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Sources of evolution of the Japan Air Self-Defense Force's strategy

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THESIS

SOURCES OF EVOLUTION OF THE JAPAN AIR SELF-DEFENSE FORCE'S STRATEGY

by

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This thesis argues that the JASDF's strategy has evolved from the "defensive defense" strategy to the "offensive defense" strategy after the early 2000s. In addition, even though the evolution of the JASDF's strategy is a combined result of the four independent variables, the strongest driver is the modernization of the PLA's air power. Therefore, the improvement of the relationship between Japan and China is the most important factor in curtailing an arms race in Northeast Asia.

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SOURCES OF EVOLUTION OF THE JAPAN AIR SELF-DEFENSE FORCE'S STRATEGY

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LIST OF ACRONYMS AND ABBREVIATIONS

A2/AD	anti-access/aerial denial
AAA	anti-aircraft artillery
AEW	airborne early warning
AWACS	airborne warning and control system
BMD	ballistic missile defense
CADIZ	China air defense identification zone
CAS	close air support
CIA	Central Intelligence Agency
CMC	Central Military Commission
DPJ	Democratic Party of Japan
EEZ	exclusive economic zone
GDP	gross domestic product
GHQ	General Headquarters of the Supreme Commander for the Allied Powers
HEU	high-enriched uranium
HPT	high payoff targets
IRBM	intermediate-range ballistic missile
JADIZ	Japan air defense identification zone
JASDF	Japan Air Self-Defense Force
JDAM	joint direct attack munitions
JGSDF	Japan Ground Self-Defense Force
JMSDF	Japan Maritime Self-Defense Force
JSDF	Japan Self-Defense Force
LDP	Liberal Democratic Party
MD	missile defense
MRBM	medium-range ballistic missile
NATO	North Atlantic Treaty Organization
NDPG	National Defense Program Guideline
NPT	nonproliferation treaty
NSC	national security council

OCA	offensive counter-air
PAC	Patriot Advanced Capability
PGM	precision guided munitions
PLA	People’s Liberation Army
PLAAF	People’s Liberation Army Air Force
PLAN	People’s Liberation Army Navy
PLARF	People’s Liberation Army Rocket Force
PLASAF	People’s Liberation Army Second Artillery Force
SAM	surface-to-air missile
SDP	Social Democratic Party
SLBM	submarine launched ballistic missile
SLOC	sea lines of communication
SRBM	short-range ballistic missile
TMD	theater missile defense
UAV	unmanned aerial vehicles
WMD	weapons of mass destruction

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I. INTRODUCTION

A. MAJOR RESEARCH QUESTION

The Japan Self-Defense Force (JSDF) has adhered to the constitutional principle of an exclusively defensive security policy since Japan's defeat in World War II. However, recent developments—such as the JSDF's operation concept change, increases in military strength, and weapons purchases—reveal that the strategy of the JSDF is no longer exclusively defensive basics. In this context, the strategy of the Japan Air Self-Defense Force (JASDF) is also arguably evolving in an offensive and aggressive direction, as seen by its ends, ways, and means, which are the three elements of strategy. Therefore, this thesis addresses the basic research question: What is driving the evolution of the JASDF's strategy and what is the most influential driver?

In order to address this research question, this research initially focuses on trends of the JASDF's strategy, whether it is offensive or defensive, or a combination. To define the JASDF's strategy, this research analyzes the evolution of JASDF's strategy in terms of ends, ways, and means. Then, this research examines and evaluates the possible explanatory factors for the JASDF's evolution.

B. SIGNIFICANCE OF THE RESEARCH QUESTION

Basically, studies on JASDF's strategy are few. This research has academic significance, shedding new light on the JASDF's strategy, which has been insufficiently studied until now.

First, the Japan Maritime Self-Defense Force's (JMSDF) policy and maritime strategy have been more closely examined than those of the JASDF due to the geopolitical fact that Japan is surrounded by the sea. In addition, the JSDF, which has adhered to an exclusively defensive security policy, has practically evaded the reinforcement of JASDF and avoided mentioning the JASDF's strategy. However, changes to Japanese national strategy and military strategy are inevitable due to changes in the security environment, such as the rise in China's and North Korea's nuclear weapons development, and also domestic political factors such as the Japanese

normalization movement. These changes to national strategy and military strategy necessarily encourage Japan to change its sub-elements of JASDF's strategy.

This research also has policy significance. This research ultimately analyzes the key factors that influence the evolution of JASDF's strategy. Naturally, there are likely several factors affecting the evolution of JASDF's strategy. Nevertheless, this research seeks to find the most significant factor and subsidiary factors in the evolution of JASDF's strategy. Through the result of this analysis, it may be possible to better understand the JASDF and the JSDF's overall priority of strategy establishment. Furthermore, this research can be used as a tool to infer the direction of Japanese policy making and to establish a strategy for future East Asian relations.

C. LITERATURE REVIEW

This section reviews literatures needed to define JASDF's strategy and to examine the possible drivers of JASDF's evolving strategy.

1. Debate on JASDF's Strategy: Offensive or Defensive?

To demonstrate the evolution of JASDF's strategy and define JASDF's current strategy, this research examines how people have recognized JASDF's strategy so far. First of all, the JSDF is definitely not a typical military in that it exists for self-defense only. The JSDF sticks to the principle of an exclusively defensive security policy fettered by the constitution. Thus, political ends of the JSDF are clearly defensive, and the military ends of the JASDF are also defensive. In this context, in his thesis, a major of the Republic of Korea Air Force, Youngju Kim argues that JASDF's strategy is still a defensive strategy. He claims the United States and Israel have an offensive air strategy emphasizing surprise air attack and preemptive attack.[1] By contrast, Kim states that Japan pursues a defensive air strategy because it exercises a defense force only when it is attacked by a foreign country; based on the principle of an exclusively defensive security

[1]Youngju Kim, "A Study on the Offensive Character of the People's Liberation Army's Air Power: Focused on the Analysis of the Operating Concepts and Weapon Systems" (master's thesis, Korea National Defense University, 2015), 17, http://dlps.nanet.go.kr/DlibViewer.do?cn=KDMT1201504522&sysid=nhn.

policy, it officially restricts air-to-ground weapon employment and training, and it has built an air defense operation based air power.[2]

However, some argue that it is difficult to call JASDF's strategy defensive when analyzing the recent changes. "Japan's air force also has considerable capabilities for offensive air superiority operations," claims Jennifer M. Lind.[3] She argues that, considering the operational radius of the F-15J, which is located in Hokkaido and Okinawa air bases, JASDF has enough ability to project air power to the Taiwan Strait and North Korea.[4] In addition, she notes that JASDF's tanker acquisition has provided the basis for offensive air operations by increasing approximately two-fold the operational radius of the fighters.[5] She further claims that the only limitation of offensive air operations is that JASDF did not have air-to-ground precision-guided weapons[6]; however, that will no longer be a problem as the JASDF recently acquired air-to-ground precision-guided weapons such as Joint Direct Attack Munitions (JDAM).

Christopher Hughes also sees that the JASDF's strategy has evolved to be offensive. "Japan's attachment of importance to the stealth capabilities of the F-35A," Hughes writes, "and its greater associated strengths as an air defence penetration fighter, rather than air superiority fighter, suggests a future interest in developing an offensive counter-air (OCA) doctrine for the ASDF."[7] He also argues that expanding the ability to strike North Korean missile bases and the mainland of China through the air-to-ground weapons acquisition is evidence that JASDF is bailing out of the existing defensive posture.[8]

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[2]Kim, "Study on the Offensive Character of the People's Liberation Army's Air Power," 17.

[3]Jennifer M. Lind, "Pacifism or Passing the Buck?: Testing Theories of Japanese Security Policy," *International Security* 29, no. 1 (2004): 98, http://sites.dartmouth.edu/jlind/files/2013/09/Lind_Pacifism.pdf.

[4]Ibid.

[5]Lind, "Pacifism or Passing the Buck?," 98.

[6]Ibid., 99.

[7]Christopher H. Hughes, *Japan's Foreign and Security Policy under the 'Abe Doctrine': New Dynamism or New Dead End?* (London: Palgrave MacMillan, 2015), 34.

[8]Ibid.

However, this previous literature has evaluated the JASDF's strategy without clear definitions of offensive and defensive strategy. We first need to clarify the question regarding what are the definitions of offensive and defensive strategy. In order to judge the JASDF's strategy, it is also necessary to determine what should be analyzed in any category.

2. Offensive and Defensive Types of Military Strategy

It is not easy to distinguish between the offensive and the defensive in the military strategy of any country or in the strategy of particular military branch. Above all, the concept of strategy has changed continuously in history, and the meaning and category have also changed depending on the definer. In addition, it is impossible to determine whether the comprehensive strategy is offensive or defensive by only one aspect. First of all, it is necessary to clearly distinguish between the definitions of the offensive strategy and defensive strategy.

Stephan Fruhling defines strategy as "the instrumental relationship between political goals, and the means and ways to achieve them against the opposition of an adversary"[9] to explain offense and defense in strategy. Like Fruhling's definition, the concept of modern strategy, no matter what the level of strategy, cannot be explained without the three elements of strategy: ends, means, and ways. In other words, strategy is the top-down flow by which required political ends are converted into military goals, operational arts and doctrines are determined to achieve the military goals, and tactics of engagement and weapon systems are decided for the operational arts and doctrines.[10]

Then, Fruhling said, "offense and defense are distinguished in strategy by their purpose: to force one's will on the enemy, and to undermine his theory of victory, respectively."[11] Fruhling argues that the three elements of strategy, which are means such as weapon systems, ways such as operational arts, and political ends, should be

[9]Stephan Fruhling, "Offense and Defense in Strategy," *Comparative Strategy*, 28, no. 5 (2009): 463, doi:10.1080/01495930903185302.

[10]Ibid., 464.

[11]Ibid., 472.

independently analyzed to determine offensive and defensive of strategy.[12] In other words, single analysis of only ends, means, or ways independently will not be able to show whether the strategy is offensive or defensive. Fruhling easily accounts for the reason with examples.

First, if the offensive and defensive nature of strategy is determined by means such as weapon systems, people usually think of a shield as a defensive weapon and a sword as an offensive weapon. However, does not a defender use a sword? And, does not an attacker use a shield?[13] If someone shoots a bow toward the enemy to defend a castle, is the bow an offensive weapon or a defensive weapon? Therefore, to determine offensive and defensive of strategy by only the weapons possessed themselves is limited; the operational concept using the weapon should be analyzed.[14]

However, it is also insufficient to analyze offensive and defensive types of strategy only in terms of ways such as operational concept. A defender does not always take a defensive posture only. Even if someone uses a defensive strategy, the defender undertakes aggressive behavior and offensive acts in order to repel the enemy.[15] For example, if one looks at the Chinese Anti-Access/Aerial Denial (A2/AD) strategy concept, China might launch a variety of ballistic missiles and attack the approaching enemy by aircraft and battle ship. However, the ultimate goal of the strategy is quite defensive, denying the enemy and blocking the enemy's approach.

Thus, to judge offensive and defensive of strategy, one must also analyze the ultimate ends pursued. In terms of ends, if changing the current status quo by using force is the goal, it can be regarded as offensive.[16] On the other hand, if maintaining the current condition is the goal, it can be regarded as defensive.[17] But, if the operations arts and weapon systems do not support the characteristic of ends, the strategy cannot be

[12]Fruhling, "Offense and Defense in Strategy," 469.

[13]Ibid., 465.

[14]Ibid., 466.

[15]Ibid.

[16]Ibid., 467.

[17]Ibid.

conducted even if the ends are clearly offensive or defensive. Therefore, to define offensive and defensive strategy, the comprehensive analysis of ends, means, and ways is positively necessary.

3. Defensive Defense and Offensive Defense

Can the JASDF's strategy be distinguished as simply an offensive strategy or defensive strategy after analyzing the ends, means, and ways together? As mentioned earlier, the goal of the JSDF is defensive according to the principle of an exclusively defensive security policy. Nevertheless, recent changes in the JASDF's weapons system acquisition and operational concepts reveal elements of offense within this defensive orientation. Hence, to define the JASDF's strategy, it is useful to divide defensive strategy into two variants: "defensive defense" and "offensive defense."

In his article, Jaeyeop Kim, a Korean professor, uses concepts of "defensive defense" and "offensive defense" to discuss strategy for the Korean military. He first distinguishes between offense strategy and defense strategy. According to him, offense strategy is to operate a military force for the purpose of active goals, such as seizing or occupying another country's territory and enforcing change of another's act or will according to one's intention. Accordingly, a country that uses an offense strategy initiates military action before the other side and selects the territory of the other side as a space for the war, and it essentially pursues a destruction of the status quo. On the other hand, a defense strategy intends to operate a military force for the purpose of passive goals, such as preserving survival and territory and maintaining one's own international status and rights. Thus, a country with a defense strategy begins military action after an opponent's attack and usually conducts war in one's own territory, and pursues maintenance of the status quo.[18]

Kim further argues that the exertion of activeness and initiative, which are emphasized for succession of war, is not the exclusive property of the attacker only, and the defender also can reduce the effort and cost, and achieve the ultimate victory, through

[18]Jaeyeop Kim, "In Pursuit of Offensive-Defense Strategy for Korea," *Journal of National Defense Studies* 56, no.2 (2013): 127–28.

freedom of action to choose the time, place, type of operation, etc.[19] He divides defense strategy into "offensive defense" and "defensive defense," in accordance with how much the state is active and exercising initiative. "Defensive defense" manifests a passive aspect to focus on keeping off the enemy attack while waiting at the pre-designated area.[20] In other words, "defensive defense" is faithful strategy to defense in the pure sense of the word.[21] On the other hand, "offensive defense" strategy takes an active form including aggressive acts, such as counterattack and counteroffensive, and general defense that include efforts to impact the military capabilities and will of an invading enemy.[22] In spite of this activeness and exercising of initiative, "offensive defense" that ultimately pursues passive goals (e.g., protecting territory and sovereignty) is fundamentally different from an offense strategy that poses a threat in advance to seize other countries' territory or to change others' actions.

Kim presents four features to distinguish the differences between "defensive defense" and "offensive defense."

- First is the objective of war. The objective of "defensive defense" is limited to repel an invading enemy out of own border; however, the objective of "offensive defense" includes achievement of advantageous political and military end-state for postwar national security.
- Second is the battle space of war. "Defensive defense" strategy conducts war definitely in its territory and bears that most of its territory becomes a major battlefield; on the other hand, the "offensive defense" strategy emphasizes limiting the battlefield within the front or around the borderline, and it considers, if necessary, extending or changing the battlefield to the enemy's territory.

[19]Kim, "Pursuit of Offensive-Defense Strategy for Korea," 128–29.

[20]Ibid., 129.

[21]Ibid.

[22]Ibid.

- The third difference is the military effort for counteroffensive. While the "defensive defense" strategy conducts defense and counterattack gradationally and gradually as time passes in war, the "offensive defense" strategy conducts defense and counterattack simultaneously from the early stage of war, with some forces defending the enemy's attack but some other forces rapidly counterattacking the enemy's forces and territory.
- Fourth is the period of war. "Defensive defense" strategy pursues extended war, whereas the "offensive defense" strategy pursues short-term war.[23]

This thesis is original in applying Kim's distinction of "defensive defense" and "offensive defense" to the Japanese case. In addition to comprehensively analyzing the ends, means, and ways of JASDF's strategy, the thesis examines the objective of military action, battle space, the military effort of counteroffensive, and the period of war pursued by JASDF, in order to evaluate whether the JASDF's strategy is still a "defensive defense" strategy pursued by the Japanese principle of an exclusively defensive security policy or whether it is evolving into an "offensive defense" strategy.

4. Japanese Military Evolution

Although few studies focus on the evolution of JASDF's strategy, several studies analyze the recent modernization of JSDF in general, the aspect of JSDF's strategy change, and its factors.

First, some of the articles analyze the external factors of JSDF's military evolution. Especially, some of articles focus on China as a factor. Christopher W. Hughes argues that Japan, South Korea, and Taiwan share concern about the development of China's military capabilities, and this concern act as a common factor in each country's military modernization in his article.[24] In other words, Hughes points to Chinese military

[23]Kim, "Pursuit of Offensive-Defense Strategy for Korea," 129–30.

[24]Christopher H. Hughes, "China's Military Modernization: U.S. Allies and Partners in Northeast Asia," in *Strategic Asia 2012–2013: China's Military Challenge*, ed. Ashley J. Tellis and Travis Tanner (Washington, DC: The National Bureau of Asian Research, 2012), 198.

modernization as a key factor in the trend of the JSDF. Japanese current concern is China trying to maximize its own interest in the South China Sea, East China Sea, and the Sea Lines of Communication (SLOC) of the Asia-Pacific region by extending military strength outside of its territory.[25] Accordingly, Japan has responded to China's military buildup by revising the National Defense Program Guideline (NDPG) in 2004 and 2010, and changing its defense concept from the "Basic Defense Capability" to the "Dynamic Defense Force."

Some other articles focus on the North Korean threat factor. In another article, Hughes argues that North Korea became a major threat to Japanese security, replacing the Soviet Union since the end of Cold War.[26] In particular, North Korea fired ballistic missiles toward the sea near Japan in the process of testing, and the maximum ranges of missiles developed since the early 2000s has increased so significantly that the entire territory of Japan is within the range of ballistic missiles of North Korea.[27] North Korea has been conducting nuclear weapon development since the middle of the 1990s, and Japan has recognized that North Korea could pose a serious threat by mounting a nuclear weapon on a ballistic missile after securing a nuclear weapon miniaturization technology.[28] In this article, Hughes concludes that the North Korean threat affects the Japanese defense policy by combining with other factors because the level of ballistic missile development and nuclear technology is still incomplete.[29]

It is noteworthy that the Japanese responses that Hughes discusses—the PAC-3 missile defense systems deployed around Tokyo from 2006 to 2008, the introduction of tankers, and the purchase of air-to-ground precision-guided munitions—are all actions taken through the JASDF.[30] Hence, here is an example of how the focus in this thesis on

[25]Hughes, "China's Military Modernization," 201.

[26]Christopher W. Hughes, "'Super-sizing" the DPRK Threat: Japan's Evolving Military Posture and North Korea," *Asian Survey* 49, no. 2 (2009): 297, doi: AS.2009.49.2.291.

[27]Ibid.

[28]Ibid., 299.

[29]Ibid.

[30]Ibid., 306.

changing JASDF strategy will provide a closer look at the nature of the Japanese perspective than studies at the more general level.

Other articles also explain that domestic political factors as well as external threats influence the JSDF's strategy evolution. Arpita Mathur identifies some specific domestic factors driving the JSDF's changing role. First, Mathur claims that Japan has pursued its security and regional security through the alliance with the United States until now; however, the United States has envisioned a new security role for Japan since the 2000s.[31] The two countries made new common strategic goals, such as Japanese military modernization for regional security in 2005.[32] In addition, U.S.-Japan cooperation on Ballistic Missile Defense (BMD) and relaxation of Japan's longstanding prohibition on military exports were both influenced by the U.S. demand for Japanese security policy change.[33]

Second, the JSDF's changing role has been influenced by the political resolve of the Japanese leader. Former Prime Minister Junichiro Koizumi is the first prime minister to call the JSDF a "military," and Prime Minister Shinzo Abe also constantly strives to amend the pacifist constitution, to accept collective self-defense, and to promote the JSDF's foreign deployment.[34] This conservative disposition of political leaders and strong push for the change of Japanese security policy has had a significant impact on changes in the roles and strategies of the JSDF.

Third, Mathur considers the JSDF's role change a prerequisite for acquiring the seat among the UN Security Council permanent members.[35] Japan has pushed ahead with the plan for entering the UN Security Council permanent members since 2005. To get this authority, Japan has to show a more active and assertive role, such as collective self-defense in the regional and international security environment; however, the

[31]Arpita Mathur, "Japan's Self-Defense Forces: Towards a Normal Military," *Strategic Analysis* 31, no. 5 (2007): 728, doi:10.1080/09700160701662260.

[32]Ibid.

[33]Ibid.

[34]Ibid., 729.

[35]Ibid., 730.

Japanese constitution has limited this role. Therefore, Japan has had to move the JSDF's role change through constitutional amendments and revision of laws, and this Japanese ambition actually changed the JSDF's role.[36]

The literature analyzing the modernization and the changing role of the JSDF has some limitations. First, deeper research focused on the JASDF is insufficient. Though some work analyzes the changes and the factors of the JSDF's strategy, those deal with the entire JSDF and do not deeply cover the evolution of a specific military branch. Especially, study focused on the JASDF is essential because air power is the most offense-oriented among the ground, maritime, and air domains. So, if Japan, which has adhered to the principle of an exclusively defensive security policy, pushes forward to change its air strategy, the implication of this change is greater than other cases.

Second, a sufficient study on the importance or priority of each factor driving the JASDF's strategy evolution and modernization has not been done. Even though the factors of JASDF's strategy evolution have been analyzed in terms of external factors such as China and North Korea, and internal factors such as political leadership and political ambition, it is not clear what factors play the greatest role in the JASDF's strategy evolution.

Third, tracing of the JASDF's strategy change has focused mostly on the side of means, such as aircraft and weapons acquisition. As discussed previously in the literature review of offensive and defensive strategy, all of the ends, means, and ways should be analyzed in order to determine the characteristic of strategy. However, though some literature examines the doctrine of the JSDF or base deployment, most of those evaluate the offensive evolution of the JASDF's strategy by the newly introduced aircraft or weapon systems. By analyzing only the change of means or capabilities, this work is able to determine only the strengthening or weakening of the JASDF's force rather than to determine changes in the offensive or defensive strategies. To verify the JASDF's offensive evolution of strategy, not just the JASDF's capability buildup, this thesis comprehensively analyzes the ends, means, and ways of strategy.

[36]Mathur, "Japan's Self-Defense Forces," 730.

Fourth, the JASDF has exhibited additional changes subsequent to the existing literature. The JASDF has left more evidence of the strategic changes such as moving an additional base to Okinawa or the test flight of the self-developed new generation fighter. Thus, through the additional apparent changes of the JASDF, the offensive evolution of JASDF can be assessed more clearly. This research pursues a deep investigation of the evolution of JASDF's strategy and its factors by compensating for the limitations of existing literature.

5. Offensive Principle in Air Strategy Theories

Even though the history of air strategy is not long just as the history of the aircraft itself is short, the early air strategy theorists offered a common view with the appearance of air power in the battlefield: air power should be employed offensively. These early thoughts on air strategy have come of age in many theories, and a lot of air strategy theories are still emphasizing the importance of the offensive employment of air power.

First, Giulio Douhet, an Italian air strategy theorist, paved the way for air strategy thought by publishing *The Command of the Air* in 1921. At the time, the ground battle between the two sides during World War I was being conducted as a war of attrition, with the frontline bogged down in the total war. In this trend of war, the defender had the advantage in comparison with the attacker. However, Douhet thought that air power offered a creative way because it can reach the rear of the enemy lines without a breakthrough of the frontline through the aircraft, which is no constraint of the sphere of activity.[37] So, Douhet anticipated that "the new weapon—as we shall see later in this study—reverse this situation by magnifying the advantages of offensive and at the same time minimizing, if not nullifying, the advantage of the defensive."[38] In addition, he argued that "air power is a weapon superlatively adapted to offensive operation, because it strikes suddenly and gives the enemy no time to parry the blow by calling up

[37]Giulio Douhet, *The Command of the Air*, trans. Dino Ferrari (Washington, DC: Office of the Air Force History, 1983), 7–10.

[38]Ibid., 15.

reinforcement."[39] Under these anticipations, Douhet proposed theories for employing air power. First, he argued that command of the air should be seized completely to win the war, and for the command of the air, the offensive destruction of the enemy's aircraft and air bases on the ground is more effective than the engagement with the enemy's aircraft in the air.[40] And, he asserted that there is no defense practically in the air battle.[41] In addition, he thought that one should arouse the enemy's psychological damage through the air strike against the enemy's main industrial facilities and densely populated areas.[42]

William Mitchell, an American flight officer during the World War I period, was also an early air strategy theorist who stressed the offensive employment of air power. He emphasized the importance of strategic bombing like Douhet by claiming that one can easily terminate war through the air bombing of the enemy's vital centers and targets by the bombers of the independent air force. He claimed that the air force should entirely neutralize or destroy the enemy by directly penetrating the enemy's nerve center and attacking it. However, while Douhet put stress on only strategic bombing and was not concerned with the air defense forces, Mitchell classified air forces into three categories: the bomber, the fighter, and the attacker, and he pointed out that each category of air forces has a certain role. He emphasized the role of the fighter that can destroy the enemy's aircraft and defend friendly forces during the engagement in the air in the process of air bombing. But, Mitchell also had no question that penetrating the enemy's territory and conducting strategic bombing are the basis of air strategy.[43]

Hugh Trenchard, who is called the father of the British Air Force, also recognized that air power should be employed offensively. He asserted that air power should continue the offensive operations because the enemy is overwhelmed with psychological nervousness by just the appearance of aircraft in the air of battlefield. He proposed four principles for employment of air power in his book, *The Principles of Air Power on War*,

[39]Douhet, *Command of the Air*, 16.

