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JAPAN'S SECURITY ROLE AND CAPABILITIES IN THE 2020s

Japan as a Regional Security Leader

by Roger Cliff



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Cover photo credit: Reuters. A Japan Coast Guard vessel sails in front of one of the disputed islands in the East China Sea.

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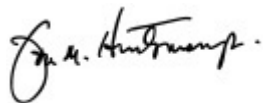
Foreword

A new era is dawning in the Asia-Pacific. After two and a half decades in which US military dominance has ensured regional peace and prosperity, China's rapid growth in power is threatening the prevailing order. As the region faces a host of challenges that include North Korea's nuclear development scheme, the questionable future of the Pyongyang regime, and escalating territorial disputes in the South China Sea, China's role remains undefined.

Fortunately, the Asia-Pacific region is home to many vibrant democracies that can work together to promote their common set of values and to ensure the region's continued stability and prosperity. As the world's third largest economy, Japan is one such example, and has recently enacted revisions to its national security laws that would allow it to increase its use of armed forces and assume a greater role in regional security affairs. Further reaffirming Japan's commitment in this regard, Japanese Prime Minister Shinzo Abe has pledged to increase the funding for Japan's defense forces.

This report by Roger Cliff recommends that Japan should continue down the path to establish itself as a regional security leader. Nevertheless, while Japan's current military structure holds the capabilities to meet the demands of such an expanded role, there are certain areas, such as maritime domain awareness, cyber defense, and coast guard capabilities, that require improvement. Funded by the MacArthur Foundation as part of the Atlantic Council Asia Security Initiative, this report aims to analyze and provide policy recommendations to address such shortcomings.

We hope that this report will stimulate discussions on Japan's future role in the region both within Japan and more broadly within the Asia-Pacific region, and further contribute to the Japanese-US dialogue. As the strategic dynamics shift in the Asian-Pacific landscape, the United States and other democracies face a crucial call for action—to step up and lead the way at this historic moment. Japan has a vital role to play in this transformation and in ensuring the future peace, freedom, and prosperity of the region.



Jon M. Huntsman, Jr.
Chairman,
Atlantic Council

Executive Summary

Security challenges and opportunities for Japan are growing. China has emerged as a major military power. China's current use of maritime law enforcement vessels to challenge Japan's control over the Senkaku Islands and verbal threats against Taiwan could escalate to the actual use of force. North Korea is developing a missile-deliverable nuclear weapon, and the long-term stability of the Pyongyang regime is questionable. Natural disasters and other catastrophic events will continue to periodically occur throughout Asia. Partly in response to these challenges, Japan's legislature recently enacted revisions to the country's national security laws that loosen limitations on the use of Japan's armed forces, and the government of Prime Minister Shinzo Abe has pledged to increase defense spending.

This report is the result of a year-long study of Japan's future security roles and capabilities. The goal of the study was to identify security roles and associated capabilities for Japan that are in the interests of both Japan and the United States; and that are consistent with the concerns and desires of the people of Japan and Asia more broadly, and with Japan's fiscal and technological realities. The report recommends that Japan assume a more active role in regional security affairs, but acknowledges that it is not feasible or desirable for Japan to supplant the United States as the region's security guarantor or to acquire military capabilities comparable to those of the United States. Instead, the role that Japan should seek to play over the next ten to fifteen years is that of a *regional security leader*; a nation that takes the lead in organizing multilateral responses to regional security challenges. This entails increasing Japan's capability to contribute to the response to crises in the region as well as increasing its capability to respond to direct challenges to its security. It does not, however, entail Japan becoming a fully autonomous security actor. For that and other reasons, Japan should continue to remain closely allied with the United States.

For Japan to play the role of regional security leader in the coming years, its security forces should be prepared to respond to nine broad types of demands for their capabilities:

- contingencies on the Korean peninsula;
- contingencies in and around the Senkaku Islands;
- defense of other Japanese islands;
- contingencies in and around Taiwan;
- contingencies in the South China Sea;
- natural and man-made disasters;
- international security operations;
- partner capacity-building; and
- regional security cooperation activities.

To respond to these demands, Japan's security forces will need to increase their capabilities in a number of specific areas. Highest priority should be given to the following areas:

- maritime domain awareness;
- cybersecurity;
- reduced vulnerability of critical civilian facilities to physical infiltration and attack;
- logistic support to US and other security partner forces;
- missile defense;
- anti-submarine warfare;
- base defenses;
- strengthened coast guard authorities and capabilities; and
- interoperability with US and other partner security forces.

