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Advanced Conventional Weapons, Deterrence and the U.S.-Japan Alliance

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Foreword and Acknowledgments

The Herbert Scoville Jr. Peace Fellowship was established in 1987 to be a highly-competitive national fellowship program that provides recent college and grad school graduates with the opportunity to gain a Washington perspective on key issues of peace and security. Twice yearly, the fellowship's Board of Directors selects a group of outstanding individuals to spend six to nine months in Washington working at think tanks on peace and security issues.

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ACNPI partnered with the Scoville Fellowship program to host fellowship recipient Ariana Navarro Rowberry at Brookings for the 2013-2014 academic year. Ariana is a 2013 B.A. graduate of the University of North Carolina This collaboration reflects the shared desire of Scoville and ACNPI to foster the development of young arms control and security issue specialists. This paper is the capstone of Ms. Rowberry's main research project during her time at Brookings.

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Table of Contents

Introduction and Executive Summary 1

The Evolution of the U.S.-Japan Alliance 3

The New Northeast Asian Security Environment and Japan's Response 9

The Potential Contribution of Advanced Conventional Weapons Systems. 14

Conclusion and Recommendations 20

Endnotes 22

Introduction and Executive Summary

Since the end of the Cold War, the potential for large-scale conflict between major powers has decreased dramatically. However, the increasingly multi-polar world order has generated new regional instabilities, and the potential for low-level conflict is rising. One potential flashpoint is Northeast Asia, where the U.S.-Japan alliance has played a central role in maintaining regional stability. The United States and Japan have maintained formal military cooperation since the 1950s, when their primary adversary was the Soviet Union. Throughout the Cold War, the alliance benefited both the United States and Japan, allowing Washington to project power in the Asia-Pacific theater, and providing Tokyo with security from the Soviet threat.

Today, the alliance faces asymmetric and ambiguous threats from a North Korea bent on developing its missile and nuclear warhead capabilities, as well as conventional challenges from a more assertive China, acting increasingly as if committed to securing territorial advantages. These challenges necessitate new thinking on how to strengthen U.S.-Japan defense cooperation. Fortunately, fresh thinking on nuclear and defense policy and advancements in technical means have opened opportunities for more robust collaboration between the two allies. However, before taking any collective action, the states must first reach consensus on management of their discrete interests and concerns, and consider the effects of their behavior on nuanced interstate dynamics in the region.

The opportunity for Japan to expand its advanced conventional capabilities as a facet of the U.S.-Japan alliance comes at a time when both U.S. and Japanese policy makers increasingly prioritize strengthening extended deterrence. In 2011, responding in part to heightened tensions in the region, the White House announced its "pivot to Asia," intended to rebalance U.S. foreign policy towards the Asia-Pacific region. U.S. policy documents, including the 2010 Nuclear Posture Review and 2010 Ballistic Missile Defense Review, recognize strengthening regional extended deterrence in Asia as a key priority. However, protracted involvement in the Middle East paired with the U.S.'s domestic budgetary constraints has cast doubt on the U.S.'s ability to fully implement the pivot. As the U.S. government considers ways to continue its rebalance, it must choose capabilities that most effectively communicate its intent to remain an active player in the Western Pacific.

Under Prime Minister Shinzo Abe, Japan has adopted new policy initiatives that envision larger, more robust national defense forces and roles tailored to the evolving security environment in Northeast Asia. In the past year, Japan developed its first ever National Security Strategy document and released its latest defense guidelines, which aim to bolster existing conventional capabilities and develop new ones to strengthen its security.[1] Recently, Abe's cabinet adopted a resolution to reinterpret Japan's pacifist constitution, which has shaped Japan's exclusively defense-oriented policy for over 60 years.[2] This historic policy change, which will likely take effect in Spring 2015, will enable Japan's Self-Defense Forces (JSDF) to more actively participate in peacekeeping missions and come to the aid of allies, most prominently the United States, during a crisis through "collective self-defense." However, the instances where the JSDF would engage in collective

self-defense would be heavily restricted. However, these changes in Japanese policy have caused no shortage of controversy. Abe's domestic critics and some of Japan's neighbors argue that these policies are more likely to upset stability in Northeast Asia than enhance Japan's security. Nonetheless, the shift in Tokyo may allow Japan to become a more active participant in the U.S.-Japan alliance and lighten the burden of protection by the United States.

The United States provides Tokyo protection through extended nuclear and conventional deterrence. Nuclear weapons are the supreme guarantor of deterrence, but conventional deterrence has been an indispensable component of U.S. assurances to Japan. Now, a renewed Japanese interest in defense modernization and advancements in conventional capabilities have created opportunities for Japan to take steps that would strengthen the U.S.-Japan alliance. Two such advanced conventional systems that could enhance the alliance's deterrent capabilities are conventional strike systems and ballistic missile defense systems. Other advanced conventional weapons systems, such as anti-ship weapons and submarines, are also critical to maintaining the strength of the alliance, as the protection of Japan's seas is of increasing importance. While recognizing the relevance of these weapon systems, this paper will focus on the potential contribution of ballistic missile defense and conventional strike systems, which could be particularly important in light of Abe's reinterpretation of the constitution.

As Northeast Asia is increasingly characterized by regional crises and tensions, the incorporation of advanced Japanese conventional systems in the U.S.-Japan alliance can provide a more credible deterrent complementing existing nuclear and conventional capabilities. And, along with "hard" means of demonstrating its interest in stability and Japan's security, the U.S. government can assure others of its commitment via continued supportive statements and heightened dialogue with its partner.

This paper analyzes the potential contribution of Japanese conventional strike systems and ballistic missile defense capabilities to strengthen the alliance. It begins with an overview of the alliance, examining the various components of the extended deterrent, including nuclear, conventional, and political deterrence. Next, it examines the evolving security environment in Northeast Asia; the paper suggests that advanced conventional weapons could have an increased role in responding to the altered environment. The paper then analyzes the costs and benefits of the potential contribution of Japanese conventional weapons systems to the U.S.-Japan alliance.

The paper concludes that the United States and Japan should engage in deeper consultation via existing consultative forums, and actively explore the potential role of advanced conventional weapons systems in the U.S.-Japan alliance. Presently, because of high political costs and technological challenges, this paper recommends that Japan not consider developing an indigenous conventional strike capability. However, in the long-term, it could be advantageous for Japan to acquire a conventional strike capability, particularly if the security environment in Northeast Asia becomes increasingly unstable. This paper recommends that the United States and Japan continue to strengthen coordination on ballistic missile defense. Should the Japanese government reinterpret the constitution to adopt collective self-defense, Tokyo could use its existing ballistic missile defense systems to protect U.S. bases in Northeast Asia. Finally, when political circumstances permit, the United States, Japan, and South Korea should work to assuage old wounds and establish a formal mechanism to discuss military cooperation, and seek to cooperate on ballistic missile defense in the long-term.

The Evolution of the U.S.-Japan Alliance

THE FOUNDATION OF THE U.S.-JAPAN ALLIANCE

In 1951, the United States and Japan concluded the Security Treaty Between the United States and Japan, which formally ended the U.S. occupation of Japan and established the foundation for military cooperation between the two states. The security treaty provided the United States with broad authority, including the right to base an unregulated number of U.S. troops on Japanese soil to safeguard U.S. interests in the Asia-Pacific region. Nearly a decade later, in 1960, the treaty was revised in response to Japanese concern that it allowed the U.S. too much influence. The new Treaty of Mutual Cooperation and Security allowed the United States to retain basing rights, but stipulated that it must consult Japan before moving large numbers of troops in or out of the country. The central component of the 1960 treaty states that the United States and Japan will "act to meet the common danger" in the event of an attack on either state.[3] Expanded in 1970, the treaty remains in force today and constitutes the backbone of the alliance.