[40]Ibid., 28–31, 52–55.

[41]Ibid.

[42]Ibid., 19–24.

[43]Changhee Park, *On Military Strategy* (Seoul: Planetmedia, 2013), 315–321.

published in 1945: first, acquiring air superiority and maintaining it continuously; second, conducting strategic bombing against the means of production and the transportation facilities in the enemy rear; third, protecting supply and reinforcement required for the battle; and fourth, attacking the enemy's supply. Though Trenchard, like Douthet and Mitchell, also accepted that strategic bombing is the pivotal role of air power, he stressed the balance between the strategic bombing mission and the support mission for the army and the navy. However, all of the three early air strategy theorists emphasized the offensive employment of air power and had a common view that the air force is intrinsically an offensive power in comparison with other forces.[44]

The early air strategy theories that emphasized the offensive employment of air power and the paralysis of the enemy's war capability through strategic bombing have been continued until today. Especially, John Boyd and John Warden, colonels of the U.S. Air Force, enhanced the early air strategy theories and presented air strategy theories that stress the strategic paralysis of the enemy's command and control system. Boyd argued that one should disrupt the enemy's command structure by making intensely fluid and threatening situations to which the enemy cannot respond, and Warden argued that one should paralyze the enemy's command line through the parallel attack against the enemy's main strategic center of gravity and operational center of gravity. However, these two arguments have a resemblance in terms of the focus of the offensive employment of air power.[45]

Philip Meilinger, another colonel of the U.S. Air Force, proposed the ten essentials of air power in his book, *10 Propositions regarding Air Power*. The third proposition is that air power is an offensive weapon. He thought that even though defense is stronger than offense in the general war theories, this logic cannot be applied in the air, where there is no limitation of pass, front lines, and fortifications, and the defensive operation in the air cannot be achieved effectively. In addition, the characteristics of the

[44]Park, *Military Strategy*, 321–25.

[45]"Air Strategy Thought," Republic of Korea Air Force Website, Republic of Korea Air Force, accessed September 30, 2016, http://www.airforce.mil.kr:8081/user/indexSub.action?codyMenuSeq=58829&siteId=airforce&menuUIType=tab.

aircraft, including speed, range, flexibility, and ubiquity, give offensive capability to air power; thus, the principle that "the best defense is a good offense" is applied to air war.[46]

Therefore, from the early air strategy theories to the current air strategy theories, air strategy theorists have provided historically the common perspective that air power should be employed in fundamentally offensive ways, and air power cannot be used effectively if it is employed defensively. These air strategy theories have been reflected in the actual employment of air power in the modern warfare, and the air forces in modern warfare have been operated offensively by making the best use of the intrinsic merits of air power.

D. POTENTIAL EXPLANATIONS AND HYPOTHESES

This research attempts to evaluate the following three hypotheses:

- JASDF's strategy is evolving from "defensive defense" to "offensive defense."
- The drivers that influence the JASDF's strategic evolution are external factors such as China and North Korea threats, domestic factors such as the conservative swing of Japanese politics, and the intrinsically offensive nature of air power.
- Among the aforementioned factors, the strongest driver of the JASDF's strategy evolution is the modernization of the People's Liberation Army (PLA), especially the People's Liberation Army Air Force (PLAAF).

Therefore, the dependent variable of this research is the evolution of JASDF's strategy, and the independent variables are the following four: the modernization of the PLA, North Korea's nuclear weapon and ballistic missile development, Japanese conservative swing, and the offensive nature of air power.

As noted in the literature review, there is debate on whether the JASDF's strategy is offensive or defensive. The assumption of the first hypothesis is that JSDF's strategy is basically defensive in the big picture because JSDF's strategy is based on the principles

[46]Phillip S. Meilinger, *10 Propositions Regarding Air Power* (Montgomery, AL: School of Advanced Airpower Studies, 1995), 14–19.

of an exclusively defensive security policy, and it pursues self-defense. The strategy of the JSDF does not have aggressive goals challenging the status quo, such as invading the territory of another country or enforcing change of behavior. Japan has passive goals, which are the maintenance of the status quo to protect their territory and sovereignty. However, the first hypothesis is that the JASDF has shifted from defensive defense to offensive defense to achieve the overall goals of the JSDF. The research of this thesis will focus on this question.

This research will propose and evaluate four factors as the independent variables for the JASDF's strategy evolution. As noted in the literature review, many scholars, including Hughes, suggest Chinese and North Korean threats as external factors of the JSDF's evolution. Supporting this assessment, the main threats presented in the NDPG are China and North Korea, and the other potential conflict in Northeast Asia with Russia and South Korea is rarely emphasized. Therefore, this research focuses on Chinese and North Korean threats as two external factors.

This research also focuses on the conservative swing of Japanese leadership and the public as a domestic factor. The conservative swing of Japanese politicians and the support of the Japanese people has been a factor pushing an amendment to the pacifist constitution, the Self-Defense Forces Law, and other security-related legislation. So, this research assumes that the Japanese leadership has provided the validity of legislative revision and effort of military normalization through the change of JASDF's role and the evolution of the JASDF's strategy, considering it is the most aggressive power among the military branches.

The last independent variable is the offensive nature of air power. This factor is based on the assumption that one military branch's strategy is affected by the environmental nature and technological characteristics of the branch. Since air strategy first appeared, the principle that air power should be employed on offense has predominated. As discussed in the last section of the literature review, air strategy thinkers have argued that the defensive employment of air power is a waste of forces because air power has the least limitation of time, space, speed, and environment, and the surprise attack and air bombing are the most effective ways to destroy the enemy's

combat power and morale. These claims have been strengthened by the advent of precision munitions, whose effectiveness has been demonstrated in modern war through the Gulf War, the Kosovo War, the Afghanistan War, and the Iraq War.

Consequently, many countries increasingly feature the offensive employment of air power in their air force doctrines. In contrast, Japan had refrained from aggressive employment of air power due to the principle of an exclusively defensive security policy. But such a posture is at odds with the lessons of air power operation in modern war and the trend of technological development. Thus, this research (specifically, Chapter III) examines how much the offensive nature of air power drives the offensive evolution of JASDF's strategy.

Among these four factors, this research further considers which factor has had the greatest impact on the evolution of the JASDF's strategy. The hypothesis to be tested in this thesis is that the modernization of the PLA has exerted the greatest impact on the change in strategy of the JASDF. Even though this is an issue that should be verified by examining the various aspects of the JASDF's strategy change in the body of the thesis, this research begins with the focus on the PLA's modernization as the most significant driver of the JASDF's strategy evolution. This approach has been adopted because China is the most highlighted threat in the NDPG and the Japanese defense white paper, and China has constructed the most qualitatively and quantitatively powerful air force in Northeast Asia since entering the 21st century.

E. RESEARCH DESIGN

This research is a single case study focused on the strategy of the JASDF. This research uses the "before-after" research design within the single case study method. The "before-after" research design divides the single case into two sub-cases of "before" and "after" based on specific point of time, and finds the "critical junctures" and key factors that divide the single case into two sub-cases.[47] In other words, this research divides JASDF's strategy into two periods—that "before" period of "defensive defense" strategy

[47] Alexander L. George and Andrew Bennett, *Case Studies and Theory Development in the Social Science* (Cambridge, MA: MIT Press, 2005), 166–67.

and “after” period of “offensive defense” strategy—and analyzes what are the key factors of this strategy change.

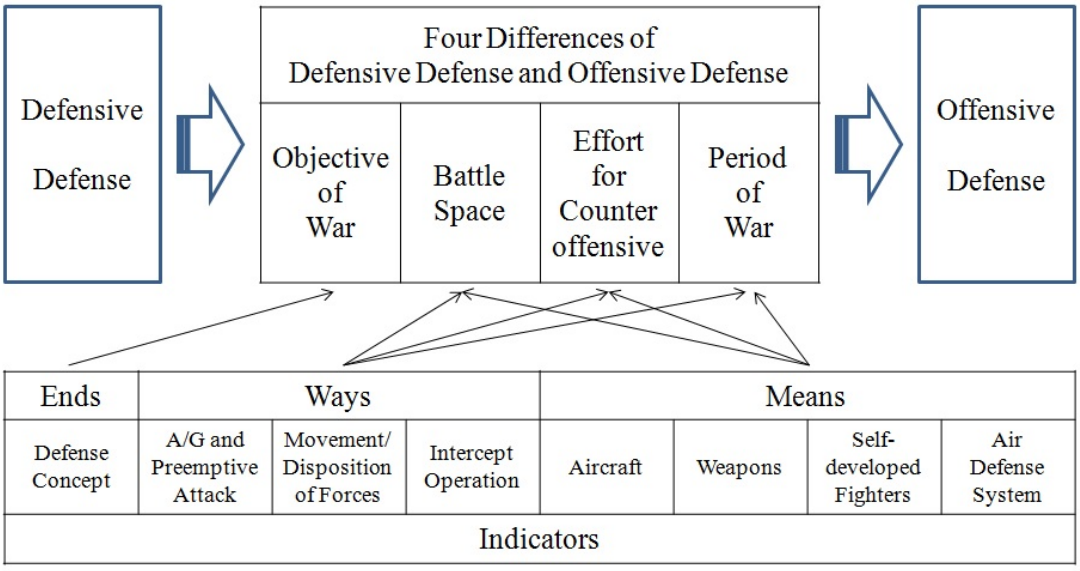
First of all, this research examines the JASDF’s strategy before the early 2000s and JASDF’s strategy after the early 2000s to analyze the evolution of JASDF’s strategy, which is the dependent variable of this thesis. The reasons for selection of the early 2000s as a critical juncture are as follows. First, Japan has changed the peripheral threat perception and JSDF’s operational concepts through several modifications of the NDPG since 2004. Second, the modernization of the PLA, which started in earnest from the middle of the 1990s, began to materialize and accelerate since the early of 2000s. Third, North Korea’s nuclear weapon and ballistic missile development capability has been extended since the middle of the 2000s. Fourth, the right-wing tendency prime ministers including Junichiro Koizumi and Shinzo Abe began ruling during this time. Fifth, the offensive employment of air power began to be greatly emphasized through the air campaigns of the Kosovo War in 1998, the Afghanistan War in 2001, and the Iraq War in 2003.

In the process of analyzing the strategy of the JASDF, this research examines the ends, means, and ways of the strategy. As examined in the literature review, a comprehensive review of the ends, means, and ways of the strategy is required in order to determine the offensive or defensive nature of the strategy. The indicator of the change in ends in this research is the change of defense concept in the NDPG, and the indicators of the change in ways are air-to-ground attack capability and the debate on preemptive attack, the movement and disposition of forces, and aggressive intercept activity in the Japan Air Defense Identification Zone (JADIZ). The indicators of the change in means are acquisitions of aircraft and weapons, development of a next generation fighter, and strengthening of the air defense system.

Based on these indicators, this research examines how the JASDF’s strategy has evolved from a “defensive defense” strategy to an “offensive defense” strategy through the four distinctions of “defensive defense” and “offensive defense” presented by Jaeyeop Kim. The indicators of each difference of “defensive defense” and “offensive defense” are depicted in Figure 1. The change of ends, which is a defense concept change,

is used to indicate of first difference, the objective of war. The changes of ways (which are air-to-ground attack capability and the debate on preemptive attack, the movement and disposition of forces, and aggressive intercept activity) and the changes of means (which are aircraft, weapons, domestically developed next generation fighters, and air defense system) combine to indicate the second, third, and fourth differences (battle space of war, effort for counteroffensive, and period of war).

Figure 1. Indicators for Defensive Defense and Offensive Defense



Next, this research analyzes how the independent variables—the modernization of PLA, North Korea's nuclear and ballistic missile threats, Japan's conservative swing, and the offensive nature of air power—affect the offensive evolution of the JASDF's strategy after early 2000s. In addition to this analysis, this research examines how much the factors influence the indicators of the ends, means, and ways of the JASDF's strategy by tabulating a scorecard (see Table 1), and seeks each factor's leverage and priority.

This research uses a variety of literature for this research process: official publications of each country, such as Japanese NDPG and Chinese Defense White Paper, researches and articles of experts, government reports, yearbooks and statistical sources

related to the military of each country. Moreover, in regard to the latest military intelligence, this research refers to reliable newspaper articles and news reports.

Table 1. Example Scorecard for JASDF's Strategy Evolution Factors

IV \ DV	Ends	Ways			Means			
	Defense Concept	A/G and Preemptive Attack	Move-ment of Forces	Intercept Operation	Aircraft	Weapon	New Fighter	Air Defense System
PLA Modernization	S	W	S	…	…	…	…	…
N.K. Nuclear/Missile	S	S	W	…	…	…	…	…
Conservative Swing	S	S	…	…	…	…	…	…
Air Power Nature	S	…	…	…	…	…	…	…

S: Strong or W: Weak

F. THESIS OVERVIEW

This thesis is composed of five chapters. In the introduction, this thesis presents the research question, hypothesis, significance, and literature review related to offensive and defensive of strategy and the JSDF's evolution.

In the second chapter, this thesis examines how the JASDF's strategy has evolved. First, the chapter determines the JASDF's strategy before the early 2000s by examining the ends, means, and ways of the JASDF's strategy. Next, it analyzes the changes of the JASDF after the early 2000s, examining the indicators of the each component of strategy, using the same measures of ends, means, and ways. Finally, this chapter evaluates the current strategy of the JASDF in terms of the distinctions between "defensive defense" and "offensive defense."

In the third chapter, this thesis analyzes each independent variable, to evaluate which have had the most influence in changing the JASDF's strategy. As explained in the previous hypotheses part, the independent variables of the JASDF's strategic evolution to be verified in this research are modernization of the PLA, North Korea's nuclear and ballistic missile threats, the conservative swing of the Japanese leadership and public, and

the offensive nature of air power. This chapter examines how each independent variable has influenced the evolution of the JASDF's strategy.

The fourth chapter judges how much the independent variables have affected each indicator of the dependent variable by using the scorecard, which is proposed in the research design part. This chapter finally determines what independent variable is the most significant driver of the JASDF's strategic evolution. In addition, through the results of research, this chapter defines the present pattern and anticipates the future direction of the JASDF's strategy.

The concluding chapter summarizes the contents of the research, evaluates the hypotheses, and proposes the implications for Northeast Asian security that are inferred from this study.

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II. EVOLUTION OF JASDF'S STRATEGY

A. BACKGROUND OF JSDF'S STRATEGY

After Japan's defeat in World War II, the basic direction and policy stance of the General Headquarters of the Supreme Commander for the Allied Powers (GHQ), which was organized as the occupying government in Japan, were "demilitarization" and "democratization."[48] For the two basic policy directions, the GHQ first carried out amendment of the Japanese constitution, and the new Japanese constitution was completed on the principle of "the sovereignty of people," "the symbol emperor system," "abandonment of the right of belligerency and the armed forces under permanent pacifism," and "guarantee of fundamental human rights." The new constitution was published on April 17, 1946.[49]

In the constitution, Article 9 set the Japanese defense policy direction after the war. Paragraph 1 of Article 9 is "Aspiring sincerely to an international peace based on justice and order, the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as a means of settling international disputes," and paragraph 2 is "In order to accomplish the aim of the preceding paragraph, land, sea and air forces, as well as other war potential, will never be maintained. The right of belligerency of the state will not be recognized."[50] Japan gained the new constitution called the "pacific constitution" by renouncing prosecution of war and possession of armed forces and repudiating the right of belligerency through Article 9. This new constitution has prescribed not only the Japanese security and defense policy but also every feature of state development, and affected not only the East Asian security but also the entire international security environment.

[48]Jangmin Kim, "A Study on the Japan's Defense Policy in the 21st Century: Focusing on 'the Active Defense' Policy" (doctoral dissertation, Hanyang University, 2008), 21.

[49]Ibid., 22.

[50]"Japan: Article 9 of the Constitution," Library of Congress, accessed August 1, 2016, https://www.loc.gov/law/help/japan-constitution/article9.php.

Despite the pacific constitution, the GHQ felt the necessity of Japan's self-defense capability due to the beginning of the Cold War, and the Japanese government established the "National Police Reserve," consisting of 75,000 men, in December 1950.[51] After that, the National Police Reserve reinforced the organization and the fighting power, and Japan launched the "National Security Board" and established the "National Security Force," which was the forerunner of the Japan Ground Self-Defense Force (JGSDF), and the "Coastal Safety Force," which was the forerunner of the Japan Maritime Self-Defense Force, in August 1, 1952.[52] Since the implementation of the Establishment of Defense Agency Act and the Self-Defense Force Act in July 1, 1954, the National Security Board was reorganized as the "Defense Agency," and the JSDF was inaugurated with the same land, sea, and air forces as today, by establishing the JGSDF, JMSDF, and JASDF.[53]

Even though it is difficult to define the JSDF's formal strategy because the JSDF is not the formal military force under the pacific constitution, the principle of an exclusively defense-oriented policy formulated in the 1970s is regarded as the Japanese formal defense strategy. As Yasuhiro Nakasone's, head of the Defense Agency in 1970, argument, the independent defense theory and the continuous increase of the defense force and the budget, received criticism—both internally and externally—that there was a rebirth of Japanese militarism, Japan first published a defense white paper in 1971 and formally communicated the defense strategy to reduce this criticism.[54] According to Japan's defense posture concept presented by the Defense Agency at the time, the Defense Agency revealed that Japan would stick to the defensive strategy by exercising its right to self-defense as a sovereign country if there were an invasion by foreign powers.[55] After Japan stipulated that "the principle object of Japan's defense is

[51]Kim, "Study on the Japan's Defense Policy in the 21st Century," 31.

[52]Ibid., 33.

[53]Ibid., 33–34.

[54]Yoongu Jang, "Analysis on Normalization of Japan: Focused on Military Response Strategy of Korea" (master's thesis, Hannam University, 2006), 57, http://dlps.nanet.go.kr/DlibViewer.do?cn=KDMT1200650497&sysid=nhn.

[55]Ibid.

exclusively defense-oriented policy" in the defense white paper of 1971, Japan has been using the principle of an exclusively defense-oriented policy as the basic military strategy.[56] According to the Japanese defense white paper, the principle of an exclusively defense-oriented policy sought by the JSDF is as follows.

> The exclusively defense-oriented policy means that defensive force is used only in the event of an attack, that the extent of the use of defensive force is kept to the minimum necessary for self-defense, and that the defense capabilities to be possessed and maintained by Japan are limited to the minimum necessary for self-defense. The policy including these matters refers to the posture of a passive defense strategy in accordance with the spirit of the Constitution.[57]

The meaning of the principle of an exclusively defense-oriented policy can be interpreted as follows. First, the JSDF does not carry out a preemptive attack before an enemy's attack. Second, the JSDF uses a necessary minimum physical force for self-defense to defend against an enemy's attack. Third, the JSDF is not equipped with offensive strategic weapons beyond the concept of self-defense. Fourth, the JSDF sticks to a defensive defense strategy based on the pacific constitution. This principle of an exclusively defense-oriented policy has been the keynote of the JSDF's policy and strategy with the pacific constitution.[58]

B. JASDF'S STRATEGY BEFORE THE EARLY 2000S

The JSDF's strategy based on the principle of an exclusively defense-oriented policy has been reflected in the JASDF's strategy and policy as it is. Although the majority of air strategy theorists have historically argued that the basic operational principle of air power is the offensive operation,[59] the JASDF has been operating its air power defensively in accordance with the pacific constitution and the principle of an exclusively defense-oriented policy.

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[56]Jang, "Analysis on Normalization of Japan," 57.

[57]Japanese Ministry of Defense, *Defense of Japan 2015* (Tokyo: Ministry of Defense, 2015), 137.

[58]Jang, "Analysis on Normalization of Japan," 57–58.

[59]Douhet, *Command of the Air*, 25; Meilinger, *10 Propositions Regarding Air Power*, 14–19.

First, according to this principle and the "Basic Defense Capability" concept in the 1976 and 1995 NDPG,[60] which emphasize minimum-necessary forces, the JASDF's strategic ends prior to the 2000s were absolutely defensive in nature—to defend against the enemy invading the Japanese mainland through the air. The "Basic Defense Capability" concept, which was first applied in the 1976 NDPG and maintained without significant changes until the 1995 NDPG, means that the JSDF possesses the appropriate and efficient defense capability to prevent an enemy's attack, but nuclear deterrence relies on the alliance with the United States.[61] It also means that the JSDF seeks early termination of any situation by responding immediately to an enemy's indirect attack and by repelling as soon as possible an enemy's direct attack by operating the defense forces synthetically and systematically.[62] For the "Basic Defense Capability," the 1976 NDPG states that the JASDF should have aircraft control, warning, and surveillance capability in the Japanese airspace; the response ability through fighters and air defense systems against illegal air intrusion; and air support, search, transport, and early warning capability against an enemy's air assault and landing operation.[63] This "Basic Defense Capability" concept and the role of the JASDF were reflected in the 1995 NDPG without major changes. From the "Basic Defense Capability" concept in the 1976 and 1995 NDPG, the JASDF's strategic ends until the 1990s were quite limited to the passive goal of the mainland's defense, confined to the detection and warning against indirect and direct intrusion through the Japanese airspace and repelling it.

In terms of strategic ways, the air power mission can be classified into the air-to-air mission and the air-to-ground mission in accordance with the type of engagement target and the location of the target.[64] The air-to-air mission is the aerial fight mission against the enemy's fighter or supporting aircraft, and it is more defensive than offensive

[60]Japanese Ministry of Defense, *Defense of Japan 2014* (Tokyo: Ministry of Defense, 2014), 139–41.

[61]Japanese National Defense Council, *National Defense Program Guideline 1976* (Tokyo: National Defense Council, 1976), http://www.ioc.u-tokyo.ac.jp/~worldjpn/documents/texts/docs/19761029.O1E.html.

[62]Ibid.

[63]Ibid.

[64]Kim, "Study on the Offensive Character of the People's Liberation Army's Air Power," 18.

in nature because its purpose is primarily limited to attacks on the enemy's aircraft.[65] On the other hand, the air-to-ground mission is quite offensive because it mainly equips bombs or missiles and penetrates into the near border or the enemy's territory and strikes directly in the deep area.[66]

Due to the these characteristics, the JASDF completely excluded air-to-ground attacks and preemptive air strikes, and focused on a mission to intercept the approaching enemy's air power within Japanese airspace passively. Air-to-ground capability was regarded as conflicting with the pacific constitution and the principle of an exclusively defense-oriented policy, so it had exploited only the air-to-air mission and air defense system as the strategic ways to defend against the enemy's intrusion. Certain limited air-to-ground capability possessed by the JASDF was merely the air-to-ground support operation concept to fight off the enemy's approach and landing operation.

In addition, a country that uses air power as a means of preemptive attack has the offensive air strategy in terms of desire to achieve the effect of sudden attack and to secure the initiative.[67] However, the JASDF had thoroughly denied the preemptive use of air power to avoid an offensive air operation, and it had confined air power to being a means of confrontation against the enemy that had already invaded the Japanese territory.

In terms of strategic means, the JASDF did not possess the air-to-ground mission fighter and weapon, aerial refueling tanks supporting long-range projection capability during this period. As stated previously, in strategic ways, the JASDF had completely excluded the air-to-ground capability before the 2000s. Thus, the JASDF's fighters had highly limited air-to-ground capability before 2000 when F-2 fighters entered service. The JASDF had 160 F-15J/DJ, 40 F-1, and 70 F-4EJ in 1999.[68] Among these fighters, the F-15J was the air-to-air mission fighter that was designed for only air-to-air operation. Furthermore, even though some of the F-1 fighters and F-4EJ fighters could support the

[65]Kim, "Study on the Offensive Character of the People's Liberation Army's Air Power," 19.

[66]Ibid.

[67]Ibid., 16–17.