In the course of acquiring these capabilities, Japan has the opportunity to dramatically reduce its cost of procuring military equipment. Now that it has lifted its self-imposed prohibition on weapons exports, Japan should engage in the cooperative development and production of weapons with other advanced countries, such as the United States, whenever possible. This will enable Japan to invest just as much in its domestic defense industries as it did before, while significantly reducing per-unit acquisition costs for Japan's Self-Defense Forces (SDF) and providing the country's

defense industries with access to much larger markets for their products.

Any increase in Japan's security role and capabilities must also be accompanied by efforts to assure other countries in the region that these increases do not threaten their legitimate security interests. Japan's leaders should continue to acknowledge and accept responsibility for the suffering caused by Japan's aggression in the late nineteenth and first half of the twentieth century and to pledge that such acts will never be repeated.

Japan's security does not exist in isolation. It is in the interests of Japan's neighbors and the United States that Japan becomes a regional security leader. The United States, therefore, should facilitate Japan's efforts to become a regional security leader by taking the following actions:

- support Japan's acquisition of new capabilities by sharing technical information and cooperating more closely at the operational level;
- strengthen the US capability to deter and respond to missile threats to Japan; and
- jointly develop new weapon systems with Japan.

Introduction

Security challenges and opportunities for Japan are growing. Over the past decade, China has emerged as a major military power, and its official defense budget has grown from \$30 billion in 2005 to \$145 billion in 2015.¹ Since 2012, moreover, China has begun to actively contest Japan's control over the islands that Japan calls the Senkaku and China calls the Diaoyu, which both countries regard as part of their national territory.² Beijing also continues to assert the right to use force against Taiwan, which has been self-governing since the Nationalist government retreated there in 1949, after being defeated by the Communists in the Chinese Civil War. Because the United States is pledged to defend Taiwan and would need to operate out of bases in Japan in the event of a conflict over Taiwan, such a conflict would almost certainly draw in Japan.

Also, North Korea has conducted three nuclear weapons tests in the past decade and might be close to acquiring the capability to mount a nuclear weapon on a missile that could reach Japan. In recent years, North Korea also attacked and sank the South Korean corvette *Cheonan*, killing forty-six sailors, and shelled South Korea's Yeongping Island, killing four people, including two civilians.³ Meanwhile, Japan has been playing an increasingly important role in contributing to regional and international security, as exemplified by the more than two dozen disaster-relief and United Nations (UN)

peacekeeping operations it has participated in since 2005.⁴ At the same time, Japan's self-imposed limitations on the use of its armed forces have gradually loosened.⁵

Even greater challenges and opportunities could lie ahead. China's military capabilities will continue to grow, and its behavior could potentially escalate from the current use of maritime law enforcement vessels to challenge Japan's control over the Senkaku Islands and of verbal threats against Taiwan to the actual use of force. North Korea will eventually succeed in developing a missile-deliverable nuclear weapon, and the long-term stability of the Pyongyang regime is questionable. Also, natural disasters and other catastrophic events will periodically occur throughout Asia.

SECURITY CHALLENGES AND OPPORTUNITIES FOR JAPAN ARE GROWING.

In response to these developments, in April 2015, Japan and the United States announced new defense cooperation guidelines. These guidelines, the first since 1997, significantly expanded the scope of defense cooperation between the two countries. Japan's legislature recently enacted revisions to Japan's national security laws that further loosen limitations on the use of Japan's armed forces.⁶ Specifically, the new legislation, allows for the first time Japan to come to the defense of another country, even if Japan itself is not directly under attack. It also allows Japan's Self-Defense Forces (SDF) to be dispatched overseas to contribute to international

1 National Bureau of Statistics of China, *China Statistical Yearbook 2007* (Beijing: China Statistics Press, 2007), tables 8-4, 18-2; Edward Wong and Chris Buckley, "China's Military Budget Increasing 10% for 2015, Official Says," *New York Times*, March 2015, http://www.nytimes.com/2015/03/05/world/asia/chinas-military-budget-increasing-10-for-2015-official-says.html?_r=1.