Military cooperation between the two states depends heavily on Japan's interpretation of its constitution. In a post-World War II environment, the constitution, heavily influenced by General Douglas MacArthur and the U.S. occupation authorities, aimed to reassure the international community that Japan would not remilitarize. Adopted in 1947, the Japanese constitution states that, "the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as means of settling international disputes…land, sea, and air forces, as well as other war potential will never be maintained."[4] Only limited defenses are permitted; Japan's constitution dictates "that the extent of use of defense force is kept to a minimum necessary for self-defense."[5] Following this policy, Japan created modest Self-Defense Forces (SDF); however, there are a series of restrictions placed on how these forces can operate. For example, the SDF are prohibited from using more force than is minimally necessary and cannot participate in actions that are "an integral part of any use of force, broadly defined."[6]

Today, the constitution remains the primary source of guidance for Japan's defense policy. Since the early 1990s, a series of events, including North Korea's provocations and China's rise, have led certain Japanese officials to question whether an "exclusively defense-oriented" policy is in Japan's best interest.[7] This consideration is amplified by Japan's concern over whether the United States, made weary by its protracted wars in Iraq and Afghanistan, would be willing to come to Japan's aid in the event of an attack. Japan is particularly concerned about American willingness to assist in the event of a low-level conflict, such as over the Senkaku/Diaoyu Islands subject to Chinese territorial claims. Japan is therefore reviewing its defense policies, and considering a more active posture.

Although the Abe administration has shown interest in expanding its defensive capabilities, the U.S. extended deterrent remains at the center of Japanese security. And as the Japanese government seeks a more active national defense policy, it also hopes to maintain its extended deterrence relationship with

the United States. Changes in Japan's defense policy and innovations in military technology have created an opportunity for Japan to strengthen its contribution to conventional deterrence and the U.S.-Japan alliance.

THE U.S. EXTENDED NUCLEAR DETERRENT TO JAPAN AND JAPAN'S NUCLEAR POLICY

The U.S. extended nuclear deterrent is the supreme guarantor of Japan's security and a central component of the U.S.-Japan alliance. Japan's protection under the U.S. extended nuclear deterrent has assured Tokyo when China and North Korea have engaged in provocative actions that threatened Japan's security. Moreover, the U.S. extended nuclear deterrent has been a key factor in dissuading Japan from developing its own nuclear weapons capability, which it has considered on several occasions since the end of World War II. Moving forward, the importance of the U.S. extended nuclear deterrent to Japan will be crucial in assuring Tokyo and deterring adversaries. While the unique value of nuclear deterrence is irreplacable, the integration and expansion of advanced conventional weapons into the U.S.-Japan alliance can complement the U.S. extended nuclear deterrent.

As the only state to be the victim of nuclear weapons use, Japan adopted anti-nuclear policies at the end of World War II. While the constitution does not explicitly mention nuclear weapons, it is widely interpreted as prohibiting their development. Moreover, in 1967, Prime Minister Eisaku Sato announced the "Three No's," renouncing the manufacture, possession, or introduction of nuclear weapons in Japan. Sato later changed the three "no's" to the four pillars of nuclear policy: "1) promotion of the peaceful use of nuclear energy; 2) efforts toward global nuclear disarmament; 3) reliance and dependence on U.S. extended deterrence, based on the 1960 Treaty of Mutual Cooperation and Security; and 4) support for the three non-nuclear principles under the circumstances where Japan's national security is guaranteed by the other three policies."[8]

During the Cold War, the U.S. extended nuclear deterrent was used in part to project power in the Asia-Pacific, in the face of the Soviet threat. Tokyo's willingness to allow deployment of U.S. nuclear weapons on Japanese territory demonstrated the Japanese government's historically conflicted attitude towards nuclear policy matters. The U.S. military forward deployed nuclear weapons or nuclear weapon components on the U.S.-occupied islands of Iwo Jima, Chichi Jima, and Okinawa, where it also deployed strategic bombers.[9] Additionally, the U.S. military stored nuclear bombs (without their fissile cores) at several Japanese airbases. U.S. aircraft carriers and strategic bombers with nuclear weapons onboard were occasionally stationed at Japanese ports and air bases for short periods of time.[10] During the mid-1960s, the United States withdrew nuclear weapons and components from Iwo Jima and Chichi Jima. In 1972, Okinawa reverted to Japanese rule, and all nuclear weapons were removed to comply with Japan's "no introduction" policy.

Though stationing of nuclear weapons on the U.S.-occupied islands did not violate the constitution or Sato's three no's, the legality of the U.S. deployment of nuclear weapons systems at air bases or port facilities on the Japanese mainland is less clear. While not confirmed by either state, it is widely believed that in the 1960s the United States and Japan concluded two agreements on nuclear weapons policy. The first allowed U.S. ships and aircraft carrying nuclear weapons to transit Japanese territory. The second secret deal, completed in 1969, allowed for deployment of nuclear weapons to Okinawa even after its return to Japanese rule in 1972.[11]

With the end of the Cold War, the United States withdrew all nuclear weapons from naval surface vessels and general-purpose submarines. However, the U.S. government has argued that its extended nuclear deterrent to Japan remains strong.[12] Today, as noted in the 2010 Nuclear Posture Review (NPR), the United States relies on its intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs), and strategic bomber force for deterrence, in addition to its ability to redeploy

tactical nuclear forces in the event of a crisis.[13] Since 2003, the U.S. Air Force has rotated nuclear capable B-52 and B-2 aircraft from the continental United States to Guam as part of a "continuous presence mission."[14] The United States has periodically flown these unarmed aircraft in the Asia-Pacific region to signal its commitment to its allies. One such flight occurred in November 2013, when the U.S. Air Force, without prior notice, flew unarmed B-52 bombers over the Senkaku/Diaoyu Islands following China's declaration of an Air Defense Identification Zone (ADIZ) which extends over the islands.

As the U.S. military has altered its deployment of nuclear weapons and delivery systems in Asia, Japan has expressed particular concern over the retirement of the Tomahawk Land Attack Missile-Nuclear variant (TLAM-N), a nuclear-tipped cruise missile deployed on Los Angeles-class attack submarines during the Cold War. Under the 1991-92 "presidential nuclear initiatives," a set of reciprocal unilateral nuclear arms reduction steps taken by the United States and the Soviet Union/Russia, TLAM-N was removed from deployment, but remained in storage at the U.S. Strategic Weapons Facility, Pacific, in Bangor, Washington and the U.S. Strategic Weapons Facility, Atlantic in Kings Bay, Georgia.[15] Many Japanese officials argued that, though the system was not deployed, it still provided a visible symbol of the U.S. extended nuclear deterrent to Japan, analogous to the role of the B61 tactical nuclear bomb in NATO. The 2010 NPR formally announced the retirement of the TLAM-N, and though the decision reportedly raised concern on the part of a number of Japanese officials, the Japanese government ultimately did not protest.