[68]Institute for Strategic Studies and International Institute for Strategic Studies (IISS), *The Military Balance 1999* (London: International Institute for Strategic Studies, 1999), 193.

air-to-ground mission, it was only for Close Air Support (CAS) operation by using machine guns or small bombs against an enemy's landing on the Japanese mainland, not for the precision strategic bombing. Additionally, the JASDF did not possess the precision air-to-ground bomb and the air-to-ground missile, which can destroy the enemy's high payoff targets (HPT). Most of the JASDF's weapons were defensive weapons to repel the enemy's approach. Among these were the AAM-1, AAM-3, AIM-7, and AIM-9 air-to-air missiles for shooting down the enemy's aircraft intruding the airspace, ASM-1 and ASM-2 air-to-ship missiles for sinking the enemy's ship invading the sea, and anti-aircraft artillery (AAA) and Patriot Advanced Capability-2 (PAC-2) surface-to-air missiles.[69] The JASDF also did not possess the long-distance power projection means such as the aerial tanker and the long-range cargo until the 1990s. Therefore, also from the characteristics of the strategic means, the JASDF strategy had been quite limited to the defensive strategy that defends the airspace within the mainland until the 1990s.

C. CHANGE OF ENDS AND DEFENSE CONCEPT

The Japanese defense posture concept has changed through three amendments of the NDPG in 2004, 2010, and 2013. The first security and defense objective in the 2004 NDPG was "to prevent any threat from reaching Japan, and in the event that it does, repel it and minimize any damage," which was similar to the objective of the former NDPGs.[70] However, added to this, the 2004 NDPG specified the second objective "to improve the international security environment so as to reduce the chances that any threat will reach Japan in the first place."[71] Thus, though the defense concept in the 2004 NDPG maintained the effective aspects of the former "Basic Defense Capability" concept, it stressed independent and proactive activities to cope with various threats and international security situations.[72] Moreover, by specifying not only preventing and repelling the enemy's penetration but also reducing the enemy's opportunity to access

[69]IISS, Military Balance 1999, 193.

[70]Government of Japan, *National Defense Program Guidelines, FY 2005* (Tokyo: 2004), 3.

[71]Ibid., 3.

[72]Ministry of Defense, *Defense of Japan 2014*, 139–41.

Japan, the 2004 NDPG alluded to the possibility of more active and preemptive action than before.[73] In other words, Japan's security and defense strategic ends transcended the traditional mainland defense goal as of the 2004 NDPG, and reflected Japan's will to be involved in and engaging actively regional and international security matters, and to raise the political status of Japan.

In addition, in the 2010 NDPG, the "Basic Defense Capability" concept was changed to the "Dynamic Defense Force" concept.[74] According to the 2010 NDPG, it stressed that the JSDF should possess not only the specific level of defense force but also the reliable deterrence capability and the defense capability that can contribute to the stabilization of the security around Japan because the warning time of contingency was shortened due to the increase in the surrounding threat and the development of military technology.[75] For this objective, the 2010 NDPG also emphasized that the JSDF should improve the level of equipment, increase the operational tempo, and possess dynamic deterrence power and reflect these changes to operation.[76] By reflecting these elements, Japan transitioned from the former "Basic Defense Capability" concept to the developed "Dynamic Defense Force" concept, which sought to possess more dynamic and active capacity and more flexible, expedited, and mobile strategy based on advanced military technology.[77]

The 2013 NDPG went one step further and adopted the "Dynamic Joint Defense Force" concept to build a joint force that can flexibly respond to various security threats.[78] In migrating from the "Dynamic Defense Force" concept to the "Dynamic Joint Defense Force" concept, the 2013 NDPG emphasizes the integrated operational capability of the JSDF's land, sea, and air power and focuses on the mobile and rapid

[73]Ministry of Defense, *Defense of Japan 2014*, 139–41.

[74]Ibid.

[75]Government of Japan, *National Defense Program Guidelines for FY 2011 and Beyond* (Tokyo: 2010), 6–7.

[76]Ibid., 7.

[77]Ministry of Defense, *Defense of Japan 2014*, 139–41.

[78]Ibid.

deployment of the JSDF for each security environment and condition.[79] It also aims to strengthen the deterrence power and the response capability against the surrounding threat by the qualitative and quantitative development of the JASDF and the enhancement of joint operation capability.[80]

The strategic ends and the policy goal of each military branch are set according to the military strategy and defense policy of the country. Thus, from the changes of the JSDF's defense concept through the amendments of the NDPG, the ends of JASDF's strategy have also gradually relinquished the previous passive and defensive mainland defense oriented objectives, instead aiming the JASDF to pursue active, rapid, and flexible response against a variety of threats, based on advanced technology and the weapon systems to secure the favored and stable political and military status.

D. CHANGE OF WAYS

This section examines the changes in JASDF's strategic ways in terms of the air-to-ground attack capability and debate of preemptive attack, movement and disposition of forces, and the intercept operation in JADIZ.

1. Air-to-Ground Attack Capability and Debate of Preemptive Attack

The most significant change from the former absolutely defensive strategy, which was based on the pacific constitution and the principle of an exclusively defense-oriented policy, was the acquisition entering the 2000s of long-distance strike capability through the acceptance of the air-to-ground operation concept and the emergence of the debate on preemptive strike. As discussed in the previous section, even though the JASDF had some air-to-ground support ability by F-1 and F-4 fighters before the 2000s, this air-to-ground capability was the only level for blocking the enemy's landing or access to the mainland and supporting ground and maritime forces through the machine gun and small general-purpose bombs. However, Japan began to have a precision strike capability by equipping and upgrading the JDAM precision-guided bomb ability to F-2 fighter since

[79]Government of Japan, *National Defense Program Guidelines for FY 2014 and Beyond* (Tokyo: 2013), 7.

[80]Ibid.

2003 and also began to introduce the JDAM kit for that capability.[81] In addition, selecting the F-35 stealth fighter, which can conduct precision bombing after covert infiltration, also strengthened the JASDF's air-to-ground capability. The JASDF conducted its first live bombing exercise by F-2 fighter in 2007,[82] and it accomplished the JDAM bombing demonstration of F-2 fighter at the JSDF's ceremony in 2013. So, the JASDF is publicly strengthening the air-to-ground capability, which was considered contrary to the nature of the JSDF and excluded before.[83]

Furthermore, the debate on preemptive strike began to occur in Japan since the 2000s with the expansion of the air-to-ground capability. Although Japan does not yet formally acknowledge the possibility, the Japanese hardliners have argued to secure preemptive attack capability to be able to respond whenever North Korea conducts nuclear weapon or ballistic missile tests.[84] In 2003, Shigeru Ishiba, the minister of defense at the time, mentioned that there is a need to consider possession of strike capability against the North Korean missile bases,[85] and the Japanese ruling party lawmakers argued that Japan should have preemptive strike ability at the self-defense level while they prepared a new defense policy.[86] At the Committee on Security of the Liberal Democratic Party (LDP) in March 24, 2016, Imazu Hiroshi, the chairman of Research Commission on Security of LDP, argued that it is necessary to discuss plans for striking North Korean bases because North Korea can fire several missiles simultaneously, and other lawmakers were in favor of a discussion on pre-emptive strike

[81]Patricia J. Parmalee, "JDAM Kits to Be Installed on Japan's F-2s," *Aviation Week & Space Technology*, September 1, 2013, http://aviationweek.com/awin/jdam-kits-be-installed-japans-f-2s.

[82]"F-2 Attack Fighter, Japan," Airforce-Techology.com, accessed August 6, 2016, http://www.airforce-technology.com/projects/f2/.

[83]"Japan F-2 JDAM Bombing," JapanPoliceSWAT, September 2, 2013, https://www.youtube.com/watch?v=qbjrKPqMC5s.

[84]Changhee Nam and Jongsung Lee, "*Bukhanui haekgwa missile wihyeopae daehan Ilbonui daeeung* [Japan's Response to North Korean Nuclear and Missile Threat]," *National Strategy* 16, no. 2 (2010): 80, http://www.sejong.org/boad/bd_news/1/egofiledn.php?conf_seq=15&bd_seq=519&file_seq=1393.

[85]Ibid.

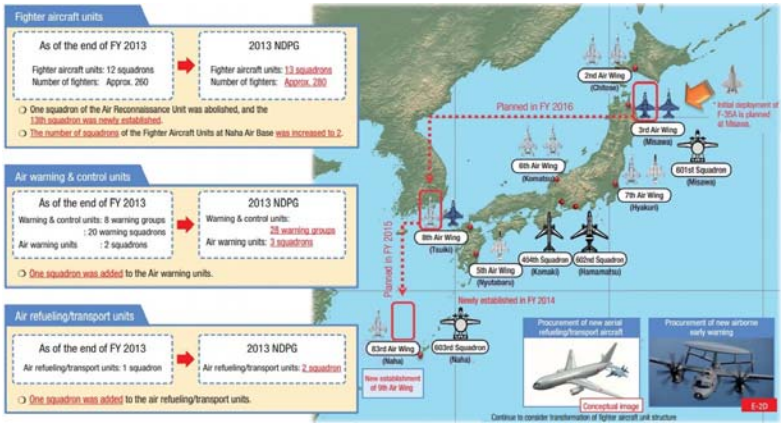
[86]Yuka Hayashi, "Japan's Military Moves toward Pre-emptive Strike Capability," *Wall Street Journal*, May 30, 2013, http://www.wsj.com/articles/SB10001424127887324412604578514724087677686.

plans.[87] General Nakatani, Japanese Minister of Defense, supported the argument by saying that attacking an enemy's missiles is self-defense.[88] Furthermore, the amended Armed Attack Situation Response Act, which has been implemented since March 29, 2016, posed the possibility of a preemptive attack by specifying that Japan can exercise the right of collective self-defense even before an enemy's attack if there is an obvious threat.[89] Considering that most pre-emptive attacks in modern warfare have been conducted by missiles or air strikes, the JASDF would have a leading role in any preemptive strike on nuclear and missile threats to Japan.

2. Movement and Disposition of Forces

Entering the 2000s, the JASDF's missions in the Southwest region of Japan including the East China Sea rapidly increased, and the JASDF needed to strengthen additional air power in Okinawa. Thus, the JASDF established the 9th fighter wing in Okinawa Naha base in 2015 by supplementing one fighter squadron (304th Fighter Squadron) with another existing fighter squadron (204th Fighter Squadron) and abolishing the 83rd Air Wing as depicted in Figure 2.

Figure 2. Disposition Plan of JASDF's Fighter Squadrons[90]



[87] Janghoon Lee, "Japan, Seething Preemptive Attack Argument against North Korean Missile Base," *Weekly Donga*, April 6, 2016, http://weekly.donga.com/3/all/11/530939/1.

[88] Ibid.

[89] Ibid.

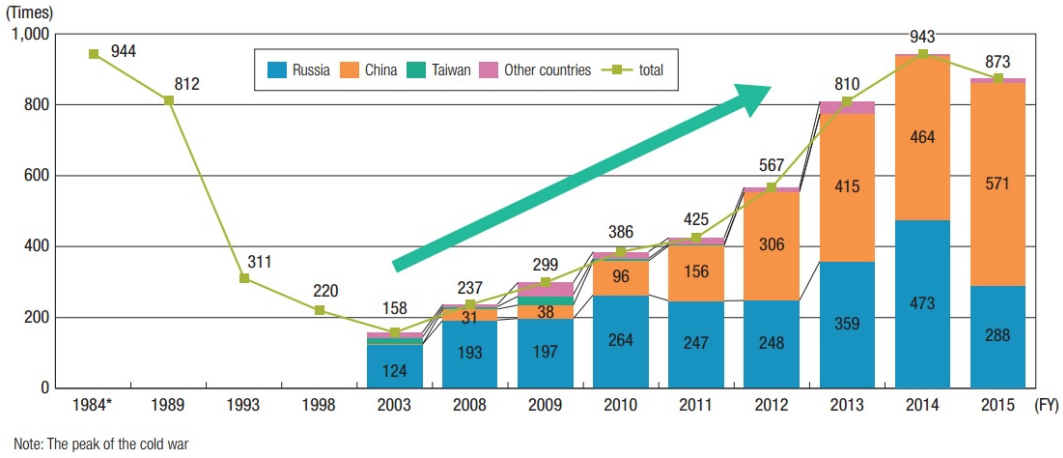
[90] Source: Japanese Ministry of Defense, *Defense of Japan 2014* (Tokyo: Ministry of Defense, 2014), 163.

This was the first new fighter wing establishment since the 8th fighter wing establishment in 1964.[91] This movement is to deploy the forces in the direction of the East China Sea and to pursue more rapid and aggressive intercept missions. The JASDF is trying to achieve air superiority, effective deterrence power, and flexible response against the various threats in the region through the change.[92]

3. Intercept Operation in JADIZ

The JASDF has been strengthening its interception activities in the JADIZ. The JASDF's scramble mission, which is a warning and emergency takeoff mission of the air force for identifying and intercepting against intrusion of the territorial airspace, had rapidly decreased after end of Cold War. Most of the JASDF's scramble missions of the Cold War period were a response to the Soviet tracks. The highest number of these scramble missions was recorded in 1984 and began to decline sharply since just before the collapse of the Soviet Union in 1989, as shown in Figure 3.[93]

Figure 3. Number and Breakdown of Scrambles since the Cold War[94]



[91]Japanese Ministry of Defense, *Defense of Japan 2015*, 228.

[92]Ibid.

[93]Ibid., 224.

[94]Source: Japanese Ministry of Defense, *Defense of Japan 2016* (Tokyo: Ministry of Defense, 2016), 286.

However, missions began to increase again since 2003 and increased six times from 158 cases in 2003 to 943 cases in 2014.[95] The 943 scramble missions in 2014 were almost the same number of 944 scramble missions in 1984. Through the defense white paper, Japan has stressed that it will continue to restrict itself to intercept activity against invading of airspace in accordance with the international law and the Self-Defense Force Law in the situation that the conflict with China is amplifying in the East China Sea.[96]

E. CHANGE OF MEANS

This section examines the changes in JASDF's strategic means in terms of aircrafts, air weapons, domestically developed fighters, and air defense system.

1. Type of Aircraft

Entering the 2000s, the JASD's composition of aircraft type has changed from the air-to-air intercept fighter oriented composition to the variety of aircraft type composition including the air-to-air fighter, the air-to-ground fighter, and supporting aircraft by introducing various mission aircraft, and the JASDF has constructed the means that can realize the "Joint Dynamic Defense Force" concept. First, examining the fighter, the JASDF weeded out F-1 fighters and deployed domestically developed F-2 fighters entering the 2000s, and the Japanese government announced acquisition of next-generation F-35 stealth fighters in 2011. The JASDF developed the F-2, which is multi-role fighter similar to the F-16, by technical transfer method from the United States, and the F-2 entered service in 2000, and 92 F-2 fighters are being operated now.[97] The F-2 is designed to be equipped with the machine gun, the general-purpose bomb, the cluster bomb, the rocket gun, etc. The operating system of the JDAM precision-guided bomb attached to the F-2 since 2003 made it possible to conduct precision-guided attacks.[98] In addition, in 2017 Japan is scheduled to begin introducing a total of 42 F-35s, one of the

[95]Japanese Ministry of Defense, *Defense of Japan 2015*, 224.

[96]Ibid.

[97]"Japan's F-2 Support Fighter," Lockheed Martin, accessed August 6, 2016, http://lockheedmartin.com/us/news/features/2015/C1JapanF2.html.

[98]"F-2 Attack Fighter, Japan," Airforce-Techology.com, accessed August 6, 2016, http://www.airforce-technology.com/projects/f2/; Parmalee, "JDAM Kits to Be Installed on Japan's F-2s."

newest and the highest performance fighters in the world. Above all, the combination of the covert penetration capability based on stealth and the air-to-ground precision strike capability of the F-35 is regarded as a strategic asset that can destroy or neutralize key targets in its neighbors beyond the traditional principles of exclusively defense-oriented policy.[99]

Moreover, the JASDF's formal air-to-air intercept mission has become more varied by developing, purchasing, and deploying the E-767 Airborne Warning and Control System (AWACS), KC-767 air-to-air tankers, unmanned aerial vehicles (UAV), and domestically developed C-2 large strategic cargo. The JASDF introduced four E-767 AWACS by direct purchase method from 1998 to 2000, operating them since May 2000. Also, the JASDF decided to upgrade the avionics of the E767 in May 2006, and the program is now progressing.[100] Furthermore, the JASDF decided to purchase four E-2D hawkeye new Airborne Early Warning (AEW) aircraft in 2015.[101]

The JASDF contracted to purchase KC-767 aerial refueling tanker with Boeing in 2003 and deployed four KC-767s from 2008 to 2010.[102] Through the purchasing of tankers, the JASDF possesses rapid and flexible response capability against the situation of an enemy's intrusion in the East China Sea by increasing the endurance time of interceptors such as the F-15J. Moreover, the JASDF now has long-distance power projection capability through the air-refuel operation by tankers. As General Makatani, Minister of Defense, publicly announced in October 2015, Japan will introduce the KC-46 Pegasus, making Japan the first foreign country for which the United States is now developing the next tanker. The JASDF's long-distance power projection capability and

[99]Hughes, *Japan's Foreign and Security Policy under the 'Abe Doctrine'*, 34.

[100]"Boeing 767 AWACS Airborne Warning and Control Aircraft, Japan," Airforce-Techology.com, accessed August 12, 2016, http://www.airforce-technology.com/projects/767awacs/; John Keller, "Boeing to Continue Process of Upgrading Electronics in Four Japan AWACS Surveillance Aircraft," Military & Aerospace, February 16, 2015, http://www.militaryaerospace.com/articles/2015/02/japan-awacs-upgrades.html.

[101]Stephen Trimble, "Japan Raises E-2D Acquisition to Four Aircraft," Flight Global, June 2 2015, https://www.flightglobal.com/news/articles/japan-raises-e-2d-acquisition-to-four-aircraft-413008/.

[102]Boeing Defense, Space & Security, "KC-767 International Tanker," Boeing, accessed August 12, 2016, http://www.boeing.com/assets/pdf/bds/globaltanker/docs/tanker_overview.pdf.

the endurance time of aircrafts will be continuously increased through the strengthening of aerial refueling forces.[103]

Japan began to carry forward the small air-launched UAV, named TACOM, development program by the Ministry of Defense since 2004, and the development and production is now progressing, such as starting test flights sponsored by JASDF since 2008.[104] Though the TACOM is being developed for the purpose of surveillance and early warning against threats invading the Japanese territory, it can be modified as a cruise missile and used for assault or air strike because TACOM is designed as an air-launched multi-purpose stealth UAV.[105] In addition, Japan decided to introduce the RQ-4 Global Hawk UAV in 2014, and the U.S. Department of State permitted the sale of three RQ-4s to Japan in November 2015.[106] Through this strengthening of UAV forces, the JASDF pursues expeditious and active prevention and repelling against an intruding threat by expanding detection and early warning range surrounding the mainland.

Furthermore, Japan began to develop the C-2 long-distance cargo reaching 10,000 km of cruising radius since 2007 and succeeded in the first test flight in 2010. The C-2 was first delivered to the Ministry of Defense on June 30, 2016, and ten C-2s will enter service by 2018.[107] The JASDF now possesses long-distance power projection capability that can transport and deploy the JSDF outside of the mainland through the long-distance cargo.

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[103]James Drew, "Japan Chooses Boeing KC-46, Halting Airbus Tanker Winning Streak," FlightGlobal, October 23, 2015, https://www.flightglobal.com/news/articles/japan-chooses-boeing-kc-46-halting-airbus-tanker-wi-418170/.

[104]Hirofumi Doi, "TACOM – Air-Launched Multi-Role UAV," International Council of Aeronautical Science, accessed August 13, 2016, http://www.icas.org/ICAS_ARCHIVE/ICAS2004/PAPERS/075.PDF; "Japan JASDF 'TACOM' – New Air-Launched Multi-Purpose Stealth UAV – Prototype Flight&Landing Test," December 16, 2009, https://www.youtube.com/watch?v=RmysvZ2VfAA.

[105]"Unmanned System Channel," Defense Update, accessed August 13, 2016, http://defense-update.com/newscast/channels/unmannedsystemsnews_tmp.html.

[106]Lara Seligman, "US Approves $1.2B Global Hawk Sale to Japan," *Defense News*, November 23, 2015, http://www.defensenews.com/story/defense-news/2015/11/23/us-approves-12b-global-hawk-sale-japan/76256262/.

[107]"Kawasaki C-2 Military Transport Aircraft, Japan," Airforce-Techology.com, accessed August 13, 2016, http://www.airforce-technology.com/projects/kawasaki-xc-2-military-transport-aircraft/; Tadayuki Yoshikawa, "*国産最大の航空機、空自へ　写真特集・川崎重工 C-2 量産初号機* [The Domestic Largest Aircraft, Photo of First Aircraft of ASDF's Kawasaki C-2 Mass Production]," Aviation Wire, July 3, 2016, http://www.aviationwire.jp/archives/93783.

2. Type of Weapon

The characteristics of the JASDF's air weapon also changed from the airspace and near sea defense oriented weapons, such as air-to-air missiles and air-to-surface missiles, to various weapons that can back up the strategic goals and operation concept. Such weapons include the JDAM precision guided bomb.

Japan has been using various domestically developed air weapons based on developed technology. Japan developed and deployed the AAM-4, similar to the U.S. AIM-120, and AAM-5; similar to the U.S. AIM-9, for air-to-air weapon; and the ASM-1 and ASM-2 air-to-ship missiles for defending the enemy's maritime penetration. As previously stated, these JASDF's air-to-air and air-to-ship weapons are forced to take a defensive nature due to their characteristics.

However, the JASDF saw the necessity of active counter-attack capability against a variety of threats rising in neighboring countries since entering the 2000s; the JASDF decided to introduce the JDAM air-to-ground precision guided bomb kits in 2003 and acquired and deployed it.[108] The JASDF will use the acquired JDAM kit by mounting in it the 500 lb general-purpose bomb that the JASDF already holds. The JASDF thereby can conduct precision strikes to an enemy's ground target unlike its previous operational concept. However, to use JDAM, the fighter and the pilot have to penetrate into the enemy's territory and drop the bomb directly above the target because JDAM is guided by a Global Positioning System (GPS) in the process of fall after the pilot's airdrop. This is unlike the cruise missile, which can be launched at its own territory by standoff method. Therefore, the acquisition of the JDAM may signal that the battlefield pursued by the JASDF quite escaped from the mainland and expanded to the border or the enemy's territory. However, since the explosion power of 500 lb general-purpose bomb is a little limited depending on the target, it is worth noting whether the JASDF introduces the greater explosive power bomb that can mount the JDAM kit or a new kind of air weapon system.

[108]Patricia J. Parmalee, "JDAM Kits to Be Installed on Japan's F-2s," *Aviation Week & Space Technology,* September 1, 2013, http://aviationweek.com/awin/jdam-kits-be-installed-japans-f-2s.

3. Development of Next Generation Fighters

Japan is developing autonomously a fifth-generation fighter, named ATD-X Shinshin. Japan asked the United States to sell it the F-22 fighter in 2007, but the United States refused, and so Japan has felt the necessity of developing its own fifth-generation fighter.[109] So, Japan embarked on full-scale development of the new fighter by reflecting it in the budget in 2009, and Japan became the fourth nation to test-fly a homegrown stealth fighter with a successful test-flight of the self-developed F-22 on April 22, 2016.[110] Shinshin is equipped with stealth, a thrust vectoring nozzle, AESA radar, and a variety of advanced avionics, which are mounted in the most advanced fifth-generation fighters such as the F-22 and F-35. These features are intended to enable the fighter to secure air-superiority in the near-sea area, and it will replace the F-15J and F-2 in the future.[111]

Japan's Ministry of Defense also released data on the vision of the future fighter after the fifth-generation fighter on its website in August 2010. Through this, Japan presented its own concept for the sixth-generation fighter independent of other aviation-developed countries such as the United States, Russia, and China. According to the data published by the Ministry of Defense, the Japanese sixth-generation fighter called "i3" will possess advanced stealth capability and anti-stealth capability, cloud-shooting technique,[112] advanced radar, a directed energy weapon, and advanced electronic warfare capability, etc.[113] Thus, Japan has shown a willingness to acquire tactical and strategic advantage over its neighbors' next-generation fighters developed in the future.

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[109]Franz-Stefan Gady, "Japan's New 5th Generation Stealth Fighter Jet to Takeoff This Month," *Diplomat*, April 13 2016, http://thediplomat.com/2016/04/japans-new-5th-generation-stealth-fighter-jet-to-take-off-this-month/.

