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DESTABILIZING DEFENSE – HOW BMD ENSURES TENSION WITH CHINA

by

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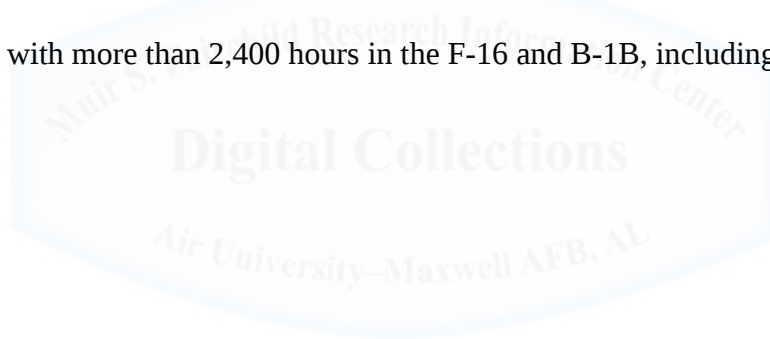
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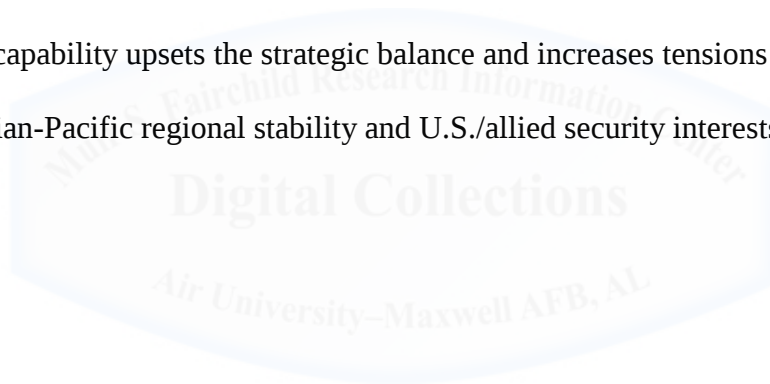
Biography

Colonel William Bowman is assigned to the Air War College, Air University, Maxwell AFB, AL. He received his commission through the U.S. Air Force Academy in 1993 and earned his pilot wings in 1994. Colonel Bowman piloted the B-1B until 1997 then cross-trained in the F-16 where he deployed multiple times in support of Operations Southern Watch and Iraqi Freedom. In 2005, Colonel Bowman was assigned to the Operations Directorate of North American Aerospace Defense Command Headquarters as the NORAD Operations Center Director. He returned to fly the F-16 at Luke AFB, where he commanded the 21st Fighter Squadron until 2011. Subsequently, he was assigned to the 613th Air Operations Center at Joint Base Pearl Harbor-Hickam, serving as the Chief of Combat Plans Division. Colonel Bowman is a command pilot with more than 2,400 hours in the F-16 and B-1B, including 140 combat hours.



Abstract

The United States Ballistic Missile Defense (BMD) Policy states that our BMD system is intended to defend the country against a limited ballistic missile attack by “states acquiring nuclear weapons and other weapons of mass destruction in contravention of international norms and in defiance of the international community” - in other words, against rogue states and actors. It explicitly states that our capabilities are not focused on China or Russia, are not intended to affect the strategic balance with them, and are not of sufficient capacity to deal with Chinese or Russian large scale attacks. Despite the pronounced intention of U.S. policy, the overmatched capability of the US BMD System against even the most inflated assessment of North Korea ballistic missile capability upsets the strategic balance and increases tensions with China, hence complicating Asian-Pacific regional stability and U.S./allied security interests there.