Outside of the U.S. extended nuclear deterrent, Japan maintains one of the world's largest atomic energy programs, considered by many to be a strategic hedge. Prior to the 2011 Fukishima disaster, Japan received around 30 percent of its electricity from nuclear power. While Japan has idled its reactors in response to Fukishima, it hopes to maintain a robust nuclear energy program.

In contrast to most other non-nuclear weapon states with large nuclear energy programs, Japan has both uranium enrichment and reprocessing capabilities, as well as vast stocks of separated reactor-grade plutonium that could be used in nuclear weapons.[16] Right-wing Japanese officials have referred to the large stocks of weapons-usable plutonium as a deterrent, and some states, including South Korea and China, have expressed concern that Japan is allowed to possess weapons-usable materials.

Japan maintains policy restrictions on nuclear energy. Japan's 1955 Atomic Basic Energy Law states that "The research, development, and utilization of nuclear energy shall be limited to peaceful purposes, shall aim at ensuring safety, and shall be performed independently under democratic administration, and the results obtained shall be made public so as to actively contribute to international cooperation."[17] In 2012, this article was amended to add "national security" as a justification for preserving a civil nuclear energy program. Responses to the amendment are varied. Some Japanese officials argue that the addition of "national security" does not conflict with the commitment to only pursue nuclear energy for peaceful reasons. Others are more skeptical, claiming that this change directly conflicts with the constitution.[18]

If Japan were to decide to pursue an indigenous nuclear weapons capability, some estimates suggest that it could create a nuclear weapon in two years.[19] Given this, Japan's nuclear energy program is considered by some to be a hedge against potential security threats. This hedge is supplemented by Japan's investment in space-launch vehicles (SLVs), including the H-11 and Epilson-1, which were developed for Japan's civil space program.[20] The technology of SLVs is very similar to that of ballistic missiles, and SLVs could be modified to deliver nuclear weapons.

Additionally, Japan has secretly debated the utility of an indigenous nuclear weapons capability on several occasions, though each time it concluded that the U.S. extended deterrent was robust enough to meet Tokyo's security needs. At the same time that Sato

was introducing the "three non-nuclear principles," he was conducting a secret internal review of the utility of acquiring nuclear weapons. In 1968, Sato's Cabinet Information Research Office commissioned a study on the costs and benefits of nuclear weapons acquisition, which came to be known as the 1968/1970 Internal Report. When the report was leaked to the press in 1994, the reaction was overwhelmingly negative. Powerful media sources, such as Asahi Shimbun, claimed that Japan's nuclear policy was two-faced: renouncing nuclear weapons production in public, while privately considering their utility.[21] In the early 1990s, international concern over North Korea's nascent nuclear weapons programs increased. In 1995, Japan concluded a second internal report on the utility of nuclear weapons, which was made public by a prominent Japanese newspaper in 2003. The report concluded that the development of nuclear weapons would ultimately be too costly for Japan, due to its potential to spark a regional arms race in Asia.[22]

Although Japan could acquire an indigenous nuclear weapons capability fairly quickly, and has contemplated doing so, it remains unlikely that Japan will decide to develop such a capability. Because of the harrowing legacy of Hiroshima and Nagasaki, public opinion is vehemently anti-nuclear. Instead, Japan is investing in conventional capabilities, which are better suited to the current environment, to enhance Tokyo's security and bolster the U.S.-Japan alliance.

THE U.S. EXTENDED CONVENTIONAL DETERRENT TO JAPAN

Supplementing the nuclear deterrent, U.S. conventional capabilities have been an integral component of the U.S.-Japan alliance since the end of World War II. Often overshadowed by the contribution of nuclear weapons to the extended deterrent, conventional deterrence plays a key role in providing Japan and potential adversaries with a broader symbol of U.S. presence in the region. Now, technological advances allow advanced conventional weapons systems to play a greater role in strengthening the extended deterrent. Moreover, changes in Japan's defense policy indicate that Tokyo is willing to become a more active participant in the U.S.-Japan alliance, and may be preparing to take steps to increase its contribution to conventional deterrence.

During the Cold War, the United States forward deployed a variety of conventional forces to the Asia-Pacific theater, including aircraft carriers, tactical fighter aircraft, and large numbers of troops. Symbolism matters in the U.S extended deterrent to Japan, and ground troops are a clear emblem of the U.S. security commitment. Today, there are an estimated 35,000 U.S. military and 5,000 civilian Department of Defense personnel stationed in Japan.[23] Japan's Okinawa prefecture hosts a Marine Expeditionary Force, which accounts for over 65 percent of U.S. forces in Japan.[24] The U.S. Navy's 7th Fleet is stationed in Yokosaka, which includes the USS George Washington carrier group.[25] The U.S. Air Force has personnel and aircraft deployed to Misawa, Kadena, and Yakota Air Force Bases.

Additionally, Japan's conventional forces occasionally train with their U.S. counterparts. Despite restrictions on its military policy, since 1954 Japan has maintained Self-Defense Forces divided into three branches: Ground Self-Defense Forces (GSDF), Maritime Self-Defense Forces (MSDF), and Air-Self Defense Forces (ASDF). To enhance interoperability, the SDF and U.S. forces participate in joint military training. For example, in February 2014, the GSDF and U.S. Marines participated in the "Iron Fist" training mission off of the coast of California, which simulated recapture of Japanese islands after a foreign invasion.[26]

Significant upgrades to military systems and rotational deployments of conventional capabilities are enhancing the conventional component of the U.S. extended deterrent.[27] Conventional capabilities have routinely been deployed or rotated through Guam, for example. The U.S. Air Force deployed AGM-86 conventional air-launched cruise missiles to Guam beginning in 2000. F-15 and F-16 fighter aircraft are also deployed to the island on a regular basis, alongside forward deployed submarines and other naval

capabilities.[28] All of this suggests that the United States is in fact strengthening its extended conventional deterrent to Japan and other regional allies.

THE U.S. EXTENDED POLITICAL DETERRENT TO JAPAN

While nuclear and conventional capabilities provide the "hard" aspects of extended deterrence, "soft" components, including U.S. declaratory policy, clear statements of U.S. support after provocative actions by adversaries, and formalized bilateral dialogue, are indispensable components of the extended deterrent relationship. Given the increasing uncertainty of Japan's security environment, continued U.S. political support for Japan is crucial as a means of assuring Tokyo.

Washington sends strong signals to Japan and potential adversaries through its declaratory policy, which outlines how and when the United States might use military force. As discussed above, the 1960 Treaty of Mutual Cooperation and Security between the United States and Japan is the linchpin of the alliance. Article 5 states, "Each party recognizes that an armed attack against either Party in the territories under the Administration of Japan would be dangerous to its own peace and safety and declares that it would act to meet the common danger in accordance with its constitutional provisions and processes."[29] Despite the "mutual" defense commitments of both the United States and Japan, historically the United States has borne the majority of the burden for providing protection to the alliance. Declaratory policy under the mutual defense treaty has become particularly important in light of escalating tensions with neighbors. Some Japanese scholars have expressed concern that the United States could be reluctant to come to Japan's aid in the event of a low-level conflict, such as a dispute over the Senkaku/Diaoyu Islands.[30] In providing assurance to Japan, it is necessary to make clear that U.S. declaratory policy applies to these types of contingencies.