[110]Ayako Mie, "Japan Becomes Fourth Nation to Test-fly Homegrown Stealth Jet," *Japan Times*, 22 April, 2015, http://www.japantimes.co.jp/news/2016/04/22/national/japan-becomes-fourth-nation-test-fly-homegrown-stealth-jet/#.V2OBvrvhBD9.

[111]"Mitsubishi F-3," Military Today.com, accessed August 13, 2016, http://www.military-today.com/aircraft/mitsubishi_f3.htm.

[112]The technique that connect each aircraft by high-speed network to exchange enemy's position, enemy's movement path, equipment status, and ammunition, etc. in an instant

[113]Japanese Ministry of Defense, "*将来の戦闘機に関する研究開発ビジョン* [Research and Development Vision of Future Fighters]," Ministry of Defense, August 25, 2010, http://www.mod.go.jp/j/press/news/2010/08/25a_02.pdf.

4. Air Defense System

To respond against missile threats in the Northeast Asia region, which have been increasing since the late 1990s, Japan developed the BMD system since 2004 and agreed to secure the advanced ballistic missile interceptors with the United States by amending the JSDF Act in 2005.[114] Japan began to deploy PAC-3 missiles over the mainland of Japan since 2007. Unlike the PAC-2 missile system that optimized for intercepting the aircraft by mounting the airburst proximity fuse, the PAC-3 missile system is the terminal phase surface-to-air defense system optimized for intercepting the ballistic missile or the cruise missile by using the hit-to-kill warhead.[115] In addition, the JASDF has strengthened the sensor of the air defense system by introducing the new FPS-5 radar and upgrading FPS-3 radar since 2006 to increase surveillance range and to detect ballistic missile threats even earlier.[116] After that, due to the persistence of surrounding missile threats, the JASDF additionally deployed the PAC-3 intercept missile in the vicinity of Tokyo and Okinawa in March 2012.[117]

F. ASSESSMENT

According to the previously mentioned JASDF strategic changes, the goals of the JASDF have evolved aggressively and actively from simply repelling an enemy's approach in the territory to ensuring favorable political and military situations related to national security. Especially, as the JSDF's defense concept changed from the former "Basic Defense Capability" to the "Dynamic Defense Force" concept and then to the "Dynamic Joint Defense Force" concept, the JASDF's strategic ends also evolved from mainland defense by the essential-minimum defense force to achieving a favored political and military situation by not only early repelling against intruding threats but also

[114]Ministry of Defense, *Defense of Japan 2015*, 229.

[115]"Patriot (PAC-1, PAC-2, PAC-3)," Missile Threat, accessed August 19, 2016, http://missilethreat.com/defense-systems/patriot-pac-1-pac-2-pac-3/.

[116]Ministry of Defense, "Japan's BMD," Ministry of Defense, accessed August 13, 2016, http://www.mod.go.jp/e/d_act/bmd/bmd.pdf.

[117]Ministry of Defense, *Defense of Japan 2015*, 229.

deterrence through the flexible, rapid, and active response and securing of the advanced force.

Second, the battlefield space and engagement zone has extended from Japan's own territory to the border or even within the enemy's territory. Entering the 2000s, the JASDF began to acquire air-to-ground capability, which was entirely excluded before, and it started to introduce air-to-ground fighters and weapons. Possession of the air-to-ground capability and consideration of preemptive attack have the purpose of extension of battlefield to the enemy's territory by migrating from the principle of an exclusively defense-oriented policy. Furthermore, the acquisition of F-35 fighters, the development of the next-generation fighters, and the securing of the aerial refueling tanker and the long-distance cargo strengthened the long-range power projection capability and the covert penetration ability.

Third, the JASDF previously focused on defense against an enemy's attack; however, it now pursues defense and counterattack simultaneously and even preemptive strike capability for when an enemy's attack is certain. The JASDF strengthened the air-to-ground capability and the counter-strike ability by securing the stealth fighter, the air-to-ground weapons system, and aerial tankers at the same time while increasing the mainland defense capability by strengthening intercept activity against neighboring countries' aircraft and building up the air defense system. Moreover, Japan prepared grounds to support preemptive strikes that can be carried out in the case of identifying an obvious fatal threat through the amendment of the Armed Attack Situation Response Act.

Fourth, the duration of war pursued by the JASDF has changed from long war, consuming enemy forces by concentrating defense, to short-term war, suppressing the enemy rapidly and proactively. For this concept, the JASDF relocated one F-15J squadron to Okinawa and conducted active intercept operations. The JASDF also acquired AWACS and new air defense radar to strengthen the early detection and warning ability and increased the long-distance preemptive strike capability and the counter-attack capability.

Therefore, when seeing these four characteristics of strategic evolution, the JASDF's strategy has been changed from its previous "defensive defense" strategy to an "offensive defense" strategy since the early 2000s. In summary, see the Table 2.

Table 2. JASDF's Strategy Evolution after the Early 2000s

JASDF's Strategy before the Early 2000s : Defensive Defense

- Objective of War: Defense of the mainland and airspace by detecting, warning, and repelling enemy
- Battle Space: Limited to the mainland
- Effort of Counter Offensive: Only defense
- Period of War: Delayed due to the exclusively defensive posture

↓ ↓ ↓

Category	Change	Year	Detail	Objective of War
Ends	Defense Concept in NDPG	2004	Began to Bail Out of Mainland Defense Strategy	OD
		2010	Dynamic Defense Force Concept	OD
		2013	Dynamic Joint Defense Force Concept	OD

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Category	Change	Year	Detail	Battle Space	Effort of Counter-Offensive	Period of War
Ways	A/G Attack Capability, Debate on Preemptive Attack	2007	F-2 First Live Bomb Training	OD	OD	OD
		2013	F-2 JDAM Drop Demonstration			
		2003	Shigeru Ishiba mention			
		2016	LDP National Defense Meeting			
		2016	Armed Attack Situation Response Act			
	Aggressive Intercept Operation	2003~	Increase of Intercept Activity	N/A	BOTH	OD

	Disposition of Forces	2015	Establishment of 9th Fighter Wing	OD	BOTH	OD
Means	Aircrafts	2000	F-2 Replaced F-1	OD	OD	OD
		2011	JASDF Contracted to Purchase 42 F-35			
		2000	E-767 Operation Start	N/A	BOTH	OD
		2006	E-767 Upgrade			
		2015	E-2D Hawkeye Purchase Decision			
		2006	KC-767 Acquisition	OD	OD	OD
		2015	KC-46 Pegasus Purchase Decision			
		2004	TACOM Development Start	N/A	BOTH	OD
		2014	RQ-4 Purchase Decision			
		2007	C-2 Development Start	OD	N/A	N/A
	Weapon	2003	JDAM Acquisition	OD	OD	OD
	Next Generation Fighter	2009	ATD-X Development Start	OD	OD	OD
		2010	i3 6th Generation Fighter Concept			
	Air Defense System	2004	BMD Development	DD	BOTH	DD
		2007	PAC-3 Deployment	DD	BOTH	DD
		2006	FPS-5 Operation, FPS-3 Upgrade	DD	BOTH	OD
		2012	Tokyo/Okinawa PAC-3	DD	BOTH	DD

*OD: Offensive Defense, DD: Defensive Defense, BOTH: It can be either OD or DD, N/A: Not-Applicable

↓ ↓ ↓

JASDF's Strategy since the Early 2000s: Offensive Defense

- Objective of War : Keeping favored political/military situation by deterrence, early repelling, and engaging international and regional security environment
- Battle Space: Border and enemy's territory beyond the mainland
- Effort of Counter Offensive: Simultaneously conducting defense and counter-attack, considering preemptive attack
- Period of War: Pursuing short war

As shown in Table 2, the JASDF's strategy has evolved into an "offensive defense" strategy. Especially, the changes of defense concept in NDPG, the acceptance of air-to-ground strike operation concept, the acquisitions of the air-to-ground fighter and weapons, and the securing of the aerial refueling tanker are the predominant elements showing the evolution of the JASDF's strategy. Some may interpret the strengthening of the JASDF's air defense system, which is located in the last row of the table, as reinforcement of the former "defensive defense" strategy in terms of battle space and period of war. However, considering that the third characteristic of "offensive defense" is that the strategy conducts defense and counterattack simultaneously from the early stage of war, these features are also a part of the JASDF's "offensive defense" strategy.

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III. FACTORS OF JASDF'S STRATEGY EVOLUTION

This chapter analyzes four independent variables, to evaluate which have had the most influence in changing the JASDF's strategy. The independent variables of the JASDF's strategy evolution to be verified in this research are the modernization of the PLA, North Korea's nuclear and ballistic missile threat, the conservative swing of Japanese domestic politics, and the offensive nature of air power.

A. CHINA FACTOR

In the 21st century, economic growth and military buildup of China have brought about many security concerns among its East Asian neighbors. The rapid economic growth in China since the early 2000s naturally became the driving force that allowed the Chinese military to achieve modernization and military buildup. The Chinese military has modernized the old equipment of all military units, including the Army, Navy, Air Force, missile and cyber units. These changes in weapons systems mean changes in the operational concept and strategy of the Chinese military. The neighboring countries view this Chinese military evolution as a threat, and in response, they increase their military strength causing an arms race in East Asia. Military spending in the Asia region accounted for 22.8 percent of world military expenditures in 2015.[118] Although U.S. military expenditures accounted for 38.3 percent of the world's military expenditures, nearly 37 percent of the world's military expenditure outside the United States was spent in Asia. In particular, China's military spending accounted for 41 percent of the Asian military expenditure in 2015.[119]

The rise of China has raised tensions particularly with Japan, another powerful nation in East Asia. The two countries, which are the second and third largest economies in the world, have faced conflict in the East China Sea due to the Diaoyu/Senkaku territorial issues in the past. The Diaoyu/Senkaku island chain has strategic importance to

[118]Institute for Strategic Studies and International Institute for Strategic Studies, *The Military Balance 2016* (London: International Institute for Strategic Studies, 2016), 19.

[119]Ibid., 215.

China because it connects the Chinese "first island chain" from the Korean peninsula and Okinawa to Taiwan and the Philippines, and Japan also regards the Diaoyu/Senkaku island chain as a significant place because China can monitor activity of the U.S.-Japan allied force when China occupies the region.[120] In addition, economic value such as natural resources is another area in which the two countries hold fast to their own interests.[121] Furthermore, China announced the China Air Defense Identification Zone (CADIZ) in the East China Sea including the Diaoyu/Senkaku island chain in November 2013,[122] and Tokyo protested to Beijing when a Chinese fighter flew very close to a Japanese reconnaissance aircraft, which was scouting in the East China Sea, in June 2014.[123] In the long-standing conflict between the two countries, the modernization of the PLA and military activities based on that modernization are the main threat to the Japanese national interests and that have provoked Japan's aggressive response.

1. PLA's Air Power Buildup and Modernization

This section examines the change of China's military spending and the trends of PLA's air power buildup after 2000s in terms of the PLAAF, the PLARF, and the PLAN.

a. China's Economic Development and Increase of Military Expenditure

China's economic growth and the increase of its defense budget are the significant driving forces of the PLA's strategic changes and military modernization. China's economy has shown the most rapid growth in the world entering the 2000s. The Chinese gross domestic product (GDP) was only 396 billion dollars in 1990 and 734 billion dollars in 1995; however, China had recorded double digit economic growth since the late of 1990s, when the GDP was recorded as 1,208 billion dollars in 2000, 2,291 billion dollars in 2005, 6,005 billion dollars in 2010, and 10,982 billon dollars in 2015,

[120]International Crisis Group, *Dangerous Waters: China-Japan Relations on the Rocks* (Brussels: International Crisis Group, 2013), 1, http://www.crisisgroup.org/~/media/Files/asia/north-east-asia/245-dangerous-waters-china-japan-relations-on-the-rocks.pdf.

[121]Ibid.

[122]Ian E. Rinehart and Bart Elias, "China's Air Defense Identification Zone (ADIZ) (CRS R43894)," Homeland Security Digital Library, Naval Postgraduate School, January 30, 2015, 6, https://www.hsdl.org/?view&did=762446.

[123]Ibid., 12–13.

respectively.[124] The Chinese GDP in 1990 was only 12.6 percent of the Japanese GDP; however, that grew to 27 percent in 2000 and 49.4 percent in 2005. Chinese GDP finally overtook the Japanese GDP in 2010 when it recorded 108 percent of the Japanese GDP, so China has become the second largest economic power in the world.[125] Based on this economic growth, China's military expenditure also has increased greatly. Chinese military expenditure was only 10 billion dollars in 1990, which was one-third of Japanese military expenditure; however, Chinese military spending has rapidly increased with its economic growth since the late of 1990s, and that amounted to about half of Japanese military spending in 2000 by recording 23 billon dollars. By 2005, China first passed Japan in military spending, reportedly spending 45 billion dollars, in comparison to Japan's 44 billion dollars.[126] China's military expenditure has continuously increased since then, and China recorded 115 billion dollars in 2010 and 214 billon dollars in 2015, so China's military expenditure is about five times that of Japan.[127]

As opposed to the increase in China's defense spending based on its economic growth, Japan has not greatly increased military spending due to the continued stagnation of economic growth since the 1990s. A comparison is illustrated in Figure 4.

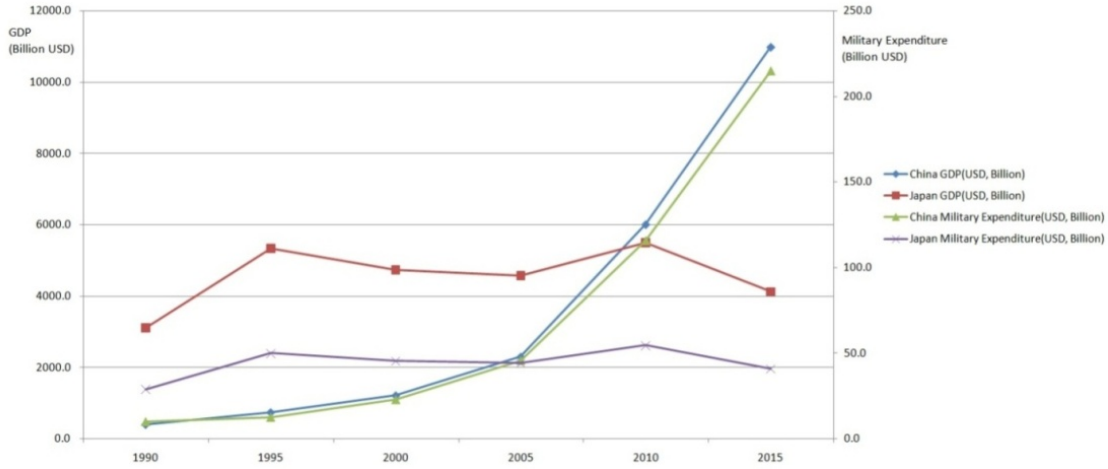
[124]International Monetary Fund, "World Economic Outlook Database," International Monetary Fund, April 2016, http://www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx.

[125]Ken Jimbo, "The Rise of China and Japan's Foreign Policy Reorientation," in *China's Power and Asian Security*, ed. Mingjiang Li and Kalyan M. Kemburi (New York: Routledge, 2015), 251.

[126]Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," SIPRI, accessed June 5, 2016, https://www.sipri.org/databases/milex.

[127]SIPRI, "Military Expenditure Database."

Figure 4. China and Japan's GDP and Military Expenditure in 1990–2015[128]



b. PLAAF's Military Buildup: Toward "Strategic Air Force"

Based on this economic growth and military expenditure, the PLA has made many efforts to modernize the military. The PLA has revised operation concepts and acquired modernized weapon systems in all areas including the Army, Navy, and Air Force, as well as the Rocket Force (formerly the Second Artillery Corps), cyber warfare forces, intelligence forces, and special operation forces. Among the PLA's modernization efforts, the PLA's strengthening of air power and the missile forces have had the greatest impact on the JASDF's evolving strategy.

By the late 1990s, the PLAAF had emphasized modernization by focusing on the strengthening of air defense by missile power.[129] The PLAAF's main operation concepts were to neutralize the access of enemy by the Anti-Air Artillery (AAA), the Surface-to-Air Missile (SAM), and electronic jamming and to achieve coercive effect by striking enemy bases and the operational and strategic targets by ballistic missiles because of

[128]Above graph was drawn by author based on statistical sources of the International Monetary Fund (IMF) and Stockholm International Peace Research Institute (SIPRI). International Monetary Fund, "World Economic Outlook Database," International Monetary Fund, April 2016, http://www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx; Stockholm International Peace Research Institute, "SIPRI Military Expenditure Database," SIPRI, accessed June 5, 2016, https://www.sipri.org/databases/milex.

[129]Oriana Skylar Mastro and Mark Stokes, "Air Power Trend in Northeast Asia: Implications for Japan and The U.S.-Japan Alliance," Project 2049 Institute, August 29, 2011, 3, http://project2049.net/documents/MASTRO_STOKES_JAPAN_AIRPOWER_PAPER.pdf.

limited military budget and the gap of military technology with the U.S. and Japanese Air Force.[130] Since the 2000s, however, the PLAAF has been pursuing a mission to directly carry out strategic air strikes by using air power.[131] PLAAF's change has shifted PLAAF's strategy from absolutely defensive manner to a combination of offensive manner and defensive manner.[132] The PLAAF's officers and the Chinese strategists refer to this as PLAAF's change to a "strategic air force."[133]

The "strategic air force" concept that the PLAAF's officers and the Chinese strategists have discussed is as follows:

> A clearly defined strategy and an accompanying set of missions that enable it to directly achieve important national security objectives and play a decisive role in protecting Chinese national interest; requirements for modern platforms and systems that are commensurate with China's standing as a major power, including advanced offensive and defensive capabilities; and finally, the institutional status befitting its role as a 'strategic service,' and important consideration given that historically the PLAAF has been relegated to a subordinate role in China's traditionally ground force-dominated military.[134]

Based on this concept, the PLAAF began to emphasize the offensive mission, utilization of space assets, and the accomplishment of deterrence, and officially adopted the goal to "integrate air and space and be simultaneously prepared for offensive and defensive operations" as the PLAAF's strategic concept in 2004, then it became a guidance for the PLAAF's modernization and operation.[135] Many PLAAF officers regard the formulation of strategic concept in 2004 as a significant turning point for the PLAAF.[136] In addition, the PLAAF's commander became a Central Military Commission (CMC) member, which is the top military decision-making organization and

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[130]Mastro and Stokes, "Air Power Trend in Northeast Asia," 3.

[131]Ibid.

[132]Ibid., 4.

[133]Michael S. Chase and Cristina L. Garafola, "China's Search for a 'Strategic Air Force'," *Journal of Strategic Studies* 31, no. 1 (2016): 5, doi:10.1080/01402390.2015.1068165.

[134]Ibid.

[135]Ibid., 5, 8.

[136]Ibid., 9.

allowed only the Army commander as a member before 2004, with the commanders of the People's Liberation Army Navy (PLAN) and the People's Liberation Army Second Artillery Force (PLASAF) since 2004, marking another important turning point.[137]

The pursuit of a "strategic air force" was reflected in the Chinese defense white papers, and the Defense White Paper 2008 mentioned the forces construction policy of the PLAAF as follows: "To meet the requirements of informationized warfare, the Air Force is working to accelerate its transition from territorial air defense to both offensive and defensive operation, and increase its capabilities for carrying out reconnaissance and early warning, air strike, air and missile defense, and strategic projection, in an effort to build itself into a modernized strategic air force."[138] This same policy has appeared in the later defense white papers without major changes until 2015.

The key goals of PLAAF's change analyzed by Chinese military experts are first, to possess strategic deterrence capabilities in all fields such as the nuclear, conventional, space, information warfare, and civilian component, and second, to destroy quickly the enemy's operational system by getting out of the former territorial defense missions and having long raid capabilities.[139] The salient change is that the PLAAF has emphasized offensive capabilities based on the two earlier goals.[140]

This change in strategy and operational concept of the PLAAF has been reflected in the PLA's modernization and buildup of war potential. First, the PLA has been increasing the proportion of the new-type multi-purpose fighters. By 1995, 80 percent of the PLAAF's fighters were Soviet MiG-17s and MiG-19s, which had been used since the 1950s; however, China weeded out 3,500 fighters and replaced 70 percent of these fighters with new fighters from 1990 to 2010.[141] China introduced the 4.5-generation

[137]Chase and Garafola, "China's Search for a 'Strategic Air Force,'" 9.

[138]Ministry of National Defense, *China's National Defense 2008* (Beijing: Ministry of National Defense, 2008), 27.

[139]Chase and Garafola, "China's Search for a 'Strategic Air Force,'" 13.

[140]Ibid.

[141]Military Academic Works and Academy of Military Science, *The Science of Military Strategy 2013* (Beijing: Military Academic Press, 2013), 173–74, quoted in National Institute for Defense Studies, *NIDS China Security Report 2016* (Tokyo: NIDS, 2016), 26.

fighters such as the J-11 and Su-30 in the 2000s, and China has been trying to buy additional Su-35 4.5-generation fighters from Russia while developing itself fifth-generation fighters such as the J-20 and J-31.[142] According to research by the RAND Corporation, it is expected that the number of U.S. Air Force fighter wings needed for completely neutralizing the PLAAF in the region will increase from 2.1 fighter wings in 1995 to 29.9 fighter wings in 2017 due to PLAAF's acquisition of new fighters and modernization.[143] Especially, the PLAAF has enhanced its offensive capabilities by changing the composition of the aircraft from the intercept mission fighter-oriented composition to the supporting aircraft and multi-purpose air-to-ground attack fighter-oriented composition.[144] The intercept fighters were 75 percent and air-to-ground attack fighters were only 15 percent of total PLAAF aircraft in 1995; however, the intercept fighters have been decreased to 42 percent and air-to-ground attack fighters have reached 35 percent of total PLAAF aircraft in 2015.[145]

The PLAAF has taken the shape of an offensive strategic air force by acquiring new fighters, as well as various supporting aircraft and special mission aircraft. China has been progressing its upgrade of H-6K bombers, such as integrating new long distance precision guided munitions (PGM) capability to strengthen bombing capabilities reaching the "second island chain" and deterrence capabilities against neighboring threats.[146] The purpose of China's construction of a 9,000ft class runway is known for operating new H-6K bombers.[147] China is also pushing the acquisition of additional tankers forward to extend long distance power projection capabilities. The H-6U tankers introduced in the 1980s are serving now; however, those are too old, so China contracted to buy Il-78 aerial tankers in 2011 to provide refueling to new Su-30MMK fighters and KJ-2000

[142]National Institute for Defense Studies, *NIDS China Security Report 2016*, 28.

[143]RAND Corporation, *U.S.-China Military Scorecard* (Santa Monica, CA: RAND, 2015), 83, http://www.rand.org/pubs/research_reports/RR392.html.

[144]National Institute for Defense Studies, *NIDS China Security Report 2016*, 27.

[145]Ibid.

[146]Chase and Garafola, "China's Search for a 'Strategic Air Force,'" 18.

[147]National Institute for Defense Studies, *NIDS China Security Report 2016*, 25.

AWACS.[148] In addition, China had been promoting the acquisition of AWACS since the 1990s. The original plan was to introduce radar from Israel and to operate it by mounting the radar on the Il-76 transport aircraft; however, the United States opposed it and stopped Israel, and China indigenously developed the KJ-2000 AWACS, which has been operating since 2013.[149] Since then, China also developed the KJ-200 and KJ-500 AWACS, and those aircraft are serving now.[150] Furthermore, the PLAAF has advanced modernization by developing and acquiring a variety of UAVs, long distance large cargo, an integrated air defense system, C4I system, and electronic warfare capabilities.

With the full-fledged construction of a strategic air force and modernization of equipment in the 2000s, the PLAAF has been pushing forward with the changes in training and exercise to nurture manpower in accordance with advanced technology and modernized equipment. The PLAAF's exercises are becoming more and more complex, large-scale, and frequent, and it prioritizes the integration of information and technology in the training process.[151] Moreover, it pursues training in the same conditions as real war and focuses on fostering the ability that can flexibly handle various and rapidly changing situations, which may occur in the enemy's penetration.[152]

c. Strengthening of Missile Forces

The People's Liberation Army Rocket Force (PLARF), which was the PLASAF before December 2015, takes charge of the Chinese strategic missile forces, and conducts nuclear deterrence, nuclear counterattack, and precise attack through conventional missiles.[153] The PLARF had possessed only nuclear missiles until the 1980s; however, it has been constructing a variety of conventional missile forces since the late 1990s and

[148]Carlo Copp, "The PLA-AF's Aerial Refuel Programs," Air Power Australia, last modified April 2012, http://www.ausairpower.net/APA-PLA-Tanker-Programs.html; NIDS, *China Security Report 2016*, 31.

