



ICAS Issue Primer

Topics in US-China Relations

Potential THAAD Deployment in South Korea

On March 4, 2016, The United States and the Republic of Korea (ROK) began talks to discuss the deployment of a US Terminal High Altitude Area Defense (THAAD) system in the ROK. The US has stated a desire to bolster allied defenses against a possible North Korean (DPRK) missile attack. As of May 2016, the ROK government had yet to decide on the matter. The Chinese government has raised objections to the deployment of this technology in South Korea.

What is THAAD?

THAAD is an American ballistic missile defense system (BMD) that integrates an X-band radar, a command and control center, and a missile battery in three road-mobile units. The radar detects incoming ballistic missiles and provides targeting information to the missile launcher. A THAAD missile then intercepts and destroys the incoming ballistic missile in its final or “terminal” stage in high atmosphere or just outside the atmosphere. The system, especially the radar, contains very advanced technologies.

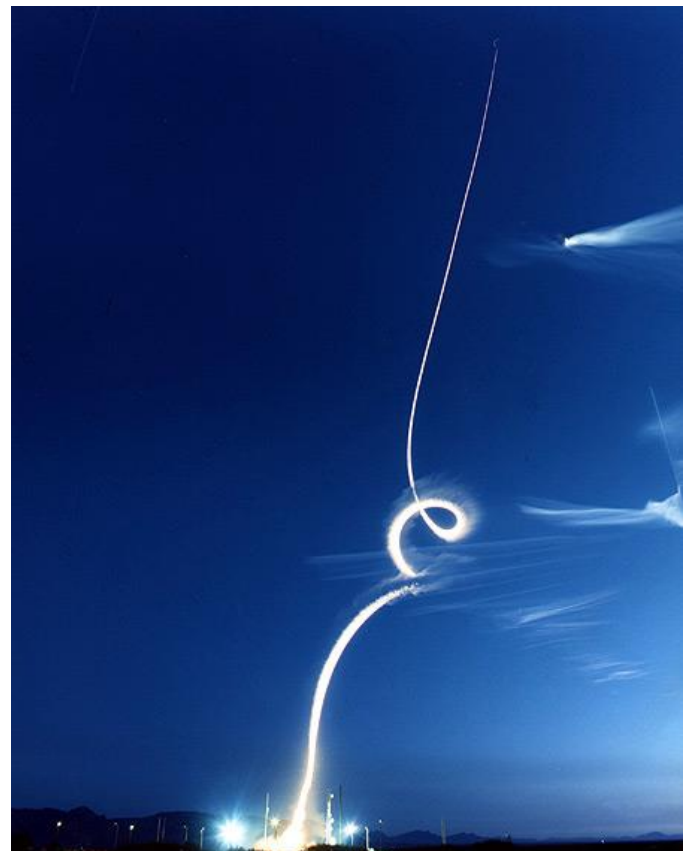
Chinese Concerns about THAAD in South Korea

Chinese officials contend that THAAD threatens China’s legitimate security interests. In February 2016, Chinese Foreign Minister Wang Yi argued that “The deployment of the THAAD system by the United States ... goes far beyond the defense need of the Korean Peninsula” and that it “is not just to defend South Korea, but a wider agenda and may even serve the possibility of targeting China.”

These concerns are grounded in a few Chinese perceptions. First, many Chinese strategists do not consider THAAD to be a suitable defense against DPRK missiles, given the short distances involved and DPRK limitations. Because of this, the assumption is made that THAAD must be intended for some other use. Second, THAAD’s radar is capable of detecting and tracking

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missile launches within parts of mainland China. While a THAAD system in South Korea is not thought to be capable of intercepting Chinese missiles, the THAAD radar can be integrated into other missile defense systems in order to improve their effectiveness by providing early tracking or discrimination information. This presents the possibility of degrading China’s second-strike (retaliatory) nuclear deterrent capabilities. Finally, South Korean participation in an integrated missile defense program would mark a further strengthening of what China often perceives to be American “encirclement” with its alliance system.



