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Master's Thesis of International Studies

**An Analysis for Factors of the United
States INF Treaty Withdrawal**

- Focusing on the Arms Control condition changes-

미국의 중거리핵전력 조약 탈퇴요인 분석

February 2020

Graduate School of International Studies

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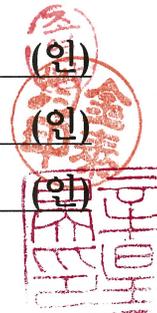
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ABSTRACT

An Analysis for Factors of the United States INF Treaty Withdrawal : Focusing on the arms control condition changes

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The Intermediate-range Nuclear Forces Treaty (INF Treaty) was signed in 1987 by President Reagan of the United States and Gorbachev of the Soviet Union to completely eliminate intermediate and short-range missiles within the range of 500 km to 5,500 km. This treaty has since continued to major arms control treaties and is considered the most successful arms control treaty. However, on February 2, 2019, the U.S. Department of State formalized the withdrawal of the INF Treaty, based on a Russia's violation of the treaty, and six months later, officially withdrew from the treaty. There are various factors that have been raised for the US withdrawal from the INF Treaty, including the violation of Russia's treaty, China's military reforms, and rogue states such as Iran and North Korea. Dr. Nam Man-kwon of the KIDA

argued that in order for arms control to be established, four conditions must be met: Political perception, alliance dynamics, military balance, and military expenditure. In recent years, research has been actively conducted on the effect of audience costs on national policymaking. Accordingly, this thesis compares the differences between when a treaty was signed and when it was withdrawn, based on the four conditions of arms control and audience costs. To this end, this thesis summarizes the history of the INF treaty, including the background and recent evolution, and seeks a comprehensive understanding of the treaty by analyzing official documents, statements, and think tank data. Based on these, it is argued that the change in conditions between the two-time points influenced the decision to terminate the treaty. In particular, the four conditions, except for the political perception, did not show significant results, while the change in US political perception caused by China's military reform was confirmed through various data. In the end, this article argues that the Chinese factor led to a decisive decision on the withdrawal from the INF Treaty by the Trump administration. Thus, the destruction of the INF Treaty should be viewed as a phenomenon of US-China competition, one of the international power transitions phenomena, rather than a mere collapse of the arms control regime.

Keyword: INF Treaty, Non-proliferation, Arms control, US-USSR conflict,
Chinese military reform, US-China Rivalry

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I. Introduction

On August 2, 2019, the Trump administration officially left the INF treaty¹. Many countries around the world have voiced concerns about this decision. In particular, there is a lot of concern that this decision will intensify the arms race. This paper examines the overall background of the INF Treaty and analyzes the factors under which the treaty was withdrawn. In addition, it will examine the key factors of international affairs by analyzing the theoretical framework and the impact of the US failure to comply with the treaty. This article first examines the theoretical and analytical framework for understanding the present international order through previous literature. In addition, it will embody the framework of analysis to analyze key topics within the theoretical framework. Then, it will look at the background and features of the INF Treaty that is currently an issue. Then, we put the framework of analysis obtained through the theoretical framework into the treaty in the INF to finally get the results

¹ The original name of the treaty is “Treaty Between The United States Of America And The Union Of Soviet Socialist Republics On The Elimination Of Their Intermediate-Range And Shorter-Range Missiles”

II. Literature review

To understand what is happening in the United States foreign affairs arena, we need to pay attention to what happens to international politics in a broad framework. A key phenomenon currently recognized in international politics is the change in the US-led hegemony system that has continued since the post-Cold War. The most representative theory on this phenomenon is the power transition theory proposed by A.F.K. Organski (1958).² The power transition theory is a dynamic theory that attempts to explain not only the causal relationship between the variables but also the interactions.³ This power transition theory is based on three assumptions. The first assumption is that the international state system is hierarchical. The second assumption is that countries have the highest priority in raising relative satisfaction within the international order. The third assumption is that national power change is the most important variable causing international political change.⁴ Under this assumption, we can understand the flow of change in the international order. In international politics, there is a continuous interaction between hegemony and non-hegemony. Hegemony countries at the top of the hierarchy have greater autonomy

² A.F.K. Organski. 1958. *World Politics*. New York: Alfred A. Knopf

³ Brian Efirid, Jacek Kugler and Gaspare Genna, "From War to Integration: Generalizing PowerTransition Theory," *International Interactions*, Vol. 29, No. 4 (2003), p. 294.

⁴ Young Joon Kim, "The Evolution of Power Transition Theory: A Critical Review", *Journal of International Politics* 20(2015), p.179

than other neighboring countries and can secure their own interests by taking advantage of relative power. Conversely, the challenging and rising nations have become strong nations by strengthening their capability in the already established international order, but they are dissatisfied with the profits allocated by the existing hegemony. As a result, existing hegemony is threatened by the shrinking power gap, and the possibility of conflict becomes greater.⁵ The power transition theory has continued to develop since Organski's first proposal. There has been an attempt to understand the power transition theory more systematically and to analyze it within a specific region. Brian Eford and Gaspare M. Jenna (2003) argued that the cooperation with international partners is essentially an act of sustaining the status quo of the international order so that the power transition theory could be used to explain not only cooperation and integration but also conflict between countries.⁶ Furthermore, Eford, Kugler, and Jenna, Goldstein-WEIS (1992) tried to create a systematic theoretical model to explain conflict and integration by utilizing data analysis and formulating the results with the regional characters of the governing and challenging countries.⁷ In addition, the power transition theory goes beyond the

⁵ Ronald L. Tammen, "The Organski Legacy: A Fifty-Year Research Program," *International Interactions*, Vol. 34, No. 4 (2008), pp. 10-13.

⁶ Brian Eford and Gaspare M. Jenna, "Structural Conditions and the Propensity for Regional Integration," *European Union Politics*, Vol. 3, No. 3 (2002), pp. 267-295.

⁷ Joshua S. Goldstein, "A Conflict-Cooperation Scale for WEIS Events Data," *Journal of Conflict Resolution*, Vol. 36, No. 2 (1992), pp. 369-385

framework of mere theory and attempts to understand specific regions. Kim Woo-sang (2004), a representative power transitionist in South Korea, saw that the possibility of a conflict in East Asia will increase as a fast-growing dissatisfied country like China emerged and challenge the East Asian security order centered on the United States.⁸ In conclusion, the phenomena shown in theory are now occurring. The hegemony that the United States has maintained since the Post-Cold War is influenced by the changing international environment, as evidenced by many power-transition theorists. As a result, the existing order that has been stable seems to show a shaking trend.

This phenomenon brings us to consider what makes international actors challenge a stable international order. To understand states' acts in the current international order, it is also necessary to find out how actors of international politics recognize threats such as the hegemons and challengers as mentioned in the framework of power transition theory. First of all, the scientific definition of perception is the process of apprehending, recognizing and interpreting.⁹ Davis(2000) defined a threat as a situation in which one actor has either the capability or intention to impose a negative consequence on another actor.¹⁰ David Singer

⁸ 김우상. 2004. “세력전이론.” 우철구·박건영 편. 『현대 국제관계이론과 한국』. 사회평론, p.139

⁹ Janice Gross Stein. 2013. “Threat Perception in International Relations” in *The Oxford Handbook of Political Psychology*, 2nd ed., Ed. Leonie Huddy, David O. Sears, and Jack S. Levy. Oxford: Oxford University Press. p. 2.

¹⁰ Davis, James W. 2000. *Threats and promises: The pursuit of international*

(1958) defined that threat perception is a “function of both estimated capability and intent”.¹¹ Jervis (1976) also defined this perception as “the causes and consequences of the ways in which decision-makers draw inferences from the world”.¹² In other words, the threat which states sense in international politics leads to national security policy. If a threat is recognized by actors in international politics, the following question would be how to calculate threats. Walt (1987), a leading scholar of international politics, argued that there are four important factors determining the recognized level of threat. Those four variables are aggregate power, geographic proximity, offensive power, and aggressive intentions.¹³ Karen, Thompson, and Sumit (2013) explained the relation between decision making and threat perception mentioning that decision-makers create assumption about their own preferred foreign policy behavior(strategies) on the basis of perception(expectations) of external threats, the capabilities of their enemies, and the resource available to cope with external threats.¹⁴ Based on these arguments, we can see how scholars in

influence. Baltimore, MD: Johns Hopkins University Press, p.10

¹¹ J. David Singer, “Threat-Perception and the Armament-Tension Dilemma,” in *The Journal of Conflict Resolution*, Vol. 2, No. 1, (March 1958), 93; Stein, “Threat Perception in International Relations,” p.12

¹² Robert Jervis. 1976. *Perception and Misperception in International Politics*. Princeton: Princeton University. p.13.

¹³ Walt, S.M. 1987. *The Origins of Alliances*. Ithaca: Cornell University Press.

¹⁴ Karen Rasler, William R. Thompson and Sumit Ganguly. 2013. *How rivalries end*, chapter 2. The evolution of expectation and strategies, University of Pennsylvania press. p. 16

international politics define the logic of how threat perceptions are calculated, and the consequences lead to national policy.

Among all threats occurs in current international politics, the most significant and influential component is a nuclear weapon. Since its appearance in World War II, a nuclear weapon has completely transformed existing warfare based on its enormous destructive power. Nuclear was then developed sequentially in the Soviet Union, Britain, France, and China, creating a concept of 'Mutually Assured Destruction (MAD)'¹⁵ that causes deterrence between states with nuclear weapons. In particular, with the onset of the Cold War, the logic of MAD continued to expand and proved to be seen through the Soviet Union and the United States' balance and arms control. Nuclear proliferation advocates, led by Kenneth Waltz who argued for the positive effects of the gradual spread of nuclear weapons, are supporting the concepts of MAD. They analyzed that nuclear weapons states would not increase rapidly, and that gradual horizontal nuclear proliferation would not cause instability within the international system.¹⁶

However, the debate on this concept has continued to arise. Others who are

¹⁵The term "mutual assured destruction" was coined by Donald Brennan, a strategist working in Herman Kahn's Hudson Institute in 1962, Daniel., Deudney .1983. *Whole earth security: geopolitics of peace*. Washington: World watch Institute. p. 80

¹⁶ Choi Ajin. 2012. "International Politics of Nuclear Non-Proliferation and Policy Alternatives", *International Problem Studies*. p.10

pessimistic about nuclear stability argue that nuclear proliferation could not maintain the stability of the international system. Sagan warned that proliferation could have dangerous consequences, including a variety of factors including involuntary factors. Their controversy was in Scott Sagan and Kenneth Waltz's co-authored book "Nuclear Weapons: The Debate (1995)."¹⁷

The United States withdrew from the ABM Agreement after the terrorist attacks on 9/11, and countries outside of the NPT treaties such as India, Pakistan, and North Korea began to possess nuclear weapons. As a result of these continuing phenomena, and the era of arms race is coming again, showing the limitation of MAD and nuclear stability.¹⁸

There were many attempts to make a safer world. According to the logic of offensive realists represented with John Mearsheimer, the most obvious and best way to ensure national security is to build military capability aggressively.¹⁹ However, there are other ways to ensure security, in addition to greatly increasing military spending, by reducing military spending through mutual or multilateral agreements

¹⁷ Scott Sagan and Kenneth Waltz. 1995. "*The Spread of Nuclear Weapons : An Enduring Debate*". New York : W. W. Norton & Company

¹⁸ David Joël La Boon, "*From Mutually Assured Destruction to Mutually Assured Stability*", master's degree thesis, Seoul national university Graduate school of international studies, p.1

¹⁹ John J. Mearsheimer. 2014. *The Tragedy of Great Power Politics*, New York: W.W. Norton & Company. 이춘근 역. 2017. 『강대국 국제정치의 비극: 미중 패권경쟁의 시대』, 서울: 김앤김북스. p. 61

with potentially hostile or neighboring countries. So, one of those attempts is building an arms control regime. So, scholars have tried to develop arms control theory to ensure a stable security system.

The concept of Arms control theory argued by Schelling and Halperin is the most commonly used.²⁰ Arms control is defined as all the forms of military cooperation between potential enemies to reduce the probability of war, and the political and economic costs.²¹ This conceptual approach, however, has the limitation of emphasizing the functional aspects of arms control and not comprehensively describing the subjects, categories, and means of arms control. Another definition of arms control was defined by Patrick Morgan, who tried to understand the concept of arms control by distinguishing between ‘arms’ and ‘control’. The ‘arms’ determine the subjects and categories of arms control. Here, arms go beyond the mere weapons or military expenditures that we generally define, rather it is defined compressively as "resource and maintenance of weapons and troops, and the preparation of resources related to its usage." In that sense, armament is perceived as a comprehensive concept that includes current and potential military forces.²² Furthermore, Patrick assumed that the state had four basic nature. The first

²⁰ 황진환. 2001. 「군비통제론」, 윤정원 외. 국가안보론. 박영사. p. 284

²¹ Thomas C. Schelling and Morton H. Halperin. 1985. *Strategy and Arms Control*. Washington, DC: Pergamon-Brassey. p. 2

²² Patrick M., Morgan. 1986. "Elements of a General Theory of Arms Control," in Paul R. Viotti, Third ed., *Conflict and Arms Control: An Uncertain*

assumption is that there exists a set of autonomous states, the interaction of which, and the factors that shape those interactions, constitute the essence of international politics. The second assumption is that states in international politics cherish their autonomy, finding it so desirable that it is rare that some other objective or purpose is deemed more important. The third is that among states there regularly arise disagreements and conflicts about matters they consider so important that they are willing seriously to consider using force to have their way. Fourth, the last, assumption is that arms have significant costs and harmful consequences.²³ Another definition of arms control was defined by Bloomfield as “Arms control implies the meaning of control and restriction, and it refers to the act of inducing a relative response by the other party”.²⁴ The ROK Ministry of National Defense defined arms control as “a relative term for arms competition, meaning all efforts to reduce, eliminate or minimize the risks and burdens that can arise from arms competition by stabilizing or institutionalizing arms competition.”²⁵

A similar but separate concept is the concept of disarmament. Michael Sheehan defined disarmament as “always on the premise of a reduction in military power,

Agenda. Boulder, CO: Westview Press. p. 283

²³ Patrick M., Morgan, pp.21-22

²⁴ Lincoln P. Bloomfield. 1962. “Arms Control,” in Walter R. Fisher and Richard Dean Burns, (eds), *Armament and Disarmament: The Continuing Dispute*. California, Belmont: Wadsworth Publishing Company, Inc. p.259

²⁵ 국방부. 1990. 『군비통제란?』 . 서울: 국방부. p. 6

which covers everything from a partial reduction of a particular weapon system or force to the complete disposal of military force”.²⁶ Within this category of definitions, the arms control theory has been studied to understand the factors that make arms control successful.

Based on this premise, in order for the “bilateral” arms control to be established, Nam argued that it depends on four factors; recognition and perception for the bilateral political status quo, the burden for military expenditure, mutual military balance and dynamic with allies.²⁷ In addition, the ROK Ministry of National Defense proposes four conditions for the establishment of arms control. First, there must be confidence in national security before accepting arms control, and second, there must be a common interest and need for mutual arms control. Third, the balance of military power must be maintained. Fourth, changes in dynamics with allies must occur, requiring arms control with other countries.²⁸

However, most international theories had limitations focusing on international actors. So, there were emerging arguments asserting the importance of domestic factors in international relations led by Putnam. The two-level game theory suggested by Putnam has been developed and tries to explain international relations

²⁶ Michael Sheehan. 1988. *Arms Control: Theory and Practice*. New York: Basil Blackwell. p.7

²⁷ 남만권. 2005. 『군비통제 이론과 실체』. 한국국방연구원 출판부. p. 37

²⁸ 국방부. 2000. 『군비통제의 이해와 남북 군비통제 방향』. 서울: 국방부 군비통제관실, pp.7-11

by linking domestic and international politics. Putnam explained that international negotiations take place simultaneously in the international and domestic arena.²⁹ In addition, Jeffrey wanted to expand the analytical framework of the two-level game theory based on the correlation between domestic and international actors. He insisted that phenomena could be analyzed more clearly through correlations of "trans-governmental," "trans-national," and "cross-level". He also proposed the importance of third-level actors, which means third parties such as allies. So, in this argument, the three-and-three approach is needed to get a comprehensive understanding of international relations, consisting of interactions among three-level actors.³⁰ What is noteworthy in his article is the attempt to analyze the case of the INF Treaty with this new approach and explain the decision-making of countries that could not be explained by the existing two-level game in the negotiation process.

