

On the Korean Peninsula Security Situation

An Analysis of U.S. Motives Behind THAAD Deployment in ROK

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***Abstract:** The United States has promoted deployment of a THAAD system in the ROK since mid-2014, triggering wide-ranging controversies among the concerned countries and scholars. In fact, the existing Green Pine radar system in the ROK can provide coverage for the whole Peninsula, and a THAAD system with AN/TPY-2 X-band radar will not provide significant extra coverage or tracking time for missile defense purposes vis-à-vis the DPRK missile threats and THAAD interceptors cannot protect the northern areas of the ROK including Seoul either. It seems the purpose is to further integrate the U.S.-Japanese-ROK missile defense architecture as a counterweight to China's deterrence, which will be likely to destabilize the East Asian region and eventually damage the ROK security interests.*

The U.S. plan to deploy a Terminal High Altitude Area Defense (THAAD) system in the Republic of Korea (ROK or South Korea) became a global concern following the disclosure in U.S. media in May 2014. China has repeatedly expressed its concerns to the U.S. and ROK Governments over the deployment. Since policy makers and scholars in the countries involved have varying views it is somewhat difficult to properly assess the different viewpoints. This article intends to analyze the strategic implications for China, the United States, Japan and the ROK if the United States deploys a THAAD system in the ROK by objective technologic facts. Then it examines and expounds on Washington's real motives for deploying the THAAD system in the ROK, which will not be a move to counter the Democratic People's Republic of Korea (DPRK or North Korea) missile threats but a military posturing against China.

I. Two Opposing Views on the Deployment of the THAAD System

Even though since 2014 U.S. and the ROK media have published several reports on the U.S. plans to deploy a THAAD system in the ROK, Seoul has denied that this is happening. On May 27, 2014, *The Wall Street*

Journal reported that the Pentagon had selected several sites for possible deployment in the ROK, but had not yet made a final decision.¹ On September 1, 2014, ROK's Yonhap News Agency reported that the United States had made two field investigations on the possibility of deploying a THAAD system in the country and was planning to hold meetings with the ROK on the issue.² On September 2, 2014, the *Korea Times* reported that Kim Kwan-jin, Chief of The National Security Office in the ROK, would meet with U.S. National Security Adviser Susan Rice to discuss missile deployment on his trip to the United States beginning September 8 and the two sides would finalize the matter at the U.S.-ROK Annual Security Consultation meeting in October.³ On February 11, 2015, a Pentagon spokesman confirmed that the United States and the ROK had held discussions on deploying a THAAD system in the ROK, and that both sides were in agreement that its deployment was important.⁴ However, the ROK Government quickly denied that they had even discussed the matter. On March 19, ROK media reported that U.S. Chairman of the Joint Chiefs of Staff General Martin E. Dempsey would discuss the THAAD deployment during his visit to the ROK at the end of the month.⁵ On March 22, however,

the ROK General Staff denied that the THAAD issue was on the agenda.⁶ Although the U.S.-ROK Defense Ministers Meeting on April 10 did not discuss the THAAD deployment, U.S. Defense Secretary Ashton Carter said that deployment sites and deployment time would depend on the manufacturing process.⁷ In short, the United States is planning to deploy a THAAD missile defense system in the ROK, but it has not yet held formal talks or reached a formal agreement with the ROK on the issue.

The United States has really been pushing deployment: top U.S. officials from the military and political spheres have clearly expressed their support for deployment and they have not denied that one of the objectives is to manage a rising China. Vice Chairman of the Joint Chiefs of Staff, Admiral James Winnefeld, in a speech at the Atlantic Council on May 28, 2014, said that the United States was considering deploying a THAAD system in the ROK, emphasizing that it was important to continue developing regional missile defense systems and strengthening U.S.-Japan-ROK missile defense cooperation.⁸ Another top U.S. Defense official also said that U.S.-Japan-ROK missile defense cooperation is very important to the United States because it acts as an effective guard against China's growing military strength. U.S. Missile Defense Advocacy Alliance Chairman Riki Ellison said that the THAAD's X-band radar system is able to act as an effective early warning system. It will not only protect the ROK but also Japan and the United States.⁹ On June 3, 2014, Commander of U.S. Military Forces in the ROK Curtis Scarpia Rorty also said a THAAD system in the ROK could help their capability to intercept the DPRK missiles.¹⁰ On March 12, 2015, the U.S. Command in the ROK disclosed that they were looking at several possible sites and an informal feasibility studies had been completed. U.S. Defense Department spokesman, Marine Corps Lieutenant Colonel Jeff Poor, told the Yonhap News Agency that since the United States had finished a feasibility study it was incorrect to say that Washington and Seoul had not held informal talks on the matter.¹¹