Another example of declaratory policy is the 2010 Nuclear Posture Review, which serves as a guiding document for the Obama Administration's nuclear policy. More than previous NPRs, the 2010 document stresses the importance of reducing the role of nuclear weapons in U.S. national security policy. However, the document also identifies strengthening regional deterrence and reassuring U.S. allies and partners as a key objective.[31] As part of the effort to assure Japan that changes in U.S. policy would not be to Japan's detriment, U.S. and Japanese officials conducted extensive consultations during the formulation of the 2010 NPR. Many Japanese officials felt that those close talks resolved their anxieties regarding future U.S. policy on nuclear weapons.[32] Crucially, these consultations gave Japan an opportunity to provide input in the formulation of U.S. declaratory policy, and provided a channel for Japan to express its thinking about the U.S. extended deterrent.

In addition to declaratory policy, the United States strengthens its extended deterrent to Japan with ad hoc political statements that reaffirm support during times of strategic uncertainty. These public statements of solidary are intended to send a signal to adversaries that the United States will protect Japan. Following the first Chinese nuclear weapons test in 1964, newly elected Prime Minister Eisaku Sato began to contemplate an indigenous nuclear weapons capability.[33] Attempting to ameliorate Japanese concerns, President Lyndon Johnson and Sato signed a joint communiqué in January 1965. Article 8 of the communiqué stated "…the President reaffirmed the U.S.'s determination to abide by its commitment under the treaty to defend Japan against any armed attack from the outside."[34]

In 2006, after North Korea's first nuclear weapons test, President George W. Bush made a statement intended to reaffirm extended deterrence: "The United States remains committed to diplomacy, and we will continue to protect ourselves and our interests. I reaffirmed to our allies in the region, including South Korea and Japan, that the United States will meet the full range of our deterrent and security commitments."[35] Bush's highly public and pointed remarks sent a clear signal to Japan and North Korea alike of the U.S. commitment to extended deterrence.

More recently, during a state visit to Japan, President Obama confirmed that the Senkaku/Diaoyu Islands are covered under Article 5 of the Treaty of Mutual Cooperation and Security. Not only was this message crucial in assuring Japan, but it sent a clear signal to China about the strength of the U.S.-Japan alliance.

A third part of the political component of extended deterrence is formalized bilateral dialogue between the United States and Japan. Unlike NATO's Nuclear Planning Group, which provides member-states with a venue to discuss and influence nuclear policy, the U.S.-Japan alliance does not include an institutionalized dialogue. However, the United States and Japan have collaborated to create other fora to discuss nuclear policy issues.

In 2000 Japan and the United States created the Security Consultative Committee (SCC), which is used as a forum for officials at the ministerial level to discuss pertinent policy issues to the U.S.-Japan alliance.[36] In 2007, following North Korea's first nuclear test, the SCC meeting (known as the two-plus-two) reaffirmed that "the full range of U.S. military capabilities, both nuclear and non-nuclear strike forces and defensive capabilities, form the core of the extended deterrence."[37]

The Obama administration, through the 2010 NPR, has taken large steps to further institutionalize bilateral dialogue.[38] In 2011, the United States and Japan established the Extended Deterrence Dialogue (EDD), a biannual dialogue in which American officials discuss U.S. nuclear capabilities with Japan, with the goal of increasing transparency and enhancing Japan's assurance. For example, in April 2012, under the auspices of the EDD, Japanese officials spent three days at U.S. Naval Base Kitsap-Bangor in Washington. During the site visit, Japanese officials were shown a U.S. nuclear attack submarine and Trident missiles.[39] According to the Pentagon, the dialogue "reinforces the critical role of the U.S.-Japanese alliance in deterring and responding to strategic threats in the East Asia region. Through frank discussion, transparent information exchange and interaction with U.S. Navy personnel, the EDD communicates to America's allies that the U.S. extended deterrent continues to be credible, capable, and enduring."[40]

As the U.S.-Japan alliance evolves, the political component of extended deterrence, including bilateral dialogue and U.S. declaratory policy, will remain central to Japan's faith in the credibility of the extended deterrent. U.S. policy makers and military leaders should endeavor to broaden existing dialogues to include discussion of the potential contribution of advanced conventional weapons systems to Japanese and regional security.

The New Northeast Asian Security Environment and Japan's Response

Today, Japan faces a more unpredictable regional security environment than it did during the Cold War, with China and North Korea as its primary potential adversaries. Japan's 2013 Ministry of Defense white paper notes that vulnerability: "…North Korea has taken such provocative actions as its launch of the missile…. China has rapidly expanded and intensified its activities in the waters and airspace… Thus, the security environment in the vicinity of Japan has increasingly grown severe." [41] As China has become increasingly assertive and militarized, and North Korea's behavior has remained unpredictable and antagonistic, the U.S. extended deterrent has grown more important to Japan.

CHINA

In the past decade, China's geopolitical, military, and economic influence has increased dramatically. China's rise has forced a shift in the security strategies of both the United States and Japan. In particular, China's vast investment in conventional military capabilities and its burgeoning nuclear arsenal are a focal point for the U.S.-Japan alliance. Motivated, in part, by concerns over China's rise, the Obama administration announced the "pivot to Asia," a policy intended to rebalance military power, while also refocusing diplomatic attention on Asia. Japan has become increasingly wary of China's actions. Its National Security Strategy states that, "China has taken actions that can be regarded as attempts to challenge the status quo by coercion based on their own assertions, which are incompatible with the existing order of international law…"[42]

A central source of U.S. and Japanese concern is China's nuclear arsenal. China asserts that its nuclear weapons are purely defensive, and maintains a declaratory policy of no first-use. In comparison to other nuclear weapons states, China's arsenal is relatively modest. The Federation of American Scientists estimates that China possesses some 250 total nuclear warheads.[43] Contrasted with the stockpiles of Russia and the United States, which possess an estimated 4,300 and 4,765 operational nuclear warheads respectively, the Chinese nuclear arsenal is relatively small, albeit growing.[44]

Despite China's policy of no-first use, its modernization of nuclear forces is a cause of concern for both the United States and Japan. Since 2009, China has deployed the DF-31 ICBM, which has a range of 8,000 kilometers and is road mobile, and the DF-31A, which has a range of 11,000 kilometers. China is now developing the DF-41 missile, which may be capable of traveling up to 14,000 kilometers and carrying up to 10 warheads. While China's nuclear expansion and modernization efforts are occurring at a relatively slow pace, it is nonetheless an important factor shaping the threat perceptions of the United States and Japan.

China's efforts to modernize its conventional forces are also worrisome to the alliance, in particular its development of anti-access/area denial (A2AD) forces. These systems threaten the ability of U.S. military forces abroad to respond to a potential crisis.[45] In the 2014 Quadrennial Defense Review (QDR), the Pentagon notes that "In the coming years, countries such as China will continue seeking to counter U.S. strengths using anti-access and area-denial (A2AD)

approaches…"[46] Systems of particular concern to the United States and Japan are the DF-21D and DF-21C, which are maneuverable medium-range ballistic missile weapons that are intended to attack U.S. aircraft carriers.[47] China is building up its short-range ballistic missiles, medium-range ballistic missiles, land attack cruise missiles, anti-ship cruise missiles, and anti-ship ballistic missiles.[48] China also has strong undersea mine systems that can deter access to maritime areas of strategic importance.[49]

A2AD capabilities could become particularly important as tensions increase between Japan and China over the Senkaku/Diaoyu Islands. Tensions over the uninhabited, rocky islands, coveted for their proximity to suspected undersea oil reserves, flared in September 2012 when the Japanese government purchased three of the five main islands from a Japanese family that had leased the islands to the Japanese government since the 1970s. China claims the islands as its own territory, and called the purchase "invalid." The latest dispute over the group of islands occurred in November 2013 when China created an ADIZ that includes the Senkaku/Diaoyu Islands; Japan also has an ADIZ with coverage over the islands. China has threatened defensive measures, should a foreign aircraft fail to identify itself to Beijing while transiting the zone. In response to China's creation of the zone, and to send a clear signal of solidarity with Japan, the U.S. Air Force flew unarmed, nuclear capable B-52 bombers into the zone without notifying Chinese air traffic control.