2 For the purposes of this report, we will refer to the islands as the 'Senkaku Islands.'

3 United Nations Security Council, "Letter Dated 4 June 2010 from the Permanent Representative of the Republic of Korea to the United Nations Addressed to the President of the Security Council," <http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/DPRK%20S%202010%20281%20SKorea%20Letter%20and%20Cheonan%20Report.pdf>; Seo Yoonjung and Keith B. Richburg, "2 Civilians Killed in North Korean Artillery Attack," *Washington Post*, November 24, 2010, <http://www.washingtonpost.com/wp-dyn/content/article/2010/11/23/AR2010112300880.html>. Although Pyongyang has denied that it sank the *Cheonan*, the evidence that it did so is overwhelming.

4 Japanese Ministry of Defense, "The Contribution of the Ministry of Defense and Self-Defense Forces in Overseas Activities," http://www.mod.go.jp/e/publ/pamphlets/pdf/member_of_g-community/g-community_ep.pdf.

5 For an overview of changes in Japan's security policy since 1992, see Bhubbinder Singh, "The Development of Japanese Security Policy: A Long-Term Defensive Strategy," *Asia Policy*, no. 19, January 2015, pp. 53-56.

6 "Raucous Diet Battle Ends as Upper House Passes Security Bills," *Asahi Shimbun*, September 19, 2015.

peace support operations, without having to first be authorized by the legislature in each individual case. In addition, the government of Prime Minister Shinzo Abe has pledged to increase the amount of defense spending in Japan. Thus, even as potential security challenges increase, Japan has committed to playing an increasingly important role in contributing to regional and international security.

However, Japan's growing security capabilities and activities have caused concern both domestically and internationally. Domestically, some fear a return of the militarism of the 1930s and 1940s, which ultimately brought disaster upon Japan. Internationally, Asian countries—particularly China and South Korea—are suspicious about the idea of Japan playing a greater role in regional security affairs. Any decisions to significantly increase Japan's security role and defense capabilities, therefore, must be made carefully. Otherwise, they may engender domestic opposition or provoke reactions from other countries that could ultimately reduce Japan's security.

JAPAN HAS COMMITTED TO PLAYING AN INCREASINGLY IMPORTANT ROLE IN CONTRIBUTING TO REGIONAL AND INTERNATIONAL SECURITY.

This report is the result of a year-long study of the security role Japan should aspire to play in the 2020s and the capabilities Japan's security forces will need to possess to play that role.⁷ The goal of the study was to identify a Japanese security role and associated capabilities that are in the interests of Japan and the United States and that are consistent with the concerns and desires of the people of Japan and Asia more broadly, as well as with Japan's fiscal and technological realities. The report is based on interviews with government officials and analysts in the United States, Japan, South Korea, and China; analysis of government

publications, scholarly articles, and news reports; and consideration of the geopolitical, technological, and economic dynamics at work in Asia and globally.

The analytic approach employed was a variant of the strategies-to-tasks methodology.⁸ It considered a range of potential future security roles for Japan, from a continuation of the role it has played until recently—one focused almost exclusively on the territorial defense of Japan, with the exception of contributing to international peacekeeping and disaster-relief efforts—to that of a fully autonomous, “normal” nation with no self-imposed limitations on the use of its defense and security capabilities. The different types of demands for Japan's security forces that could result from each alternative role, the missions that the security forces could be called upon to perform in response to those demands, and the capabilities that would be needed to perform those missions were then identified. Finally, the political, fiscal, and technological feasibility of alternative roles and associated capabilities were assessed to determine which roles and capabilities were in the best interests of Japan, the United States, and regional and global security.

The security roles and capabilities that were assessed to be in the best interests of Japan, the United States, and regional and global security, in turn, implied a set of specific recommendations. The focus of the study was on the medium and long terms, and the scale of the study was such that in-depth analysis of every aspect of Japan's security was not possible. Therefore, these recommendations come in the form of capabilities that Japan should acquire (or not acquire), or should subject to more in-depth study, rather than specific activities that Japan should engage in or specific systems that it should purchase.

7 The term “security” as used in this report is broader than merely national defense. It also includes security against threats, such as piracy and terrorism, to which civilian organizations, such as coast guards and police forces, are the appropriate means of responding. It also includes threats from nonhuman sources, such as natural disasters or infectious diseases, to the extent to which they create emergencies to which security forces may be called upon to respond. It does not, however, include security against threats such as ordinary crime, chronic diseases, economic crises, or global climate change.