During his visit to the ROK in March 2015, U.S. Assistant Secretary of State Daniel Russell said that since the DPRK poses a missile threat to the ROK and the U.S. military is responsible for safeguarding both the United States and the ROK, they must consider using the most appropriate missile system, so it is surprising that any third party would want to interfere.¹² On April 16, U.S. Pacific Commander Samuel Locklear at a Senate hearing said that in addition to the THAAD system deployed in Guam, the U.S. military has also discussed the possibility of deploying a THAAD system on the Korean Peninsula.¹³

China has made clear its opposition to the U.S. intentions to deploy a THAAD system in the ROK. During his visit to the ROK in February 2015, Chinese Defense Minister Chang Wanquan expressed his concerns about the possible deployment.¹⁴ On March 16, Chinese Deputy Foreign Minister Liu Jianchao told reporters that China hopes the United States and the ROK would make the "right" decision on the deployment of the THAAD system. He added that China and the ROK had frankly and freely exchanged views on the issue and that China's opinion had been conveyed to the ROK.¹⁵ In November 2014, the Chinese ambassador to the ROK, Qiu Guohong, told the ROK lawmakers that the deployment of a THAAD system in the ROK was beyond the scope of any missile defense against the DPRK. He said such a deployment appears to be aimed at China rather than the DPRK because the THAAD system would not help missile defense against the DPRK and instead would impact China's own security capabilities.¹⁶ On February 5, and March 17, 2015, the Chinese Foreign Ministry Spokesman said that: "when a country is seeking to ensure its own security, it must consider the security interests of other countries and regional peace and stability. We hope that the relevant countries act prudently in dealing with the relevant issues".¹⁷ According to reports from the U.S. and ROK media, at the China-ROK Summit talks in July 2014, Chinese President Xi Jinping also specifically mentioned the THAAD system and appealed to Seoul to take

a prudent course of action on this matter.¹⁸

When news of the planned deployment first broke in the media, the ROK was swift to deny it was happening, but following pressure from the United States and China, they changed their position to one which is ambiguous. On May 29, 2014, ROK Defense Ministry Spokesman Jin Min Shi said at a regular press conference that the ROK has no intention of deploying a THAAD system, stressing that the ROK will use its Patriot missile (PAC-3) system and its home-developed remote high altitude interceptor the L – SAM system to intercept the DPRK missiles. He also stressed that the U.S.' missile defense system and the ROK Korea Air and Missile Defense System (KAMD) are very different in terms of structure, and the two are not inter-operable.¹⁹ After both China and the United States made statements on the missile system, on February 11, 2015, ROK Defense Minister Han Minkoo, while attending the defense committee plenary meeting, said that for strategic reasons, it was necessary for the ROK to neither confirm nor deny reports that a THAAD system would be deployed.²⁰ It is worth noting that there has been two worrying moves from the ROK. The first was a statement that the ROK needed the THAAD system to deal with advancements made in the DPRK's nuclear capability. For example, on October 7, 2014, Defense Minister Han Minkoo said the THAAD system should be reviewed from the perspective of security and national defense. "With our limited means to respond to North Korea's nuclear and missile threats, a U.S. deployment of a THAAD system will help safeguard South Korea's national security and improve its national defense capability."²¹ Military sources, cited by Yonhap said THAAD would help protect the country from nuclear and missile threats. However, Seoul is being cautious because of the reactions of neighboring countries such as China.²² Another source rejected China's concerns. At a routine press conference on March 17, 2015, ROK Defense Ministry Spokesman Jin Min Shi said neighboring countries are entitled to express their opinion on the THAAD system being deployed in the ROK but they should not seek to influence

ROK's national security policy.²³

From an analysis of reactions from scholars around the world, we can see there are also two different opinions on the issue. Most western scholars argue that the deployment is simply a response to the increasing DPRK nuclear missile threat and that this should not affect China. Senior fellow of the Brent Scowcroft Centre for International Security at the Atlantic Council, Robert Manning, sees Chinese concerns as "delusional", claiming that China is trying to paint ROK self-defense as part of a broader "containment" vis-à-vis China and that Beijing is seeking to veto ROK's defense policy.²⁴ The Japanese *Diplomat* has also published articles written by ROK scholars that claim the deployment of the THAAD system would not impact China.²⁵ Some ROK scholars have even suggested that China's real aim is to damage the U.S.-ROK alliance, or that it does not wish the ROK to tip the military balance in its favor with the DPRK thereby averting any drastic change in the strategic situation on the Korean Peninsula.²⁶ Others, particularly Russian scholars, have sided with China, arguing that the United States has an ulterior motive in deploying the THAAD system. Vladimir Skoselev suggests that the U.S.' real strategic intention is to contain China, and that this will drive the current arms race in Asia.²⁷ Oleg Kiryanov argued that if the THAAD system is deployed in the ROK it could be used against both Chinese and Russian missiles. The United States makes use of the "DPRK" threat to reel in the ROK.²⁸ Some ROK scholars also point out that the THAAD system will not help the country protect itself against the DPRK nuclear missiles.²⁹