[149]Chase and Garafola, "China's Search for a 'Strategic Air Force,'" 19; National Institute for Defense Studies, *NIDS China Security Report 2016*, 28.

[150]National Institute for Defense Studies, *NIDS* China *Security Report 2016*, 29.

[151]Chase and Garafola, "China's Search for a 'Strategic Air Force,'" 22.

[152]Ibid., 23.

[153]Ministry of National Defense, *China's National Defense 2015*, Ministry of National Defense, May 26, 2015, http://eng.mod.gov.cn/Database/WhitePapers/2015-05/26/content_4586713.htm.

pursuing quantitative and qualitative diversification and modernization, so it has become a key threat to East Asian neighbors.[154] Even though the original purpose of the PLARF's missile power was deterrence, coercion, and war fighting in the Taiwan Strait, it is expected that the PLARF will conduct significant missions in conflicts with neighboring states, including those that could occur in the South China Sea and the East China Sea, by the modernization and increasing missile ranges.[155]

The key components of the PLARF can be divided into two parts: the nuclear forces and the conventional missile forces. The direction of the PLARF's modernization also can be analyzed according to those two parts. First, in the case of the nuclear forces, China's nuclear warheads have rapidly increased in number since 2006. The number of China's nuclear warheads increased from 130 in 2006 to 176 in 2008 and to 240 in 2010, which it maintained until 2012, and it is known that China has 260 nuclear warheads since 2015.[156] In addition to these quantitative changes, the PLARF also has been aiming to make various qualitative changes in nuclear forces. The launch system of China's nuclear weapons relied on silos until the 1990s; however, China has developed and deployed a variety of mobile launchers and replaced the liquid propellant with solid propellant since the 2000s.[157] Then, the PLARF began to cull the DF-3, DF-4 missiles, which were deployed from the 1970s and the 1980s, while it deployed new long-range missiles, such as DF-5/5A, DF-21/21A, DF-31, and the PLARF has been developing various new generation medium and long-range nuclear warhead ballistic missiles since the after early 2000s.[158]

Second, the modernization of the PLARF is more remarkable in the conventional missile forces. The PLARF's missiles were all nuclear warhead missiles in 1985, whereas

[154]National Institute for Defense Studies, *NIDS China Security Report 2016*, 38, 47.

[155]Ron Christman, "China's Second Artillery Force: Capabilities and Missions for the Near Seas," in *China's Near Seas Combat Capabilities*, ed. Peter Dutton, Andrew S. Erickson, and Ryan Martinson, (Newport, RI: Naval War College, 2014), 40–45.

[156]National Institute for Defense Studies, *NIDS China Security Report 2016*, 39.

[157]Ibid., 43.

[158]Ibid., 44.

the nuclear missile ratio dropped to 40 percent until 2012.[159] China first operated the conventional missiles in 1993, and China had intended to use the conventional missile forces for management of the Taiwan Strait by developing the DF-15 Short-Range Ballistic Missile (SRBM) and conducting launch training during the third Taiwan Strait crisis.[160] However, the PLARF, which consisted of only the SRBMs until the 1990s, has been acquiring Medium-Range Ballistic Missile (MRBM) and Intermediate-Range Ballistic Missile (IRBM) since the 2000s,[161] and the projection range of the PLARF has been extended for the purpose of precise strike against an enemy's land and sea targets, aircraft carriers, and supporting forces in the "first island chain" beyond Taiwan.[162] Through the diversification of missiles and warheads, the PLARF's cruise missiles and conventional ballistic missiles can attack various key strategic targets such as U.S. bases in alliances and neighboring countries' C4I and communication facilities, military bases, naval ships in near seas.[163]

d. PLAN's Development of Aircraft Carrier

Not only the PLAAF and the PLARF, but the PLAN's development of an aircraft carrier is another significant strengthening of the PLA's air power. China has entered an aircraft carrier power by the renovation and modernization of Russian-made naval ship *Variag* since August 2011 and launched it in September 2012 under the name of *Liaoning*.[164] China is operating it by mounting it with the J-15 aircraft, which are remodeled Russian-made Su-27 aircraft for the aircraft carriers,[165] and China is

[159]National Institute for Defense Studies, *NIDS China Security Report 2016*, 45.

[160]Ibid., 46.

[161]Ibid., 49.

[162]National Institute for Defense Studies, *NIDS China Security Report 2016*, 46; Christman, "China's Second Artillery Force," 39.

[163]Ibid.

[164]Daniel J. Kostecka, "China's Aerospace Power Trajectory in the Near Seas," *Naval War College Review* 65, no. 3 (2012): 114, https://www.hsdl.org/?view&did=710489; Andrew Scobell, Michael McMahon, and Cortez A. Cooper Ⅲ, "China's Aircraft Carrier Program: Drivers, Developments, Implications," *Naval War College Review* 68, no. 4 (2015): 65, https://www.usnwc.edu/getattachment/c96be200-d3a9-4b6f-9114-179169fa844e/China-s-Aircraft-Carrier-Program--Drivers,-Develop.aspx.

[165]Kostecka, "China's Aerospace Power Trajectory in the Near Seas," 114.

developing the J-31 fifth-generation aircraft carrier fighter.[166] China is also pushing forward the acquisition of a rotary-wing AEW platform, which can be mounted on carriers.[167] In addition, a satellite image containing the Chinese second aircraft carrier under construction, which is being developed autonomously, was released to the media through the homepage of a U.S. military intelligence company on June 3, 2016.[168] The Chinese aircraft carriers will be used for securing air superiority, anti-submarine operations, and early warning missions in the near seas. Many experts expect that the Chinese aircraft carrier is limited to offensive air strike missions due to the ski-jump method carrier structure and load of the J-15;[169] however, it will also affect the projection of offensive forces when China additionally develops new aircraft catapulting methods and new fighters. China will continue to pursue the strengthening of air power by acquiring additional aircraft carriers to achieve strategic deterrence, air superiority, and offensive power projection in the South China Sea and the East China Sea.

2. JASDF's Response

The PLA's modernization and military buildup has affected the Japan's defense concept changes in the NDPG and the direction of the JASDF's construction by changing Japan's threat perception. The Japanese defense posture concept in the NDPG has changed, as mentioned earlier, from the "Basic Defense Capability" in 2004 to the "Dynamic Defense Force" in 2010 and the "Dynamic Joint Defense Force" in 2013. While the NDPG 1976 focused on the defense of the Japanese mainland against the Soviet threat, and the NDPG 1995 focused on the uncertainty of regional security consequences of the end of the Cold War, the major security factors that have the great impact on the NDPG since 2004 is Chinese and North Korean threat.

In NDPG 2004, Japan defined China as "a major impact on regional security" and stated that Japan should examine carefully the Chinese acts in the future because China

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[166]Scobell, McMahon, and Cooper Ⅲ, "China's Aircraft Carrier Program," 73.

[167]Kostecka, "China's Aerospace Power Trajectory in the Near Seas," 114.

[168]Strafor, "A Look at Progress on a Chinese Aircraft Carrier," Stratfor, June 3, 2016, https://www.stratfor.com/analysis/look-progress-chinese-aircraft-carrier.

[169]Kostecka, "China's Aerospace Power Trajectory in the Near Seas," 114.

continuously promotes the modernization of its nuclear and missile capabilities, naval forces, and air powers.[170] In this perception, even though Japan maintained the "Basic Defense Capability" concept that came from the former NDPGs, it emphasized the independent and proactive activities to cope with various threats and international security situations.[171]

This Japanese threat perception of China has become more specific through the NDPG 2010 and the NDPG 2013. In the NDPG 2010, Japan defined China as "a growing major power," and it was concerned about the lack of transparency shown in increasing military expenditure, the modernization of the various forces, expansion of long-range power projection capabilities, and maritime activities.[172] Hence, Japan saw the necessity of a dynamic and active defense posture that can counteract flexibly and rapidly against a variety of threats, and it made a significant change to its defense posture concept by adopting the "Dynamic Defense Force" concept.[173] The NDPG 2013 also worried more minutely about China's military spending trend, the asymmetric military capabilities, and the various military buildups.[174] It directly referred to the Chinese marine and aerial activities in the East China Sea and the South China Sea as "attempts to change the status quo by coercion"[175] and stated that "Japan has great concern about these Chinese activities."[176]

The strengthening of the PLARF's nuclear power and conventional missile forces has prompted discussion of preemptive strike and air-to-ground attack capability for the JASDF. Although so far the discussion on the possessing preemptive strike capability has mostly emerged when North Korea undertook nuclear and missile tests, and Japan also referred to North Korea's weapons of mass destruction (WMD) as the greatest threat to

[170]Government of Japan, *National Defense Program Guidelines, FY 2005-*, 2.

[171]Ministry of Defense, *Defense of Japan 2014*, 139–41.

[172]Government of Japan, *National Defense Program Guidelines for FY 2011 and Beyond*, 4.

[173]Hughes, "China's Military Modernization," 208.

[174]Government of Japan, *National Defense Program Guidelines for FY 2014 and Beyond*, 3.

[175]Ibid.

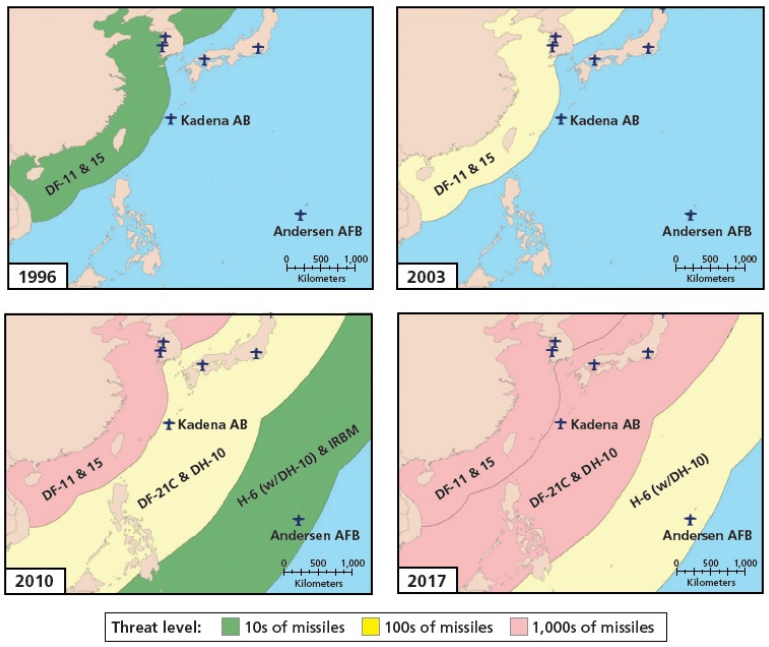
[176]Ibid., 4.

Japan, China has been acting as a driver for the Japanese preemptive strike and air-to-ground attack capability in terms of Japan's concern for Chinese nuclear and missile forces in NDPG.

Some analysts observe that China's actions drive Japan's reactions more directly than Japan explicitly acknowledges. Christopher Hughes claims that the purpose of Japan emphasizing North Korea's nuclear and missile capabilities as the significant threats despite a lack of demonstrated capability is to hide the motive to counteract China and to give legitimacy to Japan's military buildup.[177] He also argues that JASDF's acquisition of the F-35 and JDAM empowered Japan to strike China in emergency situations.[178]

In particular, as depicted in Figure 5, the whole area of Japan has been within the range of Chinese missiles since the 2000s due to the diversification of the PLARF's missile forces and increased missile ranges.

Figure 5. Second Artillery Missile Threats to Bases in the Western Pacific[179]



[177]Hughes, ""Super-sizing" the DPRK Threat," 303–305.

[178]Hughes, *Japan's Foreign and Security Policy under the 'Abe Doctrine'*, 34.

[179]Source: RAND Corporation, *U.S.-China Military Scorecard* (Santa Monica, CA: RAND, 2015), 51, http://www.rand.org/pubs/research_reports/RR392.html.

Japan receives nuclear deterrence through the U.S.-Japan alliance and has developed missile defense capabilities through the alliance's development of advanced missile defense (MD) systems. Nevertheless, the PLARF's quantitative and qualitative buildup of nuclear and missile forces provide a mission for the JASDF's preemptive strike and air-to-ground attack capabilities, which can neutralize and destroy the Chinese nuclear and missile threats in an emergency. Furthermore, due to the ongoing territorial dispute with China in the East China Sea, Japan needs the JASDF's air-to-ground capabilities to repel Chinese troops conducting a landing operation into the Japanese islands.[180]

The PLAAF has pursued an offensive strategic air force through the increasing of the multi-role air-to-ground fighters and the acquisition of modern bombers. In addition, China has strengthened air superiority capabilities through the increase in the fourth and fifth generation new fighters, the acquisitions of AWACS, tankers, and the PLAN's aircraft carrier. The JASDF has coped with these Chinese changes by the aggressive and active intercept activities. Intercept missions that are not quick or aggressive enough will threaten Japanese mainland soon because China has changed the composition of aircraft from the air-to-air fighters-oriented composition to the air-to-ground fighters-oriented composition, and it has strengthened its long-range power projection capabilities through the new bombers. Moreover, active intercept activities against the PLAAF have become an important mission to the JASDF because Japan cannot ensure the autonomy of its naval activities in the East China Sea when the JASDF fails to maintain the air superiority capability balance in the region. In fact, while the most of the JASDF's scramble missions were due to the Russian track until 2008, since then the number of scramble missions caused by the Chinese track has rapidly increased, and about half of the JASDF's scramble missions have been due to the Chinese track since 2010.[181]

The JASDF's bases and troop movements have also been influenced by China. Through the defense white paper, Japan stated that the establishment of the 9th Fighter Wing by adding one F-15J squadron in Okinawa is a counteract against Chinese acts,

[180]Ministry of Defense, *Defense of Japan 2015*, 227.

[181]Ibid., 224.

intruding Japanese territorial waters and airspace in the East China Sea and announcing the extended CADIZ.[182]

The changes of the JASDF's strategic means, such as various weapon systems, are also related to the PLA's modernization. The acquisition of the F-35 fifth-generation stealth multi-role fighters, tankers, and introduction of the JDAM air-to-ground precision guided munitions are tools for counter air strike and air-to-ground attack capabilities to respond to China's nuclear and missile power. The stealth performance of the F-35 fighter is the purpose of the offensive counter-air and strike missions through covert infiltration, and JDAM, which is equipped with GPS guidance kits to the general free-fall bombs, should be dropped above the target by entering directly into the enemy's area unlike the stand-off cruise missiles. Thus, both of them are quite offensive weapon systems. In addition, Japan has deployed the F-2 fighters having air-to-ground capabilities since the 2000s, and the F-2 fighters will conduct CAS missions to repel the PLA's island landing operations that could occur in the island dispute between the two countries.

The Japanese F-35 fighters, which also have excellent air-to-air performance compared to other aircraft and the AWACS, will be used to achieve air superiority against the PLA's air power. Japan's development of a next-generation stealth fighter also has the purpose of responding to China, which has developed a variety of new fighters and strengthened air power in the airspace of the East China Sea.

In addition, the JASDF has developed a BMD system and deployed the PAC-3 missiles to Okinawa and Tokyo and the FPS-3 and FPS-5 air control and warning radars in order to strengthen missile defense of the mainland. The four FPS-5 radars and seven FPS-3 radars can monitor the Chinese mainland. The radar systems quickly detect launched ballistic missiles and provide the JASDF's PAC-3 missiles and the JMSDF's SM-3 missiles with information.[183]

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[182]Ministry of Defense, *Defense of Japan 2015*, 228.

[183]Ian Easton and Randall Schriver, "Assessing Japan's National Defense: Toward a New Security Paradigm in the Asia-Pacific," Project 2049, June 3, 2013, http://www.project2049.net/publications.html.

B. NORTH KOREA FACTOR

North Korea's continuous nuclear weapon and missile development is one of the most significant security issues in the East Asia region. South Korea, which lies in direct military confrontation with North Korea, as well as the United States, Japan, China, and Russia speak with one voice that North Korea's nuclear and missile threat will bring about negative impact on not only East Asian security but also international security and the non-proliferation of WMD effort. Among them, Japan has voiced concerns with the most sensitive attitude about North Korea's nuclear and missile threat along with South Korea. Japan, which alone has the experience of being bombed with nuclear weapons, is alarmed by the prospect that the Japanese mainland could come to be in the range of North Korea's ballistic missiles equipped with nuclear warheads.

1. North Korea's Nuclear and Missile Threat

This section examines the history of North Korea's nuclear and missile threats to analyze those effects to JASDF's evolving strategy.

a. North Korea's Nuclear Development

North Korea sent their nuclear scientists to the Soviet Union for training beginning in 1956, and North Korea and the Soviet Union concluded the "Agreement for Cooperation in the Peaceful Uses of Nuclear Energy" in September 1959.[184] North Korea began in earnest nuclear activities by constructing a nuclear-power research complex in Yongbyon in 1964 and introducing a research reactor, IRT-2000, from the Soviet Union in 1965.[185] After the middle 1970s, North Korea began to show nuclear activities having nuclear weapons development in mind, based on nuclear engineers and basic nuclear technologies accumulated from the Soviet Union, and it began in earnest

[184]Dukmin Yun, "*Bukhanui haek missile munjega Ilbonui bangwi jeongchaekae michinun yeonghyang* [Effect of the North Korea's Nuclear and Missile Issues on the Japanese Defense Policy]," Prime, Ministry of the Interior, March 19, 2008, 4–5, http://www.prism.go.kr/homepage/entire/retrieveEntireDetail.do;jsessionid=EC947293850B00E9B1D501B23D73883B.node02?cond_research_name=&cond_research_start_date=&cond_research_end_date=&research_id=1290000-200700037&pageIndex=2346&leftMenuLevel=160.

[185]Ibid.

the nuclear weapon development by starting construction of its own secret nuclear facility in the Yongbyon area in the early 1980s.[186]

North Korea has accelerated the development of a nuclear weapon by conducting high explosive experiments nearly 40 times since 1983 and has continuously carried forward the development of nuclear weapons in secret after withdrawal from the Nonproliferation Treaty (NPT) on March 21, 1993.[187] Even though the quantitative expansion of North Korea's nuclear weapon had been restricted because of its withdrawal from the NPT, which was deferred by a high-level talk between North Korea and the United States in June 1993, and nuclear development was ceased by the "Geneva Agreed Framework" in 1994, the qualitative expansion, which is the improvement and enhancement of nuclear weapons, could not have been prevented because North Korea kept up development of a nuclear weapon in secret.[188] Furthermore, North Korea began to pay attention to the development of a nuclear weapon by enrichment of uranium since the early 1990s. This is because it can no longer advance development of a nuclear weapon by plutonium after accepting inspection of the Yongbyon nuclear facility due to international pressure, but North Korea opened the way for quantitative expansion of nuclear weapons by canceling the nuclear freeze in 2002.[189]

The U.S. Central Intelligence Agency (CIA) reported to President George W. Bush in June 2002 through the "National Information Estimate" that North Korea started the enrichment of uranium since 2001, and the United States concluded in August 2002 through the assessment of intelligence agencies that North Korea's High-Enriched Uranium (HEU) development led to significant progress.[190] After that, at a high-level talk between the United States and North Korea in Pyongyang in October 2002, Sok-ju Kang, First Vice Foreign Minister at the time, replied that "North Korea will have

[186]Yun, "Effect of the North Korea's Nuclear and Missile Issues," 5.

[187]Yun, "Effect of the North Korea's Nuclear and Missile Issues," 6; Hoyeob Bang, "The Interrelation between DPRK's Nuclear and Missile Development and Japan's Defense Policy," *Military & Culture Study of Korea-Japan* 17 (2014): 124, http://mckoja.org/sub/info_01.html.

[188]Yun, "Effect of the North Korea's Nuclear and Missile Issues," 6.

[189]Ibid., 6–7.

[190]Ibid., 8.

something even more than the nuclear weapon" to James Kelly, former Assistant Secretary of State for East Asian and Pacific Affairs, who had asked about North Korea's uranium plan. Thus, North Korea practically admitted to having a development plan for the uranium nuclear weapon.[191] Finally, North Korea announced withdrawal of from the NPT again in January 2003.

After that time, North Korea has developed the nuclear weapon through four nuclear tests from 2006 to 2016. North Korea formalized a nuclear nation by carrying out the first nuclear test using plutonium in the vicinity of P'unggye, Hamgyong Province, on October 9, 2006, and it became the ninth nuclear power in the world.[192] The first of North Korea's nuclear tests received an evaluation of "success, but not perfect" because North Korea gave notice to China about the explosion scale of 4 kt, but the actual explosion scale was less than 1 kt.[193] On May 25, 2009, North Korea carried out the second nuclear test and announced that its nuclear test was successful.[194] The explosion scale of the second nuclear test was rated as 2 kt, and it was analyzed that the technology was a step forward compared to the first nuclear test.[195] In addition, as the possibility that North Korea has the ability to combine the nuclear weapon and the ballistic missile arose, the concerns of its neighbors were amplified.[196] North Korea went ahead with the third nuclear test, and the Republic of Korea Ministry of Defense estimated the explosion scale as 6–7 kt.[197] After the third nuclear test, North Korea presented that the miniaturization and lightening of the nuclear weapon was achieved, and experts analyzed that North Korea is focusing on development of a nuclear warhead that can be mounted

[191]Yun, "Effect of the North Korea's Nuclear and Missile Issues," 8.

[192]Ibid., 10.

[193]Michishita Narushige, "Japan's Response to Nuclear North Korea," *New Asia* 73 (2012): 8, http://www.nari.re.kr/bbs/board.php?bo_table=newasia_1&sca=&sfl=wr_subject&stx=%BA%CF%C7%D1%C0%C7+%C7%D9+%B9%CC%BB%E7%C0%CF&sop=and&x=0&y=0.

[194]Mary Beth Nikitin, "North Korea's Nuclear Weapons: Technical Issues (CRS RL34256)," Homeland Security Digital Library, Naval Postgraduate School, April 3, 2013, 14, https://www.hsdl.org/?view&did=731345.

[195]Ibid., 15.

[196]Narushige, "Japan's Response to Nuclear North Korea," 9.

[197]Nikitin, "North Korea's Nuclear Weapons," 14.

on a long-range ballistic missile through the nuclear tests.[198] At the fourth nuclear test conducted on January 6, 2016, North Korea externally exposed starting development of a hydrogen bomb by expressing "the first hydrogen bomb test" rather than "the fourth nuclear test."[199] Some analyzed that North Korea's hydrogen bomb test failed because the explosion scale was only 8 kt, but others analyzed that the fourth nuclear test was a boosted nuclear weapon test phase, which is former phase of the hydrogen bomb development.[200] Regarding that the hydrogen bomb and the boosted fission bomb are essential technologies for miniaturization of the nuclear weapon, North Korea might be focusing on the development of a tactical nuclear weapon and the capability of a ballistic missile equipped with a nuclear warhead.[201]

According to the recent study of the Institute for Science and International Security, North Korea might possess about 13–21 of nuclear weapons as of July 2016 on the basis of these nuclear tests.[202] Also, the Republic of Korea Ministry of Defense is deciding that North Korea's technologies of nuclear miniaturization and lightening that can be mounted on the ballistic missile have progressed considerably.[203]

In sum, entering the 2000s, North Korea has carried out the enrichment of uranium, the cancellation of the nuclear freeze, and withdrawal from the NPT and has proceeded with the miniaturization and lightening of the nuclear warhead through several nuclear tests. By these efforts, North Korea has militarily weaponized the nuclear

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[198]Nikitin, "North Korea's Nuclear Weapons," 14.

[199]Jina Kim, "*Je4cha Bukhan haeksilhumae daehan daewae insik chkmyeonui hamuiwa hyanghu jeonmang* [The Meaning of Foreign Recognition and Prospect of the 4th North Korea's Nuclear Test]," *KIDA Defense Weekly* 1604 (2016): 4, http://www.kida.re.kr/?sidx=861&stype=1&idx=1655&pageNo=4&skey=&sword=.

[200]Sangmin Lee, "*Je4cha Bukhan haeksilheomui kisuljeok pyeongga mit chuga haeksilhum jeonmang* [Technical Assessment of the 4th North Korea's Nuclear Test and Prospect of Additional Nuclear Test]," *KIDA Defense Weekly* 1606 (2016): 1–2, http://www.kida.re.kr//?sidx=861&stype=1&idx=1657.

[201]Kim, "Meaning of Foreign Recognition and Prospect of the 4th North Korea's Nuclear Test," 4–5.