Introduction / Thesis

There is no greater threat to the American people than weapons of mass destruction – so says the 2010 National Security Strategy. As part of its comprehensive strategy for Homeland Defense to mitigate this threat, the United States has committed to a Ballistic Missile Defense System (BMDS) to defend the country against a limited ballistic missile attack by “states acquiring nuclear weapons and other weapons of mass destruction in contravention of international norms and in defiance of the international community”¹, specifically Iran and North Korea. The United States Ballistic Missile Defense (BMD) Policy explicitly states that its homeland missile defense capabilities are not focused on China or Russia, are not intended to affect the strategic balance with them, and are not of sufficient capacity to deal with Chinese or Russian large scale attacks. While the policy rhetoric intends to mollify concerns, the reality of overmatched United States defensive capability against even the most aggrandized rogue state threat indeed upsets the strategic balance with China, hence complicating Asian-Pacific regional stability and U.S./allied security interests there. The United States has inadvertently transmitted confusing, counterproductive signals to China and increased tensions in the Asian-Pacific region by ignoring fundamental elements of deterrent theory. China’s historical contentedness to rely on a minimalist “limited retaliation” nuclear deterrent strategy has been challenged and led to massive expansion of its nuclear arsenal; its mistrust and suspicion of U.S. intent to impede China’s ascendance to world-power status has deepened; and focus on anti-access/area denial (A2AD) capabilities has increased as a counter-intervention deterrent into its perceived regional affairs.

U.S. Policy Background

Since the thawing of the Cold War and the relative decline of the Russian nuclear arsenal, the logic of Mutually Assured Destruction (MAD) that undergirded the United States' strategic doctrine and constrained the bipolar nuclear arms race has given way to a single hegemonic world order and U.S. nuclear primacy. The widening proliferation of nuclear weapons and missile technologies across the globe, especially to rogue states whose framework for rational behavior is questionable, has given reason to refine our strategic deterrent approach with a growing focus on complementary defensive capabilities as a sort of insurance.² The Bush Administration formalized this shift in strategy in 2002 by unilaterally withdrawing from the Limitation of Anti-Ballistic Missile Systems (ABM) Treaty that had held between the U.S. and Russia since 1972. As it stands today, U.S. Ballistic Missile Defense policy is "to defend against limited missile strikes from so-called rogue states, namely Iran and North Korea, on the U.S. homeland or against allies and U.S. forces deployed abroad."³ And while the policy states that this capability is *not* intended to alter the balance of nuclear deterrence with Russia and China, the U.S. consistently reasserts that it will *not* accept limitations on the scale, scope, or capability of the system as part of any confidence building measure.⁴

The 2010 Ballistic Missile Defense Review Report (BMDR) directs the implementation of an Asia-Pacific Phased Adaptive Approach (APPAA), a framework for assessing, prioritizing, and fielding system capabilities tailored to the theater in a coordinated, phased manner.⁵ Modeled after the five-year old European Phased Adaptive Approach (EPAA) which has four clearly articulated phase goals over the next six years, there has been little substantive work done as of yet on a comprehensive Pacific theater-wide plan. The complex regional dynamics undergirded by historical enmity for Japan by many countries has hindered multilateral progress

and led to an ad hoc effort.⁶ The predominantly bilateral security arrangements that characterize the theater make any consensus formal arrangement or integration highly problematic for the foreseeable future.⁷ However benign the explanation, the absence of any coordinated roadmap and transparency with regard to the APPAA is potentially disturbing from a Chinese perspective. Whereas development of the EPAA includes engagement and dialogue with Russia to lend assurance, the lack of similar discussion over the APPAA with China could be construed as an insidious, furtive attempt to build offsetting capability against them under cover of North Korean provocation cycles.

Another complicating factor in regional tensions is the Administration's broader foreign policy "rebalance" to the Asia-Pacific region stated in 2011. Although there has been a lack of any real, substantive force restructuring or policy changes (due in part to significant domestic budgetary issues and sequestration since the announcement), Pacific Command leadership has said that a part of that strategy is focused on engagement and forging regional security cooperation.⁸ In any manifestation of action, it's a harbinger for increased U.S. regional influence and thus in confrontation with China's political objectives and yet another source of skepticism and wariness over U.S. BMD intentions in the region.

U.S. BMD Capabilities

In pursuit of its policy objectives the U.S. has invested heavily in its Ballistic Missile Defense System, an integrated, multi-layered architecture that provides engagement opportunities across the flight profile of various range ballistic missile systems. Beginning from its priority purpose of defending the U.S. homeland, the system includes the Ground-based Midcourse Defense (GMD) element that can target incoming IRBMs and ICBMs from the Pacific. Thirty of the Ground-based Interceptors (GBIs) are currently fielded with an additional

fourteen slated to be operational by 2017. 10 of the 30 missiles have been upgraded with improved kill vehicle payloads that increase target discrimination capability and reliability.