To determine which scholars are correct, we must first answer the following basic questions: Will the deployment of a THAAD system in the ROK have a serious impact on China's security capabilities? To what extent will it protect the ROK from a DPRK missile attack? And how will it improve U.S. capability to intercept the DPRK missiles? By answering these questions we will be able to rid ourselves of the misunderstandings that cloud this issue and we will be able to accurately assess the

U.S.' real strategic objectives, understand China's strategic concerns, and urge the United States and the ROK to make the reasonable, legal and right choice.

II. Possible Impacts of THAAD System Deployment in the ROK

In order to understand how a THAAD system in the ROK will impact China strategically and its various uses for the United States, Japan and the ROK, we must first understand the THAAD system itself. It is not a simple set of missile defense intercepting facilities, but also an AN/TPY-2 tracking radar, an X-band radar providing early warning and an integrated fire control system. The two X-band radars deployed by the United States in Japan are also AN/TPY-2 radars. It is powerful, has a wide field of view, and a high working frequency of 10 GHz. It is equipped with advanced radar signal processing technology; it can accurately track and recognize densely distributed targets, and help to identify fake warheads. Such features are a fearsome opponent to ballistic missiles equipped with penetration devices. Chinese and U.S. scientists have both calculated that when detecting a flying target with the radar cross section set at 0.01 square meters (smaller than missile warhead), the detection distance of the AN/TPY-2 radar is more than 866 km. When detecting a target with the radar cross section set at 1 square meter (missile body), the detection range of the AN/TPY-2 is 2,739 km. We can therefore conclude that the AN/TPY-2 radar has the ability to detect ballistic missiles at a distance of at least 1,200 km, and a limited ballistic missile detection ability of up to 2,000 km.³⁰ The ROK is currently using Green Pine radars imported from Israel, which have a detection range of just 500 km. Its power and identification capabilities are not as good as the AN/TPY-2 radar. A radar can be used in peacetime and wartime. The THAAD system's X-band radar is far more sophisticated than just a group of interceptors. Because the United States, the ROK and other western allies have simply ignored this, it is difficult to fully assess how the THAAD system will impact the region if it is deployed on the Korean Peninsula.

A U.S.- deployed THAAD system in the ROK will pose a direct challenge to China's strategic security. The AN/TPY-2 radar will threaten the viability of China's nuclear missiles. Senior U.S. officials have repeatedly said that the missile defense systems it is developing with its allies are aimed at countries such as the DPRK and Iran, and

not China or Russia, but the DPRK and Iran do not have sophisticated intercontinental missiles, they have missiles with no or limited penetration capabilities, whereas both China and Russia have missiles with advanced penetration capabilities. U.S. interception systems currently cannot properly identify fake warheads. China has reason to be concerned because the United States is developing ever more advanced ground-based and sea-based interceptors. The forward deployment of high-precision X-band radar is particularly worrying because it will greatly improve and upgrade U.S. missile defense systems. Chinese scholars have concluded that these forward-deployed and early warning radars in the Asia-Pacific have at least four functions: (1) They will be able to find and track missiles faster, providing greater warning time; (2) the radars are high-precision and will have more time to collect data and integrate it, helping to more accurately identify the targets; (3) the radars can identify and track warheads and decoys from their different accelerations, which means they can more accurately recognize targets; (4) in peacetime the radars can be used to observe and monitor China's strategic missile tests (especially submarine-launched missiles), and use this data to improve target recognition.³¹

China is very concerned about U.S. missile defense developments, and is on constant alert for deployment of early warning radars. The Chinese Government's position is: "the global missile defense program will damage the international strategic balance and stability. It is not conducive to international and regional security, and may negatively impact the course of nuclear disarmament. No country should deploy missile defense systems with strategic missile defense capability overseas or carry out any such projects with allies".³² According to U.S. diplomatic cables disclosed by WikiLeaks, the Chinese foreign ministry expressed its concerns on missile defense in a Sino-U.S. security dialogue: (1) It may undermine strategic stability; (2) the Japanese missile defense radar under the framework of the U.S.-Japan missile defense cooperation can cover China; (3) if missile defense technologies spread to Taiwan then they may enhance Taiwan's offensive missile technology.³³ Since the ROK is geographically close to China, the strategic impact of an X-band radar deployed in the ROK is far greater than if it is deployed in Japan and so it is natural that China is concerned. During times of peace, the X-band radar could easily observe and