[202]David Albright and Serena Kelleher-Vergantini, "Plutonium, Tritium, and Highly Enriched Uranium Production at the Yongbyon Nuclear Site," Institute for Science and International Security, June 14, 2016, 6, http://isis-online.org/uploads/isis-reports/documents/Pu_HEU_and_tritium_production_at_Yongbyon_June_14_2016_FINAL.pdf.

[203]Republic of Korea Ministry of National Defense, *2014 Defense White Paper* (Seoul: Ministry of National Defense, 2014), 32, http://www.mnd.go.kr/user/mnd/upload/pblictn/PBLICTNEBOOK_201506120237036840.pdf.

capability in earnest. This nuclearization of North Korea combined with the ballistic missile has evolved into one of the most substantive and dangerous threats from its former status as an uncertain and possible threat to its neighbors, including Japan, and international security environment since the 2000s.

b. North Korea's Missile Development

Even if the nuclear weapon is developed, delivery means is necessary in order to use that the developed weapon. Generally, the delivery means of a nuclear weapon is divided into three types: the aircraft, the ground launched ballistic missile, and the submarine launched ballistic missile (SLBM).

For North Korea, aircraft delivery does not appear to be the most feasible option. Among North Korea's aircraft, the IL-28 light bomber, the MIG-23, and the MIG-29 fighter can deliver the nuclear weapon. Downsizing and weight reduction of the nuclear weapon would be required in order to mount it on the MIG fighters, and the operational radius of the MIG fighters is quite limited because North Korea has no aerial refueling capability. The IL-28 bomber seems to be the only possible delivery method by aircraft.[204] But the IL-28 is also fairly old, and North Korea does not have escort fighters that can protect the bomber from the modern interceptor fighters and air defense systems of neighboring countries.

North Korea's development of delivery means for its nuclear weapon has been focused on ground-launched ballistic missiles. Furthermore, this ballistic missile is regarded as a fatal threat because it can be used for not only the nuclear warhead but also for a biochemical warhead or high-explosive warhead.

North Korea secured basic missile technology and a development foundation by acquiring missile technology from the Soviet Union and training technicians since the early 1960s.[205] In addition, North Korea acquired ballistic missile technology by cooperating with several Middle East countries since the 1970s, and it developed

[204]Yun, "Effect of the North Korea's Nuclear and Missile Issues," 12.

[205]Ibid., 13.

autonomously the reproduction of a SCUD-B based on a number of SCUD-Bs provided from Egypt, and succeeded in a test-firing in 1984.[206] After that, North Korea mass-produced and deployed SCUD-B missiles since 1985, and it started to do its own research and development of a variety of long-range ballistic missiles, such as the SCUD-C, Rodong, Taepodong-1, Taepodong-2, and Musudan missiles, based on the SCUD-B missile from 1987 to 1992.[207]

SCUD-B missiles entered service in 1985 have about 320 km of distance of range, and SCUD-C missiles, which were successfully test fired and deployed in May 1993, have about 500 km of distance of range, so the entirety of the Korean peninsula is within the range of North Korea's SCUD missiles.[208] On the other hand, the Taepodong-1 and Taepodong-2 missiles currently being developed are medium- and long-range ballistic missiles that can reach up to 2,500 km and 6,700 km, respectively, and the Musudan missile, which is a ground mobile version of the Soviet Union's R-27 SLBM and deployed 15–20 missiles without test-firing in 2003, is also a medium- and long-range ballistic missile having a 2,500–3,000 km range.[209]

Above all, Japan began to feel the real threat from North Korean missiles since the Rodong medium-range ballistic missile deployed. When the first test of a Rodong missile was conducted in 1993, the missile flew about 500 km and fell in the East Sea of Korea, and the track of the missile was headed for Tokyo.[210] In July 2006, two or three Rodong missiles were launched again toward the far east of Russia and Hokkaido of Japan.[211]

As depicted in Figure 6, all of Japanese mainland is within the range of the Rodong missile, which is about 1,300 km, and the Rodong missile can reach the Japanese

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[206]Yun, "Effect of the North Korea's Nuclear and Missile Issues," 13.

[207]Tonghyong Park, Changhee Nam, and Wonwoo Lee, "US-Japan-Korea Air Power Cooperation for North Korea's Missile Threats Reduction," *Military & Culture Study of Korea-Japan* 12 (2011): 6, http://mckoja.org/sub/info_01.html.

[208]Park, Nam, and Lee "US-Japan-Korea Air Power Cooperation," 5–6.

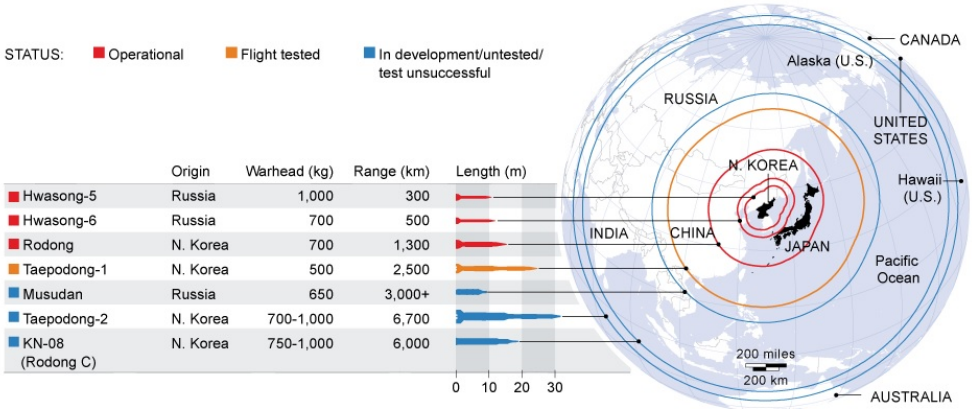
[209]Ibid., 6.

[210]Narushige, "Japan's Response to Nuclear North Korea," 9.

[211]Ibid.

mainland in seven to ten minutes with a speed of Mach 15–20.[212] The Rodong missile was also designed to accommodate all conventional warheads, nuclear warheads, and biochemical warheads, and more than 300 Rodong missiles have been deployed since 1995 until now.[213] Considering the firing range, the capability, the reaction time, and the speed, the Rodong missile became the most dangerous threat to Japan.

Figure 6. North Korean Missile Range[214]



The third means of nuclear weapons delivery for North Korea would be submarine launched ballistic missiles. North Korea's efforts here have been more recent but no less important. North Korea bought 12 disused submarines from Russia in September 1993, and several Golf-II class submarines were equipped with the SSN-5 SLBM, which is the original type of Rodong missile.[215] When North Korea introduced the submarines, the SLBM was removed; however, the missile launching system, such as the launching tube and the stabilizer, was maintained.

[212]Narushige, "Japan's Response to Nuclear North Korea," 10.

[213]Ibid.

[214]Source: Brian Padden and Margaret Besheer, "North Korea's Missile Tests Show Real Progress," VOA News, June 22, 2016, http://www.voanews.com/a/north-korea-failed-missile-tests-show-real-progress/3386692.html.

[215]Yun, "Effect of the North Korea's Nuclear and Missile Issues," 13–14.

Lately, North Korea is concentrating on the development of an SLBM and has made progress in the development of that launching system.[216] Even though North Korea's SLBM tests conducted so far have been analyzed as failures or at an early stage, the SLBM launched on August 24, 2016, flew about 500 km toward Japan, and a South Korean military officer said that North Korea's SLBM technology seems to have progressed.[217]

In the case of Japan, which is surrounded on four sides by the sea, the SLBM being launched secretly through a submarine could be the most serious threat posing the greatest challenge to the Japanese missile defense system.

2. JASDF's Response

This section analyzes the Japan's perception toward the North Korean threats and JASDF's strategic response.

a. Intensification of Japan's Threat Perception and NK's Scenarios

As mentioned previously, North Korea is increasing its ability to attack Japan directly through the development of missiles. An analysis of the Japanese defense white papers reveals that Japan has expressed concern about the deployment of the Rodong missile since 2001, so it has regarded the North Korean missile threat as a substantive military threat since then. Furthermore, Japan has worried about North Korea's biochemical weapon capability and its combination with the ballistic missile since 2003.[218] In addition, Japan's concern about the missile threat equipped with the nuclear warhead seems to have increased because the white paper has analyzed intensively the possibility of miniaturization of a nuclear warhead since 2006.[219]

Above all, it is the most likely that North Korea will launch the ballistic missile equipped the nuclear warhead or the biochemical warhead to threaten and prevent U.S.

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[216]Yun, "Effect of the North Korea's Nuclear and Missile Issues," 13–14.

[217]Jumin Park and Jack Kim, "North Korea Fires Submarine-launched Ballistic Missile towards Japan," Reuters, August 24, 2016, http://www.reuters.com/article/us-northkorea-missiles-idUSKCN10Y2B0.

[218]Nam and Lee, "Japan's Response to North Korea's Nuclear and Missile Threat," 69–71.

[219]Ibid.

forces deploying from Japan to Korea during a crisis situation on the Korean Peninsula. Because what North Korea fears the most is reinforcement of the U.S. military to the Korean Peninsula during a crisis, North Korea can use the nuclear weapon and missile by firing it directly at the military base in Japan or by threatening Japan to launch missiles at cities of Japan to prevent the reinforcement.

Second, North Korea can use the nuclear weapon and missile as a means of political and diplomatic protest against international sanctions. Recently, Japan is taking a hard-line attitude toward North Korea's nuclear and missile development by participating actively in international sanctions and making its own sanctions. So, North Korea is likely to continue missile tests toward the Japanese mainland as an expression of complaint and dissatisfaction.

Lastly, if a full-scale war occurred on the Korean Peninsula and North Korea was beleaguered, North Korea could use the nuclear weapon and missile as a bargaining chip for a ceasefire or a signal of last stand by firing missiles indiscriminately at the U.S. forces' deployment area such as Japan and Guam. Under these scenarios, North Korea's nuclear and missile threat is practical and a fatal threat to Japan, and the Japanese security and defense policy after the early 2000s has been affected by this threat.

b. JASDF's Response to the North Korean Threat

First, North Korea's nuclear and missile threat has affected the JSDF's defense concept. As stated earlier, Japan's defense concept has changed from the "Basic Defense Capability" concept in the 2004 NDPG to the "Dynamic Defense Force" concept in the 2010 NDPG, and to the "Dynamic Joint Defense Force" concept in the 2013 NDPG. In the background of this change, Japan's perception of the North Korean threat has been an important driver. Though there was no direct mention about the North Korean threat until the 1976 NDPG and the 1996 NDPG, Japan directly stated in the 2004 NDPG that North Korea's development, deployment, and diffusion of the WMD and missiles is a destabilizing factor for regional security, international security, and nonproliferation efforts.[220] Also in the 2010 NDPG, Japan worried about North Korea's continuous

[220]Government of Japan, *National Defense Program Guidelines, FY 2005*, 2.

development and deployment of the WMD and missiles and put more emphasis on North Korea's threat being an immediate and serious factor making the regional security unstable.[221] In the 2013 NDPG, Japan also mentioned that North Korea is maintaining the asymmetric military capability by developing, deploying, and diffusing the WMD, including the nuclear weapon and the missile, and it is causing the unstable status of regional security.[222] Japan particularly stressed North Korea's nuclear and missile threat in the 2013 NDPG by mentioning that the increased range and accuracy of North Korean missiles through the advances of missile technology and the possibility of combining the nuclear weapon with the ballistic missile by miniaturization are serious and immediate threats that Japan is facing.[223] To adapt to this change in the defense concept, the JASDF's strategic ends have evolved from the formerly passive and exclusively defensive goal of defense of the mainland by air power to the active goal of creating politically and militarily advantageous conditions through a rapid, flexible, and assertive response to various threats by air power.

North Korea's nuclear and missile threat also has caused the evolution of the JASDF's strategic ways. Above all, the increased North Korean nuclear and missile threat brought about the necessity of the JASDF's air-to-ground capability and preemptive strike operation concept. The previous JASDF had excluded completely an air-to-ground capability that deviated from the principle of an exclusively defense-oriented policy, but some Japanese politicians and officers began to have the perception that defense against North Korea's advanced nuclear and missile threat by only the missile defense system was restricted.[224] Japanese hard-liners claimed that Japan should secure enemy base strike capability every time North Korea conducted a nuclear or missile test after the Taepodong-1 missile test in 1998, and they also argued that the preemptive strike against North Korea's missile bases when an imminent attack warning

[221]Government of Japan, *National Defense Program Guidelines for FY 2011 and Beyond*, 3–4.

[222]Government of Japan, *National Defense Program Guidelines for FY 2014 and Beyond*, 2.

[223]Ibid., 3.

[224]Nam and Lee, "Japan's Response to North Korea's Nuclear and Missile Threat," 79.

exists corresponded to the right of self-defense in a strict sense.[225] Following this trend, the JASDF possessed the air-to-ground attack capability and formulated the air-to-ground training.

In terms of the strategic means, the JASDF has introduced a variety of weapon systems to support the "Dynamic Joint Defense Force" concept and to secure the air-to-ground capability and the preemptive attack ability and to obtain the capability of early detection and warning with regard to North Korea's nuclear and missile threat. The entering into service of the F-2 fighter in 2000 and the purchase contract of the F-35 fighter in 2011 means that the JASDF pursues a precision strike against the North Korean threat in time of emergency by acquiring the fighters equipped with air-to-ground capability that were nonexistent before. In addition, the purchase contract of the KC-767 aerial refueling tanker, which can extend the operation radius of the air-to-ground fighters, was signed in 2003, and four KC-767s introduced and entered service from 2008 to 2010. Furthermore, to detect, trace, and warn of the launching of North Korean missiles and an intrusion of the asymmetric threat, four E-767s have been deployed since May 2000, and Japan decided on the acquisition of the RQ-4 UAV and obtained the U.S. State Department's approval.[226] With the acquisition of the air-to-ground fighters, the JASDF is also operating the JDAM kit since its introduction in 2003 that can strike precisely against the ground target.

The North Korean nuclear and missile threat has directly driven Japan's strengthening of its missile defense system. The trigger factor for Japan's construction policy of its missile defense system was North Korea's launching of Taepodong-1 in August 1998, which passed through the Japanese airspace.[227] Japan committed to construct the ballistic missile defense system in the National Security Council (NSC) and the Cabinet Council in December 2003 and planned to build the two-phase defense

[225]Nam and Lee, "Japan's Response to North Korea's Nuclear and Missile Threat," 80; Narushige, "Japan's Response to Nuclear North Korea," 20.

[226]Lara Seligman, "US Approves $1.2B Global Hawk Sale to Japan," *Defense News*, November 23, 2015, http://www.defensenews.com/story/defense-news/2015/11/23/us-approves-12b-global-hawk-sale-japan/76256262/.

[227]Nam and Lee, "Japan's Response to North Korea's Nuclear and Missile Threat," 81–82.

system consisting of an Aegis system and PAC-3 missiles.[228] Thus, the JASDF deployed PAC-3 missiles in the mainland since 2007, and carried forward the upgrade of FPS-3 radars and the introduction of the new FPS-5 radars to shorten response time and to extend detection range. Moreover, the JASDF deployed additionally PAC-3 missiles in the vicinity of Tokyo and Okinawa in 2012 to respond to the persisting WMD threats in surrounding area.

C. JAPANESE DOMESTIC CONSERVATIVE SWING FACTOR

It is commonly asserted that Japanese domestic politics is getting more and more conservative and rightist. This evaluation seems to result from characteristics of the policies pursued by the conservative prime ministers like Junichiro Koizumi and Shinzo Abe and right-wing parties such as the LDP. The conservative parties and politicians who have been maintaining continuously a majority in the Diet have led to neighboring countries' concern about the Japanese conservative swing, which is characterized by a strong and assertive stance toward the normalization of JSDF through amendment of the constitution, history issues like Yasukuni Shrine, and territorial conflicts such as the Senkaku/Daioyu islands and Dokdo Island. The normalization of the JSDF is being magnified in particular as a sensitive issue to the neighboring countries having negative memories about past Japanese militarism. The normalization and the changes of the JSDF entering the 2000s seem to be affected by not only the changes of the surrounding security environment but also the conservative swing of the domestic politics and the security and defense policy stance of the conservative politicians.

1. Conservative Swing of Japanese Leadership and Public

This section analyzes the conservative swing of Japanese domestic politics in terms of its trend, background, and causes, right-wing politicians' policy stance, and movement of revision of security laws.

[228]Nam and Lee, "Japan's Response to North Korea's Nuclear and Missile Threat," 82.

a. Trend, Background, and Causes of Conservative Swing

Cheolhee Park, a Japanese expert, analyzed that the Japanese conservative swing has been progressing in three levels. First, in terms of the dynamics among the parties, Japan had experienced political reshuffle represented by the fall of the center and progressive parties since the late 1990s, and the conservative forces have seized the initiative because the parties of the center have become conservative like the LDP, and the Komeito became a coalition ruling party in 1999. At last, in 2012, the political reshuffle, in which the progressive parties became isolated and the conservative parties were generally strengthened, was complete. As a result, in the dynamics among the parties, the phenomenon in which the conservative parties pushed the progressive parties out of the ring has endured.[229]

Next, in terms of the dynamics within each party, as the conservative-centrist faction of the LDP, which was the central force of the LDP, was split in the early and middle of 1990s, its absolute political leverage has declined. Since then, the conservative-liberal faction seemed to have taken the leadership, but its position also has been weakened due to the resignation of Ryutaro Hashimoto and the fall of the Social Democratic Party (SDP). At this juncture, the solidarity of the conservative-rightist faction has been strengthened in the LDP, and the hard-line right wingers like Shinzo Abe began to appear. This conservative-rightist faction began to spread after Koizumi's rise in 2000, and its sole lead has been strengthened through the general election in 2012 and the Upper House election in 2013. The number of conservative legislators in the Democratic Party of Japan (DPJ) also has increased fairly throughout the general elections in 2000 and 2003, and it became the foundation of the change in government in 2009 with the victory in the Upper House election in 2007 and the Lower House election in 2009. Since then, the older generation was expelled from power, and the younger conservative legislators have held positions of authority in the DPJ, and the bullishness of

[229]Ceolhee Park, "Three-Layered Structure of Japan's Conservative Political Shift," *Korean Journal of Japanese Studies* 10 (2014): 76–81, http://ijs.snu.ac.kr/publications/korean_journal_of_japanese_studies?mode=view&bookidx=70.

conservative members in the party was particularly noticeable in the general election in 2012 again.[230]

Third, in terms of the legislators gathering, leagues of conservative and right wing legislators have been activated. The conservative forces began to have a non-partisan character since the middle of 1990s, and the legislators, who worked in the frame of party in 1955 system, began to organize the non-partisan gathering beyond the party framework. Good examples of this trend are "the gathering of legislators all paying their respect at the Yasukuni Shrine" and "the league of legislators acting to defend the Japanese territory." These leagues have been founded since 1995–1997, and became vigorous in 2000–2007 when Koizumi and Abe became prime minister successively. Since then, the non-partisan movement, not limited to the LDP members and including the members of other parties, has been noticeable. The gatherings are ultimately carrying forward a revision of the constitution and taking a completely opposite stand to the pacific principle asserted by the progressive forces.[231]

This trend of the conservative swing has spread from the political world to the society. The traditional right-wing activities have been activated, and the neoconservative movement stressing "people," not "emperor" of the traditional conservatism, has noticeably increased at the same time. Furthermore, as the interchange through the internet has proliferated in the current of internationalization and an information-oriented society, the phenomenon that strengthening identity of the affiliated group and the stereotype has appeared, and the conservative mood began to be expressed throughout the online environment among the younger generation since the late 1990s. The "net right-wing" having a far-right character even began to appear. In particular, the Japanese younger generation has a tendency toward conservatism that regards the postwar generation as the Establishment and expresses anti-sentiment against neighboring

[230]Park, "Three-Layered Structure of Japan's Conservative Political Shift," 82–86.

[231]Ibid., 86–95.

countries, and this younger generation has become the foundation of support to conservative politicians such as Abe.[232]

To analyze the background and causes of the conservative swing of Japanese domestic politics requires focusing on the internal factors; first, the necessity of a new view of state has been on the rise in accordance with the increase in Japanese national power.[233] For example, entering the 21st century, Japan has wanted a new international and regional status and role suited for its power and to become qualified for the UN Security Council. However, it needed to amend the limitations of the constitution, such as the right to collective self-defense for its goal, and the Japanese conservative politicians began to push forward a variety of conservative policies such as the normalization.[234] In addition, while Japan paid supporting funds of 13 billion dollars instead of dispatching forces in the Gulf War, it did not receive any gratitude from Kuwait or international society, and Japan began to have the perception that soft power cannot substitute for hard power.[235]

Second, the Japanese conservative swing originates from the personal tendency of the postwar generation politicians. While the elder statesmen who experienced defeat in the Pacific War have feelings of wariness about the Japanese militarization, the postwar generation politicians do not share such a strong historical frame of reference as compared to the elder statesmen.[236] Moreover, Koizumi and Abe have quite a conservative tendency personally. Koizumi set forth a visit to the Yasukuni Shrine as his election promise before he became the prime minister, and finally he made relations with

[232]Chiwon Lee, "Japan's Right-Turn: 'Historical Revisionism' and the Limits of Abe's 'Breaking Away from the Post-War Regime'," *Economy and Society* 101 (2014): 67–78.

[233]Eunseok Moon, "The Abe Regime's Shift to the Right and the Trend of Security on Northeast Asia: Propulsion of the Right to Collective Self-defense and its Emphasis as the Main Issue," *Japanese Cultural Studies* 50 (2014): 87.

[234]Arpita Mathur, "Japan's Self-Defense Forces: Towards a Normal Military," *Strategic Analysis* 31, no. 5 (2007): 730, doi:10.1080/09700160701662260.

[235]Margarita Estevez-Abe, "Feeling Triumphalist in Tokyo: The Real Reasons Nationalism Is Back in Japan," Foreign Affairs, accessed September 3, 2016, https://www.foreignaffairs.com/reviews/review-essay/feeling-triumphalist-tokyo.

[236]Moon, "Abe Regime's Shift to the Right and the Trend of Security on Northeast Asia," 87.

Japan's neighbors worse by going ahead with the visit.[237] Abe's family has turned out members of the Lower House for three generations, including Abe, and Abe's grandfather, Nobussuke Kishi, who was a mandarin during Japanese imperialism. Against this background, Abe has given positive aid to "the gathering making new history textbook," established by the rightist nationalists since 1997. He also made officials amend the "Fundamentals of Education Act" toward emphasizing patriotism in 2006 when he was prime minister for the first time, and he lined up a lot of conservative human resources.[238] In addition, after he became prime minister for a second time, he let international society know the launch of the conservative regime by carrying out the visit to the Yasukuni Shrine in December 2013.[239]

Third, Japan's handling of war criminals was insufficient unlike Germany. In the case of Japan, the war criminals purged from public life in 1946 returned to the political world after the 1952 Treaty of San Francisco and led the founding of LDP in 1955. Like this, as the handling of war criminals was not fulfilled properly, it allowed the appearance of a revisionist historical view and the majority of the conservative forces.[240]

Fourth, the anxiety and the loss of self-confidence that spread to Japanese society caused the conservative shift. Japan has entered long-term economic stagnation since the 1990s, and its GDP was overtaken by China's in 2010. This hurt the Japanese ego, and Japanese internal society began to demand strong political leadership. Thus, the nationalistic policies of the Japanese leadership have gained the support of the general public.[241]

The last factor is the strengthening of the Japan-U.S. alliance. After the end of the Cold War, the uselessness of the Japan-U.S. security system became apparent, and

[237]Jongguk Lee, "The Historical Perceptions of Conservatives in Japan and the Development of History," *Dongbuga Yeoksa Nonchong* 51 (2016): 221–226, http://www.dbpia.co.kr/Article/NODE06647978.

[238]Sunghoo Hong, "Analysis on the Causes of Abe Regime's Right-wing Conservatism: Focus on East Asia Foreign Policy," *Korean Northeast Asia Studies* 70 (2014): 47, http://www.knea96.kr/html/sub04_04.asp.

[239]Ibid., 49.

[240]Moon, "Abe Regime's Shift to the Right and the Trend of Security on Northeast Asia," 87.