8 David E. Thaler, *Strategies to Tasks: A Framework for Linking Means and Ends* (Santa Monica: RAND Corporation, 1993).



Japan's Ground Self-Defense Force Special Honor Guard stand in formation awaiting the arrival of the US Chief of Naval Operations, Adm. Mike Mullen, Tokyo, January 2006. *Photo credit: US Navy/Wikimedia Commons.*

Japan's Future Security Environment

Japan's security environment over the next ten to fifteen years will be dominated by two major challenges. The first of these is North Korea. Although its conventional military capabilities are outdated, and a North Korean attempt to invade and conquer South Korea no longer seems plausible, North Korea still has the capability to launch destructive attacks on its neighbors through ballistic missile strikes, artillery bombardment, limited ground offensives, or raids by surface ships, submarines, aircraft, or commandos. Of particular concern is the fact that North Korea possesses biological and chemical weapons and is expected to soon complete the development of nuclear warheads that can be mounted on missiles. Moreover, North Korea's political stability is questionable. Perceived external or internal threats to the ruling regime could potentially cause it to launch attacks against its neighbors either in an effort to deter or loosen external pressures or as a way of solidifying domestic support behind the ruling regime. Internal political struggles could also result in a civil war or an inability of the regime to continue to govern the country, either of which could cause a major humanitarian crisis within North Korea and large-scale refugee flows out of the country. All of these things, moreover, could result

in a decision by the South Korean and US governments to conduct large-scale military operations against North Korea or even an occupation of the country. Any of these events would have a major impact on Japan's security and would likely create significant demands for Japan's security forces.

The second major security challenge Japan is likely to face over the next ten to fifteen years is the growth of China's military capabilities and Beijing's increasing assertiveness in its disputes with other countries. China's defense spending in 2015 will be more than 600 percent greater in real terms than it was in 1995,⁹ and its military capabilities have grown correspondingly. Beijing claims lands administered by several other

9 National Bureau of Statistics of China, *China Statistical Yearbook 2007* (Beijing: China Statistics Press, 2007), table 8-4; National Bureau of Statistics of China, *China Statistical Yearbook 2014* (Beijing: China Statistics Press, 2014), tables 3-1, 3-5; "China 2015 Defense Budget to Grow 10.1 pct, Lowest in 5 Years," Xinhuanet, March 5, 2015, accessed September 16, 2015, http://news.xinhuanet.com/english/2015-03/05/c_134039029.htm; Li Keqiang, "Full Text: Report on the Work of the Government (2015)," State Council of the People's Republic of China website, accessed September 16, 2015, http://english.gov.cn/archive/publications/2015/03/05/content_281475066179954.htm.

THE ROLE THAT JAPAN SHOULD SEEK TO PLAY OVER THE NEXT TEN TO FIFTEEN YEARS IS THAT OF A *REGIONAL SECURITY LEADER*, A NATION THAT TAKES THE LEAD IN ORGANIZING MULTILATERAL RESPONSES TO REGIONAL SECURITY CHALLENGES.

governments—including the Senkaku Islands, Taiwan, islands in the South China Sea, and areas along China's border with India—as Chinese territory. In recent years, China has become increasingly assertive about these claims. Since 2012, China has been contesting Japan's control over the Senkaku Islands. In the South China Sea, since 2011, China has seized control of Scarborough Shoal, a group of reefs and rocks also claimed by the Philippines; interfered with Philippine and Vietnamese ships conducting surveys or resupplying garrisons on features held by those countries; and performed exploratory drilling for oil and gas in waters also claimed by Vietnam. From 2013 until the present, China has been engaged in building massive artificial islands and facilities on features that it occupies. Meanwhile, Beijing has never renounced the possibility of using force to bring about Taiwan's reunification with mainland China. Beyond China's territorial disputes, moreover, the Chinese government has begun to talk about using military force to protect China's overseas interests.¹⁰ Managing an increasingly assertive and militarily powerful China will likely be an ongoing challenge for Japan and other countries in the region in the coming years.

Along with these two dominating security concerns will be growing demands for Japan to contribute to international security initiatives throughout the region and the world. This will include responding to natural and manmade disasters, providing forces for peacekeeping and peace building, and improving the security capabilities of other countries.