monitor China's strategic missile tests (generally launched from the eastern coast and in the northwest of China). The radar's range can easily take in the entire Bohai and Yellow Seas, the locations of China's submarine-launched missile tests, allowing the United States and its allies to significantly improve their monitoring of China's strategic missile tests and their interception capability. During times of war, X-band radar in the ROK would be able to detect Chinese missiles much earlier than radars deployed in Japan and also track the release of Chinese warheads and decoys, which would make the recognition more accurate. It is expected to be able to halve the time to identify an offshore submarine-launched strategic missile from China.³⁴ These radars will be able to coordinate with other U.S. early warning radar and intercepting systems, thus posing a serious threat to China's ability to use strategic missiles.

The AN/TPY-2 radar will also affect China's conventional weapons deterrence. Because its naval fleet is relatively weak, China tends to guard its seas from land-based forces and its ground-based medium-range missiles are considered one of its most effective weapons in this regard. Beijing and China's east coast are just a few hundred kilometers from the ROK. An AN/TPY-2 radar in the ROK will cover this region and provide the radar tracking data much earlier. In the event of a conflict between China and Japan, the Japan-U.S. joint command system can send data collected by the AN/TPY-2 radar to Japan's PAC-3 system, and the Aegis missile defense system of Japan's maritime self-defense force and the U.S. Pacific Fleet, which could facilitate to intercept Chinese missiles, giving U.S. military bases in Japan and on its aircraft carriers a massive advantage and offsetting China's "intervention" ability. An AN/TPY-2 radar system in the ROK will greatly empower Japan's security position, and this will encourage it to adopt a riskier and more aggressive stance against China, threatening the security and stability of Northeast Asia.

After the DPRK launched a number of satellites and conducted a third nuclear test at the end of 2012 and early 2013, the United States has repeatedly hyped up Pyongyang's missile and nuclear capabilities. In April 2013, a secret report issued by the U.S. Defense Intelligence Agency said that the DPRK has the capability to manufacture small-sized nuclear warheads.³⁵ In February 2015, U.S. National Intelligence Director James Clapper told the Senate Armed Services Committee that the DPRK had made remarkable progress in nuclear

and missile capabilities, and these now pose a serious threat to the U.S. and its East Asian allies.³⁶ The *North Korean Nuclear Future* series of reports, funded by the U.S. Naval Postgraduate School, have also hyped up the DPRK nuclear threat since March 2015. They claimed that by 2020 the DPRK will have up to 125 nuclear warheads and its submarine-launched missiles and mobile long-range missiles will be capable of carrying nuclear warheads.³⁷ On April 14, 2015, the ROK Defense Minister said that the DPRK "has made significant progress in miniaturizing its nuclear weapons".³⁸ ROK media and many ROK military professionals have also claimed that the THAAD system would help to defend against this growing nuclear threat from the northern border.

The ROK concerns are understandable, but emotional appeal cannot transcend rational analysis. Seoul will benefit little from the deployment of the THAAD system. Although the DPRK has made progress in nuclear/missile capability, the threat to the ROK has not grown sharply and a THAAD system would also not resolve the problem. The DPRK medium-range ballistic missile and short-range missile technology is mature. Progress made in missile technology has been focused mainly in improving the range, and this is more of a threat to the United States rather than the ROK. The DPRK has improved its nuclear capability, but this is aimed at boosting self-defense. Pyongyang regards its nuclear arsenal more as a strategic weapon than a tactical one. It would consider using it only at the very last stages of a conflict. In the event of a nuclear conflict, the DPRK would almost certainly choose Seoul as its target. According to a report submitted to Congress by the U.S. Department of Defense, the THAAD-like endo-exo upper tier system deployed in the ROK would only serve to protect the southern part of the country; it could not cover Seoul.³⁹ Therefore, the THAAD and the Patriot missile system could not provide dual interception capability for northern part of the ROK as the supporters who welcome the THAAD deployment in the ROK argued. The ROK will only be able to improve its ability to intercept a DPRK nuclear warhead if it beefs up the number of its Patriot systems and ROK policy makers know this. This is why Seoul bought the Patriot system in the first place and prioritized the development of a domestic short-range missile defense system. The existing Green Pine radar already covers the whole Korean Peninsula. In the event the DPRK launches a missile attack—whether aimed at the ROK or Japan—the AN/TPY-2 would not bestow any timing

advantage over the Green Pine system. The THAAD system would help protect only the southern part of the country, neither Seoul nor its northern part, and so deploying long-range radar protection is of no benefit to South Korea.