Many political scientists, including Putnam, have argued for the connection between domestic and international politics (Putnam 1988, Fearon 1998, Bueno de Mesquita 2002, Chaudoin, Milner, and Pang 2015).³¹ Recently, audience cost theory

²⁹ Robert D. Putnam. 1988. "Diplomacy and Domestic Politics: The Logic of Two-Level Games." *International Organization* 42. pp. 427-460

³⁰ Knopf, JW. 1993. "Beyond 2-level Games - Domestic International Interaction in The Intermediate-Range Nuclear-Forces Negotiations." *International Organization* 47.4. pp. 599-612

³¹ Taeku Lee. 2019. "Domestic Audiences and the Future of US-China relations: A view from Trump America", Paper presented in KAIS 추계학술대회. Seoul. October 25-26. p.15

has attracted attention as a sub-theory of two-level game theory that links domestic politics with international politics. Audience costs are domestic political costs which a national leader should pay for having an international dispute, or for creating threats.³² Fearon emphasized that audience costs are a more important factor in democratic countries.³³ Michael Tomz proved correlation for the first time in international relations through experimental data analysis on domestic audience costs.³⁴ In this study, data indicates that audience costs are cared for by citizens because they concern about the international reputation of their country or national leader. This phenomenon appears at various stages of conflict and conditions. Recently, research related to audience cost and US-China relations also has been presented.³⁵

³² James Fearon. 2013. "Credibility' is not everything but it's not nothing either". The Monkey Cage. September 7. <https://themonkeycage.org/2013/09/credibility-is-not-everything-either-but-its-not-nothing-either/>

³³ Fearon James D. 1994. "Domestic political audience and the Escalation of international disputes," *American political science Review* 88(3), pp. 577-92

³⁴ Tomz, Michael, 2007, "Domestic audience costs in International Relations: An Experimental Approach," *International Organization* 61, pp.821-840

³⁵ Taeku Lee, pp.15-39

III. Research Design

1. Purpose of research

The purpose of this study is to gain a broader understanding of the overall INF Treaty and, ultimately, to identify the motives for the INF treaty withdrawal that the Trump administration has concluded. To this end, we will analyze the current situation and the past situation when the previous INF Treaty was signed. In addition, we will examine the various factors and correlations with the treaty to analyze the rational basis for INF withdrawal and examine the Trump administration's exact motivations and perceptions of international issues. Finally, by analyzing the implications of INF withdrawal, it proposes potential policy suggestions for solving future international problems.

2. Research Question

The research topics of this study are “Why is the INF Treaty that has been going on for the last 30 years concluded at this moment?”, “What factors in international politics are associated with the withdrawal of the INF Treaty in the United States?”, and “What has been changed during the period between the time when the treaty was signed and withdrawn?”

3. Main Argument

The United States has formally announced that the INF Treaty can no longer be maintained due to the Soviet non-compliance with the treaty. But the tentative argument in this article is that the rise of China especially in the security arena, not the Russia factor, would be responsible for the INF withdrawal. And ultimately, it will be the purpose of the United States to bring China into the framework of an international arms-control treaty.

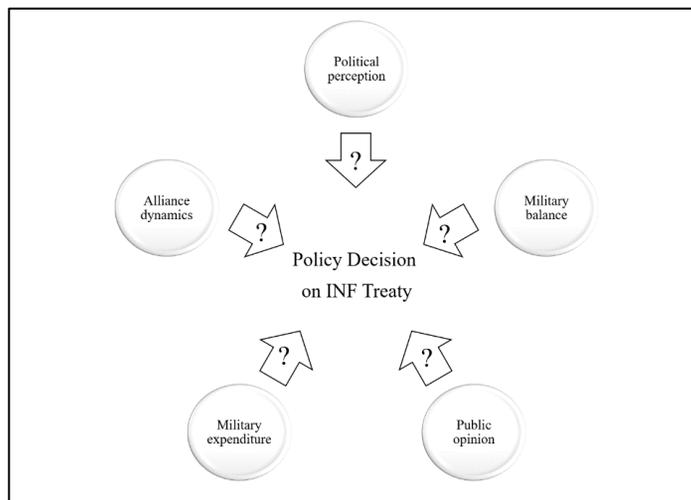
4. Methodology

This thesis attempts to understanding currents states' acts based on capability analysis. Capability analysis focuses on weapon system which states owned, produced, deployed and capable to produce on the premise that it cannot perform acts beyond the means it has, and its capacity to create advanced means.³⁶ Furthermore, Public opinion survey data will be utilized to supplement to examine theoretical framework. Lastly, it will attempt to compare each time, official documents, states, and survey data to fully understand comprehensive issues related to the INF treaty.

³⁶ Bruce D. Larkin. 1996. *Nuclear Designs*. Transaction publishers, New Brunswick, New Jersey. p.12

5. Variables

As an independent variable, we will examine the factors that can act in the foreign policy process of the country and the factors that can be used in the decision of arms control; Political Perception, American public opinion (Audience cost), Alliance dynamics, Military balance, military expenditure. The dependent variable will be the US decision to maintain or withdraw the INF treaty.



[Figure.1] Variables framework

IV. Background: INF Treaty

Weapon types are categorized according to the range, projection-type, and purpose. For the range type, it is divided into short-range³⁷, intermediate-range³⁸ and long-range (or intercontinental). And It is also distinguished with ballistic missiles³⁹ and cruise missiles⁴⁰ for its projection types. Depending on the purpose of use, it is classified into strategic weapons⁴¹ and tactical weapons⁴².

The weapons belonging to the Intermediate-range Nuclear Forces Treaty are nuclear weapons with a range of 500-5,500 km. This class of missiles was regarded as “distinctively destabilizing weapons with brief flight times, little to no precautions,

³⁷ "shorter-range missile" means a GLBM or a GLCM having a range capability equal to or in excess of 500 kilometers but not in excess of 1000 kilometers

³⁸ "intermediate-range missile" means a GLBM or a GLCM having a range capability in excess of 1000 kilometers but not in excess of 5500 kilometers.

³⁹ "ballistic missile" means a missile that has a ballistic trajectory over most of its flight path

⁴⁰ "cruise missile" means an unmanned, self-propelled vehicle that sustains flight through the use of aerodynamic lift over most of its flight path.

⁴¹ Weapons that attack enemy territory through long-range firing means such as ICBM

⁴² Weapon forward deployed in a military conflict zone and used to conduct imminent combat.

but with similar the destructivity with nuclear ICBM.”⁴³

The INF Treaty was a treaty where conflicts between the Soviet Union and the United States were seized over the deployment of intermediate-range nuclear forces from the late 1970s to the late 1980s, at the end of the Cold War.

This event includes the military response conducted by the United States and Western European countries to cope with the Soviet deployment of the new nuclear ballistic missile, which influenced the whole of Western Europe under its offensive range, and the political and diplomatic debates and confrontations that occurred in this process. The background of this event began with a change in strategic military superiority by the nuclear weapons of the United States during the early Cold War and closed with the recent conclusion of the INF Treaty by the Trump and Putin administration of each state.

In this study, the process of establishing and destroying the INF Treaty will be divided into five stages according to changes in the relationship between the United States and the Soviet Union, followed by Russian.

⁴³ Ian Williams. 2018. Leaving the INF Treaty Now Is the Right Call. CSIS, October 24. <https://www.csis.org/analysis/leaving-inf-treaty-now-right-call>

1. From the US Superiority to Parity

The United States, which pursued nuclear weapons through the Manhattan Project during World War II, had nuclear weapons through Trinity Experiment, the first nuclear test ever on July 16, 1945. Since then, the United States had possessed nuclear weapons exclusively until the Soviet Union developed the first atomic bomb in 1949. Still, for much of the Cold War, the United States had a nuclear capacity that was both quantitatively and qualitatively superior to the Soviet Union.

For example, at the time of the Cuban missile in Kennedy's administration in 1962, the United States had 294 ICBMs, the Soviet Union had 75, and the SLBM 144, well ahead of the Soviet 22. Moreover, the long-range bombers were 1,650 aircraft, eight times more than the 200 Soviet Union. The most prominent was the warhead capacity, which the United States had 7,400 nuclear warheads to counter the Soviet Union, while the Soviet Union had 400 nuclear weapons against the United States, confirming significant differences in nuclear weapons capabilities.

The Soviet Union, however, began to aggressively augment its nuclear weapons and launchers to overcome nuclear force inferiority since the Cuban missile. As a result, starting in the late 1960s, the two countries reached structural nuclear equilibrium in both quantitative and qualitative terms.

For example, in 1968, the ICBM reserves were comparable to those of the Soviet Union at 1,050 units and the United States at 1,054. As of 1973, the SLBM

reserves were similar to the Soviet Union at 626 units and the United States at 656 units. This meant equilibrium with mutual destructive power between two superpowers. As a result, further nuclear weapons competition became meaningless.⁴⁴

Based on these results, negotiations on strategic weapons restrictions began in 1969, and in May 1972 an agreement was reached on a quantitative disarmament agreement that freezes the number of ICBMs, SLBMs, and long-range bombers. (SALT I).

Another arms-control treaty that we need to observe is the Anti-Ballistic Missile Treaty (ABM Treaty) signed simultaneously with SALT I. The treaty had a logical structure that if one party has the capability to defend the nuclear attack from the other side, then the danger of nuclear war is greater. Under the treaty, only one ABM system can be deployed for a ballistic missile defense system within a 150-km radius of the capital or intercontinental ballistic missile bases, and a more than 100 interceptor missiles and launcher are prohibited in total. Subsequently, the second SALT agreement (SALT II) in June 1979 expanded the nature of qualitative control by expanding the number and target of the agreement, including cruise missiles and multi-warhead missiles.

⁴⁴ Coit D. Blacker and Gloria Duffy eds. 1984. *International Arms Control*. Stanford, CA: Stanford University Press. p.220.

In 1949, the United States and Western European countries created the North Atlantic Treaty Organization to form a military alliance with the characteristics of collective defense. The biggest role was played by the nuclear weapons provided by the United States, which served as a function of the US's expansion and deterrence in Europe in NATO.

The first nuclear weapon deployed by the United States to Western Europe was a 15KT-class nuclear bomb introduced in October 1953, followed by other nuclear missiles, aircraft. The number of US nuclear weapons deployed in Western Europe increased to 2,500 in the 1950s and 3,400 in 1963, and greatly expanded to 7,000 in 1966.

However, the effectiveness of US expansion restraint on Western Europe began to be threatened by the beginning of nuclear equilibrium in the late sixties, which led to the expansion of long-range nuclear forces by the Soviet Union.

The most crucial moment occurred in 1977 when the USSR deployed a newly upgraded intermediate-range ballistic missile SS-20 and the first complexes became operational. The SS-20 featured three 150KT nuclear warheads per vehicle, with a maximum range of 5,000km. When deployed west of the Soviet Union's Ural Mountains, it covered the whole of Western Europe, with the ability to overwhelm Lance (Maximum range of 125 km) and Pershing-1 (Maximum range of 740 km). In addition, it could be launched quickly using solid fuel and be mounted on a mobile launcher vehicle, showing excellent maneuverability and survivability. The Soviet

Union tried to identify deployment site preparation from 1975 to 1976 and deployed 650 SS-20 IRBMs in Eastern European countries, including East Germany who was a member of the Warsaw Pact. The Soviet SS-20 deployment was more than just a replacement and retrofit of old ballistic missiles. It meant a crucial implication for Intermediate-range Nuclear forces Competition in Europe in the Late Cold War.⁴⁵ In other words, the Soviet Union had a long-range nuclear force equilibrium with the United States and had an advantage in the nuclear force sector in Western Europe, resulting in a military reversal of regional influence. Moreover, the SS-20 was not included in the arms control of the SALT Treaty of 1972, which caused no problems for the Soviet Union.

The country most threatened through the deployment of the SS-20 was West Germany. In the case of West Germany, which was in opposition side of the Soviet Union at that time, it was necessary to respond to the Soviet nuclear threat based on the U.S. nuclear umbrella, but the deployment of the SS-20 could be considered a serious security threat to West Germany.

⁴⁵ Kim Jae-Yeop. 2016. "A Study on Intermediate-range Nuclear Forces (INF) Deployment Race at Europe during the last period of Cold War(1970s-1980s) and Its Implications for Korea's National Security". 군사지 제 101호(국방부 군사편찬연구소). p.51

2. Dual Track Decision

Since the Soviet deployment of the SS-20, NATO initiated a review of nuclear force modernization within the region. As a result, on 12 October 1977, Nuclear Planning Group who dealt with theater nuclear forces modernization was created.

The Helmut Schmidt, Federal Republic of Germany Chancellor, dissented military threat perception in a speech at the Institute for International Strategic Studies (IISS) on 28 October 1977. Here, Schmidt stressed that the Strategic Arms Restriction Agreement, which was confined to only the two countries, would fix the Soviet superiority in Europe and endanger the security of Western European countries. In the end, it argued that Western Europe would not receive sufficient protection from US extended deterrence. This speech led to a strategic decision from NATO. Later, at the December 12, 1979, NATO diplomatic and defense ministers' meeting, a Dual-track decision was adopted. The key to the dual-track decision is to promote nuclear arms control, involving the Soviet Union as an actor and intermediate-range nuclear forces for control target, and to deploy equivalent nuclear weapons to counter the Soviet Union in the NATO region if negotiations fail.

The United States proposed deployment of the BGM-109 Griffon Ground Launched Cruise Missile (GLCM) and the MCM-31B Pershing-2 Ballistic Missile as details of the second option in the case of failure. Gryphon could mount four rounds on each launchpad, 200KT nuclear warhead per vehicle, maximum range 2,500km. The Pershing-2 was equipped with 50KT nuclear warheads, with a

maximum range of 1,800km. The two missiles presented here had the ability to strike major Soviet metropolitan areas, including Moscow, which provided deterrence for the Soviet Union in Western Europe without relying on the long-range nuclear force from the United States.

3. Negotiation

The relationship between the US and the Soviet Union in the Negotiations period was fluctuated with repeated up and down. In particular, at the phase of missile deployment, the United States struggled to deploy missiles due to anti-missile demonstrations by anti-nuclear, and pacifist groups in Europe and America. Moreover, the protests intensified in Western Europe, beginning with the Reagan administration on January 20, 1981, insisting on an increase in arms to the Soviet Union. In particular, the protests appeared throughout Western Europe, including Italy, Germany, the United Kingdom, and Belgium.⁴⁶

Eventually, on November 18, 1981, the Reagan Administration promised to make an effort to eliminate the SS-20 and proposed the Zero option which Soviet eliminate all INFs, including SS-20, on condition of withdrawing NATO's INF deployment plan which The US should also withdraw its Griffon cruise missiles and

⁴⁶ Stanley Hoffmann, "NATO and Nuclear Weapons: Reasons and Unreason", *Foreign Affairs*, Vol. 60, No. 2, (1981-1982), pp.330-331.

Pershing-2 ballistic missiles.

This proposal received strong support from the West German government. However, despite the official launch of the INF-related talks in Geneva, Switzerland on November 30, 1981, it failed to find an agreement between the US and USSR. The United States argued that the deployment of the SS-20 undermined the nuclear balance between the United States and the Soviet Union in Europe. However, the Soviet Union suggested that in the condition that the United Kingdom and France also posse nuclear weapons, reducing and freezing SS-20 deployments to the equivalent levels of nuclear weapons owned by the United Kingdom and France would be enough not eliminating all forces, and suggesting that the United States and Soviet Union not deploy additional INFs. In the process of negotiations, the Soviet Union temporarily froze the deployment of the SS-20 in March 1982.

As both sides' claims conflicting, protests against missile deployments intensified, and in June 1982, more than one million people protested in New York. Moreover, the protests expanded throughout the United States in October 1983, followed by more than 3 million participating in the protests in Europe. In May 1983, the antipathy to nuclear force continued to rise so that the House of Representatives passed nuclear freeze resolution that the US would no longer produce nuclear weapons. In the process, however, Reagan announced a Strategic Defense Initiative that was more advanced than the deterrence of nuclear weapons on March 23, 1983. This was perceived by the Soviet Union as a violation of the ABM Treaty, so the

Soviet Union would have a more negative stance on negotiations with the United States.

In the course of this negotiations failed to produce results, the US began deploying longer-range intermediate-range nuclear forces (LRINF) in November 1983. This was the first INF deployment in Europe by the United States. As a result, the INF negotiations, begun in 1981 and continued for two and a half years, ceased with the Soviet Union declaring not to participate in the meeting on November 23, 1983.

However, public opinion on the deployment of intermediate-range nuclear forces in Europe was still not favorable, and in 1984 the Dutch Parliament rejected the US installation, fearing the expansion of the SS-20 that the Soviet Union had already installed on June 1, 1984.

Eventually, the United States agreed to resume talks with the Soviet Union in November 1984, and negotiations resumed in Geneva on March 12, 1985. In the process, the United States, in Reagan's second inaugural speech on January 20, 1985, urged the Soviet Union to “completely eliminate nuclear weapons”.

During this period in the Soviet Union, Gorbachev was inaugurated on 12 March, after secretary Chernenko died on March 10, 1985. Mikhail Gorbachev, with Perestroika and Glasnost, actively promoted relations with Western camps such as the United States in order to relieve the Soviet military burden.

In the process, the two leaders met at the October 1986 summit in Reykjavík, Iceland, where Gorbachev proposed withdrawal of Pershing-2 and the SS-20 from Europe within five years simultaneously. This means that the Soviet Union agreed to the Zero option, which means that the United States proposed the abolition of the entire INF and withdrew the existing USSR claim to include nuclear forces from Britain and France in the negotiations. But Gorbachev opposed the SDI of the US. As a result, the Soviet Union and the United States fail to conclude the agreement.

However, on February 28, 1987, as Gorbachev finally agreed to separate the issues between INF and SDI, and in April expressed its willingness to remove SS-20 in Asia and Europe, the negotiations turned positive. In addition, in April, the INF restriction was expanded and proactive by proposing a global ban. On June 12, President Reagan proposed the destruction of all shorter-range intermediate-range nuclear forces (SRINF), and on July 22, the Soviet Union agreed, and on December 8, 1987, the US and the USSR signed the INF Treaty. As a result of the treaty, the United States and the Soviet Union agreed to abolish both intermediate and short-range missiles from 500 to 5,500 km.