Japan's Future Security Role

Under these circumstances, it is not in Japan's interest—nor in that of regional security and stability—to play a passive, self-focused security role. The United States has long been the region's security guarantor. Given the growing severity of security challenges and the global demands on the United States, however, the region needs other countries to supplement the United States in that role. As the most militarily capable Asian democracy, Japan is the most important nation in this regard. The future security and stability of East Asia, therefore, require Japan to assume a more active role in regional security affairs.

At the same time, limits remain on the role that Japan can play. Japan's recent economic difficulties and its government's serious fiscal constraints make it unrealistic to expect a significant increase in the financial resources allocated to defense in the near term. Japan's history of aggression, moreover, means that the people of Japan and elsewhere in the region are wary of Japan taking on too expansive of a security role. There has been significant domestic opposition to the revisions to Japan's national security laws.¹¹ For these reasons, within the timeframe under consideration for this study, it is not feasible or desirable for Japan to supplant the United States as the region's security guarantor or to acquire military capabilities comparable to those of the US military.

Instead, the role that Japan should seek to play over the next ten to fifteen years is that of a *regional security leader*, a nation that takes the lead in organizing multilateral responses to regional security challenges. This does not mean that Japan would always be in the leading role, but that it would have the initiative and capabilities to do so when needed. Playing such a role will require Japan to increase its capability to contribute to crises response in the region. At the same time, its capability to respond to security challenges directly affecting Japan must also increase in accordance with the increasing severity of those threats. Being a regional security leader does not, however, entail Japan becoming a fully autonomous security actor. Instead, Japan should continue to remain closely allied to the United States.

10 State Council Information Office of the People's Republic of China, "China's Military Strategy," May 2015, http://english.chinamil.com.cn/news-channels/2015-05/26/content_6507716.htm.

11 Tomohiro Osaki, "Thousands Protest Abe, Security Bills at Diet Rally," *Japan Times*, August 30, 2015.

Potential Future Demands for Japan's Security Forces

As with any country, it is difficult to predict the specific events to which Japan's security forces will be called upon to respond in coming years. However, identifying a range of plausible potential demands for Japan's security capabilities and then determining the capabilities needed to respond to those demands will likely identify most or all of the security capabilities that will be needed from Japan over the next decade or so.

Interviews and analysis of political, economic, technological, and security dynamics in the region suggest that Japan's security forces should be prepared to respond to nine broad types of demands for their capabilities in coming years:

- contingencies on the Korean peninsula;
- contingencies in and around the Senkaku Islands;
- defense of other Japanese islands;
- contingencies in and around Taiwan;
- contingencies in the South China Sea;
- natural and man-made disasters;
- international security operations;
- partner capacity-building; and
- regional security-cooperation activities.

Korean Peninsula

Three main types of contingencies on the Korean peninsula could result in demands for Japan's security capabilities: *large-scale attacks* on South Korea and/or Japan, *civil war* in North Korea, and *state failure* in North Korea.

An all-out North Korean attempt to invade and conquer South Korea seems unlikely, given the improbability that such an attempt would succeed in the face of the vast technological superiority of South Korean and US forces, which even the North Korean leadership must recognize. Still, the possibility of large-scale attacks against South Korea and Japan cannot be dismissed. North Korea has conducted low-level attacks in recent years, including the 2010 sinking of the *Cheonan* and the shelling of Yeonpyeong Island. It is not difficult to imagine the North Korean leadership finding itself in circumstances such that they felt that the best way of staying in power was to initiate larger-scale attacks on South Korea or Japan. The goal of such attacks might be to force the outside world to rescind sanctions against North Korea or to provoke counterattacks that would divert the domestic population's attention away from

problems that were causing internal unrest. Large-scale North Korean attacks could come in the form of artillery bombardments, missile attacks, a limited invasion of South Korean territory, or raids by naval craft, aircraft, submarines, or commandos. They could also entail computer network attacks designed to corrupt or disable military or civilian information systems or even to damage or destroy physical installations by hijacking their computerized control systems.¹²

THE POSSIBILITY OF LARGE-SCALE NORTH KOREAN ATTACKS AGAINST SOUTH KOREA AND JAPAN CANNOT BE DISMISSED.

If the attacks were limited to South Korea (and/or US forces based near South Korea), Japan's security would not be directly affected. However, Japanese nationals and businesses in and around South Korea would be at risk, and there could be a need to evacuate Japanese nationals from South Korean territory. If the attacks were directed at Japan, the country would need to defend itself against ballistic missiles possibly armed with chemical, biological, or nuclear warheads; raids by naval craft, aircraft, submarines, or commandos; and computer network attacks on Japanese civilian and military computer systems.