The Chinese relationships with the United States and Japan are further complicated by the lack of formal dialogue on strategic stability. Unlike the decades-long history between the United States and Soviet Union/Russia of bilateral arms control, the United States has yet to enter into formal negotiations with China on nuclear arms matters. While China may participate in arms control in the future, it currently remains wary of beginning formal dialogue, in part because the nuclear arsenals of the United States and Russia are still far larger than its own. Some scholars of Chinese nuclear policy argue that China views strategic stability as achievable only when the United States and Russia cut their arsenals to numbers that more closely match China's.[50] However, the United States and China have participated in a series of Track 1.5 (governmental and non-governmental) and Track 2 (non-governmental) dialogues on nuclear policy. Additionally, there is the U.S.-China Track 1 "Special Dialogue," which includes the discussion of strategic weapons. These dialogues are confidence-building and are a positive but modest first step towards an institutionalized dialogue on arms control.

NORTH KOREA

A series of provocative actions over the past twenty years have exacerbated Japanese-North Korean relations. Beginning in the early 1990s, when Japanese concern over North Korea's nuclear weapons program began to grow, numerous attempts have been made to rein in North Korea's nuclear program. Agreements and dialogues, such as the 1994 Agreed Framework and the Six Party Talks, showed promise, but the DPRK has seemed intent on expanding its missile development and nuclear weapons programs. In 2003, North Korea withdrew from the Nuclear Non-Proliferation Treaty (NPT). These challenges are complicated by the new leader of North Korea, Kim Jung-Un, who assumed power in 2011 after the death of his father. Under Kim Jung-Il, the regime had made increasingly clear its intention to possess nuclear weapons indefinitely.

North Korea is actively developing its ballistic missile capabilities and nuclear weapons technology. It is thought that North Korea possesses several hundred SCUD short-range ballistic missiles and Nodong medium-range ballistic missiles.[51] North Korea also possesses the Taepo Dong I intermediate-range ballistic missile capability, and the Taepo Dong 2 missile, which, if made reliable, could be used in a strike—a nuclear strike, if North Korea can produce a nuclear warhead for the missile—against the United States. North Korea has tested its ballistic missile capabilities on a several occasions. In 1998, North Korea tested the Taepo Dong I missile through Japanese airspace, underscoring the direct

threat of North Korea's ballistic missile program to Japan's security.

North Korea has since made incremental progress towards developing a long-range ballistic missile. After a series of failed tests, in December 2012 North Korea successfully launched the Unha-3 and put a satellite payload into space. While this test represents a breakthrough in North Korean missile technology, the accuracy of the DPRK's long-range ballistic missile systems remains dubious.[52]

Parallel to its advances in ballistic missile technology, North Korea is also making incremental progress on its nuclear weapons. North Korea has tested nuclear devices in 2006, 2009, and 2013. While the first two tests were not considered fully successful, there are indications that the third nuclear test advanced North Korea's ability to miniaturize nuclear warheads, a large technical feat in the development of advanced nuclear weapons. A report from the Defense Intelligence Agency assessed "with moderate confidence the North currently has nuclear weapons capable of delivery by ballistic missiles, however the reliability will be low," although Director of National Intelligence James Clapper stated that this report is not indicative of the intelligence community's assessment of North Korea's nuclear weapons capability.[53] An independent assessment by David Albright at the Institute for Science and International Security indicates that North Korea likely has the ability to mount a nuclear warhead on the shorter-range Nodong missile, but still does not have the capability to do so on a long-range ballistic missile.[54]

Aside from those worrisome developments in North Korea's ballistic missile and nuclear programs, other provocative actions have complicated Japan-North Korean relations. In the late 1970s and early 1980s, North Korea abducted Japanese citizens. The DPRK claims that it has returned or accounted for all abductees, but Japan has said it believes that is untrue. Recently, North Korea has agreed to open a new investigation on the issue in exchange for possible relief from Japanese sanctions.[55] Such a deal could be an important step in clarifying the abductee issue.

Tensions on the Korean peninsula rose further in March 2010, when North Korea sank the Cheonan, a South Korean navy ship, killing all 46 crewmembers on board. In November of the same year, North Korea shelled Yeonygeong Island in the Yellow Sea, resulting in the death of four South Koreans. These actions negatively impacted the broader Northeast Asian security environment, and have raised serious concerns about the stability of North Korea's leadership, and what type of future provocations it might undertake.

THE UNITED STATES

Japan's perception of the credibility of the U.S. extended deterrent is affected by changes in overall U.S. nuclear and defense policy. In 2009, Obama delivered a speech in Prague's Hradčany Square that envisioned a world free of nuclear weapons. While Obama stated that this ambitious goal would likely not be met within his lifetime, the speech laid the foundation for changes in U.S. nuclear policy. In 2010, the administration concluded the NPR, which deemphasizes the role of nuclear weapons, and the New START Treaty, a bilateral treaty with Russia that cuts the number of deployed strategic nuclear weapons. In 2013, Obama revisited arms control in a speech in Berlin, where he called for a further up to one-third reduction of U.S. and Russian deployed strategic warheads below the numbers permitted in New START.

Since Japan closely monitors U.S. nuclear policy, the United States must consider the implications of such policy changes for the assurance of Japan. While it is unlikely that further modest reductions in U.S. strategic forces would spur Japan to take extreme measures, such as developing its own nuclear capability, the U.S. government should consult Japan on further reductions. These consultations will become particularly important if the United States ever approaches quantitative nuclear parity with China, although parity will likely not be reached for the foreseeable future. To date, the United States maintains a strong numerical advantage over all nuclear weapon states with the exception of Russia. It

appears that Japan may be less concerned with the absolute level of the U.S. nuclear stockpile, but rather with the level relative to other nuclear weapon states, especially China.

RESPONDING TO THE SECURITY ENVIRONMENT: RECENT POLICY CHANGES IN JAPAN'S DEFENSIVE DOCTRINE

Today, Japan is at a critical juncture in its national security policy. As the only state to be the victim of nuclear weapons use, Japan has long had a "nuclear allergy," a strong aversion to the development or acquisition of an indigenous nuclear capability. Japan's experience with nuclear weapons has also informed its broader defense strategy, which has historically taken a negative view of developing or using military capabilities for any reason other than self-defense.