3-1. INF treaty provisions⁴⁷

The provisions of the INF Treaty consist of Memorandums of Understanding and seventeen main articles of the treaty.

- Article 1 states that the Soviet Union and the United States do not possess intermediate and short-range missiles.
- Article 2 sets out terms related to the treaty through fifteen subparagraphs. It classifies the types of missiles and the types of launchers presented below. And It also classifies the terms that would be specified later.
- Article 3 lists the missiles classified in article 2 that apply to the treaty. Further details on this are provided separately in the MOU.
- Article 4 sets out the time period for the implementation of the treaty and provides for the disposal of weapons and related equipment as provided for in the treaty. It also stresses that three years after the treaty enters into force, it is not possible to “Possess” missiles, launchers, support structures or support equipment specified in the treaty.
- Article 5 emphasizes the need to “Eliminate” the ranged missiles proposed in the treaty and sets out the period for implementing them. In order to

⁴⁷ Treaty Between the United States Of America And The Union Of Soviet Socialist Republics On The Elimination Of Their Intermediate-Range And Shorter-Range Missiles (INF Treaty), Signed December 8, 1987

minimize the threat to each other within the period, the missiles and launchers should be separated more than 1000km apart.

- Article 6 stresses that two parties to the Treaty cannot “produce or flight-test” their covered ranged missiles.
- Article 7 restricts the expansion of additional missile armaments by considering these missiles as missiles specified in the treaty when the missiles under the treaty are tested. On the other hand, the exception is that only to intercept and counter objects are excluded from the treaty, provided they are not placed on the land.
- Article 8 restricts the placement of missiles, launchers, and equipment included in the treaty for verification purposes.
- Article 9 sets out the data and methods to be subdivided and shared in the MOU.
- Article 10 provides verification procedures.
- Article 11 sets the authority and duration for verification.
- Article 12 explains the use of technology for implementation;
- Article 13 describes the establishment of the Special Verification Commission that will ensure the implementation of the verification.
- Article 14 Emphasize each party should comply and not be on conflict

with other international obligations

- Article 15 prescribes validity and withdrawal of provisions
- Article 16 is about treaty Revision
- Article 17 mentions the provision of relations between the provisions and the domestic constitution and ratification of each subject

4. INF Treaty implementation and verification

The INF Treaty came into force on 1 June 1988, six months after it was signed in December 1987. And for three years, they began to eliminate missiles under the INF Treaty. There was, of course, a skeptical view of the treaty at the beginning of its implementation considering that there was a limitation that the on-site verification proposed by the treaty cannot completely eliminate the possibility of a breach and the absence of a full verification means to prevent it. In addition, the ambiguity of the technical issues, which was not expected at the moment, was also expected to be a problem. But despite those concerns, three years later the treaty had fully realized its primary zero-zero objective and had completely dismantled all US and Soviet shorter-range and intermediate-range missiles. At a 6 May 1991 ceremony marking the last elimination of US systems covered by the treaty. The United States and the Soviet Union went through a 10-year verification period from 1991 to 2001. The US and USSR had used their National Technical Means equipped with satellites and

remote sensors to monitor and verify compliance under the treaty. Furthermore, the treaty also allowed having on-site inspections of nominated missile assembly facilities and all storage inventories, deployment zones, and repair, test, and elimination facilities.⁴⁸ Based on this, the short notice allowed both countries to verify the designated facility. In addition, the US and the Soviet Union extended the scope of verification of each other by sharing data on the missiles they were targeting. Moreover, these activities were strengthened by the establishment of the Special Verification Commission (SVC). The treaty planned thirteen years of verification. In the first three years of the treaty implementation, 20 inspections were carried out annually. In the next five years, 15 inspections were conducted annually, and in the last five years, ten verifications were conducted annually.

5. The demise of the treaty

After 10 years of verification until 2001, Russia and the United States continued not to have intermediate-range weapons. However, after the 9/11 incident in 2001, the United States has felt a serious security threat, and in the end, on December 13, President George W. Bush announced it would withdraw from the ABM Treaty in six months. The treaty states that it has “unlimited duration,” but it also states that if

⁴⁸ Amy F. Woolf. 2019. “Russian Compliance with the Intermediate Range Nuclear Forces (INF) Treaty: Background and Issues for Congress.” August 2. p. 14

“extraordinary events” jeopardized their “supreme interests”, they may withdraw. Based on this, the United States notified Russia and Soviet successors and withdrew from the treaty. At the time, President Putin expressed regret that the US decision was “mistaken,” but confirmed that the president's decision was not a threat to national security in the Russian Federation.

However, in January 2007, the United States announced that it would begin formal negotiations with Poland and the Czech Republic over the possibility of installing elements of a ballistic missile defense system on their territory. Eventually, these US actions continued to provoke Russian opposition, and on October 12, 2007, Putin noted that Russia is considering withdrawing the INF Treaty at the Moscow dialogue with US secretaries of state, and defense. He also noted that Russia feels uncomfortable with neighboring countries’ missiles development such as China, Pakistan, India, and Iran. It also suggested that other countries not included in the treaty should be included in the arms control regime. The United States agreed on this restriction, October 25, 2007, Russia and the United States issued a co-statement at the 62nd session of UN General Assembly reaffirming the support for the INF treaty and calling to join the treaty for other nations to ban dangerous missile.

However, in 2008, the US DNI states its concern about a violation of the INF treaty with the Russian GLCM launched from an Iskander-K launcher in 2007 at the Kapustin Yar test site. The first official issue of the treaty breach was in May 2013 when the US delegation, Donilon who was Assistant to the President for National

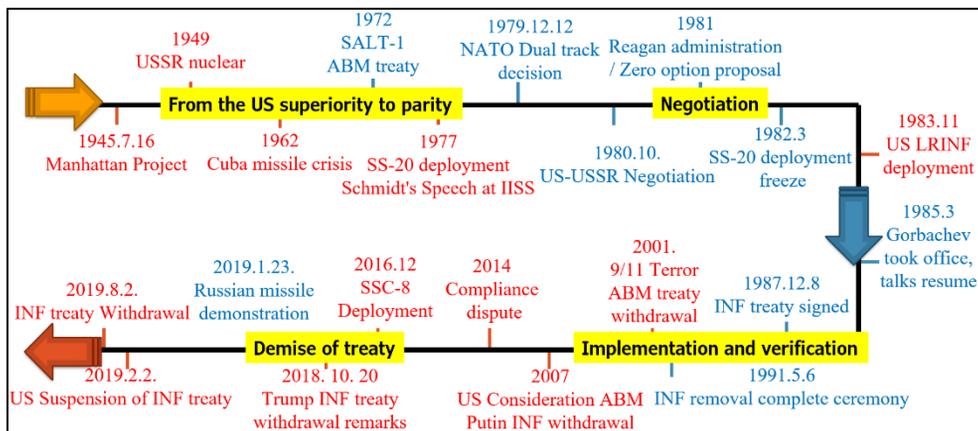
Security Affairs and Deputy Secretary of State Burns, met with Russian Security Council Secretary Patrushev. Since then, the United States has raised questions, and Russia denied them. On July 31, 2014, the U.S. released the 2014 Compliance Report, mentioning that the US found Russia in violation of the INF Treaty. However, after the official US response, Russia expressed concern that on August 12, 2014, drones used as test weapons and test delivery missile defense systems for the U.S. MK-41 missile defense system would violate the treaty.⁴⁹ Since then, the United States has continued to issue a compliance report, expressing concern about Russia's violation of the treaty. Also, in order to solve this problem, it has tried to talk with Russia since 2014 and has held SVC meetings in 2016 and 2017. In 2017, at the 30th anniversary of the treaty, the US announced an integrated strategy to deal with the compliance issue. In 2015, Russia was estimated to have finished testing the 9M729, and in December 2016, the SSC-8 was deployed, remaining the missile brigade in the test area.

Eventually, withdrawal of the treaty was mentioned by President Trump in October 2018, and in December Pompeo formalized the retraction. Thereafter,

⁴⁹ Drone and cruise missiles are recognized in the same category 'UAV' considering its feature of using air as oxidant and lift in the atmosphere, small jet or piston engines, so depending on interpretation of treaty it can be controversial to use drone.

류광철 외. 2005. 『로켓 및 UAV 비교, 외교현장에서 만나는 군축과 비확산의 세계』. 제5장: 미사일 확산 문제. 평민사. p.209

Russia and the United States met to resolve this issue in Geneva on January 15, 2019, but only confirmed the difference in position. On February 2, 2019, the United States declared withdrawal with the Secretary of States Pompeo's remarks⁵⁰, and six months later in accordance with the treaty. The work treaty was destroyed. Taken together, treaties show an up and downflow from the process of conclusion. This is summarized in the following timeline.



[Figure.2] Timeline of the INF treaty

⁵⁰ ... For years, Russia has violated the terms of the Intermediate-Range Nuclear Forces Treaty without remorse. To this day, Russia remains in material breach of its treaty obligations not to produce, possess, or flight-test a ground-launched intermediate-range cruise missile system with a range between 500 and 5,500 kilometers. ... Russia's violation puts millions of Europeans and Americans at greater risk. It aims to put the United States at a military disadvantage, and it undercuts the chances of moving our bilateral relationship in a better direction. ... I also then provided notice that unless Russia returned to full and verifiable compliance within 60 days, we would suspend our obligation under that treaty. ...

Michael R. Pompeo. 2019. Remarks to the Press. February. 1. <https://ee.usembassy.gov/remarks-by-secretary-pompeo/>

Time	Event	Time	Event
1945.7.16	Manhattan Project (US nuclear possession)	1991.5.6	INF removal complete ceremony
1949	Establishment of NATO	1991-2001	Verification
1949	USSR nuclear possession	2001.9.11.	9/11 Terror
1953.1	First nuclear force deployment in Europe	2001.12.13.	US announced ABM treaty Withdrawal
1962	Cuba missile crisis	2001	Russia argued minuteman-2 motors violate INF treaty
1969	Strategic Weapons Reduction Talk	2007.1	US Consideration of ABM deployment in the Czech Republic and Poland
1972	SALT-1 / ABM treaty	2007	Iskandar missile test
1977	SS-20 deployment	2007.10.12	Putin Announced Consideration of INF treaty withdrawal
1977.10.28.	Schmidt's Speech at IISS	2007.10.25.	US-Russia Joint Statement, 62nd UN General Assembly
1979	SALT-2	2008	DNI's first concern of Russia non- compliance
1979.12.12	Dual track decision of NATO	2011	Obama's INF Concerns in Congress
1980.10.	US-USSR Negotiation (First Session)	2013	Russian 2600km Naval cruise missile test
1981.1	Reagan administration inauguration	2013.5	Obama's public INF treaty compliance concerns
1981.11.18	Zero-option proposal	2014.6	Compliance report issued protesting Russian violation
1981.11.30.	First official INF Talks (Fail)	2014.8.12.	Russia expressed concern on MK-41
1982.3	SS-20 deployment freeze	2015 9.2	SSCX-8 (9M729) test complete
1983.3.23.	SDI announced	2016.5	MK-41 on operation in Romania
1983.10.	Protests across the United States and Europe	2016.11.15.- 16	First SVC meeting
1983.11	US LRINF deployment	2016.12	Missile brigade remains in Russian Test site (SSC-8 Deployment)

1985.3	Gorbachev took office, talks resume	2017.12.12.- 14	Second SVC meeting
1986.1	Reykjavik Summit, Gorbachev proposal	2017.12.8.	The US announced an integrated strategy
1987.2.28.	Gorbachev agreed INF and SDI issue Separation	2018. 10. 20	Trump INF treaty withdrawal remarks
1987.4	USSR expressed its willingness to remove SS-20 in Asia and Europe	2018.11.26.	Sergey official briefing on US distortion of reality
1987.6	Global ban proposal by Gorbachev	2018.11.30	DNI report non-compliance of Russia
1987.6.12.	Reagan proposed SRINF Abolition	2018.12	Pompeo remarks / Russian battalion installation
1987.7.22.	USSR agreed with SRINF elimination	2019.1.15.	US-Russia Geneva meeting
1987.12.8	INF treaty signed	2019.1.23.	Russian missile demonstration
1988.6.1.	INF treaty in force	2019.2.2.	US Suspension of INF treaty
1988-1991	INF missile elimination process	2019.8.2.	US Withdrawal of INF treaty

[Table.1] Intermediate-Range Nuclear Forces Chronology

* arranged by author

V. Analysis

1. US Security Policy and Threat Perception

1-1. Reagan administration

The National Security Strategy (NSS) is a report assigned by the Goldwater-Nichols Department of Defense Reorganization Act of 1986. However, the NSS has been transmitted annually since 1987.⁵¹ It is needed to check with other documents to understand the security policy of the early Reagan administration. This could be an annual report reported to congress by the secretary of Defense in the Reagan Administration. The ‘Report of Secretary of Defense (Defense report)’ to congress, reported from 1982 to 1988, identified the policy position of the Reagan Administration and international politics around the time when the INF Treaty was signed.

Since the Reagan administration inaugurated from 1981, several revisions and additions have been made to the basic defense policy from the 1950s, which have continued to be a guideline for defense policy. At the same time, the Reagan administration sought to respond to Soviet threats by creating a separate information

⁵¹ Office of the Secretary of Defense. National Security Strategy. <https://history.defense.gov/Historical-Sources/National-Security-Strategy/>(accessed on 7 December 2019).

document called the Soviet Military report, which was published by CIA from 1981 until 1991, when the Soviet Union collapsed.

The defense report was published with the logical basic framework. First, it identifies U.S. national security interests and commitments. Second, it assessed the threat to the identified interests, third, it formulates defense policy and strategy to counter contingencies, and lastly buys cost-effective forces, weapons, and manpower to implement policy and strategy.”⁵²

The Reagan administration sought to define the objectives of national interest and defense policy and to analyze the threats that influence them under the logic above.

First of all, the purpose of defense policy can be inferred from the Constitution as the fundamental goal of the United States.

*. . . to form a more perfect union, establish justice, ensure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity...*⁵³

Since the 1940s, the basic goals of national security policy were preserving U.S. sovereignty, vital interests abroad and shaping an international environment in which

⁵² Secretary of Defense. 1987. Annual Report to the Congress Fiscal Year 1988. p.15

⁵³ The Constitution of the United States,

its freedoms and democratic institutions can survive and prosper.⁵⁴

In 1981, when the administration began, the US military's superiority was weakened by the Soviet expansion. This perception is evident in the 1983 defense report, the first publication in which the Reagan administration was fully responsible. The Reagan administration stated that "The Soviet Union poses a greater danger to the American people than any other foreign power in our history". Furthermore, the US described the nature of Soviet threat as "The Soviet Union has long relied on military power as its primary instrument for expanding control and influence throughout the world."⁵⁵ It also stressed that this threat affects the United States in various regions. Moreover, it suggested the failure of the arms control policy with the Soviet Union that the former government implemented caused a lot of disappointment. For example, it presented a violation of the Soviet nuclear strategic weapon reduction and biological weapons convention by the USSR. In conclusion, we can confirm that the US considered the Soviet Union as a significant, persistent, and influential threat.

As a means of countermeasures to the soviet threat, the Reagan administration implemented a 'deterrence' policy, which included effective defense, escalation, and

⁵⁴ Secretary of Defense. 1986. Annual Report to the Congress Fiscal Year 1987. p.27

⁵⁵ Ibid. pp.2-3

retaliation.⁵⁶

Later, the Reagan administration's perception of security policy has changed dramatically, starting from 1986 when the INF Treaty was discussed in earnest. The Report of the Secretary of Defense Caspar W. Weinberger to Congress, published at the time, evidently shows that changes. The Reagan Administration began rebuilding American military strength and tried to persuade the Soviet Union in the long term.

It emphasized that defense spending felled by 20 percent over the past decade, weakening US military forces which should respond to the Soviet expansion⁵⁷. However, five years after the Reagan administration came to fruition, it noted that the US had made remarkable achievements in developing military forces, defense strategies and policies. In this process, the US implemented containment and succeeded it to apply in three aspects over the Soviet Union; (1) ideological, (2) geopolitical, (3) military power. In particular, in 1986, it stated: “as we watch the embers of communist ideology burning low.” While it was not considered to be completely superior in the containment of military forces, it assessed the military balance separately later in another chapter, emphasizing that the US military has never been inferior to the Soviet Union.⁵⁸

⁵⁶ Ibid pp.32-40

⁵⁷ Ibid. p. 3.

⁵⁸ Ibid, pp.28-29

In terms of balance, this was particularly different from the previous year. At that time, the Reagan administration analyzed perception on the balance with the assumption that ‘Assessing military balances is not an exact science.’⁵⁹. For this reason, quantitative and qualitative comparisons must be carried out at the same time with multi-layer factors.

The Reagan administration attempted to explain the security balance with the Soviet Union based on four elements: strategic, military balance to the major regions, maritime and projection forces.⁶⁰

First, for the strategic balance, it examined that because of President Reagan's strategic modernization program, the strategic balance was achieved enough to deter Soviet nuclear hostility to the United States and its allies. And it was seen to have achieved the advantage to USSR. The table below shows the US and Soviet comparisons of strategic assets.

