

THE FUTURE OF US EXTENDED DETERRENCE IN ASIA TO 2025

by Robert A. Manning



Atlantic Council

BRENT SCOWCROFT CENTER
ON INTERNATIONAL SECURITY

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FOREWORD

Featuring a \$20 trillion economy and military spending that now surpasses that of Europe, the Asia-Pacific region is a priority in US foreign policy. Yet the region is filled with more uncertainty than at any time since the Vietnam War, with strident nationalism on the rise, unresolved historical grievances, competing territorial claims, and new military capabilities that could alter the strategic stability of the region. Much of this is driven by concerns about the trajectory and intentions of a reemergent China.

All this underscores the importance of American leadership and US extended deterrence in East Asia, the linchpin of regional security. East Asia is home to two nuclear powers—one recognized (China) and the other not recognized (North Korea), and two United States treaty allies in Japan and South Korea that also host US troops and military bases.

Unprecedented challenges to US maritime access in the region and the emerging global commons of space and cyber pose growing trials over the coming decade. A degradation of the credibility or capability of US extended deterrence as a result of these changes to the strategic environment could lead Japan and South Korea to develop their own nuclear capabilities, weaken the American presence in the region which underpins regional security, and increase the probability of military conflict.

The Asia-Pacific region has become the focal point of US strategy and defense policy following the release of the Obama administration's defense guidance in January 2012, a harbinger of the administration's decision to 'rebalance' to Asia. This has prompted a great deal of reflection on what this means for US relationships with both allies and adversaries in the region and around the world. A renewed US diplomatic emphasis on the region, new US-led political and economic initiatives, and adaptations to the posture of US conventional forces in Asia have impacted how the United States is viewed in the region. Adversaries like North Korea, ambivalent partners such as China, and allies like South Korea and Japan are all struggling to understand what the new US focus on the region means for their overall security.

All of these regional dynamics, along with rapid technological change, make for a rapidly evolving strategic environment in East Asia, one which could upset the strategic balance and test the credibility of US extended deterrence in East Asia. Deterrence is a product of credibility and capability, and the new political, military, and technological elements in the region assessed in this report threaten to disrupt the strategic balance and perhaps alter perceptions in the region. It is because of these potentially disruptive factors to US extended deterrence in East Asia that the Atlantic Council proposed to undertake this study.

This report contains analysis of the implications of the evolving strategic situation in East Asia, the perspectives of key East Asian actors on how this affects the credibility of US extended deterrence in the region, and recommendations on how the United States and its allies can enhance strategic stability in light of the findings from research and consultations in the US and East Asia.

The Council formed a task force, co-chaired by Richard Armitage and Kurt Campbell and ably directed by Council Senior Fellow Robert A. Manning, which convened regularly to discuss topics relevant to the future of US extended deterrence in East Asia. The Task Force also took two fact-finding trips to East Asia. The Atlantic Council would like to thank the ASAN Institute in South Korea and in Japan, the Japan Institute for International Affairs, and the Tokyo Foundation for organizing workshops and dialogues to engage with senior officials, experts, political leaders, and other opinion-makers. We would also like to express our gratitude to the China Institutes of Contemporary International Relations, China Foundation for International Strategic Studies, the Shanghai Institute for International Affairs, and Fudan University for arranging workshops in Beijing and Shanghai. This report was made possible thanks to generous funding from the John D. and Catherine T. MacArthur Foundation, with additional support from the Taipei Economic and Cultural Representative Office in the US, and the Sasakawa Peace Foundation and the participation of experts from US and foreign government agencies, think tanks, and leading universities.

This effort fits into the broader goal of the Atlantic Council's Brent Scowcroft Center on International Security. The Center aims to reflect the ethos and living legacy of its namesake, General Brent Scowcroft, by engaging international allies and partners on strategic matters and providing advice and recommendations to policymakers to strengthen regional and global security. The Scowcroft Center builds on the longstanding Atlantic Council tradition of advocating for vigorous US international engagement with allies and partners; this report successfully advances that mission through recommendations that strengthen the credibility of the US commitment to Asian allies' security and defense in a very dynamic and challenging time.



Frederick Kempe
President and CEO
Atlantic Council

EXECUTIVE SUMMARY

US extended deterrence in Asia, involving the full spectrum from nuclear to conventional capabilities, faces an array of new challenges. Indeed, a dynamic, volatile, and more complex security landscape in the Asia-Pacific and globally has heightened regional security concerns and given deterrence and strategic stability a renewed importance in the period extending to 2025.

Effective extended deterrence has several components relating to allies, adversaries, and potential adversaries; it consists of deterrence itself, assurance, and to some extent reassurance. Credible extended deterrence convinces adversaries that the risks of aggression far outweigh any benefit. Assurance is related to, but not identical to, deterrence: it is a policy objective seeking to convince an ally of the United States' ability to fulfill its security commitments. The United States should seek to clearly assure potential adversaries that the intent of US military capabilities and deployments is to protect allies, not to destabilize or threaten the country in question, so long as it abstains from any aggression.

The United States has defense treaties with thirty-two nations worldwide, including twenty-seven collectively in NATO, plus bilateral defense treaties with Japan, the Republic of Korea (ROK), the Philippines, Thailand, and Australia. There is some variation in US commitments in East Asia: while the United States is committed to the Philippines under a mutual defense treaty, it is also committed to the security of Taiwan under the Taiwan Relations Act (though in both cases the US commitment is ambiguous). While new tensions could lead to cross-straits conflict or security concerns in Southeast Asia, the current concern about extended nuclear deterrence focuses more on Northeast Asia. For this reason, the Task Force chose to focus principally on the cases of Japan and the Republic of Korea.

The greatest current challenge to extended deterrence in the Asia-Pacific is in these gray areas of small incursions and provocations, dubbed "tailored coercion," wherein China and, to a lesser extent, North Korea initiate actions against US allies that are viewed as falling well below the threshold of nuclear deterrence or even a conventional US military response. Through a combination of small civilian and military maritime actions combined in some cases with trade, investment, and diplomatic measures to "create facts" on disputed islets, China is pursuing an irredentist policy, asserting claims that appear inconsistent with the Law of the Sea Treaty that it has signed and ratified. It is this pattern of Chinese behavior,

an accumulation of small acts, that is eroding American credibility and requires constant US policy attention, a demonstrable response, and political-military resolve.

These developments require a new, twenty-first-century concept deterrence in Asia at an historical moment when the United States still dominates the global commons (maritime, air, cyber, and space) but finds its dominance increasingly contested, when a wider spectrum of nonmilitary and nonnuclear tools factor into the deterrence equation, and when the force being deterred is an economic partner as well as strategic competitor—not necessarily an adversary.

While US nuclear capability remains at the core of extended deterrence in Asia, nonnuclear factors play an increasingly

important role in shaping twenty-first-century extended deterrence. In addition to capable conventional forces, nonnuclear elements of credible deterrence range from nonmilitary instruments such as economic

sanctions (e.g., as used against North Korea, Iran, and most recently Russia) and the role of economic engagement in assurance, to military instruments that include ballistic missile defense, the cyber and space domains, and new conventional technologies such as directed-energy weapons.

NONNUCLEAR FACTORS PLAY AN INCREASINGLY IMPORTANT ROLE IN SHAPING TWENTY-FIRST-CENTURY EXTENDED DETERRENCE.

Key Findings

One long-term challenge is fostering a framework for strategic stability with China to manage or ameliorate strategic competition. This could include a set of understandings and/or agreements that create a stable, more predictable military balance to foster mutual strategic restraint in the nuclear, cyber, and space domains. Whether or not some elements of strategic stability with China are realized, the Task Force concluded that the future of extended deterrence rests on three essential pillars:

US credibility as a global and Pacific power. America's leadership; its relative economic vitality, highlighted

by the new US role as a leading oil and natural gas producer; along with a renewed emphasis on the Asia-Pacific all have reinforced American credibility in the region.

A Counter-antiaccess Area-denial (A2AD) network.

If China's assertive behavior continues, in addition to AirSea battle capabilities, the possibility of a US-led counter-A2AD network will become increasingly feasible. Many of the elements that would comprise it can begin to be put in place now. While no formal collective security arrangement is likely, coordinating activities, forging a collaborative security network built on the foundation of US bilateral alliances, and strengthening security partnerships with key ASEAN maritime states (e.g., the Philippines, Indonesia, Malaysia, and Vietnam) could effectively put in place a security network able to respond to Chinese A2AD threats.

Investment in smaller, cheaper, and more resilient capabilities and transformational technologies. This requires reviewing defense spending and acquisition plans to ensure that they are enabling counter-A2AD capabilities—submarines, UAVs and smaller, faster, and stealthy strike platforms, along with diversifying bases to which the US has access—could be one component of such a strategy. Looking to 2025, relatively modest investments in transformational technologies could make the critical difference.

POLICY RECOMMENDATIONS

- **Clarity in US Strategic Doctrine and Nuclear Declaratory Policy:** Despite an overall effort to reduce the role of nuclear weapons in US strategy, it is essential that the United States continues to adhere to and publically proclaim its nuclear umbrella in support of its allies in the Asia-Pacific. A key component of this effort will include official declaratory statements from the highest levels of government, including from the president. While it is critical for the United States to reassure its allies, these statements must also address domestic audiences in order to ensure the American public's understanding and support for an ambitious policy in the Asia-Pacific region.
- **Enhanced Strategic Dialogues with Allies and Friends in Asia:** Sustained interactions with allies in the Asia-Pacific are critical to maintaining the region's confidence in the US commitment to conventional deterrence. In addition to the Extended Deterrence Dialogues (EDDs) with Japan and the Republic of Korea (ROK), the United States has expanded the scope of these discussions to capture broader security elements, including missile defense, space, cyber, and contingency planning. The EDDs play an important assurance role and create a greater sense of enfranchisement. It is important to keep sustained US high-level focus on EDDs to avoid complacency and bureaucratic inertia. Moreover, efforts to increase strategic dialogues with other friends in the region such as Australia, Singapore, the Philippines, and—in the future—Vietnam will play a critical assurance role and foster a greater sense of enfranchisement among US allies in the region.
- **Update the US-Japan Alliance:** The current process of defining new US-Japan Defense Guidelines offers an important opportunity to deepen the alliance. It should be a venue to improve early warning and response as well as intelligence sharing; clarify gray area sharing of responsibility and understandings on escalation ladders; create a permanent crisis management mechanism and better integrate planning; coordinate security cooperation with third countries (e.g., the Philippines or Vietnam); and enhance defense-industrial cooperation to develop emerging technologies.
- **Comprehensive Strategic Stability in Engagements with China:** Any effort to establish strategic stability in Asia requires more high-level engagements with China. Given the growing distrust on both sides, exacerbated by maritime security tensions and cyber security practices, a deep and sustained commitment to establishing “rules of the road” between the United States and China will be vital in order to avoid miscalculations and mitigate potential escalation scenarios. A productive engagement strategy with China will require a comprehensive approach that includes military-to-military dialogue; increasing discussions on nuclear forces, cyber, space, and intelligence cooperation; and general exchanges between civilian leadership to identify areas of practical cooperation in military confidence building, development, energy security, and disaster relief.
- **Protect US Conventional Force Shifts to Asia, as Articulated by Senior Officials:** US policy should underscore the statements made by senior officials on US force posture in the Asia-Pacific. Former Secretary of Defense Panetta stated a goal to shift 60 percent of Navy forces to the region by 2020; Secretary Hagel reaffirmed this commitment during the 2014 Shangri-La Dialogue, adding that the Air Force will also aim to redeploy 60 percent of its fleet to the region by the same target year. US officials should ensure that these commitments are protected, sustained, and made abundantly clear in every document, assessment, and high-level statement.