The Terminal High Altitude Area Defense (THAAD) element contains both an X-band AN/TPY-2 radar for high-fidelity target tracking, and a launcher with eight interceptors capable of engaging missiles during the mid-course and terminal phases. Within the Asia-Pacific region, one battery is deployed to Guam. Additionally, though, two separate AN/TPY-2 radars, called Forward-Based X-band radars (FBXs) provide highly-accurate networked sensor coverage for surveilling, tracking, and engaging by other systems in the BMDS. A third FBX is planned for deployment in Southeast Asia in the near future.

The AEGIS BMD system is a ship-borne weapon system consisting of an X-band radar and Standard Missile-3 (SM-3) interceptors currently capable of engaging short- and intermediate-range missiles during mid-course. The Navy's evolution plan for the missile articulated in the EPAA is to have approximately 300 deployed by 2018 with an engagement capability against all missile threat types (including ICBMs) with the SM-3 IIB.⁹ This relocateable counter-ICBM capability is a significant threshold capability and cause for Chinese concern because of the off-balancing regional implications. There are 16 AEGIS BMD ships assigned to the Pacific Fleet with another 11 planned for procurement by 2018.

Although the systems listed above have unique, discrete engagement capabilities and sufficient organic capability to function independently, the strength and formidability of the BMDS comes from the layered mosaic of systems that are networked and integrated together. Sensors (radars) listed above are networked with other early cueing and tracking sources (both terrestrial and space-based) to provide almost perfect surveillance, tracking, and targeting of threat missiles from potential threat areas. Advances in sensor fidelity are sufficient to discern

and discriminate between decoys and other sophisticated countermeasures intended to complicate the defender's solution. Improvements to battle management software; Tactics, Techniques, and Procedures (TTPs); and upgraded interceptors; have improved the efficiency and coordination between system elements and reduced wasteful overlap and redundant targeting. With fewer required interceptor missiles per salvo (shots per threat missile), the fielded arsenal increases its engagement capacity and "thickens" the defensive shield with every improvement.

Threat Assessment – North Korea

With U.S. BMD policy and capability focused solely on rogue actors, it is instructive to assess the missile capability extant in the region. North Korea has a large arsenal of ballistic missiles capable of targeting South Korea and Japan on the order of several hundred according to a 2013 DOD report.¹⁰ This mix of short- and medium-range missiles is fairly inaccurate and has limited effectiveness when mated with conventional warheads. Intelligence on North Korean long-range and nuclear warhead capability is more diverse and contested since little flight testing has been observed. Pyongyang has stated that new medium-range (MRBM), intermediate-range (IRBM) and mobile intercontinental ballistic missile (ICBM) systems are operational. Although new unverified systems have been observed in public parades, many analysts assess them to be mock-ups and the latest DOD report does not list them in their assessed inventory. As with development of a credible ICBM, an operational IRBM capability such as their claimed road-mobile Musudan system, changes the BMD calculus for the U.S. because it puts the U.S. territory of Guam at risk. Regardless of true current operational system efficacy, North Korea continues to conduct activity in an effort to progress its ballistic missile program against United Nations Security Council prohibitions. There is evidence that rocket motor testing has taken

place on several stages of the new road-mobile KN-08 ICBM, although little else is known with certainty. In 2012, North Korea conducted two space launches with satellite payloads – events that some analysts say contribute heavily to ballistic missile technology development. Although the second Unha-3 rocket was successful in delivering its payload into space, other experts disagree on the relevance and transferability of learned technology to the progression of their fixed ICBM system that utilizes the same rocket body, the Taepo-Dong-2. What is incontestable is that functional re-entry technology – unique to ballistic missile weapon systems, adds levels of complexity compared to space delivery systems and cannot be tested during space launches.¹¹ Although a 1999 National Intelligence Estimate noted 2015 as the date by which North Korea could demonstrate a successful ICBM launch, more recent analysis concludes that a robust, observable flight-testing program over several years involving dozens of test launches would necessarily precede a viable, operational program¹² – activity that has thus far failed to materialize.