	The US Strategic Offensive Force Loadings (1987)							
	ICBM		SLBM		Bombers		Total	
	Launcher	Warhead	Launcher	Warhead	Launcher	Warhead	Launcher	Warhead
US	1,000	2,300	640	5,632	361	5,753	2,001	13,685
US SR	1,418	6,872	962	2,506	155	1,250	2,535	10,628

[Table.2] US and Soviet comparisons of strategic assets⁶¹

⁵⁹ Ibid. p.57

⁶⁰ Ibid pp.58-67

⁶¹ Robert S. Norris and Thomas B. Cochran. 1997. *U.S.-USSR/Russian Strategic*

At the time, the Soviet Union was conducting continuous deployment of ICBMs and other strategic assets, including SS-25, and SS-N-23 SLBM. It also tried to accelerate its pace in the modernization program with MIRVed SS-25, SS-NX-21(SLBM) and SS-NX-24(LRCM). The U.S. also continued its strategic weapon modernization program, expanding its ICBM with the addition of 50 peacekeeper launchers and maintain superiority in SLBM and strategic bombers.

Based on this, we can confirm equilibrium or a slight superiority of the US alliance in the balance of strategic assets between the US and the Soviet Union. In Europe, where NATO and the Warsaw Pact compete for regional balance, the US conventional power was inferior to the Soviet Union, but it was not considered to be completely out of balance considering nuclear deterrence. In terms of East Asian equilibrium, the regional strategic balance was also favorable to the United States, considering the economic development and military modernization of Asian allies such as Japan and South Korea. The Middle East was also considered to have a sufficient environment to prevent the Soviet offensive, given the support of strategic air assets.

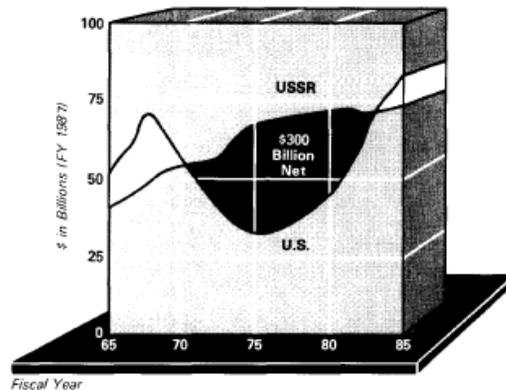
This regional balance was more evident through the maritime and power projection forces. At the time, Soviet assets focused on sea-denial in terms of maritime balance, but in terms of capacity, US maritime strategy overwhelmed the

Offensive Nuclear Forces, 1945-1996. Washington, D.C.: Natural Resources Defense Council

Soviet Union. Both the United States and the Soviet Union have made continuous progress in strategic assets with projection forces. However, the situation supported by the US allies was more amicable to the United States, so that a sufficient balance could be achieved in the projection military arena.

Eventually, the results of this report suggest that the Soviet Union and the United States were in a balance of threat to each other and that the United States perceived the US-Soviet relationship as an equilibrium.

In addition, the following graph shows the comparative cost analysis for procurement in the United States and the Soviet Union.



[Figure.3] A comparison of U.S Defense Procurement Expenditures with the Estimated Dollar Cost of Soviet Procurement⁶²

This shows that the United States, which had been behind than USSR since 1969, reversed the Soviet Union for the first time from 1984. In the decade of the

⁶² Secretary of Defense. 1986. Annual Report to the Congress Fiscal Year 1987, p.16

1970s, the military investment in the Soviet Union was 50% higher than the US military investment, which was the situation faced at the beginning of the Reagan administration. But this investment in military power shows that the United States began to transcend the Soviet Union again. This may explain the situation at the time when the balance of military power was shifting in a favorable direction for the United States.

In conclusion, the overall analysis of the situation in 1980s suggests that the Soviet Union and the United States reached to balance of threats.

1-2. Comparison to Trump Administration Security Policy

The Trump administration began its term in January 2017 and has issued a series of key security strategies. The table below lists the Trump administration's reports that have been issued since its inauguration.

	Title	Date	Publisher
①	National Security Strategy Report	2017 Dec.	White house
②	National Defense Strategy Report	2018 Jan.	DoD
③	Nuclear Posture Review	2018 Feb.	DoD
④	Final Report on Organizational and Management Structure for the National Security Space Components	2018 Aug.	DoD
⑤	Annual Report on Military and Security Developments Involving the People's Republic of China	2018 Aug.	DoD
⑥	MISSILE DEFENSE REVIEW	2019 Jan.	DoD
⑦	Indo-pacific strategy report	2019 Jun.	DoD

[Table.3] Trump administration's security report lists⁶³

The logical origin of the Trump administration's defense policy can be found in the National Security Strategy report which was first published by Trump administration.

⁶³ 안기현. 2019. 「트럼프 행정부의 국방정책 『국가안보전략』 으로부터 『인도-태평양 전략』 까지」. 이슈브리프. 아산정책연구원.

For the first time in the December 2017 national security strategy report, the Trump administration stated that it should focus on the ‘American First’ policy and protect key national interests by maintaining US hegemony.

This NSS was embodied through the National Defense Strategy Report, issued in 2018, showing the national defense construction plan. In this report, analyzing the international conditions, pointed China and Russia as a competitor in the military arena. At the focal point of this report is ‘the Shaping the American Military competitive edge’ to strengthen military power through cooperation with allies in the Long-term and Strategic Competition Approach.⁶⁴

The next release of the Pentagon's Nuclear Posture Review report pointed Russia as the biggest threat, reflecting an overwhelming number of nuclear weapons reserves of Russia.⁶⁵ While the missile defense review, which was later released, expressed its willingness to upgrade missile defenses against its competitors, including the Emerging threats such as North Korean and Iran, ⁶⁶ and further demonstrates its commitment to the arms race.⁶⁷

⁶⁴ US Department of Defense, Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge, pp. 1-5

⁶⁵ US Department of Defense, 2018, Nuclear Posture Review 2018, pp.8-10

⁶⁶ US Department of Defense, 2018, Missile Defense Review 2018, pp.8-13

⁶⁷ 안기현, pp.6-9

The next issue which was the Annual Report on Military and Security Developments Involving the People's Republic of China, published annually since 2002, expresses high US concern for China, which stands out since 2000.⁶⁸ In particular, the United States has a significantly serious focus on China, given the absence of reports on Russia at the level of the annual report to the former Soviet Union. Of course, there is an annual report to congress on the safety and security of Russian nuclear facilities and military forces issued by the National Intelligence Council (NIC), but it does not show similar regularity and level of content. So, it can be viewed that an annual report on China is the only official publication that has a similar level of Soviet Military Report, meaning China as the most crucial threat to the US.⁶⁹

Recently, the Pentagon released the Indo-Pacific Strategy Report, demonstrating the Trump administration's concretized defense policy. So, we can see the latest US government security strategy in the Indo-Pacific Strategic Report. Reading the details of the Indo-Pacific Strategic Report reveals nothing particularly new from other security report issued before. The Indo-Pacific Strategic Report suggests the purpose of security with four elements. First, defending the homeland.

⁶⁸ The Department of Defense is required to annually produce and issue the report under Section 1202 of the National Defense Authorization Act for Fiscal Year 2000 .Public Law 106-65.

⁶⁹ US Department of Defense, 2018, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2018

Second, keeping the outstanding military power at the international level. Third, ensuring the balances of power in major regions favorable. Lastly, advancing an international order that is most beneficial to US security and prosperity.”⁷⁰

In the end, it can be seen that there is no significant difference from the previous government in terms of ensuring the security of the states and maintaining an amicable international order for the United States. But what's added here is the sustainment of the balance of power. This means that the United States has “already” achieved a balance of power.

This report presents three measures to achieve these security objectives: (1) Preparedness; (2) Partnerships and (3) Promoting a Networked Region. Through these three US efforts, we can identify the characteristics of the Trump administration's security policy by comparing it with the previous administration's policy.⁷¹ The Reagan administration tried to take the effect of deterrence by presenting a threat to the other side, while the Trump administration's security policy would focus on keeping the existing balance. This is also interpreted to mean that the US tried to substation US-led hegemony, as has been confirmed for the purpose of security.

Another point to note in the report is the perception of the threat. The report

⁷⁰ US Department of Defense, 2019, Indo-Pacific Strategy, p.16

⁷¹ Ibid, pp.17-52

identifies threats through the 'India-Pacific Strategy Landscape'. The report states China, Russia, and North Korea as potential countries for threats, and mentions other Transnational Challenges. What is noteworthy here is America's perception of major competitors and expressions about those states. First, China is stated as Revisionist Power. In other words, the US sees China as a country that challenges existing US-led hegemony. Russia is referred to as Revitalized Malign Actor. This can be seen as mitigated compared to the revisionist state for Russia in the last defense missile review. In particular, considering the fact that China was mentioned before Russia in the context of specifying threats, we can confirm that the focus of US security policy has shifted from Russia to China. Based on this understanding of security policy, we can examine the factors related to the withdrawal from the INF Treaty of the United States.⁷²

⁷² Ibid, pp.7-11

1-3. Changes in Annual Compliance Report to congress

1-3-1. Compliance report on INF treaty

According to 22 U.S.C. 2593a-Annual report to Congress, Bureau of Arms Control, Verification and Compliance (AVC) has submitted a report to Congress on the implementation of Arms Control, Nonproliferation, and Disarmament Agreements and Commitments. What is noteworthy here is the change in US comments on the INF treaty. It is an annual report published annually, but in the 2000 version of a publication, the results of the previous first year were synthesized, but in 2005 and 2010, the results of the previous four years were combined. Since 2011, it has been reported to Congress every year. However, no reports have been issued twice a year during that period. In that context, recent change Furthermore, there is also a significant change in style and content in 2019.

Feature of the 2014 compliance report is that it was the first time a reference has been made regarding a Russian violation of the INF Treaty. This report states in the Findings section “The US has determined that Russia violated its obligations under the INF Treaty not to possess, produce, or flight-test a GLCM with a range capability of 500 km to 5,500 km, or to possess or produce launchers of such missiles.”⁷³ Of course, since the report itself is Unclassified and had another

⁷³ US Department of State. 2014. Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments

classified version, it does not contain any details, but it also differs from later reports.

The 2015 report analyzed on arms control and disarmament compliance from January 1, 2014, to December 31, 2014. The main feature of this report is that it emphasizes that the report is a contribution to better ‘transparency and stability’, which justified the US. In addition, since Russia started reporting the violation of the INF Treaty of the US in 2014, it has contradicted the Russian argument. In addition, it has a change in the statement of 'cruise missiles were developed by Russia' in the compliance of Russia.⁷⁴

In the 2016 Compliance Report, it no longer refers to the implementation of the US without any further refutation with regard to US compliance.⁷⁵

The feature of the 2017 report is that explanations of efforts to solve the problem of Russian non-compliance with the INF Treaty have begun to emerge.⁷⁶ It mainly consists of three measures: Diplomatic; Economic; and Military Measures. Diplomatic measures mean utilizing viable channels, including the INF treaty’s SVC with emphasizing allies’ continuing compliance on the treaty. Economic measures are enforcing sanctions on Russian companies related to the development and

⁷⁴ US Department of State. 2015. Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments

⁷⁵ US Department of State. 2016. Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments

⁷⁶ US Department of State. 2017. Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments.

manufacture of the prohibited cruise missile systems. Lastly, military measures are conducting R&D by reviewing military concepts and options to cope with Russian missile threats.⁷⁷

The 2018 compliance report is characterized that the forepart of context stated the definition of the concept of a violation. This tries to make a clear distinction between violations and concerns about compliance. The implications of this report can be seen as emphasizing that violations of Russia are violations of clear treaties, not just ‘compliance concerns.’

It also stresses that the United States is working harder to solve this issue, stating “The United States is committed to doing everything it can to preserve the integrity of the INF treaty” and emphasizing “remaining open to discuss any and all ways to facilitate the Russian Federation’s return to fulfill and verifiable compliance”.⁷⁸

Most notable is the fact that the US is working with neighboring countries, not the United States alone anymore. This should be seen along with other statements, at which point the United States has elicited cooperation and understanding from neighboring countries. Furthermore, the violating missile’s title, 9M729, was first

⁷⁷ US DoD, 2018 Nuclear Posture Review, p.10

⁷⁸ US Department of State. 2018. Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments, 2018, p.11

mentioned from this report.⁷⁹

The most notable feature is that in 2019, the report was published twice in April and August. In this report, there is also a significant change in style and content in 2019.⁸⁰

1-3-2. Compliance report on Missile Technology Control Regime

Missile Technology Control Regime (MTCR) is the voluntary mechanism established in April 1987. Its purposes are limiting the spread of ballistic missiles and other unmanned delivery systems.⁸¹ Although China is not a member of MTCR, China presented a public commitment not to assist “in any way, any country in the development of ballistic missiles that can be used to deliver nuclear weapons” in November 1991.⁸²

In the 2001 compliance report, the US showed its complaint on China mentioning that “the preceding actions call into serious question China ’s stated commitment to controlling missile proliferation. Chinese state-owned corporations

⁷⁹ Ibid.

⁸⁰ US Department of State. 2019. Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments

⁸¹ The Arms Control Association. 2017. The Missile Technology Control Regime at a Glance <https://www.armscontrol.org/factsheets/mtrc>(accessed on 7 December 2019)

⁸² US Department of State. 2014. Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments. p.44

have engaged in transfer activities with Pakistan, Iran, North Korea, and Libya that are clearly contrary to China 's commitments to the U.S.' so, we can see the US was suspicious of Chinese missile proliferation from the early 2000s."⁸³

In the 2005 compliance report, the US description of Chinese missile proliferation became more assertive. It mentioned, "The United States finds that items transferred by Chinese entities who contributed to missile programs contrary to the Chinese Government 's November 2000 missile nonproliferation commitments."⁸⁴ This description continued in the 2010 compliance report, referring to Chinese companies continually supplied missile programs for concerned countries. US effort to control Chinese missile proliferation started to be mentioned from the 2011 report with 'Added Sanction to related companies since 2009.' Since then, the same content has been repeated until 2014 without further changes.

Analyzing this, the US focus goes beyond Russia, focusing on China and providing clear evidence. A distinctive feature of the US response is that once the name is specified, the corresponding response appears.

⁸³ US Department of State. 2001. Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments.

⁸⁴ US Department of State. 2005. Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments.

2. Alliance dynamics with the response on INF issue

2-1. Reagan administration

NATO member countries agreed to participate in a dual-track decision to deploy missiles and negotiate arms reductions to counter the Soviet deployment of SS-20 simultaneously in 1979. This part analyzes the alliance dynamics by responding to NATO's major countries, including the INF installation and the drive of the treaty.

At that time, as SS-4 and SS-5, which were not much threatening to NATO, had been modernized to SS-20, and the SALT I was concluded in 1972 limiting US nuclear capability, existing balance in Europe deemed to be shaken. In this situation, intermediate-range nuclear forces played a key role in the defense posture of the alliance.

At the time, US allies' positions on alliance were divided into two different opinions. One believed, no matter how small US deployment, it would be able to strengthen their couplings between US and NATO allies and to restrain the Soviet Union. The other believed that the US superiority was no longer feasible and that parity would be better than either has superiority. With the different views, European countries showed different dynamics due to the influence of national domestic politics on the dual-track decision.

2-1-1. Federal Republic of Germany

West Germany was a key actor in INF deployment considering that a Pershing-2 missile was to be deployed in Western Germany. The decision to deploy an intermediate-range missile was initiated from the German Chancellor Schmidt's IISS speech.

In the case of Germany, the change in position on the deployment of INFs can be confirmed through political orientation. At the time of a dual-track decision in December 1979, the Social Democratic Party (SDP) led by Chancellor Schmidt was the strongest supporter of missile deployment. But since 1980, political dynamics in FRG changed. During this period, members with the left and moderate tendency began to expand, and the solidarity with the Free Democratic Party (FDP) that supported the SDP weakened. In addition, the influence of the new Green Party further expanded the leftward movement within the SDP.

In 1982, the SDP and FDP were dissolved and a new FDP-CDU / CSU (Christian Democratic Union and Christian Social Union) regiment led by Helmut Kohl was formed. As a result, even the SDP stated to oppose the deployment of INF and NATO's modernization efforts from the spring 1983 campaign. As a result, in the March 1983 election, the FDP / CDU solidarity with more than half of electorates was established, and the Kohl government, who was negative for the deployment of INFs, took an office. Moreover, the younger generation, which would form the next generation of political forces decisively, opposed international tensions, in favor of

arms control and disarmament, which was also negative to INF deployments in Germany.

In conclusion, even SDP led by Chancellor Schmidt, who had previously supported the INF deployment, turned the party's official position to oppose INF deployment and the newly established CDU solidarity continued to oppose, strengthening over generations.

2-1-2. France

France was the world's third-largest military power after the United States and the Soviet Union, but also possessed nuclear weapons. France, of course, was an early member of NATO in 1949 but withdrew from NATO's combined forces in 1966 with a cause of friction on nuclear development and President De Gaulle's pursuit of independent diplomatic routes, but still retained its position as an associate member and had influence in Europe. The characteristic of France at the time was the public uninterest and changes of the political leaders' propensity. First of all, the French public was uninterested in NATO's Dual-Track decision or regarded it as a non-major national issue. From a political point of view, they look different before and after the 1981 presidential election. Before the 1981 presidential election, Giscard, French leaders before 1981, officially denied supporting the decision.⁸⁵Of course, at

⁸⁵ Robbin F Laird. 1985. *France, The Soviet Union, And the Nuclear Weapons Issue*,

this time France was neither a member of the integrated military command nor the prospective recipient of the new American missile.