- **Investments in Key New Technologies and Capabilities:** Relatively modest investments in emerging conventional technologies have the potential to realize transformative returns on bolstering extended deterrence capabilities. An estimated annual investment of \$300 million into advanced research and development concepts could provide US conventional forces with greater capacity and efficiency to deter aggression through the widespread deployment of electric lasers, rail guns, and next generation electronic warfare systems by fiscal year 2018.
- **Underscore Essential Economic and Energy Aspects of US Engagement and Deterrence:** In addition to sustaining high-level political engagements, US leadership will increasingly be judged on its commitment to economic engagement in the region. Within this context, the successful conclusion of the Trans-Pacific Partnership negotiations, particularly with regards to the US-Japan bilateral agreements, will serve as a key indicator for forward momentum. On a parallel track, the United States should consider expediting the approval for gas exports—especially for liquefied natural gas processing facilities on the West Coast—and revamp the outmoded 1970s architecture of laws and regulations curbing oil exports. The expansion of the US role as a provider of energy security to its allies and the region writ large would strategically enhance the US posture in the Asia-Pacific.
- **US-ROK:** The planned 2015 transfer of command of the UN Combined Forces Command from US to ROK leadership, known as OPCON, has been postponed by mutual agreement. There is no urgency in such a change, and there is concern in the current security climate that an OPCON transfer might be misperceived by Pyongyang and others as signaling a US retreat. Deliberations on OPCON should proceed cautiously, and both sides should be confident that conditions have been met, with the objective of sustaining net capabilities.
- **Cyber and Space:** A US-ROK statement that they reserve the option to respond to any hostile cyber action that damages critical infrastructure or results in loss of life with kinetic countermeasures could have some deterrent value. A similar policy formulation in regard to the destruction of space assets also may be worth exploring. More broadly, the United States should extend the dialogue on a Space Code of Conduct to like-minded nations in the Asia-Pacific, and place it on the agenda of the East Asia Summit.

TABLE OF CONTENTS

Introduction	1
The Security Environment	5
Reassuring Japan	10
Reassuring Korea: The US-ROK Alliance	12
Space and Cyber	15
Recommendations	18

INTRODUCTION

The cornerstone of stability in East Asia is increasingly endangered. For nearly seven decades, US security assurances, marked by a firm commitment and a credible presence, have underpinned stability in East Asia. That stability has helped enable a nearly twenty-fold rise in the region's GDP since 1950. As of 2014, East Asia's GDP stood at approximately \$20 trillion as the region has become the fulcrum of the world economy. Extended deterrence remains a cornerstone of regional stability, but accumulating pressures put it in jeopardy.

US extended deterrence in Asia, involving the full spectrum from nuclear to conventional capabilities, faces an array of new challenges. Indeed, a dynamic, volatile, and more complex security landscape in the Asia-Pacific and globally has heightened regional security concerns and given deterrence and strategic stability a renewed importance in the period extending to 2025. Sustaining credible deterrence in the twenty-first century is far more complex and multidimensional than it was during the Cold War.

Effective extended deterrence has several components relating to allies, adversaries, and potential adversaries; it consists of deterrence itself, assurance, and to some extent, reassurance. Extended deterrence is designed to persuade adversaries not to attack US allies by convincing them that any attack would be unsuccessful and/or would be met with retaliation that causes unacceptable damage. In short, credible extended deterrence is about convincing adversaries that the risks of aggression far outweigh any benefit. Assurance is related to, but not identical to, deterrence: it is a policy objective seeking to convince allies of the US commitment and ability to defend them. Just because an adversary is deterred does not entail that an ally is necessarily assured. Allied concerns range from entrapment (getting dragged into a US war) to abandonment. The United States should seek to clearly assure potential adversaries that the intent of US military capabilities and deployments is to protect allies, not to destabilize or threaten the country in question, so long as it abstains from any aggression.

During the Cold War, extended deterrence was largely one-dimensional: it was based primarily on the US-USSR nuclear standoff and the resulting balance of terror. It took more than fifteen years and near cataclysmic confrontations in Berlin and in Cuba, but the United States and USSR gradually developed mechanisms for managing strategic competition (e.g., arms control) and

through Mutual Assured Destruction (MAD). A stable balance was created, and the US nuclear umbrella covered allies in Europe and East Asia. Moreover, extended deterrence was concentrated at the existential level.

Now, US extended deterrence in East Asia is far more complicated both in the particular dynamics of each bilateral alliance and the complexity of threats each faces, the elements of credible deterrence, and the multiple new challenges to it.¹ This means simultaneously deterring North Korea and China while tailoring deterrence to the distinct threat calculus of allies and their below-the-nuclear-threshold deterrence concerns. Unlike in the Cold War, there is far less likelihood of a "Fulda Gap" scenario of large-scale troop formations pouring across a border and initiating a major conflagration, and greater chance of below-the-threshold "gray area" local territorial disputes that US allies view as a test of deterrence.² Thus, below the nuclear level, extended deterrence also consists of credible conventional and other capabilities and resolve of the United States and its allies.

The United States has defense treaties with thirty-two nations worldwide, including twenty-seven collectively in NATO, plus bilateral defense treaties with Japan, the Republic of Korea (hereinafter shortened to ROK), the Philippines, Thailand, and Australia. There is some variation in US commitments in East Asia: while the United States is committed to the Philippines under a mutual defense treaty, it is also committed to the security of Taiwan under the Taiwan Relations Act (TRA), though in both cases the US commitment is more ambiguous.

Under the TRA, the United States is committed to helping Taiwan defend itself, but there is uncertainty as to how the United States would respond in the event of a China-Taiwan conflict. The US position on Taiwan's status is to oppose any unilateral or coercive action on unification by either side. Almost certainly, any US response would be scenario-driven: a conflict precipitated by Taiwan declaring independence would likely trigger a very

1 For a thorough discussion of contemporary extended deterrence see Linton Brooks and Mira Rapp-Hooper, "Extended Deterrence, Assurance and Reassurance in the Pacific during the Second Nuclear Age," *Strategic Asia 2013-2014*, National Bureau of Asian Research, 2013; see also, Clark A. Murdoch, et. al., "Exploring the Nuclear Posture: Implications of Extended Deterrence and Assurance," Center for Strategic and International Studies, Washington, DC, 2013.

2 While Asia's geography likely precludes a land invasion (except for the Korean Peninsula), a Chinese full air and sea invasion of Taiwan could be a rough equivalent to a Fulda Gap scenario.

different response than a Crimea-type act of unprovoked aggression by China (in which case, the United States would likely come to Taiwan's defense). In regard to the Philippines, US assurances apply to the main islands under Manila's sovereign control and Philippines military assets, but it is not clear that they apply to disputed territories. In the case of Australia, extended deterrence applies, but Canberra sees no current or impending threat rising to a level requiring additional US consultation or action. To be sure, there are important security challenges in Southeast Asia. Though China-Taiwan relations remain calm, it is possible in the decade ahead that cross-strait tensions could rise to a level where conflict breaks out. Because the locus of current concern about extended nuclear deterrence and possible scenarios to challenge is more acute in Northeast Asia, however, the Task Force chose to focus principally on the cases of Japan and the Republic of Korea.

The greatest current challenge to extended deterrence in the Asia-Pacific is in these gray areas of small incursions

THE GLOBAL DIFFUSION OF POWER AND EMERGING DISRUPTIVE TECHNOLOGIES WILL HAVE SIGNIFICANT IMPACT ON US EXTENDED DETERRENCE.

and provocations, dubbed "tailored coercion," wherein China and, to a lesser extent, North Korea initiate actions against US allies that are viewed as falling well below the threshold of nuclear deterrence or even a conventional US military response. Through a combination of small civilian and

military maritime actions combined in some cases with trade, investment, and diplomatic measures to "create facts" on disputed islets, China is pursuing an irredentist policy, asserting claims that appear inconsistent with the Law of the Sea Treaty that it has signed and ratified.

Beijing's behavior may seem provocative in isolation, but does not appear to fundamentally undermine the status quo. However, these steps, encroaching on interests and territorial claims of other nations (as seen in the South China Sea on Scarborough Shoal against the Philippines or a Chinese state-owned oil firm moving drilling rigs into Vietnamese territorial waters), have a cumulative effect of undermining US credibility.³

While there have been intermittent skirmishes in the South China Sea since the 1970s, persistent Chinese assertion of territorial claims has been an ongoing feature of the East Asian security landscape since 2010, reflecting a more capable Chinese military under new leadership. There is widespread fear in the region that occasional inadvertent or accidental naval clashes could escalate into wider conflict. This phenomenon is emblematic of Beijing's growing strategic and economic weight and an emerging maritime capability, challenging US predominance in the Indo-Pacific region. It is this pattern of Chinese behavior, an accumulation of small acts, which is eroding American credibility, and requires constant US policy attention followed by demonstrable responses of political and military resolve.

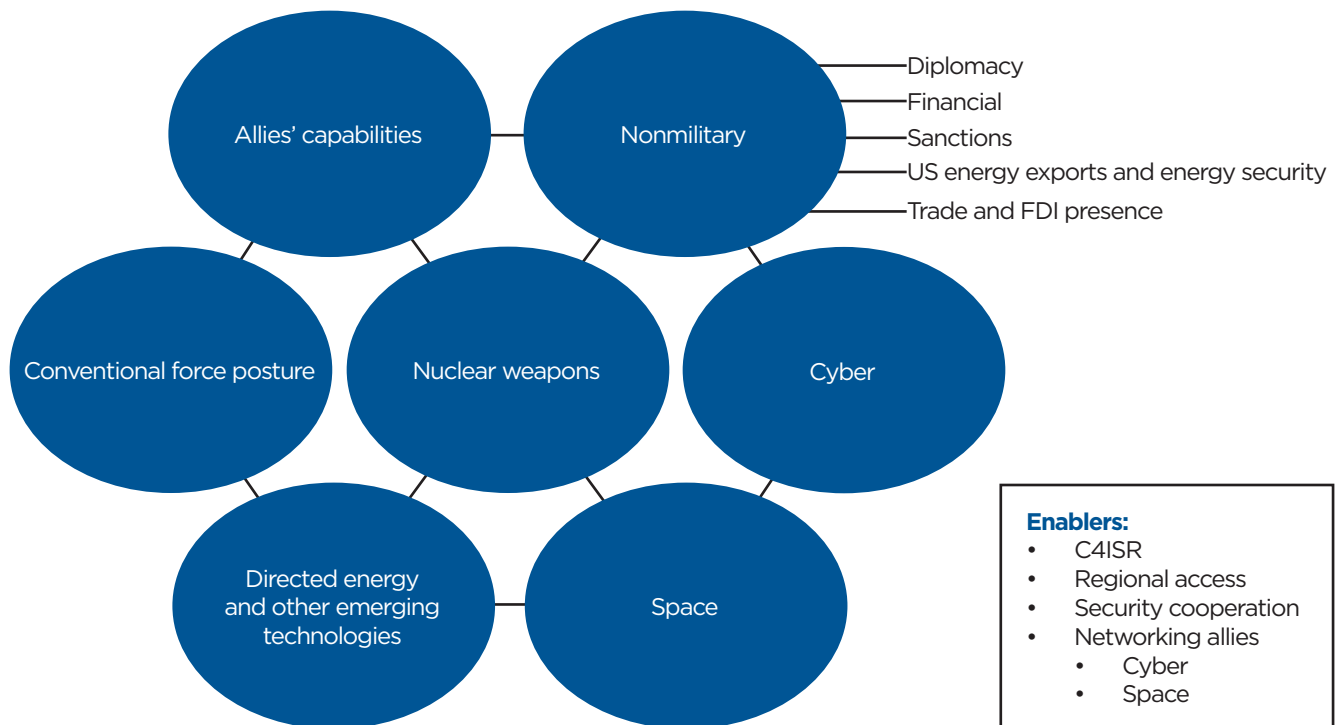
Moreover, there is the unprecedented context in which these developments must be placed, namely, a world where wealth and power is shifting from West to East and North to South. The reemergence of China, now the world's second-largest economy (by some measures the largest), is perhaps most emblematic of the unfolding global transition. US-China trade grew to \$562 billion in 2013 as China has become the world's largest trading power. At the same time, this era is one of exponential technological change, with the next two decades likely to see as much if not more technological change than that of the Internet era of the past two decades. The global diffusion of power and emerging disruptive technologies will have significant impact on US extended deterrence. As a senior Japanese official told the Task Force, "emerging technologies will transform extended deterrence."