Aside from the low likelihood that North Korea even possesses the capability for long-range ballistic missile delivery, is the similarly questionable claim to possession of a nuclear weapon suitably miniaturized for missile mating. While the intelligence community assesses that North Korea probably has enough plutonium for a couple of weapons, the Director of National Intelligence stated in April 2013, “North Korea has not yet demonstrated the full range of capabilities necessary for a nuclear armed missile.”¹³ Even at the most inflated end of optimistic assessment, the totality of the strategic missile threat against the United States from North Korea would not be more than one or two highly unreliable, rudimentary missiles without sophisticated countermeasures or multiple warheads – against which the current U.S. GMD system has demonstrated more than sufficient capability.

Implications for China

Broadly speaking, the effectiveness of a missile defense system is technically driven by the ability to find and track incoming threats, and the kinematic ability of an interceptor missile to reach a threat missile.¹⁴ Given the current and planned capability of U.S. GBI and SM-3 IIA/B missiles, the concern over U.S. ability to intercept Chinese ICBMs and future SLBMs is real. It is the second and more technically-challenging aspect of BMD that forms the strongest technical basis for Chinese alarm – the positioning and capability of our sensors. With deployment of the third FBX in Southeast Asia, unclassified analysis shows that detection and tracking of all Chinese nuclear missiles is possible.¹⁵ The strategic implication is not only increased engagement time and space for the U.S., but that sensors are able to track the decoy-deployment process in the midcourse phase and effectively discriminate and identify warheads.¹⁶ Although not a part of the BMDS, China also regards Taiwan's Phased Array Warning System (PAVE PAWS) AN/FPS-115 as complimentary to the U.S. capability because of our close associations.¹⁷ Open-source reports quoting Taiwan legislature and senior defense officials corroborate this perception and presumption of data sharing with the U.S.¹⁸ This highly-capable early warning radar was completed in 2012 by U.S. contractors and is similar to systems with the U.S. BMDS.

Given a technical basis for Chinese concern, it is contextually important to understand the original motivations that drove China to pursue a nuclear weapons capability; “a series of militarized crises against the United States in which China's leadership believed it was held hostage by American nuclear blackmail.”¹⁹ Shaped by these frustrating regional events in the 1950's, China aggressively focused effort on a nuclear weapons program and became a recognized nuclear power in 1967. Unlike other members of the exclusive nuclear club, China's

strategic culture developed vastly different from the United States and has changed little over time in its policy objectives. Chinese nuclear posture has always been based on two premises; a “no first use” policy and a “minimum deterrence” capability which ensures that some second-strike capability exists for retaliation.²⁰ With only a handful of large-yield ICBMS, even one second-strike missile getting through to an antagonist was deemed “devastating” enough to maintain nuclear deterrence.

A 2013 DOD report assesses their nuclear capability at around 50 silo-based and road-mobile ICBMs with additional modern systems coming online by 2015.²¹ However, Chinese nuclear forces are not maintained in an alert status and not fueled. Additionally, while they are looking to develop sea-based capability with a class of ballistic missile submarines, they do not yet possess the quiet technology required to make this a credible deterrent. This steady build-up and modernization is directly attributed by China as a response to U.S. BMD development in their effort to maintain credible deterrence.²²

Over the last 30 years, examination of Chinese documents and dialogue showed a period of concern and review of their nuclear deterrent strategy and force structure in direct response to the United States’ improved offensive capability and initiation of a national missile defense system.²³ Although robust dialogue occurred during this time period about potentially shifting to a broader, “superpower-style” deterrent force structure that gave more flexible options and would necessarily have to reconsider the sanctity of the “no first-use” policy, recent policy pronouncements and modernization actions indicate a much more subtle development.²⁴ In what is termed “assured retaliation”, China still narrowly limits the value of its strategic nuclear force to nuclear defensive deterrence, but nonetheless is being forced to modernize its force to ensure 1) survivability against an increasingly capable U.S. strike capability, and 2) penetration lethality

against missile defensive systems.²⁵ Although assessed to have the technological capability to upgrade its missiles with multiple reentry vehicles (MRV) and multiple independently targetable vehicles (MIRV) for the last twenty years, it is widely believed that China previously had chosen not to upgrade its nuclear ICBMs.²⁶ In its effort to maintain “assured deterrence”, their modernization program now likely includes upgraded MRV/MIRV warheads, as well as other penetration aids and decoys that are intended to frustrate targeting by missile defenses. While much early literature on ballistic missile defense and deterrence theory highlights the complexity of targeting incoming missiles and the ease of complicating target discrimination as the Achilles Heel of BMD (and thus why it doesn’t destabilize nuclear parity), the advances in U.S. sensor and engagement capability have been steady and threaten China’s “assured deterrence”.