The main threat to the United States from the DPRK comes from its intercontinental missiles and even in this case, the AN/TPY-2 offers no extra benefits when compared with the Green Pine in terms of providing early warning. It is true that the Green Pine does not have such sophisticated monitoring capabilities as the AN/TPY-2, but in terms of deployment in the ROK, the X-band radar deployed in Japan works just as well. One Chinese scholar calculated that if an AN/TPY-2 radar system is deployed at ROK's Pyeongtaek Base (the most likely location according to media reports), the tracking time of a DPRK intercontinental missile fired at the United States would be 52 to 205 seconds after launch; while the two X-band radar systems in Japan would give tracking times of between 77 and 221 seconds and 91 and 335 seconds.⁴⁰ The X-band radar in the ROK would make no additional contribution on early warning for the United States towards DPRK's ICBM.

III. Analysis of the U.S.' Real Intentions

Since U.S. President Barack Obama came to power he has used the DPRK nuclear threat to try to improve U.S.-ROK missile defense cooperation. Seoul's primary focus is on protecting itself from Pyongyang and this has been an obstacle to Obama's efforts. The United States knows that the THAAD system won't help the ROK protect itself from the DPRK but Washington wants the deployment to better integrate its East Asian missile defense systems and to improve strategic early-warning capability vis-à-vis China. This would allow the United States to better handle China's ground-based medium-range missiles and anti-ship missiles and help the U.S.' Rebalancing Strategy to the Asia-Pacific. One senior official in the U.S. Department of Defense said a THAAD deployment in the ROK will help push the ROK into full cooperation with the United States and Japan in building a regional missile defense system.⁴¹

East Asia has been an important part of the U.S.' global missile defense system since Bill Clinton became president (1993). After Obama became president, the U.S. government's *Ballistic Missile Defense Assessment Report 2010* said that the United States planned to develop three regional

missile defense systems, one each in Europe, East Asia and the Middle East. At the end of 2011, the U.S. Missile Defense Agency issued a development plan, which disclosed it was working on an Asia-Pacific *Phased Adaptive Approach* and another project in Southwest Asia.⁴² By the end of March 2012, U.S. Assistant Secretary of Defense Ashton Clayton said the United States would work with its allies to set up new missile defense systems in East Asia and the Middle East that would be based on its European missile defense system.⁴³ Currently, 16 out of 24 U.S. Aegis ships are deployed in the Asia-Pacific. The United States needs both Japan and the ROK for its missile defense program in East Asia to work.

The United States wants to use its missile defense system in East Asia to counter China's conventional land-based missiles and to improve U.S. troops capability in the region. U.S. Secretary of Defense Chuck Hagel's *Defense Innovation Initiative*, published on November 15, 2014, claimed that the ten years of the U.S. anti-terror war had given China, Russia and other countries a great opportunity to develop their military capabilities and had seriously weakened the U.S.' relative military technological advantage. He said the Pentagon would implement reforms to redress this in the coming decades.⁴⁴ On January 28, 2015, U.S. Deputy Secretary of Defense Bob Work said that even in the face of major geopolitical incidents in 2014, such as the rise of ISIS and the Ebola outbreak, the United States would still focus on "defeating adversaries in contested environments far from our shores", because those potential adversaries "set about devising ways to counter U.S. technological over-match when the U.S. fought two lengthy wars over the past 13 years", such as "new anti-ship, anti-air missiles; long-range strike missiles; counter-space capabilities", which "designed to counter our traditional military strengths and our preferred way of operating."⁴⁵

The 2014 edition of the *U.S. Quadrennial Defense Review* said that China among other countries would continue to develop its anti-access/area denial capabilities, new network and space technologies and integrated air defense capability to squeeze U.S. forces' access and mobility in areas outside their territorial waters and airspace. China relies on land-based anti-ship missiles and cruise missiles. Since 2014, the United States has openly compared China's short- and medium-range missiles and anti-ship missiles with the DPRK and Iranian missiles. U.S. Deputy Assistant Secretary of Defense for Nuclear and Missile Policy Elaine

Bunn told a congressional hearing that: “China is augmenting the over 1,200 conventional short-range ballistic missiles with a limited but growing number of conventionally armed, medium-range ballistic missiles that will improve China's ability to strike regional targets. China also continues to deploy growing numbers of anti-ship ballistic missiles.”⁴⁶ According to the DoD's JOINT OPERATIONAL ACCESS CONCEPT and the AirSea Battle concept, the United States should improve missile defense capabilities of its naval forces and in the Pacific Ocean to guard against China's anti-ship missiles and other offensive weapons, and should push allies in the region to improve joint missile defense capabilities and has tried to restart military bases in the Philippines, Vietnam and other countries.