For the first time, in December 2013, Japan published a National Security Strategy. The development of such a strategy reflects Tokyo's concern about the changing regional security environment. The strategy states that Japan's new security policy will be one of "proactive pacifism based on the principle of international cooperation."[56] Despite Japan's long-term policy of maintaining forces for defensive purposes only, this new strategy indicates that Japan may be willing to be a more active participant in peacekeeping missions, in coming to the defense of allies such as the United States, or in responding to military provocations. The strategy reflects the reality that Japan is "surrounded by an increasingly severe security environment and confronted by complex and grave national security challenges."[57] One of the strategy's core objectives is to strengthen deterrence to maintain peace and security.[58]

Other important Japanese security documents similarly reveal Japan's growing anxiety about its uncertain security environment. In 2013, the Japanese government released its latest National Defense Program Guidelines (NDPG), a document detailing Japan's security challenges and providing recommendations for the future of Japan's SDF. Increasingly, the guidelines emphasize Japan's uncertain security environment and the importance of the U.S.-Japan alliance. The 2013 guidance states that Japan "will continue to maintain and improve the credibility of U.S. extended deterrence, with nuclear deterrent as a vital element, through close cooperation with the U.S." This is the first time that the NDPG has explicitly used the words "extended deterrence."[59]

In the clearest sign of a shift in Japanese thinking on defense, the Abe administration recently adopted a resolution to reinterpret Japan's pacifist constitution. This policy change enables Japan's SDF to come to the aid of the United States and other allies through "collective self-defense." Under Chapter VII of the United Nations Charter, each state is entitled to collective self-defense in the event of an armed attack. Because of Japan's exclusively defense-oriented policy, it has forgone its right to collective self-defense of its allies. A policy of collective self-defense could permit Japan to come to the aid of U.S. forces and bases in East Asia during times of crisis, which would certainly strengthen the U.S.-Japan alliance.[60] As one Japanese government official noted, if Japan adopts collective self-defense, Japan could transition from being on the recipient end of the U.S. extended deterrent to more actively engaging in "coalition deterrence."[61] However, opponents of a reinterpretation point out that it would likely antagonize Japan's neighbors. A former South Korean government official said that, though the concept of collective self-defense is not threatening in itself, in the context of Japan's increasingly assertive behavior, Seoul finds it threatening.[62]

Overall, Japan is committed to strengthening the U.S.-Japan alliance, in part by unilaterally investing in its own capabilities. The 2013 National Security Strategy says that: "Japan needs to first and foremost strengthen its own capabilities and the foundation for exercising those capabilities. Japan must also steadily fulfill the role it should play and adapt its capabilities to respond to future developments."[63] Japan's defense budget has expanded slightly, from 1.0 percent of GDP to 1.05 percent of GDP for military

spending in 2013, marking the first increase in 11 years.[64] It is important for the United States to continue to invest in the extended deterrent to Japan. If the U.S. extended deterrent becomes less credible, Japan may see a need to further bolster its independent capabilities and its defense policies, which may raise further questions and spur tensions with its neighbors. Therefore, strengthening the U.S. extended deterrent might have the additional benefit of avoiding further difficulties between Japan and its neighbors.

The Potential Contribution of Advanced Conventional Weapons Systems

Japan's increasingly vulnerable position in its regional security environment has given rise to renewed discussion of U.S. extended deterrence. While the value of nuclear weapons in deterrence cannot be replaced, conventional forces—including more capable Japanese conventional force capabilities—are increasingly viewed as a crucial component of the overall deterrent. As stated by one Japanese scholar, "If you look at the East China Sea, nobody can say that because of nuclear deterrence Japan is safe. But this does not mean that nuclear deterrence does not matter. It matters a lot. There are various different levels of deterrence, and we can rely more on conventional capabilities. Currently, how strong we are with conventional capabilities matters more than the United States' nuclear weapons."[65]

A variety of conventional systems have contributed to U.S. extended deterrence to Japan since the formation of the Treaty of Mutual Cooperation and Security. Future conventional capabilities such as conventional strike have the potential to strengthen extended deterrence, and existing conventional weapons systems, such as ballistic missile defense, may also be integrated in new ways to bolster extended deterrence.

A key prescription of the 2010 NPR is to "strengthen regional security architectures and reinforce security commitments to allies and partners by maintaining an effective nuclear umbrella while placing increased reliance on non-nuclear deterrence capabilities (e.g. missile defenses and conventional long-range missiles)." Increasing the role of advanced conventional deterrence could be beneficial for several reasons. First, it is in line with the NPR's goal of reducing U.S. reliance on nuclear weapons while still assuring its allies. Second, the credibility of conventional deterrence vis-à-vis nuclear deterrence appears to be increasing given the current security environment defined by low-level conflicts.[66] Third, emphasizing conventional deterrence allows Japan to be a more active participant in the U.S.-Japan alliance, especially if the Abe administration succeeds in adopting collective self-defense and deploys advanced conventional weapons of its own.

CONVENTIONAL STRIKE

A conventional strike capability has the potential to strengthen the U.S.-Japan alliance. Such a capability could have a variety of strategic functions, and Japanese officials are contemplating the role conventional strike might play in the country's Self-Defense Forces. It could preemptively disrupt a North Korean ballistic missile attack by targeting the missile-launcher prior to launch. It could also be used in response to a ballistic missile launch as a counterstrike capability to enhance deterrence by the threat of punishment. A conventional strike capability could also be used to complement ballistic missile defense. For example, in the event that ballistic missile defenses become saturated with missiles from North Korea, a strike capability could be used to disrupt a coordinated missile attack. It seems that Japanese officials are also privately considering a conventional strike capability's applicability to China. As stated by one former Japanese government official commenting specifically on a potential strike capability, "Eventually, China is the bigger issue, far larger than North Korea. In the past five to six years our focus has been shifted to China." [67]

A Japanese conventional strike capability could take a variety of forms. One Japanese defense specialist states that the most effective conventional strike capability would be an air asset with a land-attack cruise missile capability.[68] However, if an air asset capability is not possible, then Japan could consider developing land-based medium-range conventional ballistic missiles, or sea-based cruise missiles. While cruise missiles have the benefit of precise targeting, an important consideration is response time. In comparison to ballistic missile capability, a Japanese system that used cruise missiles would take significantly longer to reach a target, when the ability to strike the target promptly would be critical in preempting a ballistic missile launch from North Korea or China. Although Japan currently lacks a conventional missile strike system, it does possess the F-15J fighter capability, which could reach North Korea in around one hour if deployed from air bases in Japan.

Despite the potential for a Japanese conventional strike capability to strengthen the U.S.-Japan alliance, there are costly drawbacks. The development of a conventional strike capability faces political and military obstacles. Politically, the development of the capability could be viewed as at odds with Japan's exclusively defense-oriented policy and would likely face domestic political opposition. Moreover, the development of a conventional strike system would likely elicit negative responses from regional neighbors. A decision by Japan to pursue a conventional strike system under Abe would be viewed as particularly provocative by China. The decision would also likely give rise to objections from North Korea and certain groups within South Korea. Militarily, developing a conventional strike system capable of stopping an adversary's ballistic missile launch requires advanced technology that would likely require coordination with the United States. The United States and Japan should discuss the utility of a conventional strike capability within forums such as the Extended Deterrence Dialogue, in order to more carefully assess these political and military costs, as well as the strategic benefits.

Since the early 2000s, the debate has intensified in Japan regarding the value of developing a conventional strike capability. The deterioration of the security environment has spurred conversation about the deterrence value of such a system. As one Japanese analyst stated, "There is temporary attention to the issue when North Korea does something like a ballistic missile test."[69] While past discussion of a strike capability has been largely reactive to North Korean provocations, the Abe administration appears engaged in proactively debating the capability's merits. Abe has told the National Diet that Japan should "consider acquiring the means to hit enemy bases in accordance with the changing international political situation."[70] The 2013 NDPG also states that, within the context of the U.S.-Japan alliance, Japan "will study a potential form of response capability to address the means of ballistic missile launches and related facilities, and take means as necessary."[71] This inclusion indicates that the Japanese Ministry of Defense will study the utility of a conventional strike capability.