The American View

American officials emphasize that North Korea is the sole concern behind a proposed THAAD deployment in South Korea. In the words of the US State Department’s Frank Rose, “North Korea has continued to make quantitative and qualitative advances in its ballistic missile program.” The US believes that THAAD is an appropriate countermeasure to some DPRK missiles. It contributes to a “layered” BMD program that guards against all angles of attack, including a possible detonation of a nuclear warhead at high altitude, which ROK defenses cannot currently prevent.

In response to China's concerns about its nuclear deterrent, American officials have stressed that the US does not intend for any BMD system to counter sophisticated missile systems such as those possessed by China. BMD is meant to counter less advanced arsenals like those of the DPRK or Iran. American commentators and officials have also noted that X-band radars have already been placed in Japan and Alaska, and that a THAAD radar would add very little to US surveillance capabilities over the Chinese mainland. Some Americans have argued that the radars would function in "terminal mode" (scanning for missiles in their terminal phase) and thus would not be able to scan relevant areas of China. Others, like MIT's Ted Postol, have argued that THAAD's radar engages in both functions simultaneously and that it has no distinct "modes." China's recent development of nuclear missile-armed submarines also reduces the value of such surveillance capabilities and ensures the survivability of China's second strike forces.



THAAD's AN/TPY-2 Radar

Background Issues

The THAAD issue touches on the question of nuclear strategic stability. Both the US and China have taken steps recently to improve their nuclear arsenals or to alter their strategies. This has resulted in uncomfortable adjustments in the nuclear relationship. BMD inherently challenges nuclear strategic stability insofar as it raises the possibility, however small, that the possessor of BMD can avoid retaliatory attacks by an adversary. This degrades the adversary's confidence in its deterrent and thus increases the value of preemptive attacks for both sides (strategic instability). While the US and China effectively have a relationship of mutual deterrence at the nuclear level, only China explicitly embraces a "no first use" policy. In the Chinese perspective, the US

manipulates ambiguity in this regard in order to exercise coercion. This perception may frame Chinese interpretations of American willingness to alter the strategic balance, however slightly, with a THAAD deployment.

The THAAD issue also reflects upon problems of mutual mistrust. On both sides of the issue, commentators often impute malign intentions where they cannot understand the motives of their counterparts. Chinese analysts cannot see the utility of THAAD for addressing the DPRK threat and infer the system is thus directed at China. Similarly, Americans who cannot understand Chinese objections to THAAD assume the real issue is that China wishes to limit US/ROK cooperation or American defense capabilities in general.

Going Forward

In a speech in Washington in February 2016, Wang Yi appeared to leave open the door to a constructive discussion. He noted that the decision was South Korea's to make, but also that China's security interests must be taken into account and that China should be provided with a "convincing explanation" from the US and the ROK. In March 2016, US Deputy Secretary of State Antony Blinken announced that he hoped China would accept an offer from the US to have a technical discussion about THAAD's implications for China. The US Army Space and Missile Command's David Mann noted that "It's very, very important that we clarify that that radar, that system is not looking at China." However, China's Ministry of Foreign Affairs has stated that the issue is not merely a technical one. As of May 2016, it wasn't known whether substantive talks had been conducted between the US and China on this issue.

Recommended Resources

- [Theodore Postol and Tong Zhao at Carnegie \(audio\).](#)
- [US Missile Defense Agency on THAAD](#)
- [Teng Jianqun, China Institute of International Studies](#)
- [Tong Zhao at Carnegie-Tsinghua](#)
- [Sungtae "Jacky" Park at CSIS](#)
- [Bruce Klingner at the Heritage Foundation](#)
- [US State Department on US Missile Defense Policy](#)
- [Taylor Fravel on US-China Nuclear Strategic Stability](#)
- [Zhexin Zhang, Shanghai Institutes for International Studies](#)