When Vice Admiral James Syring was appointed director of the U.S. Missile Defense Agency in 2012, it was the first time since 1984 that a general that isn't from the Army headed the agency. After his appointment he focused on missile defense warfighting capability. U.S. missile defense testing has become much more sophisticated and advanced since then. In October 2012, the United States tested five intercepting missiles and destroyed four of them; in September-October 2013, the United States successfully tested its Standard - 3-1 B interceptor.⁴⁷ In April 2014, Syring told Congress that the missile tests are entering a new era of unprecedented complexity and intensity.⁴⁸ New technologies would be tested that would more accurately mimic real-life situations. The United States has also been focusing on handling anti-ship missiles. A 2012 Pentagon report said that they were unable to simulate the Dongfeng - 21 and other anti-ship ballistic missiles but since 2013 the United States has made much progress in this regard. The Aegis 5.0 system and the standard - 6 interceptor have been improved and it is expected that by sometime this year the United States will have the capability to defend against anti-ship ballistic missiles. In May 2013, the Missile Defense Agency started to take technical responsibility for the integration of air and missile technologies to solve issues with anti-ship ballistic and cruise missile defense.⁴⁹

Recently, the United States has also been focusing on improving its early-warning detection capabilities. Under Obama, U.S. missile technology and deployment strategies have progressed gradually, with new technology being subsequently deployed. It is also focusing on reliability and cost-effectiveness, and to this end it has shelved some problematic projects such as “directed energy

interception”, assigning more resources to developing early warning systems. The U.S. originally planned to deploy a next generation precision tracking space system (PTSS) by 2020. In March 2012, former director of the Missile Defense Agency Patrick O'Reilly stated that the greatest future enhancement for both homeland and regional defense in the next ten years would be the development of the PTSS satellites.⁵⁰ However, budget cuts caused PTSS to be cancelled in 2014, leaving the United States to rely on its Space Tracking and Surveillance Satellite System (STSS). In the future, the United States will not be able to solely rely on satellites for early warning data, and so that is why it is now focusing on developing its radar-detection capabilities.⁵¹ In fiscal year 2015, it invested US\$79.5 million to begin development of a Long Range Discrimination Radar (LRDR), with deployment planned in 2020.⁵² It is also trying to upgrade the discrimination capability of existing radar systems. Syring told a Congressional hearing in March 2015 that a core objective of his agency is to improve sensor discrimination before 2020.⁵³ At the end of 2014, the United States deployed a second land-based X-band TYPY-2 radar system in Japan, and it is now seeking to deploy an X-band radar system in the ROK under THAAD. In the future, it may also seek to deploy fire control X-band radar in the Philippines and other strategic positions in the region.

The United States wants its allies in the region -- Japan, the ROK and others -- to play a role in building a strong Asia-Pacific missile defense system and forward deployed radar warning capability. As part of its Rebalance to the Asia-Pacific strategy, the United States is reorganizing its global missile defense systems and building a regional missile defense system in the Asia-Pacific to tighten the U.S.-led Asia-Pacific military alliance. After the DPRK's second nuclear test, the United States repeatedly hyped up the nuclear threat from the DPRK as a way to bring its allies closer together and boost its regional control. The U.S.' ultimate goal is to unify intelligence, unify deployment and unify command. In Europe, NATO brings coherence to missile defense, but in East Asia the United States has to work bilaterally with allies, one by one, to create multilateral cooperation. Over the past decade, the United States and Japan have cooperated in missile defense R & D and testing, setting up a joint command, with real-time information sharing. However, cooperation between Washington and Seoul is much less advanced. Since the late 1990s, the United

States has repeatedly urged the ROK to join its missile defense system, but both the Kim Dae-jung and Roh Moo-hyun governments rebuffed its efforts. In recent years, the Obama Administration has been trying to use U.S.-Japan-ROK cooperation to make headway in this field. Following Pyongyang's first nuclear test, the United States courted Lee Myung-bak's right-wing party, and missile defense cooperation did indeed improve.

The United States has made moves to build a trilateral missile defense intelligence framework. In June 2012, the ROK postponed indefinitely signing the Japan-ROK Agreement on Comprehensive Protection of Military Intelligence because of domestic anti-Japanese sentiment.⁵⁴ Since then, the United States has focused on missile defense, and tried to improve the sharing of intelligence. During his visit to Japan in April 2014, Obama proposed a U.S.-Japan-ROK missile defense cooperation framework to share early warning data, which was positively received from both Japan and the ROK. At the end of May 2014, defense ministers of the three countries reached an agreement on the proposal. In December 2014, the three signed an agreement that they would share information on the DPRK nuclear and missile threats via the United States,⁵⁵ laying a foundation for even stronger multilateral missile defense cooperation in East Asia.

