JOURNAL OF RADIATION INDUSTRY

Original article

17(4) : 411-416 (2023)
https://doi.org/10.23042/radin.2023.17.4.411

A Research on the Nuclear Deterrence Strategy of South Korea through Dispute of India and Pakistan

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Abstract From Cold War, Nuclear weapons have emerged military power into a very dangerous and important way of each national security. Throughout the era, the U.S. had stationed nuclear weapons in South Korea. But President George Bush initially started the withdrawal of nuclear tactical weapons deployed abroad in 1991. After that, under the protection of the nuclear umbrella, South Korea guarantees that the United States would operate its nuclear weapons to protect South Korea if it would be needed and the economy of South Korea has rapidly developed as more strong countries in the world. However, South Korea has seen and been realized the present state from the recent war between Russia and Ukraine. The protection of the U.S. nuclear umbrella from nuclear weapons and ballistic missiles of North Korea is unlikely to be permanently guaranteed. At the same time, South Korea should consider the security environment changes of surrounding nations such as China as military power acceleration and Russia as re-formation ambition. Because of these reasons, South Korea independently wants to protect itself and have the own nuclear weapons as a way to counter security threats. A majority of South Koreans also definitely believe that North Korea will not denuclearize or give up because North Korea has been having nuclear weapons as the final survival strategy of Kim Jong Un's regime. However, South Korea considers and makes new nuclear strategy through the role and effect of nuclear deterrence strategy in dispute between India and Pakistan and how to overcome the paradox of nuclear deterrence strategy. Therefore, this research is to suggest the effective nuclear deterrence strategy of South Korea from new security threats of surrounding nations through dispute between India and Pakistan. The focus of this research is that what is the role and paradox of nuclear deterrence strategy in dispute between India and Pakistan and how to find the effective nuclear deterrence strategy of South Korea.

Key words: Nuclear weapon, Deterrence strategy, Security Threat, India and Pakistan dispute

1. INTRODUCTION

1.1. The purpose and focus of the research

From Cold War, Nuclear weapons have emerged military power into a very dangerous and important way of each national security. Throughout the era, the U.S. had stationed nuclear weapons in South Korea. President George Bush initially started the withdrawal of nuclear tactical weapons deployed abroad in 1991. Under the protection of the nuclear umbrella, South Korea guarantees that the United States would operate its nuclear weapons to protect South Korea if it would be needed. However, South Korea has seen and been realized the present state from the recent war between Russia and Ukraine. The protection of the U.S. nuclear umbrella from nuclear weapons and ballistic missiles of North Korea is unlikely to be permanently guaranteed [1]. At the same time, South Korea should consider the movement of surrounding nations such as China as military power ac-

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Received 8 November 2023 **Revised** 16 November 2023 **Accepted** 23 November 2023

celeration and Russia as re-formation ambition. Because of these reasons, South Korea personally wants to protect itself and have the nuclear weapons as a way to counter threats [2]. The most similar situation's nation of South Korea is the region of territorial disputes of India-Pakistan. India and Pakistan do share the highly developed strategy of deterrence that emerged from the Cold War. Although two nations have already had the nuclear weapons, territorial disputes over the Kashmir region between India and Pakistan. It is emerged the new paradox concept of nuclear deterrence strategy between two nations [3]. Therefore, this research is to suggest the applicable nuclear deterrence strategy of South Korea from these threats of surrounding nations. The focus of this research is the role and effect of nuclear deterrence strategy in dispute between India and Pakistan and how to overcome the paradox of nuclear deterrence strategy.

1.2. The scope of this research

The scope of this research are examined closely the concept of India-Pakistan territorial dispute, the nuclear strategy between India and Pakistan, the international security environment surrounding South Korea.

The research is organized as follows;

Chapter 1 presents an introduction that consists of the purpose, the focus, the scope and the key questions related to the purpose of this research.

Chapter 2 reviews of related literature.

Chapter 3 presents the Dispute between India and Pakistan.