These developments require a new, twenty-first-century concept of deterrence in Asia at an historical moment when the United States still dominates the global commons (maritime, air, cyber, and space) but finds its dominance increasingly contested, when a wider spectrum of nonmilitary and nonnuclear tools factor into the deterrence equation, and when the force being deterred is an economic partner as well as strategic competitor—but not necessarily an adversary.

While US nuclear capability remains at the core of extended deterrence in Asia, in the totality of what constitutes extended deterrence, the role of nonnuclear factors shaping twenty-first-century extended deterrence is increasingly important. The incremental shift of US forces dedicated to the Asia-Pacific under the Obama administration's Asia policy is an important baseline that will be watched closely in the region in light of China's growing maritime footprint. In addition to capable conventional forces, the spectrum of nonnuclear elements of credible deterrence range from nonmilitary instruments such as economic sanctions (e.g., as used against North Korea, Iran, and most

³ See Patrick Cronin, et al., *Tailored Coercion: Competition and Risk in Maritime Asia*, Center for a New American Security, 2014, http://www.cnas.org/sites/default/files/publications-pdf/CNAS_TailoredCoercion_report.pdf

THE TWENTY-FIRST-CENTURY DETERRENCE TOOLKIT



recently Russia) and the role of economic engagement in assurance, to military instruments that include ballistic missile defense (BMD), the cyber and space domains, and new conventional technologies such as directed-energy weapons (see chart above).

Against this backdrop, US credibility as a global and Pacific power is a *sine qua non* for extended deterrence. America's leadership; slow but steady recovery from the 2008 financial crisis; its relative economic vitality, highlighted by the new US role as a leading oil and natural gas producer; the resurgence of its manufacturing base and continued technology innovation; along with a renewed emphasis on the Asia-Pacific all have reinforced American credibility in the region.

Over the coming decade, the fate of the Trans-Pacific Partnership (TPP) and the extent US energy exports to East Asia deepen economic involvement in the region also will shape perceptions of the US role in the Asia-Pacific. In this regard, proactive US participation in the still-evolving regional institutions such as the ASEAN Regional Forum, the ASEAN Defense Ministers Meeting+1, the East Asia Summit, and the Asia-Pacific Economic Cooperation forum are also viewed as measures of US commitment to the region. These regional fora can play a useful role in strengthening norms and rules as well as shaping nations' choices. It will make an important difference if the United States is a contributor to energy security in East Asia with

significant natural gas and oil exports and is—and is perceived as—becoming more tightly woven into the economic and diplomatic fabric of the region.

Nuclear Futures

The broader nuclear context remains the most fundamental factor shaping perceptions of US extended deterrence. The Obama administration has sought to balance its stated goal of moving toward zero nuclear weapons and the credibility of the US security guarantee. This is emphatically stated in the White House Nuclear Employment Strategy, based on its 2010 Nuclear Posture Review:

“The United States will maintain a credible nuclear deterrence capable of convincing any potential adversary that the adverse consequences of attacking the United States or our allies and partners far outweigh any potential benefit they may seek to gain from such an attack. US policy is to achieve a credible deterrent, with the lowest possible number of nuclear weapons, consistent with our current and future security requirements.”⁴

In light of perceived growing threats, the stated long-term US objective of zero nuclear weapons and

⁴ “FACT SHEET: Nuclear Weapons Employment Strategy of the United States,” June 19, 2013, <http://www.whitehouse.gov/the-press-office/2013/06/19/fact-sheet-nuclear-weapons-employment-strategy-united-states>; *Report on Nuclear Employment Strategy of the United States*, US Department of Defense, June 12, 2013, http://www.defense.gov/pubs/reporttoCongressonUSNuclearEmploymentStrategy_Section491.pdf.

possible pursuit of further reductions beyond those already proposed fosters some unease in both the ROK and Japan. The US 2010 Nuclear Posture Review addressed many of the concerns raised by allies, but some apprehension still lingers in the region. The United States and Russia continue to reduce nuclear arsenals, as evidenced in the New START treaty, which will reduce deployed warheads on both sides to 1,550. There is little discomfort with the force levels agreed to in the current accord. Given that Asian nuclear weapons states (China, India, and Pakistan) are building up, and potential proliferating states, particularly North Korea and Iran, are part of the strategic equation, it is not a safe assumption that further US nuclear reductions would create a safer world. Below a still uncertain number, less may not be better. As Henry Kissinger and Brent Scowcroft have written, “Strategic stability is not inherent with low numbers of weapons; indeed, excessively low numbers could lead to a situation in which surprise attacks are conceivable.”⁵

Allied nuclear anxieties are discernible. Polls in the ROK taken after North Korea’s third nuclear test in February

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2013 suggest that nearly two-thirds of South Koreans think the ROK should develop its own nuclear weapons. South Korean President Park Geun-hye warned of a “nuclear domino” effect in the region if

Pyongyang conducts a fourth nuclear test. In Japan, there are continuing debates among experts about nuclear weapons, while some see Japan’s civil nuclear power program and fuel cycle as making Tokyo a latent or virtual nuclear state. There is little indication, however, that either the Korean or Japanese governments are considering any changes to their nonnuclear status.

In any case, all indications are that several factors—Russian nonstrategic weapons, Moscow’s concerns over US missile defense, post-Crimea fraying of US-Russian relations, and the realities of other third-party nuclear states—will almost certainly preclude further negotiated nuclear reductions in the near future. This reality should mitigate allied concerns heard in Task Force discussions with Japanese and Korean counterparts.

⁵ Henry A. Kissinger and Brent Scowcroft, “Nuclear Weapons Reductions Must Be Part of Strategic Analysis,” *Washington Post*, April 22, 2012.

THE SECURITY ENVIRONMENT

The challenges to extended deterrence in Asia arise from a complicated security predicament in which deterrence of particular threats (e.g., North Korea and China) are conflated and impact the security perceptions of US allies which, though overlapping, are distinct. The ROK is principally concerned about North Korea, is wary of Japan's intentions, and ambivalent toward China. Japan sees North Korea as a near-term threat, but is increasingly concerned about China.

One major reason why there is renewed focus on the viability of extended deterrence is that the security environment in East Asia is more uncertain and more volatile than at any time since the Vietnam War era. Tension on the divided Korean Peninsula, a problem left over from the Cold War era, is the most prominent immediate concern. But the region's economic success has been accompanied by buoyant nationalisms, most conspicuously in China, playing out in increasingly contentious territorial disputes in the East and South China seas against a backdrop of lingering historical grievances. This reality is reflected in a steady increase in Asian military spending, which in 2012 reached \$287.4 billion, surpassing that of European nations for the first time in the modern era.⁶ Ironically, even as Asia continues to move toward increasing economic integration, security dynamics are moving in the opposite direction.

North Korea

The emerging security environment is marked by growing North Korean missile and nuclear capabilities with potential qualitative changes such as a mobile intercontinental ballistic missile (ICBM), judged by some analysts as having a reasonable probability to be deployed by the end of this decade. The Democratic People's Republic of Korea (DPRK) has conventional short- and medium-range missiles, including roughly 200 deployed No Dong missiles with a range of about 900 to 1,000 miles.⁷ Pyongyang almost certainly sees these weapons as compensating for its outmoded and ill-prepared conventional armed forces.

The most informed open source estimates of North Korean nuclear capabilities suggest that Pyongyang may

have enough fissile material (combined plutonium and weapons-grade enriched uranium) for twelve to twenty-three weapons.⁸ The number, size, and location of uranium enrichment facilities that exist in North Korea remain unknown. Most estimates of actual North Korean nuclear weapons range between four and ten.⁹ Whether North Korea has a reliable, deliverable nuclear weapon also remains uncertain. Given that Pyongyang has been pursuing nuclear weapons for more than four decades, and has claimed to have miniaturized a warhead with its third nuclear test in February 2013, the likelihood it has a deliverable device cannot be dismissed. As David Albright has argued, "North Korea likely has the capability to mount a plutonium-based warhead on the shorter-range Nodong missile, with a range of about 800 km."¹⁰

The uncertainty about the quantity and quality of North Korean nuclear weapons and about functioning delivery systems is another factor impacting nuclear strategy. Unlike other new missile powers such as Iran or China, Pyongyang has conducted few tests of its long-range missiles, and there is some doubt about the status and reliability of its delivery systems. Some technical experts argue that Pyongyang, despite its occasional ICBM tests, has yet to demonstrate the ability to have a reentry vehicle successfully land or hit a designated target.

Looking ahead to the 2020 to 2025 period, there question remains as to whether Pyongyang can successfully demonstrate the road-mobile Musadan intermediate-range missile (with a maximum range of 3,500 miles) and/or the KN08 mobile ICBM, either of which could complicate deterrence. It is also an open question whether the acquisition of such delivery vehicles would alter the basic equation of deterrence. Washington would need to be more cautious if the US homeland were at risk, and North Korea as well as regional allies would understand that. Yet, at the same time, it is still very unlikely that North Korea would launch an unprovoked attack. Use of such missiles against the ROK, US bases in the ROK or Japan, or US territory all would be an act of political—if not existential—suicide for Pyongyang, whose demonstrated behavior values regime survival above all. It is unlikely

6 Myra Macdonald, "Asia's Defense Spending Overtakes Europe's: IISS," Reuters, March 14, 2013, <http://www.reuters.com/article/2013/03/14/us-security-military-iiss-idUSBRE92D0EL20130314>.

7 Duyeon Kim, "Fact Sheet: North Korea's Nuclear and Ballistic Missile Programs," Center for Arms Control and Non-proliferation, July, 2013, http://armscontrolcenter.org/publications/factsheets/fact_sheet_north_korea_nuclear_and_missile_programs/.