At the "2 + 2" meeting in June 2012, the United States and the ROK agreed to work more closely together in response to the DPRK missile threat. They also agreed to integrate their missile defense capabilities with the intention of full integration. Seoul also said it would accelerate work on the Korean Air and Missile Defense System (KAMD) begun in 2011 and two U.S. Patriots – 3 missile battalions stationed in the ROK would be integrated into the system. The United States said it would provide the ROK with early warning data from its satellites, U - 2 high altitude reconnaissance aircrafts and unmanned aerial vehicles (UAVs), as well as improving coordination between the ROK's Ballistic Missile Operational Control and U.S. missile defense systems in the country.⁵⁶ Japanese and ROK funds will alleviate some of the pressure on the United States in paying for this huge missile defense program. The Missile Defense Agency saw its budget cut from US\$9.3 billion in fiscal year 2009 to US\$7.5 billion in 2015. It almost halved the number of Standard – 3 interceptors to be purchased as a result.⁵⁷ The United States needs its allies to share the economic pressure. The ROK will need to pay out at least

US\$3 billion for the KAMD during the preliminary framework.⁵⁸ From 2004 to 2012, Japan spent US\$12 billion on its missile defense system, equivalent to 15% of the U.S. budget in the same period.⁵⁹

The ROK has always maintained that it would keep the independent KAMD, so the United States has to try to integrate ROK missile defense capabilities by strengthening the "inter-operability" of the two sides. In October 2013, a Joint Communiqué said the two sides would focus on improving inter-operability of missile defense systems and command and control systems of the two countries.⁶⁰ When Deputy Secretary of Defense Bob Work visited the ROK in August 2014, he said that "assets like theatre missile defence, command, control, communications, computers and intelligence, intelligence, surveillance and reconnaissance, and munitions should be made extremely inter-operable," and that this would improve their alliance.⁶¹ The 45th ROK-U.S. Security Consultative Meeting in 2014 decided to "implement the ROK-proposed conditions-based approach to the transition of wartime operational control (OPCON) from the U.S. forces-led Combined Forces Command (CFC) to a new ROK forces-led combined defense command."⁶² The two sides also decided to integrate the extended deterrence policy committee (EDPC) and counter-missile capabilities (CMCC) into a new Deterrence Strategy Committee to better deal with the DPRK threat.⁶³

The United States has also tried to integrate sensor networks and interception systems. The U.S. Missile Defense Agency plans to invest about US\$200 million into integrating UAVs, satellites and radar networks for better data analysis capabilities and interception precision.⁶⁴ In the past, the Standard – 3 interceptor can only be guided by S-band radar. The U.S. is developing dual-band datalink technology, and the Standard - 3 interceptors can be guided by the forward deployed X-band radar in future.⁶⁵ In fiscal years 2014-2019, the U.S. Missile Defense Agency plans to invest US\$2.28 billion into integrating and upgrading command, control and communication systems.⁶⁶ Once U.S. and ROK missile defense systems are seamlessly integrated, the United States will be able to take over overall command of ROK missile defense systems in wartime.

In summary, while the "software" of U.S.-ROK missile defense cooperation has been steadily improving, the "hardware" of the ROK

missile defense system has become the biggest handicap hindering U.S. attempts to integrate East Asian missile defense systems. For the ROK, the DPRK is its top security concern, and so it has also maintained that its missile defense system should be controlled only by Seoul. It is also sensitive to Chinese strategic concerns and because of that it has been cautious in handling military cooperation with the United States. The ROK Defense Ministry did evaluate the feasibility of introducing a THAAD system, but it still decided to buy two Green Pine radar systems from Israel instead in 2012. These have a detection range of 500 km.⁶⁷ ROK's Aegis ships are equipped with Standard-2 interceptors rather than the Standard – 3 interceptors that have larger intercepting coverage, beyond the Korea Peninsula. So, despite improvements in the “software” of U.S.-ROK missile defense cooperation and an improvement in the sharing of intelligence between the United States and Japan, because ROK's missile defenses systems' early warning and interception range is still limited to within the Korean Peninsula, they are not much use to the United States for dealing with the so-called “Chinese threat”. The United States intends to deploy the THAAD platform and the AN/TPY-2 radar in the ROK for its own strategic interests. The United States is actually forcing the ROK to accept an early warning and defense systems even though it doesn't need them, so that its data can be integrated into the anti-China, U.S.-led East Asian missile defense system.