Chapter 4 presents the nuclear strategy and paradox between India and Pakistan.

Chapter 5 presents the new security environment surrounding South Korea.

Chapter 6 presents the effective nuclear strategy of South Korea.

Chapter 7 presents conclusion.

2. REVIEWS OF RELATED LITERATURE

Narasingha P.Sil (2009) insists that an overview of India-Pakistan conflicts on three themes such as communalism, colonialism and nationalism. Sumit Ganguly (2001) insists that the reasons on conflict, unending of India-Pakistan tension since 1947. Izuyama Marie and Ogawa Shinichi (2002) insists that both countries' motives for possessing nuclear weapons and compares the nuclear weapons control policies. Ian Bowers and Henrik Stalhane Hiim (2022) insists that the deterrence strategy of South Korea on the Korean Peninsula. Doug Bandow (2022) insists that necessity of South Korean's unclear deterrence against North Korea's nuclear threat. Chris Gowe (2022) insists that the path towards nuclearization of South Korea.

3. THE DISPUTE BETWEEN INDIA AND PAKISTAN

India, who is a country in South Asia of the Republic of

Table 1. Additional researches of related literature

Researcher	Year/Association	Topic	Main Content
Joseph Korbel	1966/Princeton University Press	Danger in Kashmir	The threat and danger in Kashmir region between India and Pakistan
Alastair Lamb	1966/A Historical Survey	The Kashmir problem	The historical reasons of Kashmir territorial dispute
Ahn S. M.	2011/Asian Affairs	The main reason of the North Korean nuclear weapon	Explaining North Korea's nuclear ambitions and power and position on the Korean peninsula
Chun, Chaesung	2017/Georgetown University Press	North Korea and nuclear weapons	The entering the new era of deterrence on Korean peninsula
Gaertner H.	2014/Defense and Security Anaysis	North Korea, deterrence, and engagement	North Korea's intention and direction of nuclear weapons against deterrence
Hoey F.	2016/The Journal of Strategic Studies	Japan and extended nuclear deterrence	Japan's security strategy about North Korea's nuclear threat

India. India has the southeast wide coast in the Bay and a lot of the southwest coast, the Andaman and Nicobar Islands, India stretches about 2,000 miles from Tamil Nadu of the southern to Jammu and Kashmir of the northern. It is 1,800 miles from Arunachal Pradesh of the east to Gujarat of the west. It also includes the Himalayas, which has the highest peak in the world. It spreads the vast, fertile, heavily populated Gangetic Plain from the Himalayan to the Vindhyachal. The sacred Ganges and the Yamuna Rivers dissect the Plain and lie along the southern coastlines in the Western and Eastern Ghats. India is a nuclear weapon country which ranks high in military expenditure. It has disputes over Kashmir with its neighbors, Pakistan, and it has been unresolved since the middle of 20th century.

Pakistan who is the Islamic Republic of Pakistan is one of the country in South Asia. Pakistan, part of the greater Indian subcontinent, is located in the crossroads of the Middle East and Asia. It is also located in China of the north, India of the east, the Arabian Sea of the south, Iran and Afghanistan of the west and the Jammu and Kashmir of the northeast. Pakistan is also located between latitudes 24 and 37 degrees north. It is organized the 5 provinces that are Punjab, Northwest Frontier, Sindh, Balochistan. Pakistan has also disputes over Kashmir with India and continues to face challenges which are poverty, corruption and terrorism [4].

India Kashmir, about 86,000-square-mile valley between the Himalaya and Karakoram mountain, is a disputed region between India, Pakistan and China. Both India and Pakistan claim that Kashmir is theirs, but each of the countries are in just one part of it. Kashmir was a feudal state with its own regional ruler during the British rule. In 1947, the Kashmir ruler agreed that his region would join India. While its defense and external affairs would be dealt with by India. Kashmir would retain economic and political sovereignty, But Pakistan which is newly created by the British claimed to a Muslim part of Kashmir border. Pakistan and India had three wars on Kashmir in 1947. It created a United Nations-brokered "ceasefire line" that divided territory of Pakistan and India in similar to the Korean peninsula [5].