Although China has showed great consistency and restraint in maintaining a minimalist defensive nuclear culture absent any offensive warfighting thought or doctrine, that determination could change if their “assured deterrence” is continually at risk and the suspicion of U.S. aggressions are stoked. To that end, recent overseas interventions help fuel the opinion that the U.S. has a proclivity to coercively strong-arm on regional issues – an unsettling factor when China looks to protect its vital national interest in Taiwan.

Up to now, the external security environment for China is postulated to largely account for their disinterest in a more aggressive, robust nuclear posture that would potentially increase global leverage through an increased ante.²⁷ Without a proximate existential threat to their homeland, risks to national/strategic security have been small and sufficiently offset by scale of their conventional force to negate serious retooling of China’s deterrence-only nuclear policy. With regards to the issue of Taiwan, China has heavily focused on conventional force overmatch to counter any intervention on the part of the United States or its allies in a dispute viewed as a

vital national interest for China. That conventional force is largely composed of SRBMs and other missile systems capable of ranging potential intervention forces based in the region. To the extent that the U.S. ballistic missile defense capabilities deployed in the region under the guise of North Korea deterrence also defend against and disrupt the conventional deterrent balance that China views it has over Taiwan, it has the worrying potential to change Chinese strategic calculus and consider a bolder nuclear deterrence posture as a necessary option. If this normative escalation is not checked or considered, it has the potential to find us in a game of nuclear brinksmanship with someone who has an arguably higher stake in Taiwan. Compounding their frustration, China contends that BMD is emboldening separatist rhetoric and sentiment on Taiwan (even in the absence of any official U.S. policy of extended deterrence)²⁸, a potentially dangerous upset to the tenuous status quo which the U.S. plays politically neutral.

Adding to U.S. concerns is the massive conventional arms buildup focused on a strategy of anti-access/area denial (A2AD) that is fundamentally based on countering American military dominance in global power projection and perceived “meddling” in China’s region. The continued development, deployment, and efficacy of the BMD architecture, particularly on Japan who China views with historic suspicion, in a manner that exceeds the threat posed by North Korea, has fueled the build-up of Chinese missile systems and other conventional forces capable of projecting force throughout the region. This change in conventional power balance also exacerbates regional actor tensions in the East and South China Seas over long-disputed island sovereignty claims and access to undersea resources. But to better build the correlation between the burgeoning conventional arms race and BMD requires further examination of China’s singular fixation with Taiwan.

According to Chinese Peoples Liberation Army (PLA) members and researchers participating in a Defense Threat Reduction Agency-sponsored Strategic Dialogue, Taiwan stood alone as an area of “potential U.S.-China conflict that might be linked to nuclear relations”.²⁹ Coupled with the fact that China sees U.S. political “rebalancing” and developments in Air-Sea Battle (ASB) as causal U.S. provocations in the growing conventional arms race (*not* their own pursuit of A2/AD technology),³⁰ the role of U.S. BMD, as vague as it is to differentiate between tactical and strategic use, can be sensibly linked to their motivations and concern. With intervention deterrence in doubt – due to growth of U.S. military power in the Pacific and missile defense capability – the pursuit of conventional A2/AD strategy is a logical alternative and counter capability to maintain strategic stability and preservation of an interest vital to national survival. In support of this correlation, one Chinese official commented that “with cross-strait relations on the mend, the utility of A2/AD and ASB should wane”³¹, suggesting that the winds in the sail of the arms race should logically subside if tensions with Taiwan wither. However unlikely that line of logic, it does suggest that in some measure, the neutralization of Chinese nuclear deterrence by a growing primacy in U.S. nuclear power (to include BMD), has underwritten the growing conventional arms race that challenges U.S. asymmetric advantage.

