballistic missiles fundamentally transformed this geostrategic setting. Before acquiring theater ballistic missiles, North Korea had no means to attack Japan except sabotage by special operation forces. But with the deployment of nuclear weapons and ballistic missiles, North Korea can use nuclear blackmail to intimidate Japan not to support U.S. operations on the Korean Peninsula. Pyongyang could also strike by ballistic missiles with nuclear warheads to physically disrupt U.S. operation and force flow. In short, Japan is no longer a safe staging theater. Now this theater can also be a battlefield. In this way, North Korea's nuclear tipped ballistic missiles "integrate" two formerly separated theaters and change geostrategic dynamics. In other words, Japan loses its "sanctuary" status from North Korea's military attack, and in case of military conflict in the Korean Peninsula, Japan now needs to take more serious risk to support the U.S. If Japan is intimidated by North Korea and decides not to provide any support to the U.S.,

North Korea can drastically improve its military situation on the Korean Peninsula. Considering such a huge strategic benefit for North Korea, nuclear blackmail and actual strike against Japan are a situation to be prepared for. For Japan, more robust assurances and deterrence are absolutely required for Tokyo to make a decision to support the U.S. under such serious threats from North Korea.

Conclusion

In East Asia, there exists a full range of security challenges from gray-zone to nuclear conflict, with the exception of non-state terrorism. In some sense, this might be seen as a revival of the security challenges that existed in the Cold War era. At the same time, they have also been "renewed" under 21st century technology, such as conventional A2/AD threats based on sophisticated technology and space and cyber capabilities.

Tectonic changes in the global power structure triggered by the rise of China and nuclear proliferation by North Korea amplify the magnitude of these full-range state-made challenges. Responding to these challenges, Japan reviewed its defense strategic document twice in the past decade: the NDPGs 2010 and 2013. And the current government is reported to review it again. The agenda would be almost the same as these two previous reviews. But the current situation is even worse than these predecessors. How to address these challenges is no easy question, and furthermore, a must-to-tackle question.