4. THE NUCLEAR STRATEGY AND PARADOX BETWEEN INDIA AND PAKISTAN

4.1. The nuclear strategy

The motivation of India's nuclear capability do not seem to be clear. This is because this nuclear capability's development was not carried out under military purpose. India's nuclear development has been gradual and reactive. The development of India's nuclear capability was pushed by Chinese nuclear testing and the acquisition of nuclear capability by Pakistan. The number of nuclear tests were carried out the universalization and strengthening of the Nuclear Non-Proliferation Treaty regime. The possession of India's nuclear weapons is not clear. It is suspected of acquiring nuclear capability and also stays outside the NPT. The main motivation for the development of nuclear weapons of Pakistan seems for countering the nuclear capabilities of India.

In 1997, although India won the third war of India and Pakistan, India was very constrained by the nuclear powers of the U.S., China, and the USSR. This provoked parliamentary debate on nuclear weapons. In 1974, India attempted to stop international criticism through the Pokhran-I nuclear test as a "peaceful nuclear explosion." The India also made it clear that it had no intention to produce more nuclear weapons [6]. India's nuclear policies are motivated by regional threats, notably Pakistan, but also increasingly China. India has consistently stated that it maintains a credible minimum deterrence for self-defense that based on an assured second-strike capability. After Pakistan's defeat in the December 1971 war with India, Pakistan made the policy to build a nuclear device within three years. That has been interpreted as including any conventional incursion by India into Pakistani territory [7].

4.2. Paradox of the nuclear strategy

Pakistan and India do share the highly developed deterrence theory that emerged from the Cold War. Nevertheless, deterrence may be clouded by the introduction of varying perceptions, strategic mindsets and a new kind of missile defense systems. In spite of nuclear weapons, India and Pakistan has a lot of ballistic and cruise missiles and been developing continuously [8]. For example, the missile defense systems in India's arsenal may lead it to adjust deterrence with competence in its nuclear strategy. It is important to recognize the difference between deterrence and competence. After the Mumbai terror in November 2008, the Indian leadership articulated the possibility of the strongest strikes against Pakistan. The Indian Air Force conducted flights on India-Pakistan international border. Subsequently, These actions of India took a new variable in two countries' strategic discourse. Both countries' nuclearization has

not deterred limited conventional or sub-conventional war. The positive factor for deterrence optimists is that India and Pakistan had agreed to some confidence-building and nuclear risk-reduction measures, such as non-attack on each other's nuclear installations and notifications regarding certain missile flight tests and military exercises. Trends in the regional and international politics indicate that in the near future, the composite dialogue between India and Pakistan would resume, perhaps yielding more agreements that reducing the possibility of unintended escalation. The pessimistic wrapping up is that nuclear deterrence between India and Pakistan is very much vulnerable to non-State actors. Therefore, deterrence may fail in preventing war despite New Delhi's and Islamabad's recognition of the vast devastation of nuclear war. That necessitates the need for both the belligerents to exercise caution in their words [9].

5. THE NEW SECURITY ENVIRONMENT SURROUNDING SOUTH KOREA

5.1. The increasing security threats of North Korea

On May 25, 2022, North Korea's most recent test fired three missiles toward the country's eastern sea. One of the missiles appeared to be North Korea's Hwasong-17 intercontinental ballistic missile, named ICBM. South Korean defense officials said that the missile flew only 360 km, which is significantly shorter than its full range. The launches occurred just after President Biden completed a trip to South Korea and Japan. Later the same day, the United States and Japan conducted a joint fighter jet exercise over the East Sea. According to the U.S. Indo-Pacific Command, the exercise was intended to "showcase combined capabilities to deter and counter regional threats." On October 19, 2021, North Korea flight tested firstly a new submarine-launched ballistic missile named SLBM near Sinpo on the east. The launch marks North Korea's eighth missile test this year [10]. On September 30, 2021, North Korea successfully tested a new surface-to-air missile named SAM. The test demonstrated the new missile's "double-impulse flight engine" and "twin-rudder control technology". North Korea conducted its last known test of a SAM, an older system named the Pon'gae-5. The most security threats are several ballistic missiles such as a SLBM, ICBM and SAM etc [11]. Especially, it includes the threats of nuclear weapon that is from small tactical launch range to strategical launch range.