However, the next president, Mitterrand, who was elected in 1981, supported a dual-track decision from election campaigns in 1979 and continues after he was elected. This was because they were afraid of Moscow to operate political leverage against the West. Moreover, it believed it was in line with France's national interests.

This attitude changed again toward disarmament since 1983. In September 1983, Mitterrand articulated three conditions that should be satisfied for nuclear arms control negotiation participation of France. Those three are reducing the US and USSR's nuclear weapons closer to France's capabilities, limiting the neutralizing offensive forces systems, significant improvement easing the conventional force imbalances in Europe and the global elimination of chemical and biological arsenals.⁸⁶ This seems to have worked in the negotiations between the Soviet Union and the United States, excluding Britain and France from the treaty. Since then, the Mitterrand applauded the INF treaty, because it provided parity to the United States and the Soviet Union, had a complementary system through in-site verification, and was inevitable given the popularity of the Western allies at that time.

Routledge. p.3

⁸⁶David S. Yost. 1991. "Mitterrand and Defense and Security Policy". French Politics and Society. Vol. 9, No. 3/4, The Mitterrand Decade. pp.141-142

In conclusion, at the time the treaty was concluded, the French public was indifferent, but the political community showed fluctuating support for the INF.

2-1-3. Italy

Italy also had a gap between political groups and the public. In the early period, in public opinion, under the initiative of the Italian Communist Party (PCI), there was a criticism against the deployment of INFs in Italy. In the process, more than half a million Italians protested in major cities, including Rome, Milan, and Venice.

On the contrary, the official position of the government showed faithful supporters of NATO's nuclear force modernization. This seems to reflect the situation that Italy wanted to be more involved and have a leading role in NATO.⁸⁷

In addition, when deploying cruise missiles in Italy, the site was selected as Comino on the island of Sicily. The site is separated from the mainland where a large population was located, so the threat from the Soviet weapons was relatively small. The US missile deployment also helped to recover its regional economy as funds were invested in the deployed region. In addition, the US technicians and their families also played a positive role in the economy. Bettino Craxi, the new leader of the Italian Socialist Party (PSI) at the time, played a decisive role in supporting the

⁸⁷ Jeff McCausland. 1986. "Dual Track of Double Paralysis? The Politics of INF." *Armed Forces and Society* 12. No.3. Spring. pp.442-443

INF deployment. Craxi strongly insisted on the deployment of the INF and draws national support as a reliable substitute for the existing long-term Christian Democratic Party (CD). On the contrary, PCI, which was opposed to missile deployment at that time, failed to offer a realistic alternative. Eventually, Craxi, who had been the leader of the Italian Socialist Party since 1976, took the office from 1983 to 1987 for the first in the PSI Party.

In conclusion, Italy's support for INF was based on intricate factors with Italian desire to get a more active role in the alliance decision process, the selected site which would not worsen public opinion, and an effort by the PSI to undertake a leadership role in its domestic politics.⁸⁸

2-1-4. Great Britain

Great Britain was a member of NATO, which showed strong support for INF deployment. The most important situational elements of Britain at the time were economy and war. The unemployment rate was even more severe than during the Great Depression of the 1930s. In 1982, Britain experienced war with Argentina's invasion of the Falkland Islands. This difficult situation was favorable to conservatives led by Margaret Thatcher. In particular, the expedition from England to Falkland is a long-distance trip with 12,328 km around half of the globe, contrary

⁸⁸ Ibid, p.444

Falkland is only 670 km from Argentina. During the war, the United States escorted the entire process of the British intelligence network, and the timely military support of the United States was crucial. That help, which came to the United States, supported the United States deploying Pershing-2 in the United Kingdom. The campaign against nuclear disarmament (CND) was launched nationwide, but Thatcher did not hesitate to complete the deployment. The United States deployed Pershing-2 in Britain and the Netherlands to fight against the SS-20, which could be used as a leverage to withdraw the Soviet SS-20 during the 1987 INF negotiations. This ultimately led to the end of the Cold War. In January 1983, opposition to INF placement peaked in the United Kingdom, with 61% of the public opposing it. But in June 1983, it decreased to 39% based on the active support of CND and its popularity.

For the public movement, in the Netherlands and Belgium, campaigns against missile deployments took place from 1979 to 1985. The Dutch peace movement, which successfully launched the anti-neutron bombing campaign, completed 20,000 marches in Utrecht in November 1979 before the new missile deployment was decided. Resist on INF deployment in West Germany also began to grow in 1981, which later led to the biggest struggle, and there were popular protests throughout Italy. In Great Britain campaigns against the CND in October 1980, 80,000 people marched downtown in London.

In France, however, after the presidential election with regime changes, political support for the deployment of missiles to counter Soviet power expansion appeared. Furthermore, missile deployment was utilized as leverage in Italy and Great Britain, considering the country's environment, leading political support from those states.

In conclusion, Allie's response on INF deployment differs from country to country, but the policy support of the core countries played as leverage for negotiation through actual deployment, while the national opposition has become the driving force for disarmament.

Country	Position
West Germany	From Initial support to Progressive opposition after 1983
France	Popular indifference, but political support for INF
Italy	Public opposition, political support
England	Active support since 1983

[Table.4] Allie's response on INF deployment in the Reagan administration

2-2. Trump administration

After all, the recent trend in international politics, including the withdrawal of the INF Treaty from the United States, is a gradual weakening of the international security regime. Also, the first victims to be consequently will be small countries that have previously relied on great power or hegemony and can no longer expect the protection of current international law and institutions.

In particular, after the post-cold war era, the international order has shifted to a US-unipolar system, and European countries have relied on US-led NATO security protection. However, Russia is recovering from the recession of the 1990s, and the rise of emerging powers such as China and India are changing the existing order, which is directly affecting European countries. In the process, the world is showing a change in the existing disarmament system, especially facing the US-Russian conflict and China's refusal to attempt to expand disarmament. In response to this phenomenon, major European allies have different opinions on the termination of the INF treaty.

2-2-1. United Kingdom

First of all, the United Kingdom has long had an alliance with the United States and possesses its own minimum nuclear deterrence as a nuclear weapons state. The official position of the British government is the same as that of the US and

NATO. The United Kingdom has voiced concerns about serious violations of Russia's INF Treaty.

Britain's official position is Moscow has deployed a dual-capable ground-launched cruise missile in a range-category that contravenes the INF Treaty. In addition, the US officially supports the suspension of the implementation of the INF Treaty.⁸⁹

In particular, Sir Alan Duncan who was the Minister of State at the Foreign and Commonwealth office, responded by the Parliamentary Defense Committee that the United Kingdom and Russia are carefully looking for violations of the INF Treaty and agree with the United States. In addition, he urged Russia to return to the INF Treaty. It is also believed that the SSC-8 was developed to re-project Russian military forces after the collapse of the Soviet Union as part of political imperatives as a motive for violating Russian treaties.⁹⁰

Gavin Williamson, the British Secretary of State for Defense, told Parliament in a Feb. 12 written answer that the six-month withdrawal process can be a final opportunity to return to the Treaty for Russia. In doing so, the United States acknowledges its commitment to the treaty and emphasizes Russian violations. In addition, the Labor Party, one of the two parties in the UK, is proposing to replace

⁸⁹ *Responses to the INF Treaty crisis: the European dimension*. 2019. Odessa I. I. Mechnikov National University Press. May 3. p. 12

⁹⁰ *Ibid*, pp.12-13

the existing INF Treaty with a multilateral framework.⁹¹

In conclusion, the United Kingdom officially believes that the destruction of the INF Treaty would adversely affect the disarmament treaty, suggesting the establishment of a system to replace the agreement, agreeing to the US view of the cause of the treaty as a violation of Russia.

2-2-2. France

France also has its own nuclear deterrence by having nuclear weapons. It also played a key role in the missile crisis of Europe in the 1980s. A distinctive feature of France's response to the INF Treaty is that, unlike other European countries, the issue is neither controversial nor deeply addressed in domestic politics. De facto, it appeared in French newspapers very rarely. Only a few articles of the national daily press dealt with the U.S. withdrawal announcement.⁹²

The official position of the French government is very cautious and participates in this issue at the level of “alongside with its partners and allies.”⁹³ It

⁹¹ Ibid, p.14

⁹² Ibid, pp.18-19

⁹³ French communiqué on INF. 2019. <https://www.diplomatie.gouv.fr/en/french-foreign-policy/disarmament-and-non-proliferation/events/article/intermediate-range-nuclear-forces-treaty-01-02-19>. (accessed on 7 November 2019).

also states that France felt regrets about the current situation in which the United States provided its intention to withdraw from the INF Treaty. However, the feature of France's response in this process is that both the US and Russia do not take the blame.⁹⁴ In particular, if the INF Treaty is destroyed in its entirety, it is concerned about another rearmament in Europe, but it does not address the impact and strategy changes that the INF Treaty will bring in a formal statement.

In conclusion, analyzing the official statements on the crisis of the French INF Treaty, it is worth noting that they never deal with the potential military requirements and the adaptation of NATO 's defense posture.

2-2-3. Germany⁹⁵

The clear German position is that Russia is clearly violating the INF Treaty. At the same time, however, Germany regrets the US' decision to leave the INF Treaty and stresses that this decision is contrary to the arms control regime which benefits Germany and Europe.

First, Germany agrees with the United States that European-based Aegis Ashore MK-41 launchers are not violating the treaty, contrary to Russian argument.

⁹⁴ Responses to the INF Treaty crisis: the European dimension, Odessa I. I. Mechnikov National University Press, May 3, 2019, p. 21

⁹⁵ Ibid, pp.29-37

In addition, Germany has advocated finding diplomatic solutions for disputes over the INF Treaty. The German government has also invested a lot of political funds.

But even if the treaty is withdrawn, Germany claims it is against the European deployment of the new INFs against the NATO-Russia Founding Act. In response, key German political leaders, including Chancellor Angela Merkel, Ursula von der Leyen and Heiko Maas, agreed that "tit-for-tat strategy practiced in the 1980s." is not suitable to solve this dispute.

But Germany's German Federal Foreign Office (AA) and Federal Ministry of Defence (BMVg) like some of the UK's, support the multilateralization of the INF Treaty, including China. This is because Germany is pursuing a sustainable nuclear arms control regime.

Of particular note, Germany does not provide a clear report on questions concerning the INF's treaty through its own intelligence agency (BND). Germany depends on the information it receives from the United States. It can be seen that there is not yet a clear basis for violations of either side by the German side.

2-2-4. Italy⁹⁶

The Italian government clearly does not recognize that Russia has violated the INF Treaty. However, as a member of NATO officially, it is joining NATO's official position on December 4, 2018. Experts in the Italian government have shown that the INF Treaty is an outdated instrument. Nevertheless, it does not welcome the collapse of the INF Treaty and instead argues that it should be updated to reflect the current environment and conditions. However, discussions on the INF Treaty, including parliament, are not active, and Italy 's public approach to the INF Treaty demise is marked by a lack of debate and autonomous initiatives.

2-2-5. NATO

NATO has repeatedly condemned the violation of the INF Treaty in Russia. On December 15, 2017, North Atlantic Council urges Russia to solve NATO's concerns and actively engage in a dialogue with the US.⁹⁷ Brussels NATO Summit Declaration confirmed on July 11, 2018, states that they believe that NATO assessed that Russia is in violation of the Treaty because there was no credible answer from

⁹⁶ Ibid, pp.38-44

⁹⁷ Statement by the North Atlantic Council on the Intermediate-Range Nuclear Forces (INF) Treaty. 15 Dec. 2017. https://www.nato.int/cps/en/natohq/news_150016.htm (accessed on 14 December 2019)

Russia on this new missile. On October 31, 2018, NATO Secretary-General Stoltenberg comments on the INF Treaty saying “No arms control arrangement can be effective if it is only respected by one side.”⁹⁸ December 4, 2018, NATO Foreign Ministers made a statement strongly supporting the Russian in-material breach of the treaty.⁹⁹ During a NATO-Russia Council meeting on January 25, 2019, NATO allies pressed Russia to return to fully verifiable compliance under the INF treaty. And it imposes only Russia on the responsibility of the INF Treaty Crisis.¹⁰⁰

As such, NATO continues to voice the United States' opinion on the violation of Russia's INF Treaty and has taken a clear stand on Russia's violations since the 2018 Brussels Summit.

As a result, neighboring countries have maintained strong support for the treaty, but the solutions are presented differently. NATO also made a statement in Brussels in 2018. Many of the frameworks presented above do not apply to the destruction of the INF Treaty.

⁹⁸ Timeline of Highlighted U.S. Diplomacy Regarding the INF Treaty Since 2013. 2019. Bureau of Arms Control, Verification and Compliance. July 30

⁹⁹ Statement on the Intermediate-Range Nuclear Forces (INF) Treaty, Issued on 04 Dec. 2018

¹⁰⁰ Statement on Russia's failure to comply with the Intermediate-Range Nuclear Forces (INF) Treaty, Issued on 01 Feb. 2019

	Position	Response
UK	Concerns about the violation of Russia.	Proposal to extend to multilateralism
France	Careful, not handled in depth	Opposition to rearm against Europe
Germany	A strong supporter of the US argument and the clear position that Russia is clearly violating	A diplomatic solution
Italy	Unclear position. Consent at NATO Level	system improvements to suit the current situation
NATO	An obvious Russian violation claim	Urged to return to Russia

[Table.5] European Allies' position and response¹⁰¹

¹⁰¹ Referred from Responses to the INF Treaty crisis: the European dimension (2019), arranged by author

3. Comparison of public opinion on the INF Treaty in the US

There is conventional wisdom that “the American public gives the president ‘a blank check’ or ‘an almost free hand’ to do whatever he wants in foreign affairs.”¹⁰² However, the logic identified in the framework of the previous theory confirms that public opinion can influence the decision-making process because leaders consider audience costs. It is needed to confirm whether this logic can be applied to the conclusion and destruction of the INF Treaty.

First, the results of 1987, when the INF Treaty was concluded, and 1988, when the compliance began, show that the public opinion of the United States was amicable to the conclusion of the treaty. At the time, Gallup said 74% said they approved of the proposed INF treaty to eliminate intermediate-range weapons. Subsequently, more than 70 percent of US citizens supported the signing of the INF Treaty from 1987 to autumn and spring 1988, and 71 percent of respondents supported the treaty in the summer of 1988.¹⁰³

The same results can be seen not only from Gallup but also from Market Opinion Research (MOR) conducted in January 1988. Those who responded to the

¹⁰² Lee Sigelman. 1990. “The President, The Public, and The INF Treaty.” *The Public Opinion Quarterly*, Vol. 54, No. 1 Spring. p.45

¹⁰³ Jeffrey M. Jones. 2013. “In U.S., 56% Favor U.S.-Russian Nuclear Arms Reductions.” *GALLUP*, March 11. <https://news.gallup.com/poll/161198/favor-russian-nuclear-arms-reductions.aspx>(Accessed on December 18 2019)

survey showed strong support for the treaty. Respondents were asked: “As you may know, the U.S. and the Soviet Union signed a treaty to eliminate intermediate-range nuclear missiles based in Europe and in the Soviet Union. Do you approve or disapprove of this treaty?” As a result, 49% of the population agreed strongly, and 33% agreed. Only 18% were either slightly or strongly opposed to the treaty. Eventually, more than 80% of the population agreed to the Reagan administration's signing of the INF Treaty, and the support of the people was significant enough to make the signing of the INF treaty the greatest achievement of President Reagan.¹⁰⁴

Through public support for the treaties before and after these treaties, it was confirmed that public opinion on the INF in the United States and the conclusion of the treaty had a positive relationship.

But within the Trump administration, the opposite is true. Data from the University of Maryland since the Trump administration declared its withdrawal have supported the INF Treaty, regardless of political disposition.

¹⁰⁴ Lee Sigelman. p.40

	Support for withdrawal	Support for sustaining INF Treaty	others
Total	30.0	66.4	3.6
Republican	42.8	54.7	2.5
Democrats	19.5	76.9	3.7
Others	30.9	63.2	6.0

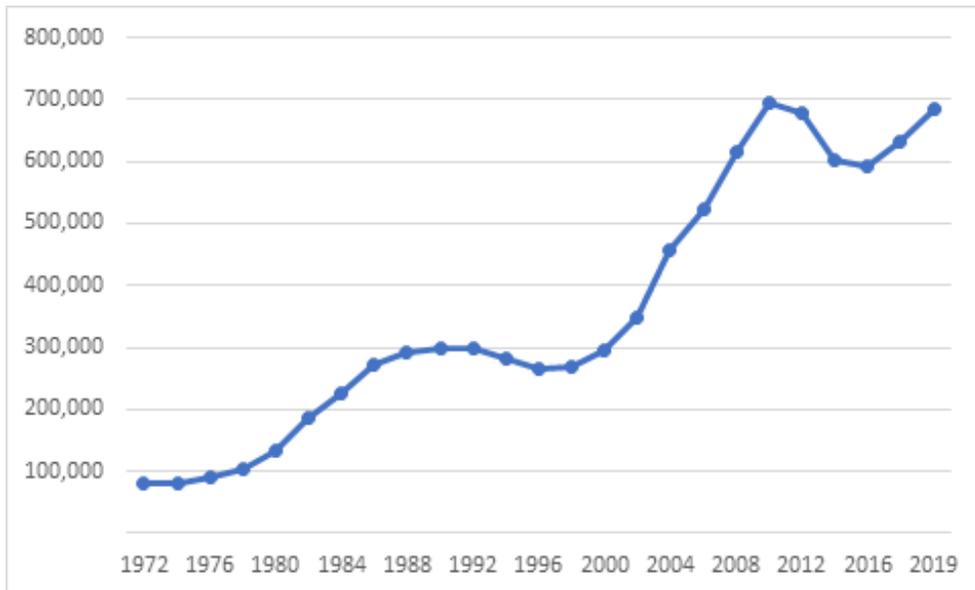
[Table.6] Survey Results for University of Maryland INF treaty 2019¹⁰⁵

The examples of these two Reagan and Trump administrations show that public support for the treaty did not play a decisive role in the conclusion of the treaty.