If the North Korean attacks were severe or sustained enough, they could result in an invasion of North Korea, led by South Korea and the United States. These forces would almost certainly defeat North Korea, but the human and material costs of the operation could be enormous. Even after a victory, South Korea and the United States would likely be faced with an extended commitment of military forces for the occupation of North Korea, with at least sporadic resistance from

12 In November 2014, North Korean hackers apparently deleted files, stole digital copies of unreleased movies, and posted to the Internet sensitive personal information of Sony Pictures employees, in presumed retaliation for the planned release of a comedy about a CIA plot to kill North Korean leader Kim Jong-un. Although no one was killed or injured, and no physical damage occurred as a result of this attack, it did suggest that North Korea's cyber warfare capabilities were significant. See Ellen Nakashima, Craig Timberg, and Andrea Peterson, "N. Korea's Fingerprints Seen on Sony Cyber-Hit," *Washington Post*, December 4, 2014, pp. A1, A14.

remnants of the North Korean forces. It is unlikely that Japan would be called upon to contribute forces to an invasion, as South Korea would almost certainly oppose the presence of Japanese military forces on the Korean peninsula.¹³ However, Japan would probably be asked to provide logistical support for any US forces involved in the operation and possibly to contribute supplies for the South Korean forces. In addition, Japanese antisurface warfare and antisubmarine warfare capabilities could be valuable in protecting US and South Korean naval vessels from attack by North Korean naval craft and submarines in the Sea of Japan and the Yellow Sea.

A CIVIL WAR IN NORTH KOREA WOULD RESULT IN SIGNIFICANT NUMBERS OF NORTH KOREANS BEING KILLED, INJURED, OR DISPLACED. IF THE CIVIL WAR WERE PROTRACTED, IT WOULD LIKELY ALSO RESULT IN LARGE NUMBERS OF PEOPLE ATTEMPTING TO FLEE TO CHINA, SOUTH KOREA, OR ELSEWHERE IN ASIA.

Civil war in North Korea would entail the country being divided under the control of two or more factions, each seeking to expand its control to the entire country. At a minimum, a civil war in North Korea would result in significant numbers of North Koreans being killed, injured, or displaced. If the civil war were protracted, it would likely also result in large numbers of people attempting to flee to China, South Korea, or elsewhere in Asia. In addition, it is possible that one of the North Korean factions in a civil war could launch attacks (e.g., missile strikes) on South Korea, Japan, or other countries, in the hope of provoking retaliation that would force the other factions to cease fighting the faction that had launched the attacks and instead cooperate with it in defending the nation against an outside enemy.

A key issue in a North Korean civil war would be whether, and in what way, South Korea and the United

States would intervene in the war. If intervention came purely in the form of providing material assistance or training and advisers for one or more of the factions, it might affect the severity or duration of the civil war; but the demands on Japan's security capabilities would probably not be significantly different than if those countries did not intervene at all. However, if the intervention came in the form of sending actual combat forces into the North (either in an attempt to impose a ceasefire, or in support of one or more factions), then the implications for Japan would be similar to those described above for a South Korean-US invasion.¹⁴

State failure in North Korea would mean that the Pyongyang government has lost its ability to control the country (except, perhaps, the capital). This could result from a progressive deterioration of the central government's ability to get officials and ordinary citizens to comply with its orders and directives. Or it could come from infighting within the top leadership that prevented the issuance of coherent guidance to lower-level officials.

If the North Korean government lost its control over the country outside Pyongyang, this would likely be accompanied by a deterioration of the economy and an increase in lawlessness, as the central government would be unable to provide public goods such as infrastructure or security. This, in turn, would likely cause increasing numbers of refugees to attempt to escape to China, South Korea, or Japan, either overland or by boat. Since a loss of governmental control would likely be associated with a weakening of the strict border controls currently in place in North Korea, the result could be large numbers of refugees attempting to reach China, South Korea, or elsewhere in Asia.¹⁵ If this happened, Japan's security forces could be called on to help respond to the refugees.

How the governments of China, South Korea, and the rest of the international community would react to state failure in North Korea is uncertain. In the 1990s, as much as 15 percent of North Korea's population—three million

14 If China also intervened in the civil war, it could severely complicate the conflict, unless China's intervention was in support of, or coordinated with, the US/South Korean intervention. In the worst case, there would be a risk of direct conflict between the two sides, which could potentially escalate into a general war between the United States and China. The consequences of such a possibility go beyond the scope of what Japan can reasonably plan for and, therefore, are not further considered in this report.