Conclusion

If the United States deploys its THAAD system in the ROK it will provide a perfect strategic prism through which we can clearly see the country's real intentions. Washington has repeatedly said its missile defense program in the region is not aimed at China or Russia. Both the *Nuclear Posture Review* and the *Missile Defense Assessment Report* published by the United States in 2010 said Washington wanted to work with China and Russia to maintain strategic stability. However, the United States has used the DPRK missile threat as an excuse to deploy ground-based interceptors and early warning radar at home and an X-band radar in Japan. It is not at all clear whether these are aimed at China or the DPRK. Although China has protested these

deployments, it has not yet been able to conclusively prove that these deployments are not exclusively directed at the DPRK. This article has referred to analyses that show that the AN/TPY-2 radar will not improve U.S. early warning capability vis-à-vis the DPRK missiles; rather, it will significantly improve surveillance and early warning capabilities towards China's strategic missiles. The ROK's Green Pine radar is perfectly adequate to give both U.S. troops stationed in the ROK or Japan better missile defense capability vis-à-vis the DPRK. It is easy on technical level because the United States has used its European allies' radar to guide its Standard series of interceptors before.⁶⁸ A U.S. deployment of a THAAD system or an AN/TPY-2 radar in the ROK, despite China's strong protests, would be acting against its declared strategic commitments, which would prove that its missile defense system is aimed at offsetting China's deterrent capabilities. This will harm any development of a new type of major country relations between China and the United States.

It will damage U.S.-China military trust and crisis management if the United States stubbornly pursues absolute military superiority over China and makes moves to improve its capabilities to interfere in China's peripheral areas. Over the past few years, as China's economy has grown, the country has also been investing more in its military. Meanwhile, the United States launched its third offset strategy and is constantly beefing up its strategic capabilities in the region to maintain absolute military superiority over China. As China's military budget approaches that of the U.S. in size, the risk of an arms race and military crisis cannot be ignored. The United States has the advantage over China in terms of conventional forces and also in strategic power, which has encouraged Washington to become arrogant, conducting conventional military reconnaissance near China's territorial waters and air space; in 2013 a U.S. warship broke into a Chinese naval formation. If the United States continues to ignore China's growing military might and security concerns, and orders its military to carry on infringing into China's offshore areas, it is bound to make a

Sino-U.S. military crisis more likely. In particular, as the gap between China's military and those of its neighbors widens, it will become more difficult and more costly for the United States to interfere in any conflict between China and its neighbors. If the United States continues actively interfering in the region it will also send a dangerous signal to Japan, the Philippines and other relevant countries, encouraging them to become more provocative towards China.

The U.S. policy of pushing for an integrated East Asian alliance system is harming regional security. The United States has made a number of bilateral treaties in the region with its allies, and this model is very different from the NATO collective security mechanism in Europe. None of the Asian allies has agreed to any extra security obligations towards the United States or towards any of the other allies. The ROK has always insisted on this. In March 2005, then ROK President Roh Moo-hyun pointed out that Seoul would not allow the USFK to expand its role or get involved in disputes between Northeast Asian countries without ROK's permission.⁶⁹ The ROK Missile Defense Strategy is solely aimed at handling the DPRK threat. It has repeatedly emphasized that U.S.-ROK missile defense interception cooperation should be limited to within the Korean Peninsula. This model is very different from that between Washington and Tokyo, which is focused on intercepting mid- and long-range missiles. This shows that Seoul is unwilling to let the United States use it as a strategic tool. Most recently, a clear diversionary trend has emerged within the U.S.-led Northeast Asian alliance system: the ROK wants a tighter alliance with the sole aim of countering the threat from the DPRK; Japan wants a tighter alliance to help it deal with changes to the Asian power structure and to

support it in its territorial disputes with China; while the United States wants to transform the alliances into an integrated alliance to prop up its military advantages over China. The result of this is a very strong U.S.-Japan bond, and a much weaker U.S.-ROK alliance.

So we see that in addition to countering China, the United States wants a THAAD platform in the ROK to improve its military partnership with the country. But a THAAD platform will do little to improve the ROK's military deterrence with the DPRK rather it will mean it will face greater pressure from China. That is why Seoul has been cautious so far. If the United States ignores Seoul's security concerns and forces it to accept a THAAD platform, then the ROK may end up being part of a stronger U.S.-Japan-ROK security alliance. But at the same time, it may expose cracks in the alliance, push China to take countermeasures, ushering in a new arms race in Northeast Asia and posing a severe test to regional security.

Since U.S. moves in the ROK impinge on China's security interests, China has every right to protest them. China has not forced the ROK's hand in this, rather it is the U.S. pressuring Seoul to give up its own interests to meet the needs of the U.S.-Japan-ROK alliance, which in turn is based on Washington's ambitions to maintain its absolute military superiority in the region. Clearly, the United States is still trapped in a Cold War mentality and it is still acting like a hegemonic power. In contrast, both China and the ROK have been growing closer together and are enjoying stronger strategic trust. The U.S.' next move—whether it will end up forcing the ROK to accept the THAAD platform despite China's strategic concerns – will determine the prospects of Sino-U.S. relations and the security order of Northeast Asia in the future.

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