The development of a conventional strike capability could be particularly advantageous in enhancing the response time to a potential ballistic missile launch. As articulated by former senior Pentagon official Brad Roberts, U.S. missiles tipped with nuclear weapons are the only capability the United States currently possesses that can respond in a very prompt time frame.[72]

South Korea, which is also protected by the U.S. extended deterrent, is thus acquiring independent conventional strike capabilities, including cruise missiles and short-range ballistic missiles, to counter North Korea. In 2001 and 2012, South Korea, after extensive bilateral negotiations, received U.S. approval for expanding the range of its ballistic missiles to be able to hold at risk valued targets in North Korea. Discussing the possibility of a North Korean ballistic missile attack, a former South Korean governmental official stated "We cannot solely rely on extended deterrence when such a contingency arises."[73]

The development of South Korean conventional strike capabilities is not without controversy. Scholar Jeffery Lewis questions its practicality, arguing that

it is unclear whether conventional strike weapons could effectively deter provocations, or successfully target North Korean road-mobile missiles.[74] Although South Korea and Japan deal with different security considerations, South Korea's determination to acquire a conventional strike capability could influence Japan's thinking about developing a similar ability to counter a ballistic missile threat from North Korea.

Unlike South Korea, however, Japan faces political challenges in developing a conventional strike system because of its exclusively defense-oriented policy. Given this mandate, a preemptive conventional strike capability would appear excessive, if not illegal. But, as scholar Sugio Takahashi writes, Japan's defense policy also states that, if no other means are available, then Japan should not "sit and die," meaning that developing a strike capability and Japan's defense-oriented policy are not necessarily mutually exclusive.[75] Nonetheless, restrictions in current defense policy have complicated consideration of a conventional strike capability. Since the early 2000s, several members of the Diet have raised the option of developing a strike capability, without any great result.[76]

A possible benefit of this domestic debate in Japan is that public discussion surrounding a conventional strike capability may in itself send a signal to North Korea and China that their belligerence could have serious consequences. So, although the Japanese government recognizes that developing such a capability would pose a serious technological and political challenge, it allows the debate to continue. A Japanese defense policy specialist noted that simply considering a conventional strike capability in a public setting such as the Diet has a "propaganda deterrent effect vis-à-vis our neighbors without acquiring anything eventually" and that the discussion is a "needed political show."[77]

Even if there were sufficient political will to develop a conventional strike capability, acquiring an effective system would need to clear a series of technological hurdles. Successfully targeting North Korean ballistic missiles such as the Nodong is particularly difficult because those systems are road-mobile. Using conventional strike systems to counter Chinese missiles would likely prove similarly challenging, as Beijing also deploys road-mobile missiles. Real-time intelligence would be necessary to pinpoint the exact location of the missile, which could require an operational time frame as short as 30 minutes. Currently, Japan does not have the intelligence, reconnaissance, and surveillance (ISR) capabilities to ensure that such a mission would be successful, although Japan and the United States are currently increasing coordination of ISR. Coordination between Japan and the United States on command and control would also be necessary. Thus, the development of a conventional strike capability would necessitate broad support and cooperation from the United States. Moreover, it is still unclear that the technological challenges facing a Japanese strike capability could be overcome in the short-term.[78]

Aside from the large political and technological challenges associated with a conventional strike capability, there are additional considerations. Developing a strike capability, including the required networks for close coordination with the U.S. military on command and control and ISR, would be expensive. Given Japan's limited defense budget, investment in a conventional strike capability would necessitate reductions in funding for other defense systems. Additionally, the U.S.-Japan alliance would need to consider the effect of the development of a strike capability on regional security, especially on the reactions and possible responses of those neighboring countries that would be the likely targets of such a capability. As articulated above, a strike capability could, in certain circumstances, enhance Japanese security, but it could also ultimately destabilize the broader security environment.

Because of Japan's restrictive defense policy, the serious technological and budgetary challenges to developing and fielding a successful a conventional strike capability, and the possible implications for the regional security environment, it would be premature for Japan (and for the U.S.-Japan alliance) to invest in such a system.

BALLISTIC MISSILE DEFENSE

The United States and Japan first discussed ballistic missile defense (BMD) cooperation during President Reagan's "Strategic Defense Initiative." Since then, Japan's investments in BMD have steadily expanded with the assistance of the United States. Prior to the 1990s, Japan was hesitant to cooperate with the United States on BMD, due to monetary costs and concerns in Japan that BMD would violate its constitutional ban on arms exports and contravene its policy prohibiting collective self-defense.[79] Japanese policy began to shift after Iraq's use of SCUD missiles during the 1991 Gulf War, which revealed the threat of short-range missiles. A second influencing factor was the 1993 North Korean Nodong missile launch into the Sea of Japan.[80] However, the true watershed event motivating formal cooperation on BMD was North Korea's 1998 Taepo Dong I missile test. The test, in which the North Korean missile passed through Japanese airspace, drove home Japanese vulnerability to a DPRK ballistic missile attack. Shortly after the test, Japan signed a memorandum of understanding with the United States to begin joint research and development on Aegis BMD.[81] In 2003, Japan's cabinet and Security Council decided to deploy a multi-layer BMD system.

Most recently, both parties have increased cooperation through the co-development of an advanced missile interceptor, the Standard Missile (SM-3) Bloc IIA missile, which is part of the Aegis system. If the Abe administration adopts collective self-defense, this missile may give Japan the ability to defend U.S. bases in addition to its own territory from a missile attack. A reinterpretation of the Japanese constitution could also increase prospects for a trilateral BMD cooperation agreement between Japan, South Korea, and the United States, although the current state of Japanese-South Korean relations may hinder such cooperation.

Japan currently has four deployed, shipboard Aegis ballistic missile defense systems with SM-3 Block IA interceptors and will acquire two more systems by 2018.[82] Japan also plans to augment its existing fleet of 17 Patriot Advanced Capability (PAC)-3 systems.[83] The United States and Japan are currently working on the co-development of the latest generation SM-3 Block IIA system, which will provide the capability to defend larger geographic areas and to counter longer-range ballistic missiles, most notably from North Korea.[84]

According to one Japanese scholar, the breadth of ballistic missile defense capabilities ultimately deployed by the United States and Japan will depend on North Korea's development of ballistic missiles and nuclear weapons. To counter the North Korean nuclear threat, Japan would have to ensure that its BMD system could consistently intercept incoming missiles of the range and type fielded by the DPRK.[85] But Japan and the United States must also consider the high price tag of BMD. As Japan looks to invest more in defense to increase its maritime capabilities in the event of a military clash with China, Tokyo will need to decide how much money it can dedicate to BMD.

The United States and Japan have also prioritized coordination on information collection to support BMD. Japan has invested in radar capabilities, recently installing four ground-based X-band radar sites and modifying seven radar systems, alongside investments in the Japan Air-Defense Ground Environment (JADGE).[86] JADGE is a $935 million project intended to enhance Japan's automated air warning and defense control system.[87] In 2006, the United States forward-deployed an X-band radar to support Japan, enhancing Tokyo's early-warning capability; the United States plans to expand its radar coverage in the future.[88] In March 2012, the Japanese Air Defense Command Headquarters was moved from Fuchu to the U.S. Air Base at Yokota, establishing the Bilateral Joint Operations Coordination Center.[89] This centralization allows the U.S. and Japanese militaries to work closely to address pressing ballistic missile threats.