8 David Albright and Christina Walrond, "North Korea's Estimated Stocks of Plutonium and Weapons-Grade Uranium," Institute for Science and International Security (ISIS), August 16, 2012.

9 Federation of American Scientists, "Status of World Nuclear Forces," 2013, <http://www.fas.org/programs/ssp/nukes/nuclearweapons/nukestatus.html>.

10 David Albright, "North Korean Miniaturization," 38north.org, February 13, 2013.

that deterrence would fail in North Korea, but the risk would be greatest in an extreme scenario. However, there is concern that Pyongyang's possession of operational nuclear weapons could embolden coercive behavior beyond the levels of provocation seen to date, posing new challenges to the United States and the US-ROK alliance.

The China Factor

Deterrence on the Korean Peninsula is rendered still more complicated, as elements of US extended deterrence—conventional forces, advanced conventional weapons, and missile defense networks—focused on North Korea also may be viewed by China as threatening strategic stability, thus conflating the North Korean challenge with US-China strategic equilibrium. Similarly, Chinese conventional antiaccess capabilities (e.g., DF-21 antiship missiles) that may be aimed at a Taiwan contingency could impede US conventional forces in the event of North Korean aggression or other scenarios.

But the conflation of such threats is only the beginning of the strategic dilemma posed by China, and underscores the very different and vexing nature of twenty-first-century deterrence. China is neither adversary nor ally. Since 1972, eight presidents have pursued a policy toward China that has featured elements of cooperation and competition. China has become a top trading partner of the United States (with bilateral trade in 2013 reaching \$566 billion)¹¹ as well as of the ROK, Japan, and Taiwan. Indeed, Taipei has officially invested over \$58 billion in China, with unofficial estimates in the \$300 billion range.¹² China has become a major financier of the US budget deficit, holding \$1.3 trillion in US Treasury bonds.¹³ At the same time, China has been one of the primary beneficiaries of the US-led global order, with its economy growing from \$202 billion in 1980 to about \$8 trillion by 2013.¹⁴

A robust economic relationship notwithstanding, China frequently articulates a view of US policy in adversarial terms, seeing each US action, from the Obama administration's "rebalance" to Asia to the TPP, as elements of a US-led containment strategy. After nearly two decades of double-digit growth in defense spending, China's military modernization has transformed its capabilities, with an annual military budget in 2013 officially at \$119 billion, but estimated

by the Department of Defense at \$145 billion.¹⁵ As the gap between US and Chinese power has narrowed, competition has become more prominent. Moreover, Beijing's military build-up has spurred a mirror-image "security dilemma": military competition that is driven by strategic distrust on both sides.

Beijing has pursued an asymmetric strategy designed to create an antiaccess, area-denial (A2AD) capability with the antiship missiles designed to attack US aircraft carriers. Growing Chinese capabilities appear aimed at impeding (if not excluding) US maritime forces from the first island chain of nations on China's periphery.

The concern of the United States and its Asian allies is that amid volatile maritime and territorial disputes, China's substantial and growing military capabilities contest a historic vital US interest, one integral to extended deterrence: maritime access. This also applies to the relatively new global commons, the space and cyber domains. China has demonstrated an antiship ballistic missile capability, most prominently the DF-21D, and an array of short- and medium-range theater ballistic missiles as well as land-based cruise missiles. In addition, China is well along in modernizing its nuclear weapons and delivery systems, enhancing the survivability of its second-strike capability. While still modest in number (China is estimated to have fewer than one hundred deliverable ICBMs that can reach the United States), China has diversified its force posture to include mobile ICBMs, multiple independent reentry vehicles (MIRVs), and ballistic missile nuclear submarines, and also has enhanced its nuclear command and control. There is, however, no evidence that China has more than modestly increased its number of nuclear weapons, despite the fact that they possess increasing capabilities for flexible employment and escalation advantage. The amalgam of Beijing's conventional and nuclear modernization is changing the strategic balance in the region.

In the domains of space and cyber, China has developed a full spectrum of antisatellite weapons, demonstrated in a 2007 test that destroyed a defunct satellite and a high-earth orbit prototype missile test in May 2013. China also is developing a directed-energy antisatellite (ASAT) weapon. The PLA's official and loosely affiliated efforts at cyberhacking, cyberespionage, and intellectual property theft rose to such a level that President Obama voiced concerns publicly and the US Justice Department indicted five PLA officers for cybertheft activities.

US planners have responded with the concept of AirSea battle (ASB), a joint forces effort designed "to

11 "Trade in Goods with China," US Census Bureau, <http://www.census.gov/foreign-trade/balance/c5700.html>.

12 Mainland Affairs Council, "Table 7 Taiwan Investment in Mainland China," *Cross-Strait Economic Statistics Monthly*, No. 245, September 26, 2013, <http://www.mac.gov.tw/public/Attachment/392610552343.pdf>.

13 US Department of the Treasury, "Major Foreign Holders of Treasury Securities," September 16, 2014, <http://www.treasury.gov/ticdata/Publish/mfh.txt>.

14 Ami Sedghi, "China GDP: How It Has Changed since 1980," *Guardian*, March 23, 2012, <http://www.theguardian.com/news/datablog/2012/mar/23/china-gdp-since-1980>.

15 Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China 2014*, April 24, 2014, http://www.defense.gov/pubs/2014_DoD_China_Report.pdf.



ensure freedom of action in the global commons” that is “intended to assure allies and deter potential adversaries.” A Department of Defense document says, “The ASB Concept’s solution to the A2AD challenge in the global commons is to develop networked, integrated forces capable of attack-in-depth to disrupt, destroy, and defeat adversary forces.”¹⁶

In the event of imminent conflict with China, this would entail strikes on the Chinese mainland to eliminate its “kill chain” of radars, command and control systems, missile sites, and weapons themselves; for its part, China’s A2AD effort to take out US Aircraft carriers would be similarly applied if Beijing saw conflict as imminent. The logic of both strategies would be to strike early in a crisis to eliminate the adversary’s capacity before they can do damage. Both concepts are illustrative of the degree to which China’s growing capabilities have led to an escalating, mirror-imaging military competition between two major nuclear powers.¹⁷ At the high end of the conflict spectrum, ASB is an important concept to signal to both China and US allies that the United

States has answers to A2AD challenges that could undermine extended deterrence. But at the other end of the spectrum, the president needs more options and survivable forces at lower ends of the escalation ladder for proportional responses to less drastic provocations.

There is a lively debate over the merits and necessity of ASB. Some believe that it is too escalatory and even unnecessary, while others contend that it is a vital component of an effective and credible US defense posture in the Western Pacific. At the very least, China’s military buildup and the United States and allied responses to it are raising important and unsettling concerns about the sufficiency of the US extended deterrent, escalation, and the prospect for spirals of competition. US military strategy and posture for the Asia-Pacific needs to offer credible, tailored options for the spectrum of plausible conflict with China and that take due account of concerns not only for deterrence and assurance, but also for stability and escalation management. In addition to ASB, this study recommends developing counter-A2AD capabilities, including anti-air, antiship, unmanned aerial vehicles (UAVs), and cyber, networked with allies and partners (see Game Changers below).

Challenges to Deterrence

Uncertainty about China’s strategic direction and intentions is itself a significant challenge to deterrence.

16 Air-Sea Battle Office, *Air-Sea Battle: Service Collaboration to Address Anti-Access & Area Denial Challenges*, May 12, 2013, <http://www.defense.gov/pubs/ASB-ConceptImplementation-Summary-May-2013.pdf>.

17 For an assessment of the risks of US-China strategic competition, see David Gompert and Terrence Kelly, “Escalation Cause,” *Foreign Policy*, August 2, 2013, http://www.foreignpolicy.com/articles/2013/08/02/escalation_cause_air_sea_battle_china.

This concern has animated actors across the Indo-Pacific region. The United States and its economic and security partners in the region have all been pursuing a hedging strategy of cooperation with China on issues where interests overlap (especially economically), yet seeking to counterbalance Beijing's growing military capacity and influence. Indeed, apprehension about Chinese intentions among many nations in the Asia-Pacific has animated new networks of security cooperation, including between Japan and India; India and Vietnam; Japan and the Philippines; Singapore and India; Japan and Australia; and a trilateral partnership between Japan, India, and Australia.¹⁸ All are allies or security partners of the United States.

Taiwan and Deterrence

Taiwan's security situation is unique, but its defense ties to the United States are one element of the deterrence

CURRENT MECHANISMS FOR STRATEGIC CONSULTATION OR CRISIS MANAGEMENT, CONFIDENCE-BUILDING, RISK REDUCTION, OR TRANSPARENCY MEASURES WITH CHINA ARE INADEQUATE TO THE TASK.

equation. In contrast to much of East Asia, tensions between China and Taiwan are at historic lows. Increasing economic and social interaction over much of the past decade, including an Economic Partnership Framework Agreement, has made China Taiwan's largest trading partner and leading destination for foreign direct

investment. This is another element of deterrence: constructive cross-strait relations raise the stakes of conflict for Beijing.¹⁹

However, cross-strait issues are far from settled. Though Taiwan's economy has become closely tied to China, there is very little support in Taiwan to develop political ties. Recent protests against a trade-in-services agreement suggest a backlash against burgeoning economic interdependence with China. The fate of cross-strait relations after Taiwan's 2016 presidential elections is uncertain.

In any case, amid a relaxed cross-strait security environment, Taiwan's defense spending has been flat for most of this century, hovering around \$10.5 billion. It has sought to sustain its own capabilities as China has developed increasingly sophisticated capabilities, including some 1,400 missiles aimed at Taiwan. Taiwan is still in the process of deciding how to acquire twelve submarines. Submarines and antisubmarine warfare (ASW) capability; hardened facilities and redundant infrastructure; missile defenses; and enhanced intelligence, surveillance, and reconnaissance (ISR) capabilities all make sense for Taiwan. Taipei has deployed early warning radars (EWR) capable of tracking a thousand targets simultaneously. A provision in the 2015 Defense Authorization Act directs the US Missile Defense Agency to explore the idea of integrating Taiwan's EWR into the US regional sensor network. While the cross-strait military balance has shifted to Beijing, such an asymmetric strategy raises the costs of aggression and contributes to deterrence.

Taiwan remains a factor shaping the trajectory of US-China relations: whether it becomes predominantly cooperative, predominantly competitive, or stays a mix of both indefinitely remains an open question. As was learned in August 1914, globalization and economic interdependence are not necessarily determining factors shaping behavior in interstate relations. In part an effort to avoid 1914 analogies, recently Beijing has been promoting the idea that the United States and China should forge a "new type of relations among major powers." While President Obama embraced this aspiration during the 2013 Sunnylands Summit with Chinese President Xi Jinping, the concept lacks any mutually agreed definition at present.

One feature of a more cooperative relationship would be a stable, more predictable military balance that tends to foster mutual restraint and manage or ameliorate strategic competition. China has cited US missile defense and conventional missile programs as being destabilizing. The administration's 2010 Ballistic Missile Defense Review cited the importance of "maintaining strategic stability in the US-China relationship," and the Nuclear Posture Review called for pursuing high-level dialogues with Russia and China "aimed at promoting more stable, resilient, and transparent strategic relationships."