¹⁰⁵ Survey on Nuclear Weapons Policy Intermediate-range Nuclear Forces (INF) Treaty. 2019. University of Maryland

4. Defense Budget and Public Survey on Defense Spending

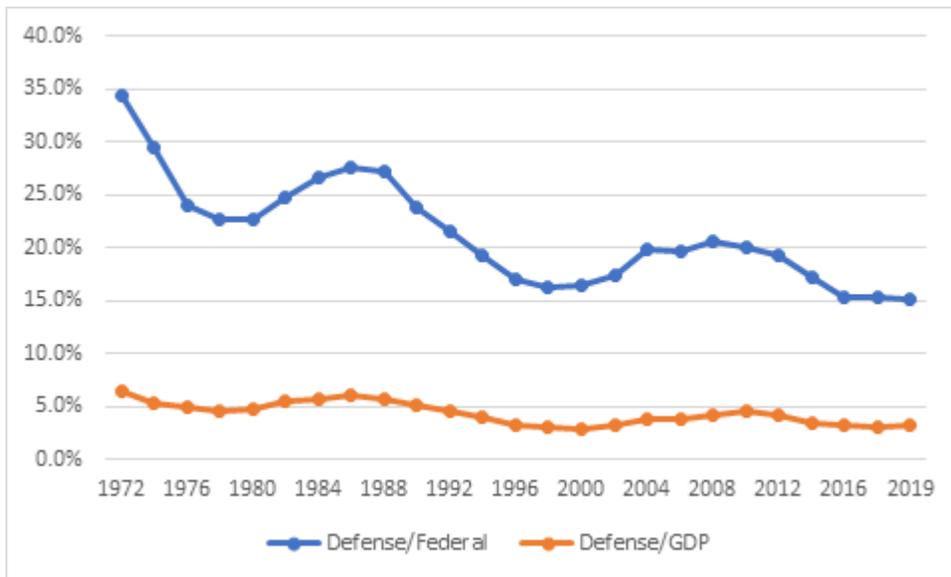
Through the framework of the theory of arms control, we found that the burden of defense spending is an important factor in determining the arms control decision. If so, the proportion of defense expenditure in the United States will be used to determine the impact of defense costs on the agreement or withdrawal of the treaty by seeing what changes have been made between the time when the treaty was signed and the present. First of all, the figure below is the US defense spending flow.



[Figure.4] US Defense Spending

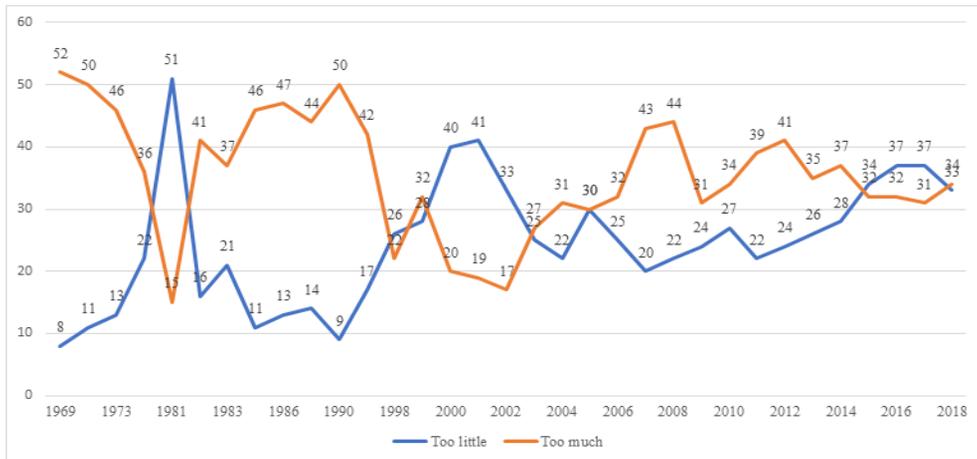
Although US defense spending continues to rise, there are some turning points. First, with the arms control in earnest and the post-cold war timing, it has been decreasing since the early 1990s. However, as the United States pushed for

military modernization again after the 9/11 2001 event, it has increased rapidly, and the trend has declined since the Obama administration began. But it has increased again in the Trump administration.



[Figure.5] US Defense spending per Federal budget and GDP

However, looking at the defense budget alongside the US's capacity based on the economic growth of the United States, it seems that the US does not merely increase its defense spending. In particular, defense spending against GDP has steadily declined and has remained around the 3% level since the 1990s. In addition, the defense budget, compared to the government's total budget, is steadily decreasing, except the rebound from the 2001 terrorism issue. This shows that the US spends less on defense spending than ever before.



[Figure.6] Views of U.S Defense Spending¹⁰⁶

The figure presented is the result of a national perception Gallup survey on US defense spending. In the 1980s, when there was a strong arms race, we can see a high level of negative perceptions of overspending on the defense budget.

This figure can also confirm the public perception and the decision of the arms control policy. ‘Too much spending’ in excess of ‘Too little spending’ began to reappear after 2001 when the United States declared war on terror and increased military spending.

However, a separate survey conducted by Gallup in 2018 showed that 45 percent of the respondents answered they should use additional defense expenses. 31 percent of respondents said current spending is appropriate and only 22 percent

¹⁰⁶ Military and National Defense. 2019. Gallup. <https://news.gallup.com/poll/1666/military-national-defense.aspx>(accessed on 18 December)

answered the US should use less. It shows that the US has not only the ability but also willing to use additional defense spending to continue the hegemony that the United States currently maintains.¹⁰⁷

In conclusion, 1) the relatively lower defense spending compared to the government budget and defense spending relative to GDP mean that the United States has the capacity to invest more in defense. 2) It is considered insufficient for the current defense spending, In particular, a 45 percent majority in the Gallup 2018 survey suggests that additional defense spending should be used, and US public sentimentality is ready to embrace the future arms race, which is linked to Trump's decision to leave the INF Treaty.

¹⁰⁷ Survey questionnaire was “There is much discussion as to the amount of money the government in Washington should spend for national defense and military purposes. How do you feel about this? Do you think the U.S. should spend -- [more, about the same as now (or) less] -- for national defense and military purposes?”

* Current Dollars in Millions

	National Defense	Federal Grand Total	GDP	Defense/Federal	Defense/GDP
1972	79,174	230,681	1,216,200	34.3%	6.5%
1974	79,347	269,359	1,482,800	29.5%	5.4%
1976	89,619	371,792	1,786,100	24.1%	5.0%
1978	104,495	458,746	2,273,400	22.8%	4.6%
1980	133,995	590,941	2,791,900	22.7%	4.8%
1982	185,309	745,743	3,313,400	24.8%	5.6%
1984	227,411	851,805	3,949,200	26.7%	5.8%
1986	273,373	990,382	4,526,200	27.6%	6.0%
1988	290,360	1,064,416	5,138,600	27.3%	5.7%
1990	299,321	1,252,993	5,898,800	23.9%	5.1%
1992	298,346	1,381,529	6,416,200	21.6%	4.6%
1994	281,640	1,461,752	7,176,800	19.3%	3.9%
1996	265,748	1,560,484	7,951,300	17.0%	3.3%
1998	268,194	1,652,458	8,930,800	16.2%	3.0%
2000	294,363	1,788,950	10,117,400	16.5%	2.9%
2002	348,456	2,010,894	10,833,600	17.3%	3.2%
2004	455,813	2,292,841	12,025,400	19.9%	3.8%
2006	521,820	2,655,050	13,638,400	19.7%	3.8%
2008	616,066	2,982,544	14,743,300	20.7%	4.2%
2010	693,485	3,457,079	14,838,800	20.1%	4.7%
2012	677,852	3,526,563	16,056,400	19.2%	4.2%
2014	603,457	3,506,284	17,332,900	17.2%	3.5%
2016	593,372	3,852,612	18,551,000	15.4%	3.2%
2018	631,161	4,109,042	20,235,900	15.4%	3.1%
2019	684,568	4,529,188	21,288,900	15.1%	3.2%

[Table.7] the US Defense budget¹⁰⁸

¹⁰⁸ Data from Green book FY2020, arranged by author

	Too little	About right	Too much	No opinion		Too little	About right	Too much	No opinion
1969 Nov 12-17	8	31	52	9	2002 Feb 4-6	33	48	17	2
1971 Mar 11-14	11	31	50	8	2003 Feb 3-6	25	44	27	4
1973 Sep 21-24	13	30	46	11	2004 Feb 9-12	22	45	31	2
1976 Jan 23-26	22	32	36	10	2005 Feb 7-10	30	38	30	2
1981 Jan 27	51	22	15	12	2006 Feb 6-9	25	40	32	3
1982 Nov 5-8	16	31	41	12	2007 Feb 1-4	20	35	43	2
1983 Sep 9-12	21	36	37	6	2008 Feb 11-14	22	30	44	3
1985 Jan 25-28	11	36	46	7	2009 Feb 9-12	24	41	31	4
1986 Mar 4-10	13	36	47	4	2010 Feb 1-3	27	36	34	2
1987 Apr 10-13	14	36	44	6	2011 Feb 2-5	22	35	39	3
1990 Jan 4-7	9	36	50	5	2012 Feb 2-5	24	32	41	3
1993 Mar 29-31	17	38	42	3	2013 Feb 7-10	26	36	35	3
1998 Nov 20-22	26	45	22	7	2014 Feb 6-9	28	32	37	3
1999 May 7-9	28	35	32	5	2015 Feb 8-11	34	29	32	5
2000 Aug 24-27	40	34	20	6	2016 Feb 3-7	37	27	32	5
2000 May 18-21	31	44	22	3	2017 Feb 1-5	37	28	31	3
2001 Feb 1-4	41	38	19	2	2018 Feb 1-10	33	31	34	2

[Table.8] Views on U.S Defense Spending¹⁰⁹

¹⁰⁹ Military and National Defense. 2019. Gallup.

5. Russian threat

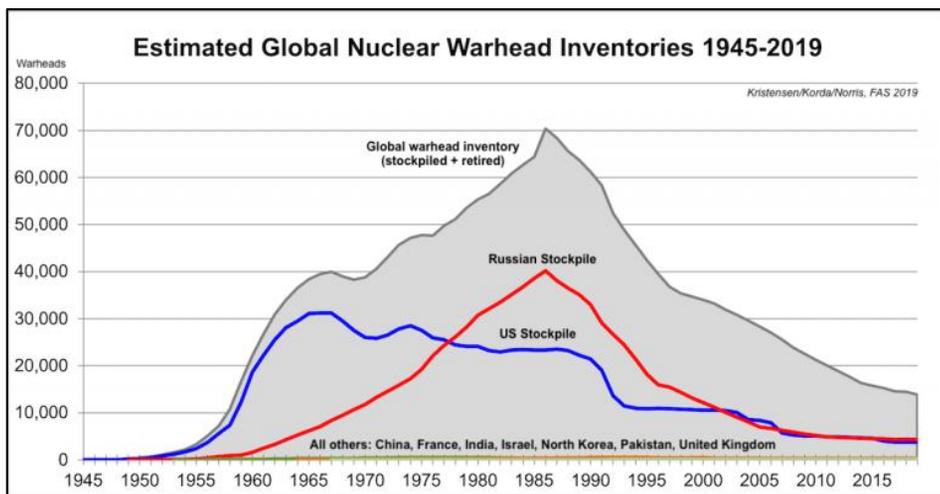
The United States proposed a treaty violation of Russia as the main cause of withdrawal from the INF Treaty. Moreover, recent defense policy reports portray Russia as a revisionist state and present a threat to US security.

Country	Deployed	Deployed	Reserve	Military	Total Inventory
	Strategic	Nonstrategic	Nondeployed	Stockpile	
Russia	1,600	0	2,730	4,330	6,500
United States	1,600	150	2,050	3,800	6,185
France	280	n.a.	20	300	300
China	0	?	290	290	290
United Kingdom	120	n.a.	95	215	215
Israel	0	n.a.	80	80	80
Pakistan	0	n.a.	140-150	140-150	140-150
India	0	n.a.	130-140	130-140	130-140
North Korea	0	n.a.	?	20-30	20-30
Total	~3,600	~150	~5,555	~9,330	~13,890

[Table.9] Status of World Nuclear Forces 2019¹¹⁰

¹¹⁰ Hans M. Kristensen and Matt Korda. 2019. "Status of World Nuclear Forces". Federation of American Scientists. <https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces/> (accessed on December 18, 2019)

This is the number of nuclear reserves currently held in the world. The table shows a great amount of Russian nuclear forces which can be considered a big threat because Russia has an overwhelming other country. But if we see trends of Russian nuclear forces inventory, it does show different explanations.



[Figure.7] Estimated Global Nuclear Warhead Inventories¹¹¹

As shown in the above graph, the Soviet Union, which had overwhelmingly more nuclear weapons than the United States in the 80s, has steadily reduced its nuclear weapons, including the transition to Russia. In that sense, it is hard to say that the threat from nuclear weapons has increased compared to the past.

The following are US threats that emerge from the motives of Russian

¹¹¹ Hans M. Kristensen and Matt Korda. 2019.

security policy. Moreover, the current motivation for security policy in Russia is completely different from that of the Cold War. Soviet military strategy during the Cold War was determined by the logic of global confrontation between two superpowers. However, in the current Russian security strategy, there are three main points that differ from past logic. First, Russia ascertains its sovereignty over the Arctic Zone of the Russian Federation (AZRF). Second, it tries to protect economic interests in the High North; and third, it tries to regain its great power status with outstanding military capabilities. Of course, there are many different approaches with respect to this strategy. There are scholars (mostly Russian) who prefer to describe Russia's intentions in the Arctic as innocent, legitimate, and purely defensive. On the contrary, however, there is a tendency to see Russia's policy as a revisionist, expansionist or imperial state such as the US. To verify this different argument, we need to make sure that Russia has enough capability to implement revisionist policy. The following is a comparison of threats to Russia's North Sea region.

Russia and the United States did not officially have weapons equivalent to INF from 1991 to 2019, so we can check the regional balance of arms by comparing the weapons that might affect that area.

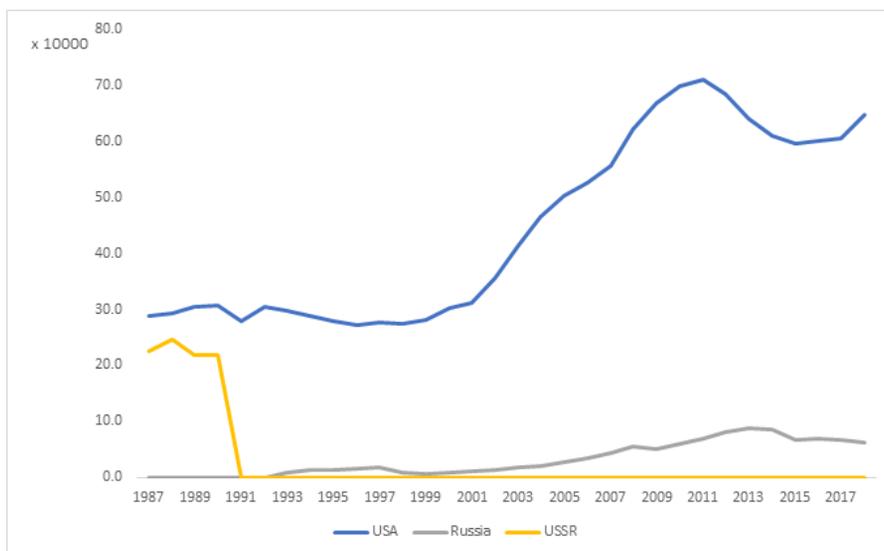
	USSR in 1980s	USA in 1980s	Russia in 2010s	USA in 2010s	NATO in 2010s
Submarines	172	78	30	33	85
SSBN	39	28	7	6	8
SSBN in permanent patrol	6-7	-	1-2	6-8	-
Aircraft carriers	2	7	1	4	6
Larger ships	74	90	17	49	100
Auxiliary vessels	200	-	33	-	-
Aircrafts	400	700	100	360	200
Helicopters	-	-	40	-	-
Submarines armed with cruise missiles Tomahawk	-	-	-	39	-
Ships for landing troops	-	24	-	14	-

[Table.10] The Russian armed forces / US and NATO forces operating in the Arctic¹¹²

This shows that the United States is equal or superior to Russian compared to the situation in which the United States was inferior in the 1980s when arms control treaties were signed. Moreover, if we include the power of the United States and the NATO countries, the security alliance, we can see that the US camp has an overwhelming level of military power compared to Russia.

¹¹² V. Konyshev and A. Sergunin. 2014. "Is Russia a revisionist military power in the Arctic?", Journal of Defense & Security Analysis. Volume 30, Issue 4. pp.329-330

Identifying differences in defense spending, as well as a regional power, can be used as an indicator of threat levels in the US and Russia.