5.2. The military power acceleration of China

In July 2022, China tested two hypersonic weapons, according to US intelligence assessments. The first weapon, tested July 27, incorporated a fractional orbital bombardment system-like launch vehicle, which partly orbited the Earth before releasing a hypersonic weapon that reentered the atmosphere. A second test took place on August 13. According to initial Chinese reports, China denied testing a weapons system, stating the July launch was a "routine test of spacecraft to verify technology of spacecraft's reusability." On August 26, 2020, China test fired multiple ballistic missiles, which landed at a site near Hainan and the Paracel Islands in the South China Sea [12].

For decades, China has engaged in a fervent game of "catch-up" with U.S. military capabilities. This effort, which has ballooned China's defense spending to 620 percent of its 1990 level, is recently beginning to bear real fruit. The tests of ICBM, SLBM and hypersonic weapons etc. lead several nations to increase tension and expenditure of military. China has been pressuring South Korea not to detach the THAAD missile defense system in South Korean area. In addition, in case of collapse of the North Korean regime or war on the Korean Peninsula, China wants direct or indirect militarily intervention. Therefore, we should consider these military movements and prepare to encounter.

5.3. The re-formation ambition of Russia

On October 3 and 4, 2022, Russia announced its flight tests of a Zircon hypersonic missile from attack submarine named K-560. Russia's navy fired the missile from the surfaced submarine in the Barents Sea, striking a "hypothetical sea target." On April 20, 2022, the Russian military announced it had successfully executed the first test of its Sarmat liquid-fueled intercontinental ballistic missile named ICBM. Russia's Defense Ministry said the launch proved the missile's effectiveness "in all phases of its flight." Russia also strives for an important Northeast Asian role, it possesses a power on Northeast Asian security issues and endeavors to affect them through its security policies such as the relations with China, North Korea and the United State. Russia wants to re-evolve their foreign military capability toward Northeast Asia predominantly [13]. Through the recent Russia and Ukraine war, Putin who is Russian president told the Russian people that his goal was to demilitarize and de-

Nazify Ukraine. His aim was to protect people who are called eight years of bullying and genocide by Ukraine. It was framed as an attempt at preventing NATO from gaining a foothold in Ukraine.

6. THE EFFECTIVE NUCLEAR STRATEGY OF SOUTH KOREA

6.1. Option 1. The improved nuclear deterrence strategy

In international literature, deterrence is normally considered in terms of the relations between adversaries as some attempts to frighten the other into inaction. These attempts to deter undesirable acts are essentially psychological instead of obstructing and preventing physically action. The aim of deterrence strategy is to influence the adversary's perceptions or plans, so it makes the enemy believe that refraining from attack is its best choice. The Nuclear age turned strategy into deterrence. Nuclear deterrence is the threat of nuclear attack to prevent the opponent from using the final violence. Therefore, nuclear weapons are an instrument of politics and has become the strong way of the prevention and deterrence of military conflict [14].

North Korea has dramatically developed several important ballistic missiles and nuclear weapons, which are for more tactical use. Furthermore, China supports the development of North Korea's military power and protects their actions and military strategy. South Korea has been protected from the United States' nuclear umbrella for deterrence from North Korea's nuclear threats and ballistic missiles. However, the threats of North Korea are continuously increasing and floating the priority of South Korea's security issues. South Korea is convincing the nuclear deterrence of the United States not to protect permanently and to use timely. Therefore, South Korea should prepare for another deterrence option by themselves and makes their nuclear weapon for countering on North Korea's nuclear threats. Additionally, they should more develop the defense system of missiles as Kill chain, KAMD, KMPR and surveillance & reconnaissance system and prepare perfectly multiple counter system from high altitude to low altitude.