[241]Ibid., 87–88.

frictions between the two countries developed in not only the economic sector but also the security sector. In addition, after the U.S. soldier's rape of a citizen in Okinawa in 1995, both countries grew concerned about the alliance and started to unwaveringly redefine the Japan-U.S. security system. Therefore, the Pentagon announced the "United States Security Strategy for the East Asia-Pacific Region" at the instigation of Joseph Nye in February 1995 and emphasized the partnership between the United States and Japan and the Japan-U.S. security system. In addition, President Bill Clinton and Prime Minister Hashimoto announced the "Japan-U.S. Joint Declaration on Security-Alliance for the 21st Century" at the summit talk in Tokyo in April 1996. Through this announcement of the joint declaration, the cooperation range of the Japan-U.S. security system has been expanded from the former Far East region to the Asia-Pacific region. Entering the 2000s, the Bush administration pursued outstandingly the strengthening of the Japan-U.S. alliance and Japanese role expansion, and the Koizumi administration and Abe administration also pursued the enhancement of the alliance and the diplomatic strategy that leaned toward the United States. Furthermore, as the "New Guidelines for U.S.-Japan Defense Cooperation" was drawn up, the JSDF's role increased flexibly according to the security environment of the Asia-Pacific region, and the activity range of the JSDF expanded to the Middle East after 9/11.[242]

b. Conservative Politicians' Policy Stance and Japanese Security Laws

What exactly is the security policy stance of the Japanese conservative politicians in that conservative swing? First, they put emphasis on security cooperation with the United States through the Japan-U.S. alliance. The Japanese conservative forces think that the relationship with the United States should be prioritized rather than the relationship with other Asian states. At the regime's launch, the Koizumi administration prioritized making conciliation number-one and put its utmost efforts into improving Japan's relationship with the United States. For that, Koizumi indicated his favorable stance after his inauguration to the issue of the right of collective self-defense and the

[242]Jeongho Bae, "*Ilbon anbo jeongchaekui bosuhwawa daenaewaejeok yoin* [Conservative Shift of the Japanese Security Policy and Its External and Internal Factors]," *Tongil Jeongchaek Yeongu* 11, no. 1 (2002): 132–135, http://www.dbpia.co.kr/Article/NODE01380809.

MD development on which the United Stated looked positively. The Abe administration also has taken the strengthening of relationship with the United States as a pivot of its policy, and it has reinforced and reorganized the Japan-U.S. alliance by adapting for the U.S. global security strategy.[243]

Next, Japanese conservative politicians have agreed with revision of the constitution and possession of the right of collective self-defense. They have taken a strong stand that Japan should permit every dimension of the right of self-defense as sovereignty of a state through amendment of Article 9 of the constitution, which denies conducting war, possessing formal military forces, and the right of belligerency. They also think that allowance of the right of collective self-defense and revision of the constitution are required for the Japan-U.S. genuine alliance.[244]

The Japanese conservative politicians are agreed on overseas dispatch of the JSDF. In addition, they also pursue a hard-line and hawkish policy in the foreign policy toward North Korea. However, a lot of the conservative politicians, except for some far-right politicians, still oppose nuclear-arming.[245]

Under these policy stances, the Japanese conservative regimes have carried forward the amendment of the security laws in many ways. First, Japan promulgated the "Act Concerning the Measures for Peace and Safety of Japan in Situations in Areas Surrounding Japan" in May 1999 as a domestic follow-up action to the "Japan–U.S. Joint Declaration on Security." This act specified the supporting contents and process for the U.S. forces suppressing emergency situation surrounding Japan. However, it was criticized for being ambiguous about the "surrounding situation." This ambiguity was in order to relieve the JSDF's activity range from the specific area and support efficiently

[243]Yanghyun Cho, "*Abe Ilbonui waekyo anbo jeongchaek* [The Security and Foreign Policy of the Abe's Japan]," *Military & Culture Study of Korea-Japan* 5 (2007): 86–91, http://mckoja.org/sub/info_01.html; Cheolhee Park, *Koizumi Regime's Foreign Policy Decision Logic and Korea's Diplomatic Response Strategy* (Seoul: The Institute of Foreign Affairs & National Security, 2003), 30-31, http://dlps.nanet.go.kr/DlibViewer.do?cn=MONO1200304566&sysid=nhn.

[244]Cho, "Security and Foreign Policy of the Abe's Japan," 92–93.

[245]Rheebeom Lee, "*Ilbon junguiwon kukhwaeuiwondlui jeongchaek seonghyang bunseok* [The Analysis of the Policy Preference of the Member of the House of Representatives]," *Military & Culture Study of Korea-Japan* 10 (2010): 128–132, http://mckoja.org/sub/info_01.html.

the U.S. military. Moreover, even though the act limited the rear support for the U.S. forces to the noncombat operation, it also was criticized due to the suspicion that it would be actually obeyed.[246]

In addition, entering the Koizumi administration, Japan carried out the implementation of the defense bill. The purpose of this legislation was to establish an active defense posture against armed attack. The defense bill consisting of the "Armed Attack Situation Response Law," the "Amendment of the Self-Defense Forces Law," and the "Establishment of the National Security Council Law," was passed by the Diet by an overwhelming majority in May 2003. After the law was passed, neighboring countries such as Korea and China criticized it heavily claiming that Japan would abandon the principle of an exclusively defense-oriented policy. The "Armed Attack Situation Response Law" contained the basic concept and procedure for how the Japanese government should handle an armed attack against Japan. By this law, Japan came to possess the capability and posture to conduct a self-defense war at least by enacting that the Prime Minister could order the move. Furthermore, the law expanded the concept of the "armed attack situation" from "the situation occurred the armed attack" to "the situation expected the armed attack." The "Amendment of the Self-Defense Forces Law" newly stipulated the cooperating duty of the civilian sector for the JSDF's smooth activity in an emergency. This law facilitated expropriation of private land or demolishing a house by the JSDF not only after the order for moving but also when the order for moving is expected. The "Establishment of the National Security Council Law" was to set up an expert committee consisting of the JSDF, the Ministry of Defense, the National Police Agency, and the Ministry of Foreign Affairs in the National Security Council.[247]

Entering the Abe administration, the amendment of the security laws emerged as key factor in Abe's security and defense policy. Abe, who before planned to deepen the military alliance with the United States by conducting the right of collective self-defense

[246]Dooyoung Song, "*Ilbon Koizumi jeongbuui anbo jeongchaek yeonku* [A Study on the Security Policy of the Japan's Koizumi Government]" (master's thesis, Kyunghee University, 2006), 42–43, http://dlps.nanet.go.kr/DlibViewer.do?cn=KDMT1200615554&sysid=nhn.

[247]Song, "Study on the Security Policy of the Japan's Koizumi Government," 44–46.

through the revision of the constitution, changed his direction to conduct the right of collective self-defense by only changing the interpretation of the constitution because the revision was not easy. Abe elicited the acceptance of the right of collective self-defense from the Diet in July 2014, and new Diet bills submitted in May 2015 took effect since March 29, 2016.[248]

First, the Abe administration enacted the "Bill Concerning Cooperation and Support Activities and Other Activities to Armed Forces, of Foreign Countries and Others in Situations Where the International Community Is Collectively Addressing for Peace and Security." According to this bill, Japan can send troops overseas whenever it is approved by the Diet without a special law.[249] In addition, while Japan had admitted only the right of individual self-defense before the new defense bills, it legalized the right of collective self-defense by adding the new concept of "survival-threatening situations" through the overall amendment of the defense bills. Moreover, by the "Law Concerning Measures to Ensure Peace and Security of Japan in Situations that Will Have an Important Influence on Japan's Peace and Security" amended from the former "Law Concerning Measures to Ensure Peace and Security of Japan in Situations in Areas Surrounding Japan" erased the expression of "surrounding Japan," and the dispatch of troops and the use of armed force have become available under the decision of the Japanese Cabinet and Diet in the situation that can affect Japan seriously. Furthermore, the target of support has expanded from only the U.S. troops to any foreign military, and the activity range of the JSDF has extended to global. As a result, through these enactments and amendments of the security laws, free exercise of the JSDF has become possible without the revision of the constitution.[250]

[248]Miae Jung and Jinho Jeon, "*Anbo beobjeui munjejeomkwa Ilbon kuknaejeok hamui* [The Problem of Security Laws and Domestic Implication on Japan]," *The Military & Culture Study of Korea-Japan* 21 (2016): 6–8, http://mckoja.org/sub/info_01.html.

[249]Jung and Jeon, "Problem of Security Laws and Domestic Implication on Japan," 9–12.

[250]Ibid., 12–13.

2. JASDF's Role Change and Strategic Evolution

The strategic evolution of the JASDF conducted since the early 2000s also can be analyzed as a change to keep pace with the conservative swing of Japanese domestic politics and the changes of the various security laws. In a broad context, the JASDF's evolving strategy is interpreted as an action to make an air force that meets the right of collective self-defense and the normalization of the JSDF. In other words, the JASDF's evolving strategy is a way to alleviate the condition for use of force and expand the JSDF's sphere of activity pursued by the Japanese conservative political powers.

First, in terms of the change of JASDF's strategic ends, the defense concept in the NDPG has evolved from the former "Basic Defense Capability" concept to the "Dynamic Defense Force" concept in the 2010 NDPG and the "Dynamic Joint Defense Force" concept in the 2013 NDPG, as mentioned in the former chapter. These changes are the basis of the evolution of the JSDF's defense concept from defensive and passive repelling of an enemy's intrusion into the Japanese mainland by minimum forces to achieving active deterrence by technically advanced joint forces and rapid neutralizing of the enemy when deterrence fails. And, in accordance with the changes of the defense concepts, the JASDF's strategic ends also have evolved from the former exclusively defensive and passive objective of defending the mainland and airspace by air power to the active objective of possessing political and military deterrence capability supporting the "Dynamic Joint Defense Force" concept and flexible and rapid response capability. This change of the strategic ends has been affected by the Japanese conservative politicians' normalization movement that Japan should exert the right of self-defense actively and possess necessary deterrence power as a sovereignty of state. In addition, through these changes in the JSDF's defense concept and the JASDF's strategic ends, Japan justifies the right of collective self-defense and strengthens the Japan-U.S. alliance by pursuing not only the peace and security of Japan but also contributing to regional security and world peace as the intention of the Japanese conservative regime.

According to this evolving JASDF strategy, the JASDF's strategic ways also have evolved. First, the JASDF has gradually accepted the air-to-ground strike operation concept, which was thoroughly excluded before, since the 2000s. Along with the

acquisition of the F-2 and F-35 air-to-ground fighter and JDAM air-to-ground precision guided bomb, the JASDF has been releasing the training of air-to-ground live bombs to the media since 2007. Furthermore, every time North Korea conducted a nuclear and missile test, some lawmakers of the LDP and officials of the Japanese Ministry of Defense advocated adoption of the preemptive strike concept against North Korean missile bases and acquisition of the means for it. This acceptance of the air-to-ground strike operation concept also is closely connected with the prosecution of normalization and securing of the right of collective self-defense embraced by Japanese conservative politicians. Conservative Japanese politicians seem to judge that the JSDF and the JASDF cannot act as a powerful sovereign nation if limiting itself to only the former passive air-to-air and surface-to-air operational concepts. Furthermore, they seem to believe that having air-to-ground capability would assure Japan could exercise the right of collective self-defense and also support practical cooperation with the United States in regional contingencies such as North Korea's provocation or conflict with China.

In this respect, the JASDF entering the 2000s introduced new various means. The F-2 fighter entered service in 2000, and a decision was made in 2011 to introduce the F-35 fighter. The JDAM air-to-ground precision guided bomb acquired since 2003 proceeded from the will of evolving into normal military. It also contributes to securing the right of collective self-defense by possessing the air-to-ground attack concept and air strike capability mentioned previously. Moreover, the JASDF has expanded the activity region from the Japanese mainland to East Asia and the world by introducing the KC-767 aerial refueling tanker since 2006 and developing the C-2 long-distance cargo since 2007. Thus, it has taken steps to satisfy the willingness of Abe's regime to justify the JSDF's overseas dispatch and military intervention through the "Law Concerning Measures to Ensure Peace and Security of Japan in Situations in Areas Surrounding Japan" and the "Bill Concerning Cooperation and Support Activities and Other Activities to Armed Forces, of Foreign Countries and Others in Situations Where the International Community Is Collectively Addressing for Peace and Security." In addition, Japan announced appeasement of the principle of the non-export of military arms in 2011 and carried out the full amendment of the principle in 2014 with the current normalization.

Through that, the next-generation fighter development project being developed by the Ministry of Defense gained momentum. The construction of a missile defense system through the acquisition of the BMD decided on by the Koizumi government has also been affected by the policy stance of the Japanese conservative regime that put emphasis on the Japan-U.S. alliance and security cooperation with the United States in terms of introducing the U.S. Theater Missile Defense (TMD) system and the cooperative development of the next-generation intercept missile related with the MD.[251]

D. INTRINSIC NATURE OF AIR STRATEGY FACTOR

As examined previously, China's military rise, North Korea's threat, and the conservative swing of Japanese domestic politics have boosted the evolution of the JASDF's strategy from the "defensive defense" strategy to an "offensive defense" strategy. However, why has the JASDF's strategy evolved in an offensive direction, rather than a defensive direction? To answer this question, this subchapter argues that the evolution of the JASDF's strategy has been affected by the intrinsically offensive nature of air strategy. In other words, even though the intrinsic nature of air strategy and air power is offensive, that nature has been repressed by the principle of an exclusively defense-oriented policy and Japan's pacific constitution. However, China's military rise, North Korea's threat, and the conservative swing of Japanese domestic politics began to loosen those constraints, and the strategy of JASDF also began to incorporate the intrinsic nature of air power.

1. Offensive Employment of Air Power in Modern Warfare

After the appearance of the aircraft and aviation technology, air power became an indispensible force in modern warfare, and it has played a crucial role in victories during wars. Especially, national air forces have taken charge of the offensive role of aviation more than armies or navies.

[251]Taewan Kim, "A Comparative Study on the Ballistic Missile Defense System of Japan, Korea with the Emphasis on the Active Defense Concept" (master's thesis, Kookmin University, 2011), 42, http://dlps.nanet.go.kr/DlibViewer.do?cn=KDMT1201229373&sysid=nhn.

Throughout the 20th century, the tangible importance of airpower in war outcomes was much debated. In the late 20th century, however, the development of precision guided weaponry shifted the terms of this debate. Since the Gulf War, the concept of air operation has changed toward attacking directly the enemy's strategic center of gravity. In other words, countries in modern warfare have achieved their national goals and the political objectives through the offensive employment of air power by striking the enemy's targets that are most directly and universally related to the enemy's ability and will to resist and by minimizing contact with the enemy at the front.[252]

In the first stages of the Gulf War, aircraft of the United States and the coalition forces began to strike against the main targets of Iraq. The air campaign of the Gulf War proceeded through four phases. In the first phase, the U.S. and coalition forces tried to paralyze Iraq's command structure by destroying simultaneously the national command center, the command line, the Republican Guard, and so forth. In the second phase, the U.S. and coalition forces seized the air superiority by attacking Iraq's SAM, AAA, and aircraft on the bases to remove and to deter the enemy's air defense power in the Kuwait Theater of Operation. They destroyed Iraq's battle capability through the attack against Iraq's ground forces in the third phase, and they conducted the air strike against the Republican Guard to support the allied force's ground operation in the fourth phase. The air strikes against the enemy's strategic targets through the offensive employment of air power based on the stealth fighters and the precision guided munitions enabled coalition forces to seize the initiative and lead to early victory in the war.[253]

In the Kosovo War, the North Atlantic Treaty Organization (NATO) excluded the employment of ground forces and won the war through only an offensive air campaign using high-tech air power. In the early phase of the air strike, NATO seized air

[252]Wonkyu Lee, "The Effectiveness of 'Air Strategic Bombing': In Gulf & Iraq Battle Field," (master's thesis, Chosun University, 2005), 20, http://dlps.nanet.go.kr/DlibViewer.do?cn=KDMT1200580302&sysid=nhn.

[253]Lee, "Effectiveness of 'Air Strategic Bombing'," 20–21; "Air War History," Republic of Korea Air Force Website, Republic of Korea Air Force, accessed September 30, 2016, http://www.airforce.mil.kr:8081/user/indexSub.action?codyMenuSeq=58857&siteId=airforce&menuUIType=tab.

superiority by simultaneously intercepting Serbian aircraft in the air and striking the air bases and the air defense system on the ground. Furthermore, they weakened the enemy's command and control system and attacked the Serbian force's military targets and reinforcement forces and reduced Serbia's war capability through air strikes against infrastructure facilities such as bridges, railroads, and the power grid. Milosevic had no choice but to surrender due to NATO's offensive employment of the air power. As a result, the Kosovo War terminated by only the offensive air power without the ground forces.[254]

The significance of the offensive employment of the air power was magnified also in the Afghanistan War following the Gulf War and the Kosovo War. Especially, the precision guided bombs such as the JDAM and the cave destruction weapons were used as about 60 percent of the total ammunitions to sweep the Taliban forces hiding in the mountainous areas, and the attack using UAVs was also conducted. Through the offensive air operation based on the precision guided bombing, the U.S. force experienced limited damage: only four dead, one bomber lost, and two helicopters lost.[255]

The air strike operation of the U.S. and British allied force against Bagdad at the start of the Iraq War was conducted through three phases. In the first phase, the allied force conducted the precision air strike against the strategic targets in Bagdad, such as the palace of the President, the main military facilities, the air defense system, and the command and control system to reduce the command group's will to resist and to isolate the military command. In the second phase, the allied force continued the air strike against strategic targets and conducted massive air attacks against communication facilities, intelligence facilities, broadcast stations, and the Iraq Republican Guard. In the third phase, the air operation was focused on the concentrated attacks against Bagdad and support to the stabilization operation of the ground forces. Also in the Iraq War, the air force took the initiative by neutralizing the enemy's military power and strategy through

[254]Lee, "Effectiveness of 'Air Strategic Bombing'," 21–22; "Air War History," Republic of Korea Air Force Website; John O'Connell, *The Effectiveness of Airpower in the 20th Century: Part Three (1945-2000)* (Lincoln, NE: iUniverse, 2006), 184–95.

[255]"Air War History," Republic of Korea Air Force Website.

the early offensive employment of air power, and the neutralization of the enemy's air defense system through the early air strike played a decisive role in air superiority in the theater. Especially, the air strike employing stealth fighters and bombers and the precision guided munitions against the enemy's command and control system facilitated the early termination of the war by paralyzing the enemy physically and psychologically.

Like these examples in war history, the effectiveness of the offensive employment of air power and the crucial role of the air power in the modern warfare support the arguments of the air strategy theorists concerning the intrinsically offensive nature of air power. With the advent of precision weaponry, these empirical lessons are increasingly reflected in the each country's air force doctrine and operation concept.

2. JASDF's Self-Examination

Despite the views and theories on air strategy mentioned earlier, after World War II the JASDF operated its air power according to an absolutely defensive strategy based on the principle of an exclusively defense-oriented policy and the pacific constitution. However, under the lessons from air war history, and especially in light of recent experiences showing the effectiveness of precisely guided munitions, doubt about the usefulness of the JASDF's exclusively defensive strategy and self-examination began to appear also within JASDF after the early 2000s, and the necessity of a new strategy aligned with the intrinsically offensive nature of air power began to emerge.

Kunio Orita, the former chief of the JASDF Air Development and Test Command and retired lieutenant general, argued in his article that soldiers should fathom and assimilate military techniques, strategies, and tactics appearing in modern warfare, and they should prepare for future war by interpreting modern war through past war.[256] In this context, he elicited lessons of modern warfare from the Gulf War, the Kosovo War, the Afghanistan War, and the Iraq War.

Above all, he thought that modern warfare is conducted in the battlefield space that spatially expanded and time compressed, and the capability of power projection for

[256]Kunio Orita, "*現代戦争を読み解く：知られざる現代戦の実相* [Deciphering Modern Warfare: Unknown Reality of Modern Warfare]," July 2006, 2, http://aiminghigh.web.fc2.com/2.pdf.

that battlefield space is essential in modern warfare.[257] Like the early air strategy theorists, he argued that offense has become absolutely advantageous in modern warfare due to the disappearance of the obvious front line. In addition, he argued that even though Japan, surrounded by the sea, was in a hugely advantageous defensive position in times past, it could no longer rely on a defensive strategy because now Japan can be attacked anytime and anywhere due to the development of technology.[258] Thus, he concluded that the principle of an exclusively defense-oriented policy pursued by Japan has no meaning in modern warfare because the victory of modern warfare is decided by the blow of air operation, and he preached the importance of securing air superiority and stand-off weapons and precision guided munitions.[259] Orita's article is meaningful in that he presented skepticism about the JASDF's absolutely defensive strategy during his tenure as JASDF Air Development and Test Commander, and the article proposed that the JASDF's strategy should evolve into a more offensive direction including long-distance power projection capability and air-to-ground strike capability.

Moreover, Sugio Takahashi, a researcher in the National Institute for Defense Studies, put emphasis on the necessity of the JASDF's air strike operation against the missile threats surrounding Japan by reviewing the effectiveness of the U.S. force's air strike operations against enemy's mobile missile launcher in the Gulf War and the Iraq War.[260] In addition, he argued that constructing the composite system composed of the strike capability and the intercept system is more efficient in the defense budget than constructing only the intercept system.[261] However, he claimed that Japan should possess the offensive capability in a way that can support U.S. strike operations such as aerial refueling capability and acquisition of precision guided weapons because Japan's

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[257]Orita, "Deciphering Modern Warfare," 17–18.

[258]Ibid., 21–22.

[259]Ibid., 23–24, 49–53.

[260]Sugio Takahashi, "Dealing with the Ballistic Missile Threat: Whether Japan Should Have a Strike Capability under Its Exclusively Defense-Oriented Policy," *NIDS Security Reports*, no.7 (2006): 83–88, http://www.nids.go.jp/english/publication/kiyo/e2006.html.

[261]Ibid., 91.

independent strike capability against an enemy's military bases under the principle of the exclusively defense-oriented policy can backfire for neighboring countries.[262]

With these views of JASDF's senior ranking officers and Japanese military experts, the JASDF established the JASDF Fundamental Doctrine under the supervision of the JASDF Doctrine Research Institute. Hiroshi Kameoka, a colonel of JASDF, stated that establishment of the JASDF Fundamental Doctrine was required because the need for presenting a basic concept of the JASDF's action was recognized due to the change of patterns of warfare and the expansion of JSDF's task, and the JASDF started basic research about the doctrine since 2005 and enacted the JASDF Fundamental Doctrine in March 2011.[263] Though the details of the fundamental doctrine have not been opened to the public, the rough contents came out into the open in Japanese media reports in 2013. When a legislator of the Japan Communist Party in the meeting of the Lower House in 2014 argued that the contents of JASDF's Fundamental Doctrine conflict with the pacific constitution, a representative of Japan Ministry of Defense admitted the existence of the JASDF Fundamental Doctrine, and he stated that JASDF established the doctrine autonomously.[264]

First, the JASDF Fundamental Doctrine is known to state that air power is the core of the joint strategy, and securing air superiority is the prerequisite for the entire joint strategy as proved in the Iraq War.[265] In addition, it presents security assurance in the neighboring airspace, coping with the island attack, and the prevention of ballistic missile threats as the JASDF's main operations, and it also states that for the main operations, the JASDF should prepare tactically offensive operations in cooperation with

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[262]Takahashi, "Dealing with the Ballistic Missile Threat," 92–93.

[263]Hiroshi Kameoka, "*ドクトリン研究室について* [About Doctrine Laboratory]," *Air Power Studies* 1 (2014): 44, http://www.mod.go.jp/asdf/meguro/center/AirPower1st/043center3.pdf.

[264]"*空自、改憲先取り研究 ０６年に報告書* [ASDF, Report on Ahead Research of Constitutional Reform 2006]," Japanese Communist Party Website, June 7, 2014, http://www.jcp.or.jp/akahata/aik14/2014-06-07/2014060701_02_1.html.

[265]"*空自ドクトリン等に関する調査研究* [Research on the ASDF's Doctrine, etc.]," September 27, 2013, http://www.ne.jp/asahi/nd4m-asi/jiwen/thoughts/2013/550.html.

the U.S. force.[266] The doctrine has been criticized as violating the principle of an exclusively defense-oriented policy because the importance of offensive operation is emphasized by asserting the necessity of consideration about the strike capability against the enemy's military bases and by specifying the advantage of offense and the disadvantage of defense.[267]

As mentioned previously, the need for the more offensive strategy and the long-distance power projection capability began to be recognized in the JASDF internally based on the lessons of air war history. Therefore, the JASDF carried forward the introduction of the air-to-ground operation concept in terms of the strategic ways, and it also acquired the air-to-ground fighter and the air-to-ground weapon for the air-to-ground operation and the aerial refueling tanker and the long-distance cargo for the long-distance power projection capability in terms of the strategic means.