Counterarguments

One of the historic arguments against the destabilizing effects of missile defense on the strategic balance between nuclear superpowers rests on the notion of offensive-defensive asymmetry. This is to say that the technical effectiveness and reliability demanded of defensive systems is far greater than that required for credible offensive weapon systems.³² Thus, the scale and magnitude of a ballistic missile shield that could wholly negate the deterrent threat of another nuclear superpower’s arsenal is untenable and thus isn’t cause for destabilization. The

rapidity and aggressiveness of the Phased Adaptive Approach, primarily in the European theater but also driven by requirements from Pacific Command, as a mechanism for prioritizing system upgrades and development of the overall U.S. BMDS, is close to relegating this argument obsolete – certainly in the context of rogue actor threats to the homeland, and perhaps with the limited nuclear force of China. With decades of technical refinement on the difficult challenge of finding and hitting a threat missile warhead at closure speeds in excess of 4 miles per second (15,000 miles per hour!)³³, the confidence in competence and effectiveness of our BMD is far higher than the confidence in ICBM threat projection credibility of either North Korea or Iran – even with their most inflated capability assessment. Thus, technical offense-defense asymmetry as an argument against destabilization shows weakness and does little to assuage Chinese apprehensions.

China assuredly recognizes the reduced penetration probability of its missile force and is pursuing modernization efforts to capitalize on this asymmetry principle, but is understandably troubled with the current strategic balance. With increased precision and yield of its modernized nuclear force, the U.S. missile defense capability near-perfectly enhances the *offensive* counterforce effectiveness and dominance over China and thus introduces higher opportunity for crisis instability in the way of miscalculation or misinterpretation.³⁴ U.S. nuclear primacy thus presents a stability conundrum nonexistent with MAD during the Cold War, and gives additional incentive for China to expand and modernize its arsenal to rectify their nuclear disadvantage.³⁵

From a psychological vantage point, much debate has occurred over the basis for discounting rational deterrence models in dealing with rogue actors and thus rationalizing national missile defense. One compelling argument holds that irrespective of whether “rogue” regimes act rationally or not, credible national missile defense negates any coercive deterrent to

United States conventional response or intervention in the case of aggressive, hostile action.³⁶ This position argues that BMD is central to “protecting and enhancing U.S. bargaining leverage in places like...Taiwan, and North Korea”³⁷ and partly solves the problem of “how best to prevent them from thinking they can deter the U.S. or NATO from launching a human security intervention.”³⁸ In making the case for unilateral missile defense, proponents acknowledge the signal to China among others, but ignore the deleterious impact to stated BMD policy objectives. With a nuclear ICBM force far inferior to the United States and potentially negated in whole by our homeland missile defense capability, it is perceived as a carte blanche for the U.S. to forcefully pursue regional interests in another hegemon’s near-sphere without the tempering, stabilizing effect of mutual vulnerability. This vein of reasoning is part and parcel to theorist Robert Powell’s criticism of a national missile defense initiative and the caution of realist thinkers; that American foreign policy may be emboldened or have increased proclivity for offensive action, and thus actually weaken its national security.³⁹ Without the peril or exposure to strategic missile threat, the risk-reward decision is too appetizing to attenuate tendencies towards “foreign adventurism” or liberalism.

Mitigation

From the White House press release on the European Phased Adaptive Approach, deliberate measures are being undertaken to maintain the strategic stability with Russia that can be instructive for how to deal with China. “We also welcome Russian cooperation to bring its missile defense capabilities into a broader defense of our common strategic interests. We have repeatedly made clear to Russia that missile defense in Europe poses no threat to its strategic deterrent”.⁴⁰ As part of its effort to assuage Russian concerns, other confidence-building measures are being considered to demonstrate transparency and alignment with U.S. policy

claims of rogue state focus.⁴¹ Integration or coordination of early-warning systems, information sharing, interceptor performance data monitoring, and joint development of interoperable systems⁴² are all forms of measures that run the gamut from ambitiously accommodating to small transparency concessions, but are scalable and could alleviate suspicions and assure a concerned China.