6.2. Option 2. The nuclear development or sharing strategy

October, 2021, Jennifer Lind who is a professor in Dartmouth University insisted that South Korea could be legalized about nuclear armament and withdrawal of NPT which makes South Korea not to develop nuclear weapons independently. The United States have tactical nuclear weapons named B61-12 to support South Korea. It has been prospecting that it could be operated by B-2 stealth bomber, F-35A, F-15E etc. However, the United States does not convince that how many and whose military unit's operational B-2 stealth bomber, F-35 would be deployed correctly. If it was operated, South Korea needs equipment, software, infrastructure and manpower. South Korea also needs the integration system between tactical nuclear weapon and B-2 stealth bomber, F-35A, F-15E etc [15]. By considering all situations and conditions, therefore, South Korea have to develop the nuclear weapon independently to protect his country from North Korea, China and Russia which have already had the nuclear weapons and to pursue comprehensive, independent, conventional counter-force, and counter-value capabilities. However, Considering South Korea economic level in the world and the long-term cost side, the development cost is much better and beneficial than supporting cost for the United States. South Korea has already succeeded the test of SLBM and several ballistic missiles as Hyeon-Mu. The first step is to make the tactical nuclear weapons for operating close area in North Korea, which is very crucial part not to stimulate China and Russia except Japan. South Korea is not able to control and stop North Korea's nuclear development now. The another decision is that we should consider and share the tactical nuclear weapons of U.S. for the minimum ways to protect South Korea's security as NATO nuclear weapons' sharing strategy [16]. The final decision of tactical nuclear weapons re-deployment is depending on the United States, which is not considering that South Korea's exclusive possession of nuclear weapons.

7. CONCLUSION

From Cold War, Nuclear weapons have emerged military power into a very dangerous and important way of each national security. Throughout the era, the U.S. had stationed nuclear weapons in South Korea. Under the protection of the nuclear umbrella, South Korea guarantees that the United States would operate its nuclear weapons to protect South Korea if it would be needed and the economy of South Korea has rapidly developed as one of the largest countries

in the world. However, South Korea has seen and been realized the present state from the recent war between Russia and Ukraine. The protection of the U.S. nuclear umbrella from North Korea's nuclear weapons and ballistic missiles is unlikely to be permanently guaranteed. At the same time, South Korea should consider the movement of surrounding nations such as China as military power acceleration and Russia as re-formation ambition. Because of these reasons, South Korea personally wants to protect itself and have the nuclear weapons as a way to counter threats. A majority of South Koreans also definitely believe that North Korea will not denuclearize or give up because North Korea has been having nuclear weapons in nation's final survival strategy.

Therefore, South Korea should prepare for another deterrence option by themselves and makes their exclusive nuclear weapon for countering on North Korea's nuclear threats. Additionally, they should more develop the defense system of missiles as Kill chain and prepare perfectly multiple counter system from high altitude to low altitude. South Korea has already succeeded the test of SLBM and several ballistic missiles as Hyeon-Mu. The first step is to make the tactical nuclear weapons for operating close area in North Korea, which is very crucial part not to stimulate China and Russia except Japan. South Korea is not able to control and stop North Korea's nuclear development now. The United States, China and Russia is also not to control North Korea's one which is very important part for the permanent security stability of South Korea. Of course, the ideal goal is to make North Korea's nuclear abandonment and denuclearization. However, we are not able to wait for the ideal time and should prepare and make ways such as developing nuclear weapons or similar level's military weapons for responding their threats. Therefore, we should consider and develop the tactical nuclear weapons for the minimum ways to protect South Korea's security stability. The final decision of tactical nuclear weapons deployment is depending on the United States, which is not considering that South Korea's exclusive possession of nuclear weapons. For the permanent peace in the Korea peninsula, the primary solution of South Korea is to develop the exclusive nuclear weapons and should be considered the withdrawal from NPT for development as well in the close future.

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