But the US strategic situation with Moscow contrasts sharply to that of Beijing. Despite an increasingly problematic relationship, due to the legacy of the Cold War the United States has had a strategic framework with Russia based on arms control arrangements, transparency, and predictability, along with consultation mechanisms. There are obvious differences with China, which has a complex, highly interdependent but also

18 For a detailed assessment, see Patrick Cronin, et al, *The Emerging Asian Power Web: The Rise of Bilateral Asian Security Ties*, Center for A New American Security, June 2013, http://www.cnas.org/files/documents/publications/CNAS_AsiaPowerWeb.pdf.

19 Phillip Saunders, "Defending Taiwan: The QDR and Beyond," *Defense Security Brief*, Vol. 4, Issue 1, January 2014, <http://www.mnd.gov.tw/>.

competitive economic relationship with the United States. Moreover, unlike Russia, which was a nuclear peer, there is a great asymmetry between the US and Chinese nuclear arsenals.

There is no effective structure of arms control with China, and current mechanisms for strategic consultation or crisis management, confidence-building, risk reduction, or transparency measures are inadequate to the task. For nearly two decades, US administrations have sought a strategic dialogue with China, but Beijing has been unwilling to engage and rejects the idea of arms control, citing the huge discrepancy between US and Chinese nuclear forces. Beijing is also uncomfortable with analogies to the USSR, which implies that China is an adversary. There have been several Track 1.5 strategic dialogues (semiofficial private talks with government officials attending) that have made modest progress over the past decade, and this Task Force has also held dialogues with leading Chinese think tanks.²⁰ However, China has a strategic culture in which transparency has been viewed as a weapon of the strong against the weak, and uncertainty and unpredictability are viewed as providing an advantage rather than a liability. For example, despite increased maritime traffic in the East and South China Seas resulting from disputed territorial claims, China has been unwilling to establish formal mechanisms for ship-to-ship communications.

For the United States, the uncertain size and structure of China's expanding nuclear force, its military doctrine, its disruptive space and cyber activities, and the continued development of its A2AD conventional capabilities are all sources of concern. China is modernizing its nuclear forces in ways that suggest it might be developing nuclear war-fighting capabilities.

Asymmetry: A Diminishing Chinese Asset

For its part, China has not indicated particular concerns about the size of the US nuclear force and has welcomed START reductions. Arms reduction talks need not be on the agenda of a strategic dialogue, but transparency and confidence-building measures regarding its nuclear posture are important. China cites US BMD capabilities—both real and imagined—and US conventional prompt global strike technology (which is only in the development stage) as threatening the survivability of its retaliatory second-strike capability. China has asked the United States to adopt a no-first-use posture, and Beijing is concerned that US extended deterrence may lead US allies to engage in provocative actions, known as the stability-instability paradox. The paradox holds that as China obtains a more resilient second-strike capability, it may feel more confident about aggressive

local actions in areas like the Senkaku islands,²¹ which are under Japanese administration but claimed by China. For the United States, adopting a no-first-use posture is a nonstarter, so long as it would decouple the United States from its allies. Ironically, Japan and others have exactly the same stability-instability concern about China: its strategic resilience may embolden it to pursue provocative local actions.

The one salient theme that permeates all elements of the US-China relationship—economic, financial, environmental, sealane security, nuclear, space, and cyber—is some degree of mutual vulnerability. All vulnerability is not equal, and in some areas (e.g., space) the United States may be more vulnerable. Harming each other's economy or financial system, for example, would cause serious damage to both. China has lived with vulnerability to nuclear strikes since the 1950s, as has the United States. Some argue that mutual vulnerability is not a fact of life, but a policy choice. This argument is that the United States can build a fully protective national missile defense system that would negate any vulnerability, though at present the United States has opted for a far more limited homeland defense. However, there is a more compelling argument that such complete invulnerability is technically and financially unattainable and that a quest for it would be prohibitively expensive, likely spurring both an arms race and Chinese and Russian efforts to devise countermeasures. The administration has not taken a formal position either for or against mutual vulnerability. Current US policy, however, with a limited homeland defense, *de facto* accepts the reality of mutual vulnerability.²² Mutual vulnerability may be an unavoidable condition to be acknowledged and managed, if not necessarily declared publicly.

The administration has not spelled out what the requirements are for strategic stability with China, or on what principles it would be based. It is not a given that a workable basis for strategic stability with China is possible, and establishing one would involve at best a protracted, incremental process over the coming decade. It may take contemporary equivalents of the Berlin Air Lift or the Cuban Missile Crisis to arrive at a mutually acceptable formula for strategic stability.²³ But the elements of a useful framework could include understandings of mutual restraint in various areas including nuclear, missile defense, and the maritime,

21 These islands are referred to as the Diaoyu islands in China.

22 This policy was underscored recently by Admiral James A. Winnefeld, Jr., vice chairman, US Joint Chiefs of Staff, at an Atlantic Council event. For more, see <http://www.atlanticcouncil.org/events/past-events/winnefeld-delivers-opening-keynote-at-2014-missile-defense-conference>.

23 For a detailed discussion on how to define strategic stability, see Eldridge Colby and Michael S. Gerson, *Strategic Stability: Contending Interpretations*, Strategic Studies Institute, US Army War College, February 2013, <http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB1144.pdf>.

20 For example, CSIS has an ongoing strategic dialogue with a think-tank, CFISS, close to the Chinese military, but has made only incremental progress. See http://www.csis.org/files/publication/issuesinsights_vol14no1.pdf.

space and cyber global commons. This may include doctrinal talks, and transparency and confidence-building measures such as a joint technical analysis of the US BMD program and its capabilities against Chinese systems, or transparency for each side's activities at nuclear test sites. To quell concerns about South China Sea activities, an Asian version of the Open Skies agreement might be considered.

The logic of a US-China framework for strategic stability suggests that, as in the nuclear sphere, similar and growing mutual vulnerabilities exist in the cyber and space domains as well, as a book by one Task Force member has argued.²⁴ Offensive tactics are qualitatively more effective and far less expensive than defense in all three domains, so this logic could include a recognition of mutual deterrence and seek to add a layer of mutual restraint. One test of Chinese intentions would be in the maritime domain. There has been successful cooperation among China, the United States, India, Japan, and other naval forces conducting antipiracy activities in the Gulf of Aden. While this may be an anomaly rather than a precedent, in light of the shared interest in sealane security (more than 50 percent of world trade goes through the straits of Malacca), an effort at cooperative sealane protection would be worth pursuing.

To date, China has preferred to pursue its asymmetric strengths, but the Chinese economy, financial system, and military are as highly dependent on unimpeded access to cyberspace as those of the United States. In the cyber domain, the issue would need to be addressed at the strategic level, mitigating cyberattacks that impact US military capabilities and infrastructure or harm individuals. Similarly, China is increasingly dependent on unimpeded access to space for the civilian economy as well as the PLA's order of battle, and is now launching more satellites annually than the United States or Russia. For China, asymmetric warfare is a diminishing asset.

A bottom-line US concern must be that any US-China accords on strategic stability not jeopardize the credibility of extended deterrence. Japan is concerned that strategic stability between the United States and China not come at its expense. Ambassador Yukio Satoh, one of Japan's leading strategic thinkers, points out that "even defining strategic stability between the two countries [US and China] is yet to be explored," but adds that, "it is plausible to assume that the US extended deterrence in relation to China would become a corollary to the US-China strategic relationship."²⁵

24 David C. Gompert and Phillip C. Saunders, *The Paradox of Power: Sino-American Strategic Restraint in an Age of Vulnerability* (Washington, DC: National Defense University Press, 2011), www.ndu.edu/press/paradox-of-power.html.

25 Yukio Satoh, "Japan's Responsibility Sharing for the US Extended Deterrence," Japan Foreign Policy Forum, <http://www.japanpolicyforum.jp/en/archives/diplomacy/pt20140310010210.html>.

REASSURING JAPAN

Japan is undergoing a historic transformation of its national security, its defense posture, and its role both in the region and as a more equal partner within the framework of a reinvigorated US-Japan alliance. The administration of Shinzo Abe has created a National Security Council (NSC) modeled on the US NSC, and has published new five-year National Defense Program Guidelines (NDPG), an official secrets act, and Japan's first-ever National Security Strategy. It is in the process of reinterpreting its constitution to allow Tokyo to exercise its UN Article 51 rights to collective defense, which previous Japanese governments have abstained from exercising. A March 2014 Japanese Cabinet decision will allow joint international research and development partnerships and third-party sales of military technology. The trajectory of Japanese defense policy converges strategically with the Obama administration's 2014 Quadrennial Defense Review (QDR).

As spelled out in the NDPG, these developments reflect Japanese perceptions of an increasingly volatile and uncertain security environment surrounding Japan in East Asia.²⁶ Tokyo has two related sets of concerns about extended deterrence, a more immediate one in the missile and nuclear threat from North Korea, and a longer-term concern about security challenges from China's growing military capabilities and maritime assertiveness. The reemergence of China has been something of a psychological and strategic shock to Japan, and is central to its renewed interest in national security. In the cases of both North Korea and China, a heightened sense of vulnerability is leading Tokyo to rethink its defense posture, capabilities, and role. In the process of these reforms, Japan is making greater efforts to become a more active and equal partner in the US-Japan alliance. Nevertheless, despite the broad US-Japan defense alignment, Japan's current security predicament leaves lingering Japanese fears about decoupling. Japan has raised questions about whether the US defense posture is adequate for guaranteeing deterrence, and whether adversaries believe the United States would retaliate with nuclear weapons.

For Japan, as one prominent analyst told the Task Force, "Pyongyang's 1998 missile shot was our Sputnik." In August 1998, North Korea tested a Taepo Dong ballistic missile, firing it over Japan, the first time since WWII that a missile was fired in Japan's direction. As a result, Japan accelerated efforts to attain ballistic missile defenses, beginning with acquiring the PAC-3 point defense for

short-range threats, and now also deploying SM-3 intermediate-range missile defenses on Aegis ships. In a cutting-edge instance of US-Japan defense-industrial collaboration, Japan is coproducing the SM-3 Block 2A, the most advanced US missile interceptor. The recent deployment of a second X-band surveillance radar in southern Japan further bolsters the capacity of the US-Japan alliance against a North Korean missile strike on Japan and/or the US homeland, linking the defense of Japan to that of the United States. The adoption of collective self-defense could enable Japan to shoot down a North Korean missile aimed at US or ROK forces, or help US forces in a Taiwan conflict.

As mentioned above, there are fears that US-China mutual vulnerability and Beijing's increasingly survivable second strike-capabilities could devalue the US-Japan alliance and lead to US abandonment: would the United States trade Los Angeles for Tokyo? At the same time, Tokyo is concerned that strategic stability between the United States and China could embolden Beijing to be more assertive in regional "below-the-threshold" maritime issues. Yet it is difficult to see how Japan would benefit from protracted US-China strategic instability. Security dynamics in Northeast Asia are fluid as China's role continues to evolve. Any US effort to create a framework for strategic stability with China would need to include full consultations with Japan so that any outcome does not increase Japanese apprehension and lead to more security dilemma military competition.

