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## Deployment of the THAAD System to South Korea—Background and Issues

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### Introduction

On December 12, 2017, North Korea launched a ballistic missile named “Pukgukson-2,” which fell into the Sea of Japan. This was its first ballistic missile launch since the new U.S. government administration came into power in January, and it happened right in the midst of the Japan-U.S. Summit Meeting. In response, the deployment of the Terminal High Altitude Area Defense (THAAD) system to South Korea, which was agreed upon between the two countries in July 2016, was reaffirmed at a U.S.-South Korea Joint Foreign and Defense Ministerial Consultation (“2+2” meeting) on February 19, 2017. After that, despite opposing arguments and calls for caution within and outside of Korea, procedures toward the realization of the deployment of the THAAD system moved forward rapidly within South Korea.

This paper organizes the significance of the deployment of THAAD to South Korea, the background leading to its deployment as well as the debates within and outside South Korea surrounding the deployment, and the future outlook, after which I shall consider the implications of the THAAD deployment for Japan.

### The THAAD System and Its Positioning in South Korea’s National Defense

The THAAD system is a portable, ground-based system developed in line with the United States’ missile defense initiative. The system comprises the THAAD

missile, which has a firing range of 200km, as well as its launch equipment, fire-control radar, and other elements. Deployment has been underway in the U.S. armed forces since 2009, and the final plans are to deploy two battalions (one battalion comprises four batteries). With regard to the success rate of intercepting missiles, the U.S. armed forces have announced that the system had succeeded in all 13 interception tests conducted to date. It is important to note that the THAAD system, which is gradually being deployed in South Korea, is introduced into the (USFK).

How is the THAAD system positioned within South Korea’s national defense structure? South Korea’s national defense strategy is the result of the U.S.-South Korea alliance as well as South Korea’s self-defense efforts. The South Korean military deals primarily with localized challenges from North Korea during peacetime, while the U.S.-South Korea allied forces engage in full-scale war in times of crisis. The threat from weapons of mass destruction such as nuclear weapons and missiles from North Korea is countered through extended deterrence by the United States (tailored deterrence), but South Korea has also launched its own three-step defense system to counter such threats (South Korea’s “Korean three-axis system”). The first step is known as “Kill Chain,” which attacks and destroys the related armaments and facilities on the ground before any missiles are fired. The second step is the Korea Air and Missile Defense (KAMD) system, which intercepts incoming missiles. The third step is “Korea Massive

Punishment and Retaliation” (KMPR) undertaken through the deployment of missiles and special forces against the North Korean leadership in the event of an attack. Of these, in KAMD, the second phase that corresponds with missile defense, Aegis radar and ground-based Green Pine radar are used to detect targets, while the interception of ballistic missiles in the terminal phases of their trajectory (within the atmosphere, up to an altitude of approximately 100km from the Earth’s surface) is undertaken by three types of equipment: (1) the Patriot PAC-2 owned by the South Korean army (as explained later, PAC-3 is currently being introduced), (2) a mid-range surface-to-air missile (M-SAM) that is presently undergoing improvement and will be used in the future, and (3) a long-range surface-to-air missile (L-SAM) that is now under development. According to explanations given by the Ministry of National Defense of South Korea, in addition to the abovementioned systems, the introduction of the THAAD system, which can intercept missiles at an altitude of 40 to about 150km, to USFK can prevent damage on the ground when interception takes place at an altitude of 40km or below, enable interception across a wider region, and significantly increase the rate of success of interception.

### Background Leading to the Deployment of the THAAD System to USFK

Here, I would like to look back on the events leading up to the deployment of the THAAD system to South Korea. Discussions began on February 27, 2014, when North Korea launched four ballistic missiles, believed to be Scud-class missiles. In June the same year, Curtis Scaparrotti, then the Commander of the USFK, revealed that he had personally made a request to the U.S. government to deploy THAAD to South Korea. In the meantime, however, South Korea did not explicitly declare its intention to participate directly in a missile defense system built by the United States, and until September of the same year, the Ministry of National

Defense of South Korea had not made an official request to the United States for the deployment of the THAAD system. During a meeting of the defense ministers of China and South Korea held in February 2015, China expressed its concerns over the deployment of the THAAD system; in the following month, the South Korean Presidential office offered reassurance with the so-called “three no’s”, stating that South Korea had neither requested nor consulted with the U.S. government, and that South Korea had not made any decisions on the deployment of the THAAD system.