As difficult as it is to parse out the “strategic” elements of the U.S. BMDS which protect only the homeland, there are technical concessions to be considered if we are serious about assuring China and Russia that upsetting the strategic nuclear balance is not intended. Early missile technology and distinct physical performance characteristics required to counter threat missiles across the spectrum of range classes (e.g. SRBM, MRBM, ICBM...) made demarcation of defensive systems between tactical and strategic use plausible as a mitigation measure for strategic stability and diplomatic assurance. However, the mobility of our AEGIS platforms coupled with advancing performance capability of our SM-3 interceptor missiles across the range of threat missile types makes that differentiation of BMD more problematic.⁴³ Since the GBIs based in Alaska and California are only capable of intercepting long-range ICBMs directed at the Continental United States or Hawaii from rogue states, there is an opportunity to limit the capability and number of those interceptor missiles to match the credible threat. As previously outlined, even if North Korea were able to salvo two to three rudimentary ICBMs with unitary warheads, the existing GBI capability is overkill. Willingness to make concessions and understand the Chinese perspective is required to avoid the cycle of distrust and arms buildup. As Alexei Arbatov argues of the simmering tensions with Russia over the European Phased Adaptive Approach BMD program, the “essence of the BMD issue is that it cannot be tackled as an organizational or technical problem.”⁴⁴ Rather, he asserts, it requires a coherent, elaborate

policy that focuses on mutual security interests and cooperation – a wider and more improbable gap with China.

Finally, in order to continue in consonance with the policy objective of not altering the nuclear strategic equilibrium with China while at the same time progressing capabilities with decidedly opaque, capable, and flexible defensive utility; then the U.S. must expect and categorically accept the buildup and modernization of Chinese force structure (both conventional and nuclear) as a realistic response consistent with their security requirements.⁴⁵

Conclusion

As Senator Sam Nunn once proclaimed, “National missile defense has become a theology in the United States, not a technology.”⁴⁶ In pursuit of the ultimate protective umbrella, we must be cognizant of inadvertent consequences and risk, and continue to intellectually explore deterrent theory as global power dynamics shift. Lacking mindfulness of others’ security concerns and dilemmas, over-building BMD capability disrupts the strategic nuclear balance between legitimate, stable powers and contributes to distrust of U.S. motivations and intentions. Stated policy must address, not ignore, the realities of an extraordinary capability fielded against the purported rogue actor threat. Failure thus far to do so has increased tensions in the Asia-Pacific region and contributed to a de facto conventional arms race that challenges our signature military competency and advantage – global power projection. China’s strategic nuclear forces and nuclear strategy are modernizing and growing in a race to stay relevant, and their perceived leverage required to keep Taiwan from separating – a priority vital interest – is being diminished. Regional tensions over disputed sovereignty issues are rising with U.S.-aligned actors potentially emboldened by the supposition of extended deterrence and protection. These are the unintended consequences of a U.S. BMD program lacking comprehensive smart policy guidance and

continuing to spirally develop absent a credible threat. If the global audience is to believe that rogue actors are the sole focus of our homeland ballistic missile defense, then the U.S. needs to back its words with tangible assurances of policy and actions, lest we miss the opportunity to shape the strategic environment in a constructive, positive way.



Notes

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- ⁹ Ian E. Rinehart, Steven A. Hildreth, Susan V. Lawrence, 9.
- ¹⁰ Ian E. Rinehart, Steven A. Hildreth, Susan V. Lawrence, 5.
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- ¹⁶ Wu Riqiang. 8.
- ¹⁷ Wu Riqiang. 7.
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²¹ Ian E. Rinehart, Steven A. Hildreth, Susan V. Lawrence, 7.

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²³ Vipin Narang, 131.

²⁴ Vipin Narang, 131.

²⁵ Vipin Narang, 132-133.

²⁶ Vipin Narang, 135.

²⁷ Vipin Narang, 135.

²⁸ Ian E. Rinehart, Steven A. Hildreth, Susan V. Lawrence, i.

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⁴² Alexei Arbatov. 352.

⁴³ Alexei Arbatov. *Strategic Asymmetry and Diplomacy*. From Google Scholar (accessed 28 September 2014), 358.

⁴⁴ Alexei Arbatov. 358.

⁴⁵ Charles L. Glaser and Steve Fetter. "National Missile Defense and the Future of U.S. Nuclear Weapons Policy." *International Security*, vol. 26 (Summer 2001): 44.

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