The Obama administration's renewed emphasis on US policy toward Asia, including increased military deployments to the region and repeated US statements that Article 5 of the US-Japan Defense Treaty²⁷ applies to the Senkaku islands, have helped quell Tokyo's doubts about the reliability of the US security commitment. The imminent prospect of US natural gas exports is being factored into Japan's energy policy agenda, and an increased US role in Japan's energy security also plays an assurance role. More broadly, the administration has responded to China's assertive moves such as the creation of an Air Defense Identification Zone (ADIZ) transgressing Japanese and Korean territory, and implementation of China's territorial claims, by clearly questioning their legitimacy. US responses such as B-52 flights into the ADIZ have helped shore up its credibility in the region.

Arguably the most important assurance tool at the alliance's disposal is the Extended Deterrence Dialogue

26 Japan Ministry of Defense, National Defense Program Guidelines, [http://japan.kantei.go.jp/96_abe/documents/2013/_icsFiles/afieldfile/2013/12/17/NDPG\(Summary\).pdf](http://japan.kantei.go.jp/96_abe/documents/2013/_icsFiles/afieldfile/2013/12/17/NDPG(Summary).pdf).

27 Article 5 commits the United States to come to the defense of Japan if it is attacked.



A sea-based X-band radar system. Source: US Navy/Petty Officer 2nd Class Ryan C. McGinley.

(EDD) launched in 2010, an outgrowth of consultations during the Nuclear Posture Review. Unlike Europe, which has had the NATO Nuclear Planning Group since 1967, no such mechanisms existed in Asia. The EDD has become a critical mechanism that provides Japan a sense of inclusion in US nuclear strategy, including onsite visits to nuclear facilities and discussions on nuclear forces. The EDD provides an ongoing policy consultation mechanism that can be utilized to integrate the full range of issues that factor into the deterrence equation, including BMD, cyber, space, and counter-A2AD strategies.²⁸

One of the most urgent alliance issues is defining US and Japanese respective responses to “gray area” (neither war nor peace) scenarios such as the ongoing tension in the East China Sea over the Senkaku islands, which China claims and has continually sent ships and planes into the area to challenge Japan’s claim and ability to administer the territory. Clarifying responsibility-sharing and Japanese expectations of US support is a key challenge that melds the missions of both the new US-Japan defense guidelines exercise and the EDD and should be given priority.

Looking ahead, the United States and Japan have a fortuitous opportunity to update the alliance to address emerging challenges. By early 2015, Washington and Tokyo will complete the process of updating the 1997 US-Japan Defense Guidelines that will define each nation’s roles and missions in the decade ahead. In this regard, one challenge is defining the contours of cooperation on

BMD, cyber, and space. Another key issue is creating new openings for defense-industrial cooperation. The Abe administration’s reinterpretation of the constitution to allow collective defense offers a new set of possibilities for US-Japan collaboration. A third new area is in potential US-Japan coordination of policies toward third countries in building capacity, such as infrastructure and defense capacity in the Philippines.

One controversial defining issue will be how the debate in Japan on developing offensive military capabilities evolves. There is Japanese interest in developing an offensive strike capability in the face of emerging threats, particularly North Korean missiles. But such a move could be seen in Seoul and Beijing as Japan crossing a threshold toward acquiring a more autonomous defense posture and thus, stir concern in the region as well as complicate the US-Japan alliance. It may be possible to develop such a capability jointly in ways that strengthen both deterrence and the alliance. Currently Japan lacks the ISR capacity to enable such a capability. A Japanese missile capability dependent on US command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) and integrated into a US-Japan decision-making process might be a way of bolstering both. It may be unhelpful for the alliance if Japan is acquiring hedging capabilities rather than capabilities that are helpful to the alliance or self-defense. This is an important challenge to redefining the US-Japan Defense Guidelines. Japan should proceed with caution and in full consultation with the United States. It is also important for Japan to consult with the ROK trilaterally (Japan-US-ROK), and in a dialogue with China.

²⁸ For a detailed assessment of key US-Japan challenges ahead on deterrence, see Brad Roberts, *Extended Deterrence and Strategic Stability in Northeast Asia*, NIDS, July, 2013, <http://www.nids.go.jp/english/publication/visiting/pdf/01.pdf>.

REASSURING KOREA: THE US-ROK ALLIANCE

Strengthening the architecture of deterrence on the Korean Peninsula over the coming decade also requires not only factoring in changes in the threat environment, but also determining how the nonnuclear components of deterrence are best utilized and integrated into the structure and content of deterrence. One challenge to US extended deterrence is how the ROK and Japan perceive and prioritize threats differently. For the ROK, China is a secondary consideration, tangential to its security calculus that is centrally focused on North Korea; for Japan, the North Korean threat is also immediate, but distinct from the threat posed by China.

Deterring North Korea should be viewed in the context of the overall US-ROK alliance. The recent forty-fifth ROK-US Security Consultative Meeting (SCM), for example, reaffirmed the 2009 Joint Vision statement which said that both countries are continuing “to build a comprehensive strategic alliance of bilateral, regional, and global scope based on common values and mutual trust.”²⁹ President Obama’s April 2014 Summit with South Korean President Park Geun-hye further solidified the alliance.

Deterrence strategy for North Korea needs to address the threats to both the ROK and secondarily, to Japan. In the nonmilitary realm, targeted financial sanctions and diplomacy play a useful role in underscoring that whether or not the DPRK has a nuclear capability, the international community, as reflected in a range of UN sanctions, does not accept DPRK nuclear status. The sanctions inflict some degree of economic pain, complicate its military procurement, and clearly signal that normal economic and political interaction between the DPRK and the international community will remain suspended pending a credible process of denuclearization.

Declaratory policy also can be important. Clear and repeated statements by the United States and the ROK help to minimize the prospects of miscalculation by Pyongyang: should they launch a missile at the ROK or attack US bases in Japan, they should know unambiguously that the consequence would be swift retaliation and political suicide. The US-ROK objective in the event of such an attack would likely be the demise of North Korea and reunification under ROK auspices.

These elements of deterrence reinforce the high end, and have been effective in deterring any major aggression

from the DPRK. Nuclear deterrence would still be credible in the event that North Korea obtains operational ICBM capability. This would not necessarily decouple the United States from the ROK, as the basic equation of aggression equals the end of the regime and the state would hold. But the US nuclear and strategic posture would likely need to be adjusted to address decoupling challenges. Moreover, increasingly capable missile defenses and other advanced conventional weapons strengthen deterrence. The possible exception would be in an extreme desperation scenario of the regime in Pyongyang imploding and deciding to take others down with them.

Another deterrence issue is the concern that an operationally nuclear North Korea would view its status as providing it immunity to engage in lower-level provocations. Unlike security cooperation with Japan, there is a clear institutionalized division of labor, with the ROK taking the lead in responding to North Korean provocations. The planned 2015 transfer of the UN Combined Forces Command from US to ROK leadership, known as OPCON, has been postponed by mutual agreement. There is no urgency in such a change, and there is concern in the current security climate that an OPCON transfer might be misperceived by Pyongyang and others as signaling a US retreat.

Diplomacy also plays an important role in stabilizing the Korean Peninsula. Without being seduced by Pyongyang’s “charm offensive,” the warming trend in North-South relations and “Trustpolitik” (building trust through reciprocal actions) reinforces stability, and fosters a climate where North Korean provocations are less likely. The United States can continue working-level contact with North Korea, and reiterate that if Pyongyang demonstrates sincerity to denuclearize based on previous agreements, the door to renewed multilateral diplomacy will remain open. In the possible event of serious economic reform in North Korea, close US-ROK consultation will be important to coordinate appropriate policy responses.

The overall US-ROK relationship is one of the underpinnings of the assurance component of extended deterrence. The robust bilateral economic relationship and Korea-US Free Trade Agreement, along with social and cultural ties, reinforce a sense of common interest. Korean interest in joining the TPP in the near future deepens that economic bond. In the coming decade, this may be reinforced by the new possibilities opened by US natural gas exports: if Congress lifts the ban on exports,

²⁹ Department of Defense, *Joint Communique: The Forty-fifth ROK-US Security Consultative Meeting*, October 2, 2013, <http://www.defense.gov/pubs/Joint%20Communique,%2045th%20ROK-U.S.%20Security%20Consultative%20Meeting.pdf>.

the United States would likely become a significant energy supplier to the ROK, which is one of the world's leading importers of liquefied natural gas.

The total US-ROK relationship notwithstanding, the core of extended deterrence remains the US nuclear umbrella and combined US-ROK conventional force capabilities. Since 2010, the institutionalization of the Extended Deterrence Policy Committee (EDPC) has enhanced extended deterrence. The credibility of US security assurances ultimately rests on the comfort level of those being reassured, the ROK. At the SCM, US Defense Secretary Chuck Hagel and ROK Minister of National Defense Kim Kwan-Jin endorsed a bilateral "tailored deterrence strategy," which "establishes a strategic Alliance framework for tailoring deterrence against key North Korean nuclear threat scenarios across armistice and wartime, and strengthens the integration of Alliance capabilities."³⁰

The EDPC, launched in 2010, is an important mechanism to boost cooperation, transparency, and joint planning. As has also been the case with Japan, the EDPC process has given the ROK a stronger sense of inclusion, and its continued development can reinforce confidence in the US deterrent force and serve as a venue where a range of future deterrence issues can be addressed. This will be increasingly important in addressing the new complexities of deterrence such as new conventional weapons technologies, missile defenses, cyber, and space. The EDPC also should be a forum for contingency planning in the event of a North Korean implosion or conflict. Tabletop exercises examining different scenarios, for example, could heighten the utility of the EDPC.

A high-priority issue looking ahead is the direction and capability of ROK missile defenses: what likely deployable missile defenses are possible, will ROK missile defense be fully interoperable with the US network, and how would they complicate or devalue North Korean strategic assets? The SCM Joint Communiqué explained that the United States and ROK will "continue developing a comprehensive Alliance counter-missile strategy to detect, defend, disrupt, and destroy missile threats..." At the SCM, Minister Kim "reaffirmed that the ROK would continue to build reliable inter-operative response capabilities and to develop the Korean Air and Missile Defense (KAMD) system" as well as enhancing the Alliance's command and control system. The United States has offered to establish a trilateral information-sharing system with Japan to enhance the ability to detect a missile launch.³¹

However, this may pose a challenge, as the ROK missile defense system is currently based on PAC-2 and PAC-3

missile interceptors. The ROK military has considered the acquisition of SM-3 interceptor missiles for Aegis ships that would add another layer to its missile defense system. For the ROK, joining the US-Japan BMD network would gain critical advantages in the event of Pyongyang launching medium- or long-range missiles toward South Korea, affording protection well beyond what its current plans could provide. The United States is considering the deployment of a THAAD system in the ROK and suggesting the ROK acquire it. Like the SM-3, THAAD is a medium-to-intermediate interceptor that is key to the US missile defense network. But China is wary of these systems, giving pause to ROK policymakers.³²

The recent SCM also recognized the need to bolster cooperation on access to space and cyberspace. Under the SCM, there is a relatively new Cyber Cooperation Working Group to address the full range of cyber issues. This should be integrated into the EDPC. In both realms, declaratory policy may have a significant role, particularly given the cyber intrusions already emanating from North Korea. A US-ROK statement that they reserve the option to respond to any hostile cyber action that damages critical infrastructure or results in loss of life with kinetic countermeasures could have some deterrent value. A similar policy formulation in regard to the destruction of space assets also may be worth exploring.