However, in January 2016, the stance of the South Korean government took an abrupt turn after North Korea conducted its fourth nuclear test. Concerning the deployment of the THAAD system to USFK, President Park Geun-hye declared on January 13 that in view of the threat of nuclear and missile attacks from North Korea, South Korea will consider the deployment of the THAAD system accordingly in line with its security and national interests. In February, the United States and South Korea announced the establishment of a joint task force to discuss the issue of THAAD system deployment; the following month, the same task force officially commenced its activities. The background leading to this drastic change in South Korea’s stance lies in the lack of response from China even after President Park Geun-hye called for its cooperation through a direct hotline to Chinese President Xi Jinping, requested after North Korea conducted its fourth nuclear test. Ultimately, South Korea was forced to wait for as long as one month for a response, and President Park Geun-Hye, who had played out her role in the “China- South Korea honeymoon” until then, was apparently very disappointed. This episode has been singled out as bringing about the dramatic turnabout in South Korea’s stance.

Thereafter, on July 8, the joint South Korea-U.S. task force announced its decision to deploy one THAAD system battery to South Korea. Following that, on July

13, plans to deploy the system in the mountains of Seongju County of the North Gyeongsang Province, located in the southeastern part of South Korea where the Hawk battery of the South Korean army is based, were revealed, but were met with fierce opposition from the local residents. In response, a review lasting about two and a half months was conducted, and the Ministry of National Defense of Korea then announced that the THAAD system would be deployed to a civilian golf course located within the same county but at a higher altitude. Based on the U.S.-South Korea Status of Forces Agreement (SOFA), the deployment of the THAAD system was scheduled to be completed in mid-2017.

After that, the National Assembly voted to impeach President Park Geun-hye on suspicions surrounding her confidant. As a result, a system was put in place to authorize the Prime Minister to perform duties in place of the President, and the stance of completing deployment during 2017 was maintained even after the new U.S. administration came into power. However, with the conclusion of a land exchange agreement on February 28, 2017 and with cooperation from the company that owns the golf course where the deployment had been scheduled to take place, moves toward the deployment of the THAAD system began to proceed rapidly. By March 7, it was disclosed that two launchers for THAAD missiles had been moved by transport aircraft into the Osan Air Base where USFK are based. One battery of the THAAD system comprises six launchers, one AN/TPY-2 radar (also known as X-band radar) for fire-control, and a command and control center, and a part of these had already been moved into the base. Moreover, reports speculated that the other elements could also be moved into the base within the next one to two months. According to various reports, deployment of the troops is predicted to begin as early as the first half of 2017.

### Debates Within and Outside Korea about the Deployment

Heated arguments for and against the deployment of the THAAD system to South Korea unfolded within South Korea. Those who were for the deployment argued mainly for the military rationality of the decision and the importance of the U.S.-South Korea alliance, while those who were against it raised various concerns. The interception range of the THAAD system covers a radius of about 200km; Osan (the U.S. air base), Pyeongtaek (where the U.S. forces in Korea plan to relocate its headquarter to), Gyeryongdae (the headquarters of the South Korean military), and the site of nuclear power plants all lie within the interception range. However, the THAAD system is unable to defend the capital region, where close to half of South Korea's population is concentrated. Hence, the leading argument against the deployment is based on the hypothesis that its aim is to protect the U.S. forces, instead of protecting the citizens of South Korea against nuclear and missile attacks by North Korea. There are also some who assert that the U.S.-South Korea agreement on the deployment of the THAAD system requires ratification by the National Assembly beforehand.

The deployment of the THAAD system to South Korea also gave rise to opposition from outside South Korea. China had repeatedly expressed its opposition prior to the decision to deploy the system in July 2016, and its official media joined in with intense criticism after the decision was made. Furthermore, although the Chinese government was careful to avoid making any direct reference to the matter, it took steps to restrict dissemination of contents originating from South Korea in China. As a part of these measures, the aforementioned company that responded to the request for land exchange for the deployment of the THAAD system was subjected to disadvantages in conducting business in China, including the application of stringent customs

regulations in China. In response, the South Korean government asserted that such economic retaliation measures by China were unfair, as the deployment of the THAAD system was aimed at countering nuclear and missile threats from North Korea and did not bear any intentions towards China. China is concerned that its inland areas could fall within the detection range of the AN/TPY-2 radar used for fire-control in the THAAD system, as this radar has a detection range of 600 – 800km in its terminal-based mode, and a maximum range of above 1,000km in its forward-based mode. However, some in South Korea also point out China itself has deployed radars with an even longer detection range, and China has not demanded for the removal of the AN/TPY-2 radar at Kyogamisaki in Japan.