Cooperation on BMD has broad support in both the United States and Japan. However, Japan's development of BMD capabilities was not originally

envisioned with the objective of supporting extended deterrence. A Japanese defense policy expert explains, "Tokyo did not start working on missile defense to support extended deterrence. It was about defending Japan against North Korea."[90] However, ballistic missile defense is increasingly being thought of as a capability that would enhance the overall extended deterrence relationship. This evolution provides more space for Japan to be an active participant in the alliance. As stated by one Japanese scholar, "What is important is that, once missile defense is included in the broader picture of deterrence, then Japan can say that is has its own independent role in the alliance."[91]

Japan's ability to actively participate in the alliance may increase in the event that the Abe administration adopts collective self-defense. Currently, under its constitution, Japan is not permitted to use its BMD system to engage a missile targeting a U.S. base if the target is outside of Japanese territory. One Japanese defense specialist notes, "If there is a possibility that our Aegis can intercept beyond our territory, this would be a very important signal for the U.S.-Japan alliance. Our Aegis needs to be able to deal with a missile that can go to Hawaii, can go to Guam, so that it can protect deployed forces."[92] A former Japanese government official argues that the issue of collective self-defense is more a political issue than one of military hardware. A reinterpretation of the constitution does not necessarily mean that Japan will acquire new military capabilities for collective self-defense. Instead, such a change would allow for a discussion about using existing capabilities in new ways.[93] Using BMD to protect the United States or U.S. forces is one key example of how collective self-defense could change Japan's broader defense policy.

Changes that allow Japan to adopt "collective self-defense" could also pave the way for greater coordination between the United States, Japan, and South Korea on BMD. In April 2013, General Martin Dempsey, the Chairman of the Joint Chiefs of Staff, recommended that the three states join their resources and capabilities to create a "collaborative, trilateral ballistic missile defense architecture," stating that this structure "will be better than the sum of its individual parts."[94] Collaboration between the United States, Japan, and South Korea could potentially integrate ballistic missile defense capabilities to create a system similar to the European Phased Adaptive Approach to counter the ballistic missile threat from Iran.

Integrated BMD could enhance deterrence against North Korea, but the benefits may not be equally shared. As a Japanese government official noted, because of geographic proximity, South Korea's radar could provide valuable information to Japan about North Korea. Information from South Korean radars could provide Japan with an additional 10 to 15 seconds for a BMD operation, when every second would be precious.[95] Strained Japanese-South Korean relations complicate the potential for cooperation. In 2010, Japan and South Korea came close to signing a military information-sharing agreement, but South Korean domestic opposition ultimately stalled the agreement.[96] This agreement, known as the General Sharing of Military Information Agreement, could have produced improved information-sharing on BMD. Deeper historical tensions between Japan and South Korea, such as the issue of "comfort women," may be too divisive, at present, to allow for cooperation on defense issues such as BMD. However, once relations between the two states improve, the prospects for an integrated BMD system should be considered.

Finally, the United States and Japan must consider the ways that their cooperation on BMD will affect third parties, especially China. While the U.S.-Japan alliance views further investments in BMD as a way to a maintain balance of power vis-à-vis China, Beijing could perceive further cooperation between the two states as aggressive. As Brad Roberts writes, a key question will be China's response to the U.S.-Japan co-development of the SM-3 Block IIA interceptor. Beijing may calculate that the integration of the advanced interceptor detracts from its ability to threaten U.S. bases in Japan.[97] If China feels that further U.S.-Japan cooperation on BMD undermines its

own nuclear deterrent, it may retaliate by conducting further nuclear force modernization, increasing the size of its nuclear force, or quickening its build-up of conventional forces. Moving forward, the allies must carefully weigh the costs of their bilateral coordination vis-à-vis China.

Conclusion and Recommendations

Tension and instability seem to be on the rise in Northeast Asia. In order to prevent or effectively respond to crises, the United States and Japan should strengthen their alliance. The alliance is confronted with challenges from North Korea, which is committed to advancing its missile and nuclear weapons program, and China, which is building up its conventional forces and modernizing its nuclear forces. All facets of deterrence—nuclear, conventional, and political—are critical in strengthening the alliance's ability to respond to the present threats. In particular, the alliance should explore an enhanced role for advanced conventional forces, which North Korea and China could perceive as a more credible deterrent, given the current security environment defined by low-level conflicts.

Specifically, advances such as conventional strike and expanded ballistic missile defense could strengthen deterrence and bolster the U.S.-Japan alliance. These capabilities have the potential to effectively deter or disrupt ballistic missile strikes from North Korea or China. Historically, the United States has assumed the majority of the burden for providing protection to the alliance. However, changing defense policies could allow Tokyo to play a more active role in the alliance, and provide protection to U.S. forces and bases in the Northeast Asian theater. Moving forward, the U.S. government should seek to engage the Japanese government in line with the following considerations:

- In response to the shifting security relationships in Northeast Asia, the United States and Japan should engage in deeper consultation, taking advantage of existing mechanisms such as the Security Consultative Committee and the Extended Deterrence Dialogue.
- The allies should meet each other halfway: the United States can strengthen its extended deterrent to assure Japan, and Japan can lighten the United States' burden by contributing more capabilities to the alliance.
- The United States, Japan, and South Korea should establish a mechanism to explore trilateral military cooperation, as political relations permit. While full-scale cooperation on BMD may not be achievable in the short-term, low-level confidence building measures, such as information sharing on common threats, could bolster security and enhance trust between the three states.
- In the short term, Japan should not develop an independent conventional strike capability. The development of such a capability would be politically difficult due to Japan's exclusively defense-oriented policy. Moreover, the technological challenges of targeting road-mobile missile launchers—the potential targets of greatest interest—would require extensive U.S. support. Even with such support, there would be no guarantee that a conventional strike capability would be effective against such targets. The decision to pursue a conventional strike capability, in particular, by the Abe administration, would also likely be perceived as highly provocative by regional neighbors, most prominently China.

- In the long-term, Japan should consider developing a conventional strike capability to strengthen deterrence in the alliance. A conventional strike capability could preempt a North Korean ballistic missile launch, or punish North Korea after it had launched a ballistic missile. Although public discussions about conventional strike focus on the capability's ability to counter North Korea, a strike capability could also be used to counter China in the future. But the technologies for conventional strike and the associated ISR capabilities need to mature.

- The United States and Japan should expand coordination on ballistic missile defense. If the Abe administration adopts collective self-defense, the alliance should consult on how Japan could become more proactive in protecting U.S. territory and assets, including Guam and Hawaii, in the Asian-Pacific theater.

- In the long-term, with improved Japanese-South Korean relations, trilateral cooperation on ballistic missile defense should be revisited. Trilateral ties on missile defense could more effectively counter threats in the Asia-Pacific theater through integrated missile defense and information sharing systems.

Given the evolving security environment in Northeast Asia, the United States and Japan have an interest in strengthening their bilateral alliance. Maintaining close consultations can contribute to this, as can changes to Japanese defense policy and acquisition of some advanced conventional capabilities, particularly in the BMD area.

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