Finally, there is the question of the possibilities and limits of US-ROK-Japan trilateral defense coordination. Despite the problematic state of ROK-Japan relations, aggravated by issues related to Japanese reinterpretation of history and the Dokdo/Takeshima territorial dispute, strategic trilateral cooperation will be increasingly important to maximizing the effectiveness of extended deterrence. This will be especially important for missile defense architecture, ISR, and cyber defense and cybersecurity. In any case, increased ROK investment in ISR capabilities is critical to enhancing the US-ROK alliance. Over time, however, the absence of such trilateral cooperation will have increased costs for the effectiveness of deterrence and crisis response.³³ There is, at the working level, modest ROK-Japan military interchange, but both sides must transcend political obstacles before more robust ROK-Japan military-to-military cooperation such as information-sharing and a critical Acquisition and Cross-Servicing Agreement is realized.

New Elements of Deterrence: BMD, Space, and Cyber Challenges

Missile defenses, though still limited in both objectives and capabilities, have become an increasingly important nonnuclear component of extended deterrence. In regard

³² *Chosun Ilbo* online, October 15, 2013.

³³ For a discussion of the political obstacles to enhanced ROK-Japan military cooperation, see Seongho Sheen and Jina Kim, "What Went Wrong with the ROK-Japan Military Pact?" *Asia-Pacific Bulletin*, No.176, July 31, 2012, <http://www.eastwestcenter.org/sites/default/files/private/apb176.pdf>.

³⁰ Ibid.

³¹ "US Wants Tokyo, Seoul to Aid Missile Defense Against North Korea," *Yomiuri Shimbun*, May 19, 2014, <http://the-japan-news.com/news/article/0001289639>.



The guided-missile cruiser USS Gettysburg fires a Harpoon antiship missile. Source: US Navy/Kevin J. Steinberg.

to extended deterrence in Asia, there are two related elements. First, the United States has put in place a homeland defense network of forty-four ground-based interceptors at sites in Alaska and California enabled by a network of early warning radars. This, as outlined in the 2010 DOD Ballistic Missile Defense Review report, is aimed at protecting the United States against “the threat of limited ballistic missile attack.”³⁴ US homeland defense is important also to help ameliorate decoupling fears of allies. It is designed to deal with emerging small missile powers like North Korea or Iran, able to counter small numbers of missiles, but lacks the capacity to threaten Chinese or Russian second-strike capabilities. Instead, the United States relies on deterrence, though Beijing and Moscow both oppose BMD deployments as a threat to stability. China views it as another aspect of a US “containment” strategy.

In addition, the United States, working with its allies, is putting in place a multilayered regional BMD architecture with PAC-2 and PAC-3 batteries in Japan and the ROK for point defense, AN/TPY X-band radars for detecting ballistic missiles, sea-based SM-3 interceptors for intermediate-range missiles, and has deployed THAAD land-based systems in Guam for medium-range missiles along with space-based sensors. This architecture is a work in progress, with continuing incremental improvements in quantity and quality. But it already has had a significant impact, reinforcing deterrence for Japan.

34 US Department of Defense, *Ballistic Missile Defense Review*, 2010, http://www.defense.gov/bmdr/docs/BMDR%20as%20of%2026JAN10%200630_for%20web.pdf.

One key challenge ahead is further integration of a BMD network in the region.

Another nonnuclear element of deterrence still in the development stage is the capability of Conventional Prompt Global Strike (PGS) missiles—a nonnuclear precision-strike weapon flying five times the speed of sound that could hit targets anywhere on the globe in little more than an hour. Such weapons would fill a niche in the US array of strike capabilities between conventional ballistic and cruise missiles and nuclear-tipped missiles. Hypersonic PGS could preempt adversaries preparing to strike US satellites in a crisis situation, or to overcome adversaries with air defenses challenging US air access, thus helping overcome A2AD.

While PGS might strengthen extended deterrence, it is not entirely clear in practice exactly for what missions it would be used. There is also a question as to whether it bolsters or detracts from strategic stability: how would an adversary necessarily know that the incoming strike is not nuclear? China has hinted that a US PGS capability might lead it to abandon its no-first-use policy. It is also possible that other emerging conventional technologies such as electric laser directed-energy weapons may prove cheaper and more effective in regard to similar missions. In any case, PGS appears on the horizon as a possible element of the future strategic landscape.³⁵ China also is experimenting with hypersonic strike vehicles.

35 For a detailed discussion of the issues surrounding conventional prompt global strike, see James M. Acton, *Silver Bullet?*, Carnegie Endowment for International Peace, 2013, <http://carnegieendowment.org/files/cpgs.pdf>.

SPACE AND CYBER

The new global commons of space and cyber are transformational domains that have become essential (and interactive) enablers of the information-age global economy as well as for military operations, and thus, for extended deterrence. While there are similarities in terms of the respective roles and vulnerabilities of space and cyber, there are also significant differences. The United States is still the predominant space power: of some 1,000 satellites orbiting around the earth, roughly 45 percent are US-owned. However, China now has more satellites in orbit than Russia and is launching more each year than the United States. Asia is becoming increasingly reliant on space for communications, surveillance, and navigation. The rules governing the increasingly crowded and contested space domain rest largely on the forty-seven-year-old Outer Space Treaty, ratified by ninety-nine nations, which defines it as a global common: “the exploration and use of outer space, including the moon and other celestial bodies, shall be carried out...in the interests of all countries.” The Treaty bans placing nuclear or other weapons of mass destruction in orbit and the use of space for military bases, exercises, and weapons testing on celestial bodies.

Space assets are vulnerable to natural and human threats. In addition to small asteroids, space debris, or solar radiation, actors with the means to disrupt, deny, degrade, and destroy them are rapidly spreading around the world. Russia and China have demonstrated kinetic Anti-Satellite (ASAT) capabilities in both low- and high-earth orbit. In his 2014 Threat Assessment Director of National Intelligence James Clapper said that the Chinese military elite,

“...understand the unique advantages afforded by space systems and are developing capabilities to disrupt US use of space in a conflict. For example, Chinese military writings highlight the need to interfere with, damage and destroy reconnaissance, navigation and communication satellites.”

US declaratory policy defends unimpeded access to space:

“The United States will employ a variety of measures to help assure the use of space for all responsible parties, and, consistent with the inherent right of self-defense, deter others from interference and attack, defend our space systems and contribute to the defense of allied space

systems, and, if deterrence fails, defeat efforts to attack them.”³⁶

In regard to space and cyber, both entail a mutual vulnerability similar to that of nuclear weapons. At the strategic level, adversaries are very likely to exercise restraint in regard to action to destroy US use of either domain except as preemptory moves in a general conflict.

To date, diplomatic efforts to strengthen global norms for space have foundered. Russia and China support a treaty to prevent weaponizing space that only bans on-orbit weapons, not ASAT weapons launched from earth. An EU-proposed Code of Conduct prohibits the use, but not development of, ASAT weapons. While there is concern among US military officials that the EU initiative would limit counter-ASAT efforts, the EU effort is a basis for US-EU dialogue in shaping consensus on a Code of Conduct. For example, the United States is collaborating with Australia where a C-band radar monitors space debris. Given the mutual vulnerability to space debris of all nations with space assets, collaboration on monitoring, warning, and destroying debris holds some promise. The Task Force believes that the United States should extend the dialogue on a Space Code of Conduct to like-minded nations in the Asia-Pacific, and place it on the agenda of the East Asia Summit.

In addition, the United States can accelerate a space protection program using active and passive measures to protect space assets, for example hardening more satellites from jamming or deploying a constellation of smaller satellites to create redundancy, making our space system more resilient. Broadly, in the space and cyber realms, the US military needs to better prepare itself to become more resilient and function in a degraded space and cyber environment. It may be useful for the United States to demonstrate advanced kinetic or nonkinetic ASAT capabilities as a deterrent, and perhaps as an incentive to China and Russia to establish new norms and a code of conduct for space.

Cyber

The cyber domain is perhaps the most vulnerable and most misunderstood domain. It is unique in several respects, most prominently in that it is principally operated by the private sector. Cyberspace is a domain

³⁶ *National Space Policy of the United States of America*, White House, June 28, 2010, http://www.whitehouse.gov/sites/default/files/national_space_policy_6-28-10.pdf.

that has become essential for communications and the economy, but whose architecture was not designed with any regard for security. Moreover, the cyber domain is unique because of the extremely low barriers to entry for cyber threats (e.g., a laptop and Internet access).

There is some confusion about the nature of cyber threats. Deterrence has failed to prevent incursions at the lower levels such as cyber espionage, cyber crime, and cyber disruption, though there are a range of possible confidence-building mechanisms, legal frameworks to impose sanctions, and cooperative responses (e.g., private sector-government cooperation on active defenses) that could mitigate those threats.³⁷

The vital issue for extended deterrence is the strategic level of cybersecurity. The pattern so far is one of restraint and a sense of mutual vulnerability. If Beijing believed cyber was an asymmetric advantage prior to *Stuxnet* and the revelations of NSA cyber espionage, it is doubtful this remains the case. In a perverse sense, these developments may help demonstrate to the Chinese how mutual cyber vulnerabilities are. The bulk of US concern about Chinese activities is focused on economic cyber espionage and intelligence gathering, not state-on-state destructive attacks.

Despite repeated warnings, there has not been a “Cyber Pearl Harbor.” No one has died from a cyberattack.³⁸ There is a risk that “patriotic” hacking and use of proxies could at some point be perceived as strategic, and generate an escalatory retaliation. Declaratory policies and transparency can have an important deterrent effect. President Obama defined cyberspace as a “strategic national asset” and his strategy for cyberspace was clear:

“When warranted, the United States will respond to hostile acts in cyberspace as we would to any other threat to our country. All states possess an inherent right to self-defense, and we recognize that certain hostile acts conducted through cyberspace could compel actions under the commitments we have with our military treaty partners. We reserve the right use all necessary means – diplomatic, informational, military and economic – as appropriate and consistent with applicable international law, in order to defend our Nation, our allies, our partners, and our interests.”³⁹

37 For a detailed analysis and recommendations on strengthening cybersecurity, see Franklin D. Kramer and Melanie J. Teplinsky, *Cybersecurity and Tailored Deterrence*, Atlantic Council, Washington, DC, December 2013, http://www.atlanticcouncil.org/images/publications/Cybersecurity_and_Tailored_Deterrence.pdf.

38 See Jason Healey, (editor), *A Fierce Domain: Conflict in Cyberspace 1986-2012*, Atlantic Council, 2013, for a detailed discussion of cyberconflict.

39 Office of the President, *International Strategy for Cyberspace (2011)* (Washington, DC: The White House, May 2011), 14, http://www.whitehouse.gov/sites/default/files/rss_viewer/international_strategy_for_cyberspace.pdf.

Secretary of Defense Leon Panetta was more precise in an October 2012 speech:

“If we detect an imminent threat of attack that will cause significant, physical destruction in the United States or kill American citizens, we need to have the option to take action against those who would attack us to defend this nation when directed by the president.”⁴⁰

Ambiguity persists on thresholds of attacks that would trigger such responses, but these two statements put down clear markers that the US response to cyber hostilities may include both cyber and kinetic capabilities or the combination of thereof.