Russia has also continued to express its opposition to the deployment of the THAAD system to South Korea. While its opposition is believed to be related to the United States' deployment of missile defense systems to Europe, it acted in concert with China, declaring its opposition to the deployment of the THAAD system in the joint statement of the Shanghai Cooperation Organization (SCO) on June 23, 2016, as well as in the joint statement issued after the China-Russia summit meeting held on June 28. On February 3, 2017, the Ambassador of Russia to South Korea issued a direct declaration of opposition in an interview.

The opposition of China and Russia to the deployment of the THAAD system is not based purely on reasons related to military technology, but on the recognition of the United States' global military strategy, as represented by the building of a missile defense system that encircles and surround the two countries; we could say that this strategy clearly demonstrates the positioning of South Korea within that gap.

### Future Issues and Outlook

With regard to the deployment of the THAAD system to South Korea, the focus will be drawn towards South

Korea's domestic circumstances going forward.

As a result of the impeachment proceedings initiated by the National Assembly against President Park Geon-hye, as described earlier, impeachment was approved on March 10, 2017 and President Park was removed from office. Consequently, a by-election to fill the vacancy of the Presidency is to be held by May, and the elected President will assume office on the same day. Up to that point, the issue of the deployment of the THAAD system has already become an axis for confrontation among the potential presidential candidates in the ruling and opposition parties. Candidates in the ruling party (conservative) generally demonstrate an affirmative stance toward the deployment, while candidates in the opposition camp (progressive) tend to take a middle-of-the-road or opposing stance.

Debates in South Korea mesh with the responses from overseas described in the previous section. While these discussions are varied, if we were to organize them somewhat simplistically, they can be represented by the progressive camp and the conservative camp. The former questions the wisdom of becoming embroiled in the confrontational scheme of a United States that is attempting to deploy the THAAD system to South Korea against opposition from China and Russia, in order to maintain its own predominance as its relative power in East Asia declines against the rise of China. The latter fears that South Korea will be forsaken in the tripartite alliance of Japan, United States, and South Korea as it becomes clearer that it is difficult to win the cooperation of China amidst the emergence and strengthening of the nuclear and missile threat from North Korea even more than before.

Even if a candidate from the progressive camp were to be elected as the new President, it would probably be difficult for him or her to run counter to the flow of THAAD system deployment that has progressed rapidly; however, the possibility remains that deployment may not move forward smoothly. This may be inferred from

the two-time deferment of the transition of wartime operational control from the U.S. forces to the South Korean military, due to the change in government administration. Moreover, some residents of Seongju County, where the THAAD system is scheduled to be deployed, have expressed concerns over a direct attack in times of crisis, as well as the possibility that the AN/TPY-2 radar may have an adverse impact on health, and persuading these residents to accept the deployment is also likely to pose a challenge.

Technological issues also remain. North Korea is developing not only ground-launched missiles but also submarine-launched ballistic missiles. In addition, it is also believed to be moving forward on the development of missiles mounted with solid fuel engines. It is perceived to be attempting to develop launch methods that can surpass the interception capabilities of existing missile defense systems, including the THAAD system, such as launching multiple ballistic missiles simultaneously.

With regard to the aforementioned point that the capital city of South Korea does not fall within the interception range of the THAAD system, there are reports that there are plans to move an updated version of the existing Patriot PAC-2 to PAC-3 closer to the capital city in order to complement the THAAD system.

## Conclusion

On September 5, 2016, North Korea launched three ballistic missiles that are presumed to be Scud-ER missiles, which fell in waters that lie within Japan's exclusive economic zone (EEZ). On March 6, 2017, it launched four ballistic missiles simultaneously, which were presumed to be Scud-ER missiles. Of these, three fell within Japan's EEZ, while the fourth fell into seas approximately 200km off the coast of the Noto Peninsula, the closest that any of its missiles had ever come to Japanese territory. On the following day, the Korean Central News Agency reported that the ballistic missile

launches on the previous day had been a part of ballistic missile launch training by troops, aimed at attacking U.S. forces in Japan in times of crisis, and that training had also been carried out on the handling of nuclear warheads. In consideration of the possibility that North Korea has made steady advancements in its nuclear capabilities through the five nuclear tests conducted to date and may have reached the stage of producing compact nuclear warheads, in combination with the fact that North Korea is believed to be gradually improving the technology and precision of its ballistic missiles, this report shows that North Korea's missile development poses a new level of threat to Japan.

For Japan, in addition to putting effort into strengthening the U.S.-Japan alliance, it should also persist in persuading the new South Korean administration that the maintenance and strengthening of the cooperative system between Japan, the United States, and South Korea is beneficial to South Korea's national interests.

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