* Current Dollars in Millions

	1987	1990	1995	2001	2005	2010	2015	2018
USA	288,157	306,170	278,856	312,743	503,353	698,180	596,104	648,798
Russia	-	-	12,741	11,683	27,337	58,720	66,418	61,387
USSR	225,021	219,114	-	-	-	-	-	-

[Table.11] US-Russia/USSR defense spending comparison¹¹³

This shows that in terms of the defense budget, Russia's budget has been significantly smaller than in the US compared to the USSR.

¹¹³ SIPRI Military Expenditure Database. 2019. <https://www.sipri.org/databases/milex>

6. China Threat: Military Reform and Change

In 2017, Harry Harris who was the Commander of the Pacific Command (PACOM), in the US Senate Military Commission, reported that the People's Liberation Army Rocket Force (PLARF) is the world's largest and most versatile missile force armed with about 2,000 ballistic missiles and cruise missiles.

The US Center for Strategic and Budgetary Assessments (CSBA) said China could use the missile to conduct precise attacks on targets on the First Island Chain and the Second Island Chain which means, depending on the location of the missile, Guam, Australia, the Indian Ocean, and Alaska may also be within range.

As such, there is considerable consensus in the US on growth and threats in China's military. China's military growth overlaps the period of military restricted growth resulted from arms control negotiations between the US and USSR.

6-1. China's military reform in 1985

By the time of the negotiations of the INF Treaty, there has been a major shift in strategy in China's military arena. The first historical change in China's military reform was a transition from nuclear total war to preparing for local war in 1985, based on Deng Xiaoping's decision. China's most well-known military reform during this period was a change in the military structure, reorganizing the existing 11 districts into 7 districts. At this time, however, China's missile forces also make a

significant transformation. The forces have shifted from a nuclear deterrent force based primarily on intermediate and medium-range missiles to a force based on long-range(inter-continental) and medium-range nuclear forces combined with a powerful conventional missile which is capable to conduct precise strikes at a medium range.

6-2. Changes in Chinese Military since the 1990s

Since the 1990s, China has made significant progress by promoting military modernization with nearly 10% increases in annual defense spending. In 1993, Jiang Zemin suggested 'new era active defense strategy policy(新時期積極防禦軍事戰略方針)' through analysis of evolvement in international strategic conditions, changes in warfare, and intensified competition in technology, so that small and medium-scale local wars with neighboring nations, rather than total wars, was focused. In this process, the Chinese army, which was 4 million in 1985, reduced 1 million in 1985-87, 500,000 in 1997-2000, and 200,000 in 2003-2005.

6-3. Military revolution in Xi Jinping Era

Moreover, China has been strengthening its defense reform since the advent of a strong leader of Xi Jinping. China's reform, which has been in full swing since the end of 2015, is regarded as the unprecedented largest reform in Chinese history. In the past, China had 13 times of military reforms and adjustments, but mainly

reduction of numbers, rather than restructuring as suggested above. Chinese media suggest three grounds for military reform and three major threats to China. The first three grounds for reforms are 1) China has been developed to near the world stage, 2) it is close to realizing the goal of the “the great rejuvenation of the Chinese nation”, and 3) it is equipped with the capability and conviction to realize these goals. In addition, the three major threats include 1) threats of invasion, subversion, and separation of the state, 2) threat of destruction of the great country such as stability on reform and development, and 3) threat of frustrating Chinese socialist development. In addition, despite the modernization of Chinese weapons and equipment in China, the problem has been raised that the military structure and command control system is not suitable for changing and emerging warfare. In the end, this change of environment and perception, and the appearance of Xi Jinping with strong leadership, are the decisive backgrounds for military reform.

The main goal of the military reform, which has been underway since 2015, is summarized as 12 characters: overall planning and institutional management (軍委管總), newly established military theatre for operation (戰區主戰), and military service for construction (軍種主建). The overall roadmap of military reform attempted to reform the entire system from the leadership management system to military-civilian integration development as shown in the table below.

Reform title	Contents	Expected time
Leadership Management system	CMC General Department System, Military Service, Logistics reform	2015
Joint Command and Control System	Joint operation and Army leadership structure reform	2015
Force Composition	Armed force structure reform	2016
Cultivating New-Type Military Talent	Professional military education	2016
PAP 2C system and force Composition	PAP leadership structure reform and optimizing	2016
Policy System	Personnel policy, budget, and welfare system reform	2017-2020
Developing Civil-Military Integration	Civil-Military Integration management	2017-2020
Military Legal System	Regulation and legal system reform	-

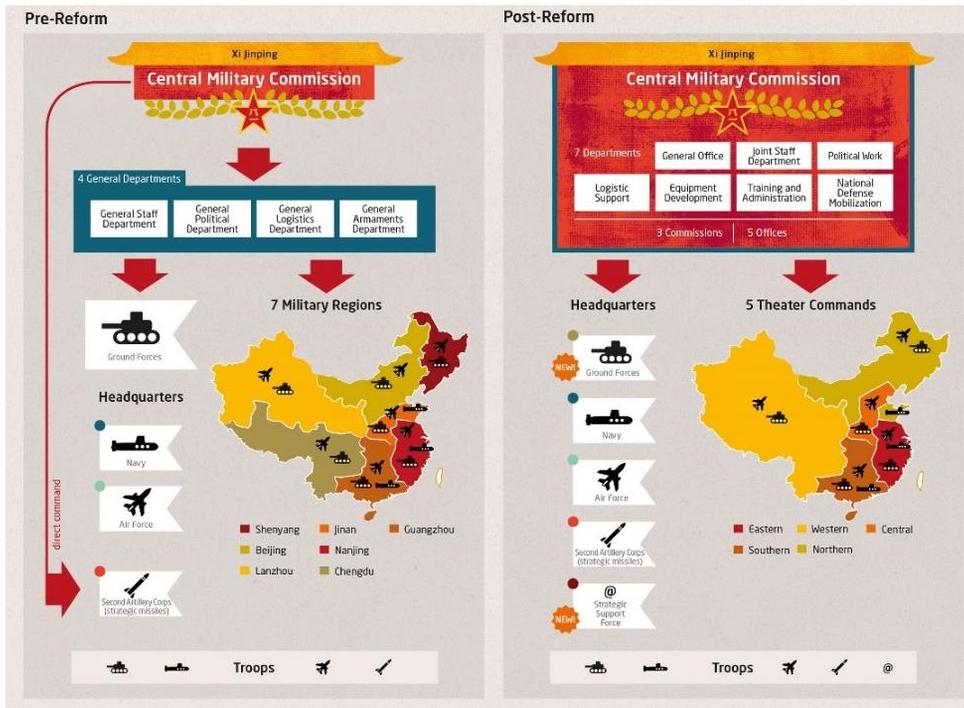
[Table.12] China's Military reform plan timeline¹¹⁴

We note here the Chinese military's leadership military structure reform and development of missile forces. Before the reform, the four-command departments, including the General Staff Department, who had great power under the framework of the unified system, controlled the lower military units in superior status like the General Staff of Germany. In practice, however, before the reform, the General Staff Department of China had the function of the Army Command, which in turn exerted the Army to overwhelm other military services. Hence, it was necessary to

¹¹⁴ 유동원. 2016. 「중국 군사체제 개혁과 한국의 대응」. 한국민족문화 61, p.540

reorganize the army's superior command system to strengthen the capabilities of joint warfare.

As a result, on January 11, 2016, China dismantled its four general departments, which were the backbone of the People's Liberation Army, and launched fifteen departments and offices in charge of distributing their functions. The status of the 15 departments and offices is represented by seven departments, three committees, and five offices directed by the Central Military Commission, as shown below. In particular, after the reform, the Joint Chiefs of Staff was added to strengthen integrity and to support the military command of the Central Military Commission. In addition, by establishing an army guidance organization, the army's status was made the same as other military types. It has a structure to prepare for future wars in the five arenas such as 'intelligence, reconnaissance, cyber, psychology warfare'.

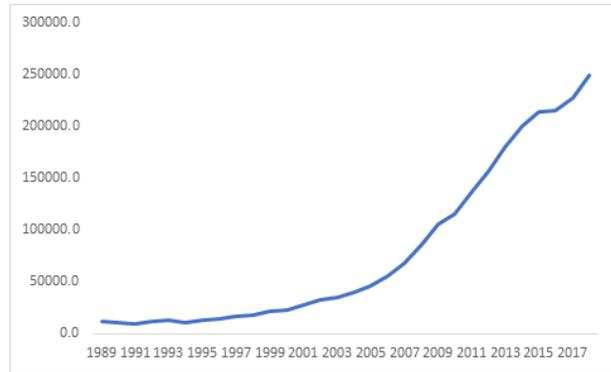


[Figure.8]2015 China military reform¹¹⁵

¹¹⁵ Nabil Alsabah. 2016. Xi Jinping Carrying Out Total Overhaul of the Military. <https://www.merics.org/en/china-mapping/xi-jinping-carrying-out-total-overhaul-military>(Accessed on 18 December)

6-4. Increase of Chinese defense spending

China's military reform is not only qualitative but also quantitative.



Years	1989	1990	1995	2001	2005	2010	2015	2018
China	11,403	10,085	12,606	27,875	45,918	115,711	214,093	249,996

[Table.13] China defense spending¹¹⁶

From the mid-1990s, Chinese defense spending has been doubled every five years until 2015. This shows how fast Chinese military capability grows that can be seen as great threats to neighboring countries including the US and Russia.

6-5. Missile development

we have seen the overall military development of China so far; it is needed to have a closer look at the growth of the Chinese military in the field of missiles related to the INF Treaty. The PLA Rocket Force has current responsibility for conventional and nuclear. So, rocket force is now considered as a core force for

¹¹⁶ SIPRI Military Expenditure Database. 2019

strategic deterrence, strategic support for China's status as a major power, and an important cornerstone for national security. For understanding Chinese strategic deterrence concepts, it is needed to understand the Chinese term 'weishe', which is translated into deterrence. The Chinese concept of 'weishe' is understood to be closer to what Thomas Schelling referred to as coercion, as it includes deterrence and compellence.¹¹⁷ In that sense, the meaning of deterrence in China can be perceived as a threat to other countries, including neighboring countries.

China's missile and nuclear force continued to develop from the 1980s in terms of capacity and scale. US DoD reported that China has been developing several new missiles, forming additional missile units, upgrading older missile systems and advancing its means to counter the US missile defense system.

China's missile forces were officially created on 2 July 1966 as the Second Artillery Corps. Initially, however, these forces played only a limited role as part of the ground forces. The strategic missile troops first appeared at the parade held in 1984, 24 years after from last military parade, attracting worldwide attention. In 1985, as Deng Xiaoping's military reform progressed, the role began to emerge in earnest, and in 1987, the Second Artillery Corps set up a research task force to draft a comprehensive nuclear strategy. Two years later, the Central Military Committee formally adopted the final draft of the comprehensive nuclear strategy draft, which

¹¹⁷ Michael S. Chase. 2018. "PLA Rocket force modernization and China's Military Reforms." RAND. p. 5

included a "restricted nuclear retaliation strategy". In particular, it has been steadily deploying new types of medium- and long-range missiles in recent years. This includes the nuclear medium-range mobile ballistic missile, a new dual-capable intermediate-range mobile ballistic missile, and an improved road on missiles.

The development of China's missile capability can be confirmed through several military parades in China. On October 1, 1999, at Tiananmen Square, parade for China's 50th anniversary of the founding of the military unveiled a size-minimized strategic nuclear missile, in addition to new strategic nuclear weapons, medium-range ground missiles, and long-range ground missiles. The medium-range nuclear missile, in particular, demonstrated one aspect of China's nuclear weapons development. In this parade, the DF-31 was introduced for the first time, meaning to reduce China's missile power gap with other great powers who have been superior to China for decades. In addition, during the PLA's 90th-anniversary parade in 2017, Rocket Force's new DF-31AG intercontinental ballistic missiles (ICBMs) were released, further demonstrating the accuracy and survivability of China's missile strike capability. On November 1, 2019, the 70th Anniversary of the founding of the military unveiled the next-generation intercontinental ballistic missile, the DF-41, for the first time. Since the missile system was already unveiled in August 2014 and the test was analyzed to be finalized, it has long been recognized as a threat to the United States. The DF-41 has a range of more than 12,000 km and can hit almost any target, including the US capital, Washington D.C. In addition, the range for error is only less than 100m, and up to 10 nuclear warheads can be loaded,

which poses a huge threat to neighboring countries including the United States. In addition, Dongfeng 17 (DF-17), unveiled on the same day, is a supersonic cruise missile that flies at speeds above Mach 5 (6120 km / h), and no other country has deployed a supersonic missile yet except China. The missile, with a range of 1800 to 2500 km, is within the limits of the INF Treaty, so the United States and Russia could not develop missiles of the same middle class.

We also need to note that Chinese ICBM is being upgraded to Multiple Independent Reentry Vehicle (MIRVs) from conventional single warheads. The MIRVs is equipped with a large number of warheads that can penetrate and defeat US missile defense systems. Based on this, the deterrence capability is being improved by improving the second-strike capability.

Type	Missile	1985	1990	1995	2000	2005	2010	2016
ICBM	DF-4	4	6	10+	20+	20	10	10
	DF-5A	2	2	7	20+	20	20	10
	DF-5B	0	0	0	0	0	0	10
	DF-31	0	0	0	0	6	12	8
	DF-31A	0	0	0	0	0	24	24
IRBM	DF-3A	60	60	60+	30+	2	2	6
MRBM	DF-16	0	0	0	0	0	0	12
	DF-21A	0	0	10	50+	33	80	80
	DF-21C	0	0	0	0	0	36	36
	DF-21D	0	0	0	0	0	0	18
SRBM	DF-15B	0	-	-	20	-	96	81
	DF-11A /M-11A	0	-	-	40	-	108	108
	DF-2	50	0	0	0	0	0	0
LACM	CJ-10	0	0	0	0	0	54	54

[Table.14] Chinese missile system evolution¹¹⁸

Also, given the current trends, China is expected to soon grow beyond France to become the third-largest nuclear weapons nation in the world. The US DIA expects China to double its nuclear possession in the next decade.¹¹⁹

The 2019 Defense Missile Defense Review also states that 125 nuclear missiles threaten the United States. The development of China's missile nuclear force

¹¹⁸ Anthony H. Cordesman. 2016. "The PLA Rocket Force: Evolving Beyond the Second Artillery Corps (SAC) and Nuclear Dimension.". CSIS. p. 19 Figure 1.2

¹¹⁹ Robert P. Ashley, 2019. Russian and Chinese Nuclear Modernization Trends, Remarks at the Hudson Institute

is evident in the details of the development of weapons.

The most significant missile deployment since 2016 is the deployment of the DF-21E, DF-26, and DF-31AG. The DF-21 missile has been continuously improved since its deployment in 2000. The DF-21E is a modified version of the DF-21 and is classified as CSS-5 Mod 6 in the United States and NATO. It is estimated that it has about 40 launchers already equipped with missiles, the DF-21C, a version with conventional weapons, and the DF-21D, which is specialized in anti-ship attacks. The missile is a medium-range ballistic missile with a range of 2,150 km, which plays a key role in China's A2 / AD strategy.

The DF-26 first appeared in the 2016 parade, and again in 2017. The DF-26 has a range of 4,000 km, which is a ballistic missile that can strike Guam, where the strategically crucial US troop locates. The DF-26 IRBM has recently been deployed in significant quantities. The strength of the DF-26 is that it is dual-capable, allowing conventional warheads to be mounted, as well as nuclear warheads. It also has the ability to hit the aircraft carrier with a very precise hitting capability, making it called the 'carrier killer'.

First deployed in 2006, the DF-31 is the next-generation missile of the DF-4, replacing the existing missile, which had a range of 7200 km, limited to hitting Russia, India, and Guam. However, the DF-31A has been revamped to hit most of the mainland of the US, with a range of 11,200 km, and it has been revamped again in 2017 with MIRVs performance and can be launched from a mobile launcher to

improve survivability and efficiency.

Finally, the recently released DF-41 should also be noted. The DF-4 (CSS-3) and DF-5, which were the main components of the existing ICBM, are expected to be replaced by the DF-41. The DF-41 has MIRV performance and is expected to carry 6-10 warheads. In addition, the current DF-5 will be also upgraded and used as a multiple-warhead missile in the replacement process until DF-41 fully replaces other missiles.

Land-based ballistic missiles	NATO designation	Number of launchers	Year deployed	Range (kilometers)	Warhead x yield (kilotons)	Number of warheads
DF-4	CSS-3	5	1980	5,500+	1 x 3,300	10
DF-5A	CSS-4 Mod 2	10	1981	13,000	1 x 4,000–5,000	10
DF-5B	CSS-4 Mod 3	10	2015	13,000	3 x 200–300	30
DF-15	CSS-6	?	1990	600	1 x 50-350	?
DF-21	CSS-5 Mods 2, 6	40	2000, 2016	2,150	1 x 200–300	80
DF-26	-	68	2017	4,000	1 x 200–300	34
DF-31	CSS-10 Mod 1	6	2006	7,200	1 x 200–300	6
DF-31A	CSS-10 Mod 2	24	2007	11,200	1 x 200–300	24
DF-31AG	(CSS-10 Mod 3)	24	2017	11,200	1 x 200–300	24
DF-41	CSS-X-20	-	-	15,000	1-10 x 20/90/150	-
Subtotal	-	187	-	-	-	218

[Table.15] Status of ground-launched ballistic missiles held by China in 2019¹²⁰

¹²⁰ Hans M. Kristensen & Matt Korda. 2019. Chinese nuclear forces, 2019. Bulletin

Looking at the timing of deployment, a number of recent missiles have been deployed since the 2000s, and the deployment has recently accelerated.