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[266]"'航空自衛隊基本ドクトリン' 入手 有事に備え思想教育（東京新聞）[Obtaining ASDF's Fundamental Doctrine: Ideological Education for Preparation for Emergency (Tokyo Newspaper)]," December 21, 2013, http://ameblo.jp/heiwabokenosanbutsu/entry-11733545447.html.

[267]Ibid.

IV. COMPREHENSIVE EVALUATION

This chapter makes a comprehensive evaluation by tabulating a scorecard for the drivers of the JASDF's strategic evolution and measures which driver among the four independent variables has the biggest impact on the evolution of JASDF's strategy. Moreover, this chapter defines the current JASDF strategy and anticipates the future JASDF strategy by analyzing the current trend of each independent variable.

A. SCORECARD OF FACTORS

The preceding chapter discussed the effect of four drivers on the evolution of the JASDF's strategy: the modernization of the PLA's air power, North Korea's nuclear and missile threat, the conservative swing of Japanese domestic politics, and the intrinsically offensive nature of air power. This section summarizes the arguments and conclusions of the preceding chapter concerning how each of these factors affected the various aspects of the ends, the ways, and the means of JASDF's strategy.

As mentioned in Chapter III, the modernization and the arms buildup of the PLA's air power has affected the evolution of JASDF's entire strategy. Japan's threat perception in relation to the PLA's modernization and military buildup has led to continuous changes in Japan's defense concept after the early 2000s. In addition, the PLAAF's pursuit of the "strategic air force," the strengthening of the PLARF, and the aircraft carrier development of the PLAN has caused the need for the discussion about the air-to-ground capability and the preemptive strike operation concept in the JASDF and has brought about the force movement toward Okinawa and active air defense through vigorous scramble missions. Furthermore, for these changes, the JASDF acquired various aircraft such as the air-to-ground fighter, the aerial refueling tanker, and the AWACS and introduced the air-to-ground weapon required for the air strike operation. The JASDF is developing the fifth- and sixth-generation fighters that can respond to the PLAAF's development of next-generation fighters and the modernization of air power, and it strengthened the air defense system that can counteract the Chinese missile forces.

North Korea's nuclear and missile development also has affected the evolution of Japan's defense concept by changing Japan's threat perception against the surrounding security environment. Especially, the North Korean nuclear and missile threat has had one of the biggest impacts on the JASDF's air-to-ground operation concept and the debate on the preemptive strike. Thus, it is analyzed that the JASDF's acquisition of the air-to-ground fighter and the air-to-ground weapon supporting the JASDF's new operation concept has been affected by North Korea's nuclear and missile threat. The strengthening of JASDF's air defense system is also the means for defense against North Korea's ballistic missiles.

The conservative swing of Japanese domestic politics has strengthened the conservative politicians' basic trend of security policy such as the amendment of the security laws, the securing of the right of collective self-defense, the strengthening of the U.S.-Japan alliance, and normalization through the revision of the constitution. Japan's defense concept has evolved toward an assertive and active direction that can contribute to the conservative politicians' policy stances. In addition, the acceptance of the air-to-ground operation concept and the debate on the preemptive attack has been led by the hard-line right-wingers. The acquisitions of various weapon systems, which can be regarded as having offensive purpose, such as the air-to-ground fighter, the long-range cargo, and the air-to-ground weapon resulted from the conservative politicians' pursuit of the right of collective self-defense and the normalization, and the development of the next-generation fighters got the driving force by the amendment of security laws. The strengthening of the JASDF's air defense system in cooperation with the United States and the construction of the BMD system also has been affected by the seizure of power of the conservative politicians who have a pro-American tendency and assert the strengthening of the U.S.-Japan alliance.

It cannot be said that the offensive nature of the air strategy has affected the whole defense concept, including JGSDF, JMSDF, and JASDF. However, the profitableness of the offensive operation by air power came from theories on air strategy and lessons from air war history, which led to the demand for an air-to-ground operation

concept and debate on preemptive strikes, and it became a justification for the acquisition of the air-to-ground fighter, the aerial refueling tanker, and the air-to-ground weapon.

Table 3 summarizes the preceding discussion by indicating whether each of the four major drivers produced a weak or a strong effect on the ends, ways, and means of JASDF's evolving strategy since the 1990s.

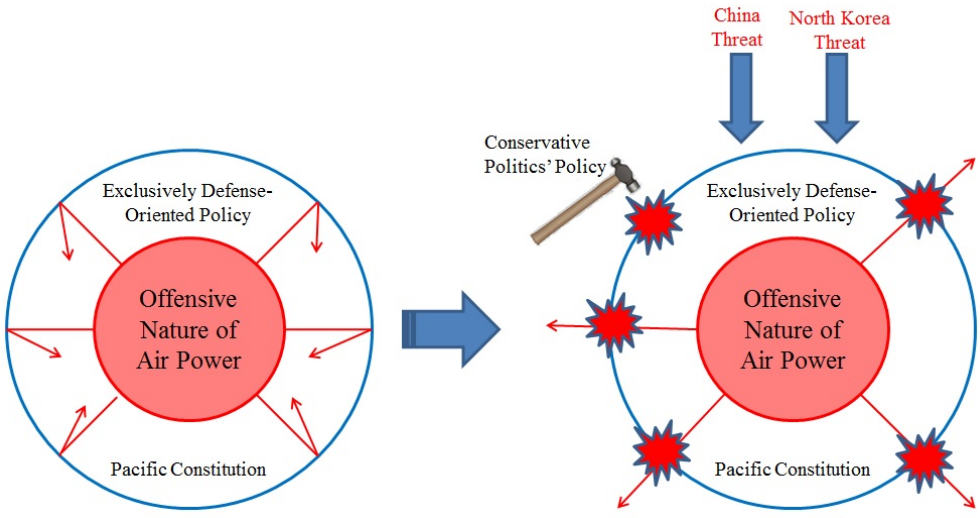
Table 3. Scorecard for JASDF's Strategy Evolution Factors

DV / IV	Ends	Ways			Means			
	Defense Concept	A/G and Preemptive Attack	Movement of Forces	Intercept Operation	Aircraft	Weapon	New Fighter	Air Defense System
PLA Modernization	S	S	S	S	S	S	S	S
N.K. Nuclear/Missile	S	S	W	W	S	S	W	S
Conservative Swing	S	S	W	W	S	S	S	S
Air Power Nature	W	S	W	W	S	S	W	W

S: Strong or W: Weak

Therefore, analyzing from the scorecard tabulated in Table 3, the evolution of the JASDF's strategy since the early 2000s from the "defensive defense" strategy to the "offensive defense" strategy was a combined result of the modernization and the arms buildup of the PLA's air power, the growth of North Korea's nuclear and missile threat, the conservative swing of the Japanese domestic politics, and the intrinsically offensive nature of air power. In other words, under the situation that required a response to the changing external environment given by the increase of the Chinese and North Korean threats, the traditional principles of Japan's exclusively defense-oriented security policy and pacific constitution have been broken. This break corresponds with the policy stance of the conservative politicians predominant in Japanese domestic politics, and in this process, the intrinsically offensive nature of the JASDF's strategy, which was suppressed by the principle of an exclusively defense-oriented policy, began to come out. Figure 7 illustrates this development.

Figure 7. Concept of Relationship among the Four Independence Variables



However, from the detailed analysis about the effects of each independent variable on the JASDF's evolving strategy, displayed in Table 3, among the four independent variables, the modernization and the arms buildup of the PLA's air power has had the greatest effect on this evolution. Other factors mainly have affected the air-to-ground operation concept, the air-to-ground fighter and the air-to-ground weapon supporting that concept, and the acquisition of the means that strengthen the long-distance power projection capability. But the Chinese threat factor has affected all elements of the JASDF's strategic change, including the JASDF's goal, the air-to-ground operation concept, the movement of forces, the aggressive intercept activity, the various acquisitions of fighters and weapons, the development of next-generation fighters, and the strengthening of the air defense system.

B. JASDF'S CURRENT AND FUTURE STRATEGY

As analyzed so far, JASDF's strategy since the early 2000s has evolved from the former "defensive defense" strategy to the "offensive defense" strategy. Given the ongoing and interacting roles of the modernization of the PLA's air power, North Korea's nuclear and missile threat, the conservative swing of Japanese domestic politics, and the

intrinsically offensive nature of air strategy, how might JASDF's strategy evolve in the future? To anticipate the future evolution of JASDF's strategy, it is necessary to examine the current trend of the aforementioned four independent variables.

First, Chinese air power and Japanese air power are clashing continuously due to the East China Sea issue. Especially, after China's announcement of a CADIZ above the East China Sea in 2013, tension has been growing between both countries' fighters. It was controversial that the PLAAF's fighters and the JASDF's fighters, which were dispatched to the East China Sea for the scramble mission, committed an act of aggression mutually in June 2016.[268] While it was common practice previously to keep each other in check at a distance when both countries' fighters encounter one another in the air, at the time, the fighters posed a threat to each other by using infra-red jamming and fire control radar extraordinarily.[269] In addition, China contracted with Russia in November 2015 to introduce 24 Su-35 fighters by 2018, and four Su-35 fighters will be delivered in 2016 and will be used for securing air superiority in the East China Sea and the South China Sea.[270] Furthermore, the PLAAF conducted large-scale military training in which about 40 aircraft participated including H-6 bombers, Su-30 fighters, and aerial refueling tankers on September 25, 2016, and JASDF's fighters were rushed out to conduct a combat air patrol.[271] As before, the clash and tension between both countries' air power has been occurring continuously.

Second, North Korea is continuously pursuing technology advancement of missile and nuclear forces, such as miniaturization and lightening of the nuclear weapon, increasing the range and accuracy of the ballistic missile, and developing the SLBM.

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[268]Franz-Stefan Gady, "Chinese and Japanese Fighter Jets Come Close to Dogfight in East China Sea," *Diplomat*, July 6, 2016, http://thediplomat.com/2016/07/chinese-and-japanese-fighter-jets-come-close-to-dogfight-in-east-china-sea/.

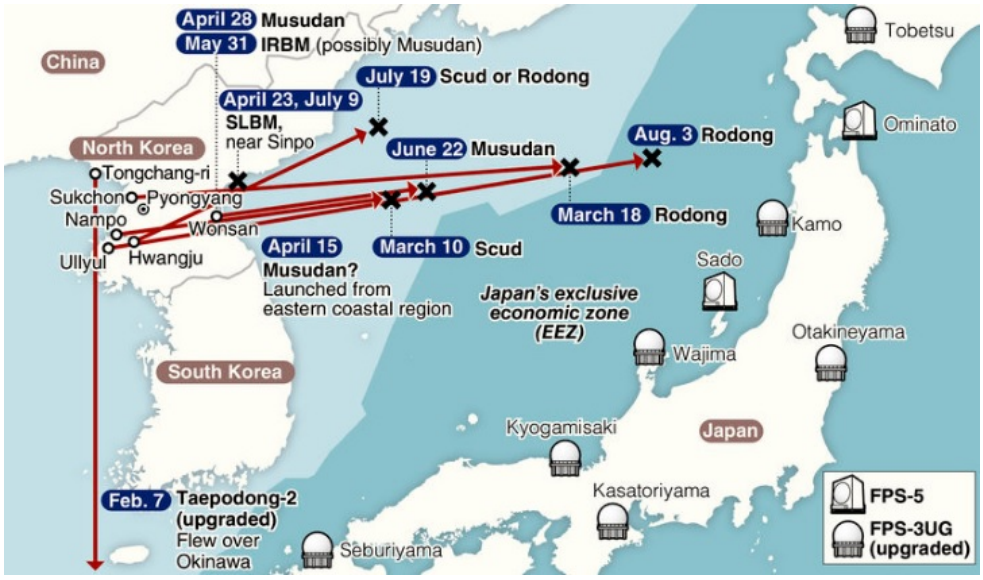
[269]Gady, "Chinese and Japanese Fighter Jets Come Close to Dogfight in East China Sea."

[270]Franz-Stefan Gady, "China to Receive 4 Su-35 Fighter Jets from Russia in 2016," *Diplomat*, September 17, 2016, http://thediplomat.com/2016/09/china-to-receive-4-su-35-fighter-jets-from-russia-in-2016/.

[271]Ankit Panda, "East China Sea: Japan Reacts as Chinese Air Force Conducts Miyako Strait Drill," *Diplomat*, September 26, 2016, http://thediplomat.com/2016/09/east-china-sea-japan-reacts-as-chinese-air-force-conducts-miyako-strait-drill/.

Furthermore, as North Korea's missiles launched recently for a test fell in the Japanese Exclusive Economic Zone (EEZ), the Japanese degree of fear of North Korea's missile threat has increased further. One of the two Rodong Missiles launched for test on August 3, 2016, exploded shortly after liftoff, but the other flew about 1,000 km and fell in the Japanese EEZ for the first time. The SLBM launched on August 24, 2016, also flew about 500 km and dropped into the sea 80 km inside of the JADIZ.[272] See Figure 8.

Figure 8. Major Ballistic Missile Launches by North Korea in 2016[273]



Third, the superiority of conservative political power and deepening of the conservative swing is expected to continue for the time being. Through the Japanese Upper House election in July 2016, the ruling coalition of the LDP and the Komeito secured 146 seats, 60.3 percent of the 242 seats in the Diet, and more than two-thirds of the total Upper House has been occupied by the members in favor of the revision of the

[272]Tatsuya Fukumoto, "Rising Threat Due to N.Korea Missile Launches," *Japan News*, August 20, 2016, http://the-japan-news.com/news/article/0003149065; "North Korean Submarine-Launched Missile Land inside Japan ADIZ," *Japan Times*, August 24, 2016, http://www.japantimes.co.jp/news/2016/08/24/asia-pacific/nuke-strike-threat-north-korea-tests-slbm-sea-japan-seoul/#.V79CWvnhBD8.

[273]Source: Tatsuya Fukumoto, "Rising Threat Due to N.Korea Missile Launches," *Japan News*, August 20, 2016, http://the-japan-news.com/news/article/0003149065.

constitution.[274] As a result, the ruling coalition, which already secured more than two-thirds majority in the Lower House, can push ahead with revision of the constitution in the Diet after the election.

Lastly, the intrinsically offensive nature of the air strategy would be unchangeable. Air power's intrinsic characteristics, such as speed, flexibility, and ubiquity, and the fact that defense is not advantageous because obstacles and fortifications do not exist in the air would be valid until the appearance of innovative weapons that can overcome the nature of air power. Thus, air power in future conflicts and war also would operate under the offensive strategy, operation, and tactics like as it has until now. Moreover, even though the JASDF has established only the fundamental doctrine so far, if the JASDF makes subordinate doctrines in the future, the future doctrines also would contain offensive operation concepts and expressions deviating from the principle of an exclusively defense-oriented policy due to the intrinsic nature of air power—despite political opponents and public criticism.

Therefore, from the analysis of the current trend of the four independent variables, it is anticipated that the JASDF's strategy in the future also is likely to continue evolving toward the direction of solidifying and completing the "offensive defense" strategy that began in the early 2000s. For this evolution, the JASDF might push forward defense policies supplementing the weak points of the current "offensive defense" strategy in the future.

Above all, it seems that the weakest capability of the current JASDF "offensive defense" strategy is the air-to-ground weapon. Japan has acquired the air-to-ground fighter platforms such as the F-2 and F-35 and has possessed long-distance power projection capability through the aerial refueling tanker. However, for independent counter-strike ability and support missions within U.S.-Japan security cooperation, the JASDF might need more diverse and stronger air-to-ground weapons besides the current JDAM kit. In addition, for the autonomous "offensive defense" strategy, the JASDF is

[274]Mina Pollmann, "Japan Election Results: It's the Economy, Abe," *Diplomat*, July 12, 2016, http://thediplomat.com/2016/07/japan-election-results-its-the-economy-abe/.

likely to consider acquisition of electronic warfare aircraft required for the counter-strike phase, which it now lacks. Thus, it is necessary to pay attention to whether the JASDF pushes forward the acquisition of these weapon systems. Deployment of extensive air-to-ground weapons and electronic warfare aircraft would indicate that the JASDF is evolving from the former U.S.-Japan security cooperation-oriented strategy to a more independent “offensive defense” strategy.

V. CONCLUSION

Entering the 2000s, many changes appeared not only in the JASDF but in the whole of the JSDF. Especially, the military buildup and the changes in strategy that deviated from the principle of an exclusively defense-oriented policy, the basic stance of the Japanese defense policy, and the pacific constitution began to emerge, and neighboring countries have assessed that Japan began to break from the principle of an exclusively defense-oriented policy. Some have even expressed extreme concern that Japan is going back to its past militarism. It is a common phenomenon that Korean and Chinese internal public opinion casts aspersion on Japanese far-right politicians such as Koizumi and Abe as criticism of JSDF's change.

This thesis focused on the JASDF and first tried to determine whether the JASDF's strategy is actually changing, and in what direction JASDF's strategy is evolving if it is actually changing. The first conclusion of this thesis is that JASDF's strategy has evolved from the former "defensive defense" strategy to an "offensive defense" strategy since the early 2000s. To reach this conclusion, this thesis first examined the change in JSDF's defense concept to analyze the JASDF's strategic ends. Like other countries' army, navy, and air force, the JGSDF, the JMSDF, and the JASDF decide their own strategic objectives and policies on the basis of one military objective, which comes from the national objective. In Japan's case, the military objective is inherent in the defense concept specified in the NDPG. Japan's defense concept has evolved from the former "Basic Defense Capability" concept to the "Dynamic Defense Force" concept and the "Dynamic Joint Defense Force" concept. Under these changes, the ends of the JASDF's strategy have evolved from the former absolutely defensive and passive ends of using air power to defend against an enemy invading the Japanese mainland, to active and aggressive ends of creating a favorable political and military situation by possessing deterrence capability and repelling ability against the surrounding threats through the construction of rapid, flexible, and dynamic air forces.

The most meaningful change in the JASDF's strategy occurred in strategic ways, as the air-to-ground operation concept, which was absolutely excluded before, began to

be accepted, and the debate about preemptive strike capability started internally. While the former operation concept of the JASDF was composed of only the air-to-air operation concept and limited ground support operation, the JASDF began to take on the air-to-ground operation concept and air-to-ground trainings entering 2000s. In addition, the JASDF carried forward the relocation and movement of air forces, and it has conducted scramble missions aggressively since the early 2000s.

In terms of the JASDF's strategic means, a variety of weapon systems have been acquired to support the JASDF's strategic ends and ways described previously. Above all, advanced air-to-ground fighters, such as the F-2 and F-35 and the JDAM precision guided air-to-ground weapon that actualize the JASDF's incorporation of the air-to-ground operation concept have been introduced, and the aerial refueling tankers and long-distance cargo began to be purchased and developed to secure the long-distance power projection capability. In addition, AWACSs and UAVs have been introduced to strengthen surveillance, reconnaissance, and warning activity surrounding the Japanese mainland. Moreover, Japan is developing autonomously the fifth- and sixth-generation fighters, and it has strengthened the air defense system composed of the intercept missiles and the air defense radars based on the BMD system constructed in cooperation with the United States.

To define this evolution of JASDF's strategy, this thesis used Korean scholar Jaeyeop Kim's concepts of "defensive defense" and "offensive defense." Even though both concepts fall under defense strategy in the big picture, the differences between the two strategic concepts include the objective of war, the pursued battle space, the effort of counter-offensive, and the pursued period of war. According to these concepts, this thesis concluded that the JASDF's strategy entering the 2000s has evolved from the former "defensive defense" strategy to the "offensive defense" strategy.

The second conclusion of this thesis is that the evolution of the JASDF's strategy is a combined result of the four drivers: modernization and buildup of the PLA's air power on the basis of China's rise, the increase of North Korea's nuclear and missile threat, the conservative swing of Japanese domestic politics, and the intrinsically offensive nature of air strategy and air power. The PLAAF has carried forward the

modernization and arms strengthening since the middle of the 1990s, and that effort became a reality in the construction of "strategic air force" since the early 2000s. The PLARF has acquired various ballistic missiles and cruise missiles, and the PLAN developed and employed an aircraft carrier. North Korea began to develop a nuclear weapon since the 1990s and emerged an actual nuclear power, and it has placed the Japanese mainland within the firing range by developing a variety of ballistic missiles. These threats from China and North Korea are the external factors that affected the JASDF's evolving strategy.

In this security environment, the rightist leaders and the LDP politicians holding power in Japanese politics for the long term have pushed forward amendments to the security laws and revision of the constitution in accordance with their policy stance. This conservative swing of Japanese domestic politics has acted as an internal factor affecting JASDF's evolving strategy. Lastly, air strategy theories and air war history indicate that air power is effective when it is operated offensively. As a result, the voices of self-examination began to be heard within JASDF thinking in accordance with the lessons of air war history, and the JASDF seems to be evolving toward the "offensive defense" strategy under this self-examination movement.

Even though JASDF's evolving strategy is a combined result of these four independent variables, the third conclusion of this thesis is that the most influential driver of JASDF's strategic evolution is China's rise and the modernization and military buildup of the PLA's air power. This conclusion emerges from the preceding detailed analysis and is summarized in the scorecard in the previous chapter.

The analysis suggests that the JASDF may strengthen its "offensive defense" strategy in the future due to the current relationship between China and Japan and the clash of air power in the East China Sea, the continued growth of North Korea's nuclear and missile threat, the strengthening influence of conservative political power in Japan, and the growing attention to the intrinsically offensive nature of air power in the JASDF. In addition, because the weakest element of the JASDF's current "offensive defense" strategy seems to be the air-to-ground weapon, an early indicator of Japanese strategic

thinking will be whether the JASDF introduces new air-to-ground weapons in the future, and what kind of weapons the JASDF acquires.

What should be kept in mind is that the JASDF's strategy is evolving toward the "offensive defense" strategy, not the "offense" strategy. It is a fact that the JASDF has been acquiring a variety of offensive weapons and long-distance power projection capabilities in terms of strategic ways and means, and neighboring countries are concerned that these trends indicate increasing Japanese militarism.

However, in light of the current strategic ends of the JASDF, these strategic ways and means still can be interpreted to support the defensive objective of maintaining the status quo rather than the offensive objective of expanding territory or pursuing hegemony in the region. Thus, the opinion that the JASDF's evolving strategy and the JSDF's changes are the precursors of a new militarism and imperialism in Japan is an overinterpretation.

Still, realists' balance of threat theory says that one country's expansion of offensive capabilities can be regarded as a threat to its neighboring countries, and neighboring countries pursue balancing against that expansion.[275] This balancing appears with external alliance or internal military buildup. Therefore, the evolution of the JASDF's strategy toward the "offensive defense" strategy can be a driver to cool relationships and accelerate an arms race in Northeast Asia, and the region can become more unstable in the future despite Japan's pursuit of status quo. It is a classic security dilemma.

If the most influential driver of the JASDF's strategic evolution is the modernization of the PLA's air power, as the analysis of this thesis has indicated, it is likely that Northeast Asia's security environment in the future would be governed by the relationship between Japan and China, the two dominant powers in the region, and their perception of each other. Especially, recent military incidents between the two countries, such as the tense encounter of fighters in the East China Sea, can push both countries' strategies toward more offensive directions, and this can escalate into an arms race

[275]Stephen Walt, *The Origins of Alliances* (Ithaca, NY: Cornell University Press, 1987), 24–25.

between not only these two countries but all of Northeast Asia. Therefore, Japan and China should develop various channels for communication to prevent escalation and military clashes in dangerous situations. Furthermore, peaceful and rational solutions for territorial disputes and historical tensions, which are among the causes of the clashes related to both countries' national interest, should be created politically and diplomatically.

In addition, the thesis shows that North Korea's nuclear and missile threat and the conservative swing of Japanese domestic politics are also driving JASDF's strategy in the direction of offensive defense. In particular, North Korea's nuclear and missile threat is acting as a serious threat to not only Japan but also all neighboring countries, influencing neighboring countries' national strategy and military strategy as well. Thus, to prevent the arms race in Northeast Asia, multilateral security cooperation plans for the solution to North Korea's nuclear and missile issue should be pursued by the countries in the Northeast Asia region, including the Republic of Korea, the United States, Japan, China, Russia, and Taiwan. Moreover, Japanese conservative politicians should avoid far-right policies and bills that can stimulate surrounding countries, and they should make diplomatic efforts for explaining their policies to neighboring countries.

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