It must be emphasized that at the strategic level, the often feared cyberattacks potentially disrupting, disabling, or destroying US C4ISR would be unlikely to occur outside of the initial phase of a more generalized military crisis or existing conflict situation. Disabling systems may also be done on a temporary basis. In any case, partitioning networks, with more secure military networks can add some resiliency. There are a number of measures that could make US and allied cyber-enabled assets more resilient. Efforts to create common standards and a framework for hardening critical infrastructure are already underway. Governments designating key private-sector actors to engage more in active defenses also could enhance cybersecurity. A code of conduct, for example, declaring civilian nuclear assets, aviation and undersea cables off limits is one possible set of measures. In addition, confidence-building measures for deescalating cyber conflict through transparency, stability, and cooperation measures could certainly play a significant role in avoiding inadvertent escalation of cyber incidents and should become a part of US-China negotiations.

Game-changers

Looking out over the coming decade, there are several plausible potential game changing scenarios that may be on the horizon:

Korean Reunification: Depending on how reunification occurs, it is a development that would transform the security dynamics of Northeast Asia and extended deterrence. A reunified Korea with Seoul as its capitol resulting from an implosion of the regime in Pyongyang that did not lash out in its death throes could:

1. Immediately lead to a rethinking of the US-ROK alliance and US military presence, and resolve nuclear the nuclear issue if Korea could denuclearize (as occurred in Ukraine following the dissolution of the USSR).

40 See <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=5136>.

2. Be a defining moment for China. Beijing could cooperate with the United States and Korea in managing the transition, and open up cooperative security possibilities; or it could view the end of its buffer state as a threat, back a North Korean faction in an effort to retain a divided Korea, and define itself as an adversary, solidifying a US-ROK long-term alliance and trilateral ties with Japan.
3. End the duality and any strategic ambiguity of US, Japanese, and other allied defense hedging ostensibly in response to a North Korean threat (e.g., BMD) and force overt strategic choices as defense efforts would be entirely focused on countering China.

Emerging Conventional Weapons: There is an array of emerging conventional weapons systems, some of which could be deployed within the coming decade, that could transform extended deterrence, exponentially improving BMD and creating a class of air and sea weapons that could operate autonomously, while obviating cyber threats:

Electric rail guns: advances in material sciences, energy storage, and management are enabling a next generation of electric weapons that could be more compact and portable and cost-effectively counter saturation attacks of ballistic or cruise missiles, drones, and aircraft. They also can be installed on small, high-speed seacraft and inflict great damage on coastal patrol craft, enabling an effective counter-A2AD strategy.

Electric Lasers: these are another class of potentially disruptive weapons. Small electric diode arrays can stimulate gases and fiber materials to lases, thus creating high energy beams of coherent light without the thermal problems of current solid state lasers. Additionally, improved understanding of their lethality has reduced estimated power required to inflict disabling damage to sensors, satellites, electronics, and propulsion systems. These smaller lasers are well-suited for deployment on UAVs within the next decade. High-altitude UAV deployments could nearly simultaneously disable a large number of ballistic missiles.

Advances in 3D printing, nanotechnology, and artificial intelligence (AI) creates the possibility of unmanned air and sea drones with low-signature payloads. Long-endurance medium-altitude UAVs (equipped with Synthetic Aperture Radars, stealthy burst communications systems, and weapons) are ideally suited for maritime surveillance and interdiction missions to counter A2AD strategies. Likewise, long-distance UAVs and small satellites (CubeSats) on very small launch vehicles could add redundancy to communications relays and surveillance missions in the event of ASAT attacks.

With advances in data processing, AI, and robotics, UAVs and other remote platforms will be able to follow complex rules of engagement and rule-based decision logic for autonomous counter-A2AD operations in the event of persistent communications losses.

Lastly, nonkinetic electronic warfare systems could fatally disrupt data transmissions to any electronic system in flight, which advanced long-range aircraft, cruise missiles, and ballistic missiles are becoming increasingly dependent on, and be deployed within a three-to-five-year timeframe;

A Counter-A2AD network: If China's assertive behavior continues, the possibility of a US-led counter-A2AD network may become increasingly feasible. In any case, many of the elements that would comprise it can be put in place now. In addition to US-Japan coordination both bilaterally and toward third countries, affected actors in ASEAN—Vietnam, Indonesia, Malaysia, the Philippines, Singapore—as well as Australia, India, and Taiwan are attaining important maritime capabilities (e.g., submarines, ASW, maritime domain awareness). Aiding their capacity-building efforts in regard to infrastructure and ISR should accelerate.

While no formal collective security arrangement is likely, coordinating activities, helping build ISR capacity, communications networks, and interoperable forces could effectively put in place a security network able to respond to potential Chinese A2AD threats. In addition, US investment in smaller, cheaper, and more resilient capabilities—submarines, UAVs, and smaller, faster stealth strike platforms along with diversifying bases the United States has access to could be an important part of such a strategy. Lastly, the idea of stationing medium-range land-based antiship missiles near strategic choke points, as a RAND report suggests, might be considered to round out a counter-A2AD network that could lead China to rethink its “asymmetrical warfare” strategy.⁴¹

⁴¹ Terrence K. Kelly, et. al, *Employing Land-Based Anti-Ship Missiles in the Western Pacific*, http://www.rand.org/content/dam/rand/pubs/technical_reports/TR1300/TR1321/RAND_TR1321.pdf.

RECOMMENDATIONS

1 Clarity in US Strategic Doctrine and Nuclear Declaratory Policy: Despite an overall effort to reduce the role of nuclear weapons in US strategy, it is essential that the United States continues to adhere to and publically proclaim its nuclear umbrella in support of its allies in the Asia-Pacific. A key component of this effort will include official declaratory statements from the highest levels of government, including from the president. While it is critical for the United States to reassure its allies, these statements must also address domestic audiences in order to ensure the American public's understanding and support for an ambitious policy in the Asia-Pacific region.

2 Enhanced Strategic Dialogues with Allies and Friends in Asia: Sustained interactions with allies in the Asia-Pacific are critical to maintaining the region's confidence in the US commitment to conventional deterrence. In addition to the Extended Deterrence Dialogues (EDDs) with Japan and South Korea, the United States has expanded the scope of these discussions to capture broader security elements, including missile defense, space, cyber, and contingency planning. The EDDs play an important assurance role and create a greater sense of enfranchisement. It is important to keep sustained US high-level focus on EDDs to avoid complacency and bureaucratic inertia. Moreover, efforts to increase strategic dialogues with other friends in the region such as Australia, Singapore, the Philippines, and—in the future—Vietnam will play a critical assurance role and foster a greater sense of enfranchisement among US allies in the region.

3 Update US-Japan Alliance: The current process of defining new US-Japan Defense guidelines offers an important opportunity to deepen the alliance. It should be a venue to improve early warning and response as well as intelligence sharing; clarify gray area sharing of responsibility and understandings on escalation ladders; create a permanent crisis management mechanism and better integrate planning; coordinate security cooperation with third countries (e.g., the Philippines or Vietnam); and enhance defense-industrial cooperation to develop emerging technologies.

4 Comprehensive Strategic Stability in Engagements with China: Any effort to establish strategic stability in Asia requires more high-level engagements with China. Given the growing distrust on both sides, exacerbated by maritime security tensions and cyber security practices, a deep and sustained

commitment to establishing “rules of the road” between the United States and China will be vital in order to avoid miscalculations and mitigate potential escalation scenarios. A productive engagement strategy with China will require a comprehensive approach that includes military-to-military dialogue; increasing discussions on nuclear forces, cyber, space, and intelligence cooperation; and general exchanges between civilian leadership to identify areas of practical cooperation in military confidence building, development, energy security, and disaster relief.

5 Protect US Conventional Force Shifts to Asia, as Articulated by Senior Officials: US policy should underscore the statements made by senior officials on US force posture in the Asia-Pacific. Former Secretary of Defense Panetta stated a goal to shift 60 percent of Navy forces to the region by 2020; Secretary Hagel reaffirmed this commitment during the 2014 Shangri-La Dialogue, adding that the Air Force will also aim to redeploy 60 percent of its fleet to the region by the same target year. US officials should ensure that these commitments are protected, sustained, and made abundantly clear in every document, assessment, and high-level statement.

6 Investments in Key New Technologies and Capabilities: Relatively modest investments in emerging conventional technologies have the potential to realize transformative returns on bolstering extended deterrence capabilities. An estimated annual investment of \$300 million into advanced research and developments concepts could provide US conventional forces with greater capacity and efficiency to deter aggression through the widespread deployment of electric lasers, rail guns, and next generation electronic warfare systems by fiscal year 2018.

7 Underscore Essential Economic and Energy Aspects of US Engagement and Deterrence: In addition to sustaining high-level political engagements, US leadership will increasingly be judged on its ability and commitment to economic engagement in the region. Within this context, the successful conclusion of the Trans-Pacific Partnership negotiations, particularly with regards to the US-Japan bilateral agreements, will serve as a key indicator for forward momentum. On a parallel track, the United States should consider expediting the approval for gas exports—especially for liquefied natural gas processing facilities on the West Coast—and revamp the outmoded 1970s

architecture of laws and regulations curbing oil exports. The expansion of the US role as a provider of energy security to its allies and the region writ large would strategically enhance the US posture in the Asia-Pacific.

8 US-ROK: The planned 2015 transfer of command of the UN Combined Forces Command (CFC) from US to ROK leadership, known as OPCON, has been postponed by mutual agreement. There is no urgency in such a change, and there is concern in the current security climate that an OPCON transfer might be misperceived by Pyongyang and others as signaling a US retreat. Deliberations on OPCON should proceed cautiously, and both sides should be confident that conditions have been met, with the objective of sustaining net capabilities.

9 Cyber and Space: A US-ROK statement that they reserve the option to respond to any hostile cyber action that damages critical infrastructure or results in loss of life with kinetic countermeasures could have some deterrent value. A similar policy formulation in regard to the destruction of space assets also may be worth exploring. More broadly, the United States should extend the dialogue on a Space Code of Conduct to like-minded nations in the Asia-Pacific, and place it on the agenda of the East Asia Summit.

ABOUT THE TASK FORCE

The Brent Scowcroft Center on International Security at the Atlantic Council convened an independent, bipartisan task force to conduct analysis and to make actionable recommendations regarding the challenges and opportunities to strengthen US extended deterrence in East Asia over the coming decade. Co-chaired by former Deputy Secretary of State Richard Armitage and former Assistant Secretary of State for East Asian and Pacific Affairs Kurt Campbell, the task force includes former senior US government officials and observers, both from the Department of Defense and Department of State, as well as academic and think tank experts. The members of the task force helped shape the report's scope, findings, and recommendations but

do not necessarily agree with all of its conclusions or recommendations which are solely those of the Atlantic Council. The task force also had significant engagement with thought and opinion leaders in the East Asian region to assess their perceptions of US security guarantees. This task force is generously sponsored by the John D. and Catherine T. MacArthur Foundation, with additional funding from the Taipei Economic and Cultural Representative Office in the US and the Sasakawa Peace Foundation. The task force would like to recognize the active collaboration, cooperation and support of the Japan Institute of International Affairs, the Lawrence Livermore National Laboratory, the Tokyo Foundation, and the Asan Institute.

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