Chinese cruise missile mainly consists of the anti-ship cruise missile, and a medium-range cruise missile has had a single type of DH-10 that was released on the 60th anniversary of 2009 until DF-17, which was released in 2019. The DH-10 has a range of more than 1,500 km and is estimated to have about 270-540 in inventory. This has a direct impact on Okinawa, Japan, and Taiwan.

		1996		2003		2010		2017	
Weapon System		US	China	US	China	US	China	US	China
ICBMs	Missile	514	7	450	28	450	56	400	80
	Warhead	1514	7	1200	28	950	56	400	100
SLBMs	Missile	384	12	422	12	336	12	240	60
	Warhead	2688	12	3072	12	2016	12	960	60
Bombers	Missile	192	0	115	0	96	0	60	0
	Warhead	3444	0	2216	0	1840	0	784	0
Total	Missile	1090	19	1047	40	882	68	700	140
	Warhead	7646	19	6488	40	4806	68	2144	160

[Table.16] US-China nuclear forces comparison¹²¹

This is a comparison of strategic missiles between the United States and China since 1996. In terms of numbers, the US overwhelms China, but China's growth is steep considering the range of operations and the scope of its operations.

¹²¹ 신성호. 2017. “미중 핵 군사 전략 경쟁”, EAI 연구보고서. 국가안보패널. P.7

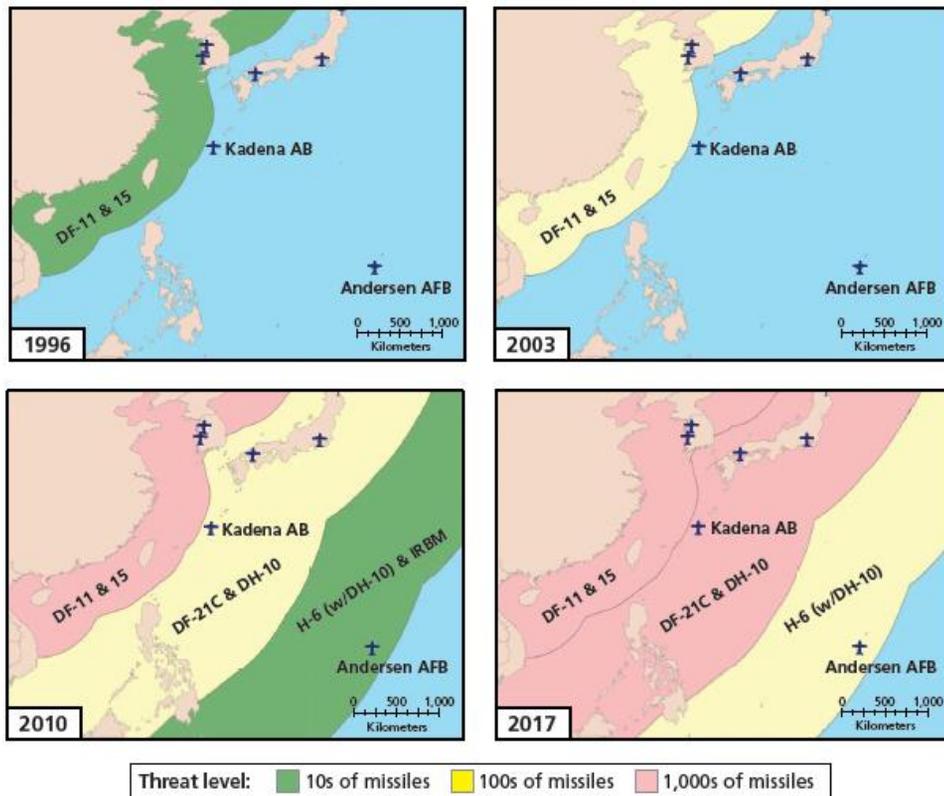
6-6. The implication of Chinese military rise

Missile System	Would it be restricted under the INF treaty?	Estimated Range	Launchers	Missiles
IRBMs	Yes	3,000+km	16-30	13-30
MRBMs	Yes	1,500+km	100-125	200-300
GLCMs	Yes	1,500+km	40-55	200-300
SRBMs	Yes, for the significant percentage of Chinese short-range missile with ranges beyond 500km	300-1,000km	250-300	1,000-1,200
ICBMs	only the small number of missiles with under 5,500km	5,400-13,000+km	50-75	75-100

[Table.17] How China’s Rocket forces would be restricted if China were a signatory to the INF treaty¹²²

The table presented is an analysis of China's weapons under the INF Treaty. As you can see, a significant number of missiles fall under the INF Treaty. On the contrary, China could make great progress in missile capability since the late 1980s.

¹²² Jacob Stokes. 2019. “China’s Missile Program and U.S. Withdrawal from the Intermediate-Range Nuclear Forces (INF) Treaty.” US-China Economic and Security Review Commission, Updated February 4. p.3



[Figure.9] Chinese Missile influence in East Asia¹²³

The figure also shows the influence of China's missiles on East Asia. Even apart from the ICBM, which directly affects the US mainland, the development of Chinese intermediate-range missiles unconstrained by the INF Treaty has a direct impact on security conditions in East Asia. In particular, US allies, including South Korea, Japan, and Taiwan, can directly be influenced by China's missile impacts intensification. This, in turn, shows that China is growing into a regional hegemon.

¹²³ Ibid, p.4

VI. Prospect and Implication

1. Prospect

On August 3rd, 2019, the next day after the INF Treaty was officially terminated, Secretary of Defense Mark Esper said it would prefer Asian deployments of ground-launched intermediate-range missiles on the way to Australia in the airplane. Its expected deployment destinations include US islands, Japan, Korea, and Taiwan. Moreover, the Pentagon noted that mid-range ballistic missiles, scheduled for testing in November 2019, are unlikely to be deployed within five years and could be deployed in US-based Guam, close to Asia. On these remarks, China has been giving a threatening warning, targeting South Korea and Japan through China Global times. Eventually, East Asia is expected to become a new place for the arms race, and the middle powers of East Asia, including South Korea, are in the midst of competition among the hegemons in the international order in which power transition takes place. John Bolton, who served as National Security Adviser as Trump's core staff during the decision to destroy the INF, long argued that the INF Treaty would harm the United States, insisting that it need to expand to include countries such as China.¹²⁴

¹²⁴ Joan Bolton. 2011. A Cold War Missile Treaty That's Doing Us Harm. The Wall Street Journal. <https://www.wsj.com/articles/SB10001424053111903918104576500273389091098>(Accessed on 18 December 2019)



[Figure.10] Impact of Basing Access on Theater-Range Missile Coverage to China¹²⁵

Trump also mentioned the injustices of the treaty on several occasions and stated that he wanted to include China in connection with a new treaty to address the nuclear missile augmentation issue on August 2, when the US left the INF Treaty. President Putin also mention arms control treaty without China hurt Russia's interests, and Russia's Foreign Minister Sergei Ryabkov said he was willing to negotiate

¹²⁵ Jacob Cohn et al. 2019. Leveling the Playing Field Reintroducing U.S. Theater-Range Missiles in A Post-INF World. CSBA. P.15

nuclear weapons with the United States and China on April 26, 2019. However, China has refused to extend the INF Treaty proposed by Russia and the United States. It is analyzed that participation in the arms control and disarmament treaty at the present level cannot guarantee China's security because 95% of China's ground-launched missile force should be removed when the INF treaty is signed.

In the course of military modernization, China is focusing on missile forces and developing strategic weapons such as submarines and aircraft carriers. As a result, considering current international conditions, new arms control agreements in East Asia will be difficult until China replaces or modernizes missiles to ensure China's safety. In the long-term perspective, however, considering the pace of modernization and the development of military and economic power, China is likely to be capable of at least projecting hegemonic power in the limited region.

The US will continue to attract new military emerging countries, including China, as officially proposed. After all, given China's current capabilities and the influence of the United States, it was limited to attract China, lacked pressure and bargaining cards and had to find motivation for China. So, in the short term, it will try to make a negotiation card for China through the arms race.

2. Implication

The fact that the European deployment of INFs in the past was part of the United States' extended deterrence policy to ensure European security overlaps with the 2016 issue of the THAAD. Given the limited capabilities of South Korea, the extended nuclear deterrence provided by the United States as an alliance is crucial. But if South Korea is not sufficiently capable to protect by its own, leading further force deployment, it can cause a number of problems, including domestic and international backlash. Sudden changes in balance, in particular, cause the neighboring countries to feel threatened, creating a subsequent breakup of balance. In this respect, the deployment case of INF reminds us of the current issue on the Korean Peninsula and the importance of sufficient self-defense capability.

However, considering North Korea's threats and security environment with neighboring countries, it is inevitable to secure security on the Korean peninsula relying on US extended deterrence. Furthermore, in the current situation, it is impossible to develop Korea's security capacity indefinitely. In particular, the burden on military spending should be considered, and defense costs remain 14% of fiscal and 2.3% of GDP, and Korea's economic growth is slowing. Also, Korea's abrupt military buildup has the potential to cool the atmosphere of inter-Korean dialogue that promotes peace on the Korean peninsula.

After all, the arms control is a part of the larger framework that we must pursue along with the development of arms. This requires choice and concentration.

The success of the INF Treaty, which has been demonstrated by the European case for the past three decades, is the most successful case in which the rival US and the Soviet Union achieved the largest disarmament under mutual agreement.

This made it clear that the United States and the Soviet Union would yield to each other for a common goal because it had a clear verification system during the implementation of the treaty. In addition, the 30-year timeframe was maintained because there was no significant change in the existing strategic balance and the mutual trust process worked.

However, the conflict between the United States and Russia that emerged since 2014 can be said that the past disarmament regime with the Soviet Union, who was the biggest threat of the US in the Cold War, has reached the deadline. The case of the US withdrawal from the INF Treaty also shows that successful bilateral disarmament agreements between the two countries can be destroyed by external factors, not by mutual conditions.

In the end, it suggests that the importance of stable international order and the management of external factors are necessary. This also suggests the importance of managing the surrounding variables in addition to South Korea's or North Korea's commitment to each other in the disarmament to be pursued to reduce the security threat of inter-Korean relations on the Korean Peninsula. In particular, considering the relative power of the two Koreas and their influence in the international community, North Korea will be affected by more peripheral variables than South

Korea. Moreover, considering the US threats that North Korea recognizes, adjusting US variables will eventually become a key agenda for maintaining a peace regime on the Korean peninsula. This issue will be applied in the same vein to the denuclearization of the Korean peninsula beyond conventional arms reduction.

VII. Conclusion

The INF Treaty has been recognized as the most successful arms control treaty for 30 years after it was signed. International politics before the INF Treaty was maintained with severe Cold War tensions caused by competition between the United States and the Soviet Union. The nuclear superiority that the United States had maintained from the Manhattan Project in 1945 shifted to nuclear parity due to the US anti-war sentiment caused by the Vietnam War, the burden on military armaments, and the Soviet military's buildup after the Cuban missile crisis. The deployment of the SS-20 in 1977 as a part of the Soviet military modernization led to threats in Western European allies, which drew NATO's Dual-Track decision in 1979. But negotiations between the US and the Soviet Union have not been successful for some time. The fixation has changed rapidly since Gorbachev's inauguration in 1985, and the historic arms control treaty was signed in December 1987. The intermediate missiles, which was restricted under the INF Treaty, was a

uniquely destabilizing weapon in that it has short flight times, no precautions, and similar destructive power to nuclear ICBM. As a result of restricting these weapons through a treaty between the United States and the Soviet Union, this led to regional peace and even international peace. And this seemed to be firmly settled through three years of weapon removal and ten years of verification. However, in 2001, after the verification, the United States felt a new security threat due to the 9/11 terrorist attacks. As a result, the re-ignition of missile development caused the United States and Russia to build up distrust in each other. As a result, the INF Treaty was officially broken in August 2, 2019

On the surface, the withdrawal of the INF Treaty shows that the arms control regime is shaking. In this article, the five arms control conditions on the INF Treaty have been examined, focusing on the arms control theory. In political perception, the major security documents of the Reagan administration describe the Soviet Union as a clear main threat. At the same time, he recognized that the US achieved balance with the Soviet Union through the Strategic War Modernization Program initiated from the beginning of the Reagan Administration. As the Trump administration entered, the political perception was increasingly concentrated in East Asia, and China's priorities were solidified, particularly starting with the Indo-Pacific strategy. In the military balance, the equilibrium between the United States and the Soviet Union, which was maintained at the time the treaty was signed, turned into a favorable condition for the United States than Russia, considering both military capability and defense expenditure. In particular, Russia's defense spending ranks

have steadily declined to sixth place in the world, which cannot compete with the US. In terms of defense spending, the US continues to spend more, but the portion for the defense budget, comparing to the government budget and GDP, decreases. At the same time, there is a growing awareness that the defense budget should be spent more. In alliance dynamics, there was no structural change except for the rejoin of France's NATO alliance in 2006, and there is still a willingness to maintain the INF Treaty while supporting the United States. In public opinion, support for maintaining the INF Treaty continues. In the end, a remarkable change can be seen only in the US's perception of international political phenomena. The US fears of China's rise have been the most significant contributors to the withdrawal of the INF Treaty. China's missile and nuclear modernization, in particular, is driving China's growth at a rate fast enough to drive change for the United States.

Thus, this should not be seen as not only the demise of the arms control system but rather the US-China rivalry, one of the international power transition phenomena. Now, The Trump administration is withdrawing from security, economic and non-traditional international treaties and regimes, including the INF Treaty, as well as the TPP and the Paris Agreement, if it is perceived as not helping the United States interests. This is destroying US-led liberal institutions that have long been a hegemony. All of this suggests that the future international order will fall into a period of turbulence. In particular, the US wants to deploy intermediate-range missiles in Asia, and China and Russia are both repulsing at the same time, further accelerating insecurity in neighboring areas for ROK. This gives implications for the

national security of ROK as a direct actor in Asia due to changes in the international order. In addition, if a peace regime on the Korean Peninsula is established in the long term, there will be another issue of how the two Koreas adjust their arms control. In the end, maintaining arms control within a limited range would be a way to retain the appropriate level of military force while saving the cost of investing in the economy economically. But without learning lessons from the failures of the INF Treaty, it is also likely to follow the same mistakes for the arms control on the Korean Peninsula. In that sense, understanding why the treaty was eventually withdrawn, even though the INF Treaty was initially successfully established, can provide guidance on how to build a future arms control treaty.

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Abstract in Korean

(국문초록)

미국의 중거리핵전력 조약 탈퇴요인 분석

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중거리 핵전력 조약은 1987 년 미국의 레이건 대통령과 소련의 고르바초프 서기장이 500km 에서 5,500km 범위내의 중거리 및 단거리 미사일을 완전히 제거하기로 한 조약이다. 이 조약은 이후 START 를 포함한 주요 군축조약으로 이어졌으며, 가장 성공적인 군축조약으로 꼽히고 있다. 하지만 2019 년 2 월 2 일, 미국 국무부는 러시아의 조약에 대한 위반을 근거로 미국의 INF 조약 탈퇴를 공식화하였으며, 6 개월 뒤인 8 월 2 일 공식적으로 조약에서 탈퇴하였다. 미국의 INF 조약 탈퇴의 요인에 대하여는 러시아의 조약위반을 포함하여 중국의 군사개혁, 이란 및 북한 등 불량국가 등의 요소들이 제기되고 있다. 국방연구원의 남만권 박사는 군비통제가 성립되기 위해서는 정치적 현상에 대한 인식, 동맹역학, 군사력 균형, 군비지출 등 네 가지 조건이 충족되어야 한다고

주장하였다. 또한 최근에는 청중비용이 국가 정책 결정에 미치는 영향에 대한 연구가 활발히 진행되고 있다. 이에 따라 본 글에서는 군비통제의 네 가지 조건과 청중비용을 기초로 하여 조약이 체결될 당시와 조약이 파기되는 시점 사이의 차이점을 비교하였다. 이를 위하여 본 글은 INF 조약의 배경을 포함한 최근까지의 진행과정의 역사를 전반적으로 정리하였으며, 미국 정부의 공식문서, 성명, 싱크탱크 데이터 등을 분석하여 조약에 대한 포괄적 이해를 추구하였다. 이를 바탕으로, 두 시점 간의 조건의 변화가 조약의 파기 결정에 영향을 주었다고 주장한다. 특히, 정치적 현상에 대한 인식을 제외한 네 가지 조건은 의미 있는 결과를 보이지 않는데 반하여, 중국의 국방개혁으로 인하여 발생한 미국의 정치적 인식의 변화는 다양한 자료를 통하여 확인된다. 결국, 본 글은 중국 요인이 트럼프 행정부에서의 INF 조약 파기에 대한 결정적 정책결정으로 이어졌다고 주장한다. 그렇기에 INF 조약의 파기는 단순한 군비통제 체제의 몰락이 아닌, 국제적 세력전이 현상 중 하나인 미중 경쟁의 현상으로 바라보아야 할 것이다.

주요어: INF 조약, 비확산, 군비통제, 미소갈등, 중국군사개혁, 미중경쟁

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