15 To date, the number of North Korean refugees who have made their way directly to Japan has been small. See "Japan Sends Nine North Korean Refugees to South Korea," BBC News, October 4, 2011, updated July 26, 2014, <http://www.bbc.co.uk/news/world-asia-pacific-15163099>. State failure in North Korea could cause these numbers to increase significantly, however, particularly if the governments of China or South Korea attempted to prevent refugees from reaching their countries.

13 Multiple interview sources confirmed the existence of strong South Korean opposition to the possibility of Japanese forces on the Korean peninsula.



North Korean leader Kim Jong-un stands on the conning tower of a submarine during his inspection of the Korean People's Army Naval Unit, June 2014. *Photo credit: Reuters.*

people—may have died of starvation, but there was no significant attempt by the international community to intervene.¹⁶ Thus, so long as some semblance of central government existed in Pyongyang, the international community would be reluctant to intervene in North Korea no matter how severe the humanitarian crisis—particularly since the North Korean government would now be presumed to possess nuclear weapons.

If state failure in North Korea persisted long enough or if the North Korean refugees crossing their borders and beaches became numerous enough, the governments of China and South Korea might feel compelled to take actions more significant than simply setting up refugee camps, forcing refugees to return to North Korea (as China has done in the past), or funneling humanitarian aid to North Korea. Such actions could range from taking control of “buffer zones” on the North Korean side of the Korean-Chinese border and demilitarized zone (i.e., establishing refugee camps inside North Korea rather than hosting the refugees on Chinese or South Korean territory). Responses could even include attempting to seize control of all of North Korea and installing a new government in Pyongyang.

If China and/or South Korea attempted to seize control of North Korea and install a new government in

16 Andrew Natsios, *The Great North Korean Famine: Famine, Politics, and Foreign Policy* (Washington, DC: United States Institute of Peace, 2001).

Pyongyang, the consequences would be similar to those of an outside intervention in a North Korean civil war, as described above. As in that case, it is unlikely that Japan would be called upon to contribute combat forces to the operation; but Japan would probably be asked to provide logistical support for any US forces involved and possibly to contribute supplies for the South Korean forces. In addition, such intervention could provoke North Korean attacks against the perceived sources of the intervention, including South Korea, China, or Japan. If that occurred, Japan's security forces could be called upon to help evacuate Japanese nationals from South Korean (or Chinese) territory, to defend Japan against missiles and other forms of attack, and to respond to the effects of chemical, biological, or nuclear weapons attacks.

A key issue in all Korean peninsula contingencies would be whether one or more North Korean factions would use chemical, nuclear, or biological weapons. North Korea is believed to have significant stocks of chemical weapons,¹⁷ and there is no obvious reason to assume that they would not be used if a civil war or a foreign invasion occurred. Such use would undoubtedly increase the civilian suffering in North Korea, particularly because civilians would be less likely than military forces to

17 Joseph S. Bermudez Jr., “North Korea's Chemical Warfare Capabilities,” 38 North, October 10, 2013, <http://38north.org/2013/10/jbermudez101013>, and Nuclear Threat Initiative, “Country Profile: North Korea/Chemical,” <http://www.nti.org/country-profiles/north-korea/chemical>.

have protective equipment. Any external forces present in North Korea would also potentially be subjected to chemical weapons attacks, and it is possible that the North Korean government—or a faction in a civil war—would choose to launch chemical weapons at targets outside of North Korea, such as Japan.

North Korea is also said to have as many as twenty-one types of biological-warfare agents, including smallpox and anthrax.¹⁸ If biological weapons were used, the effects would depend on the nature of the agent used. If it were an agent not easily spread between humans, such as anthrax, the effects would likely be limited to the immediate area of the attack. As with chemical weapons, then, what nations were affected would depend on whether outside powers had intervened in North Korea and where the attacks were directed. If, on the other hand, the attack used an agent more easily spread between humans, such as smallpox, people throughout the region and across the world could potentially be affected regardless of where the initial use occurred and regardless of whether outside powers had deployed forces into North Korea.

If nuclear weapons were used against another faction in a civil war in which no outside powers had intervened, then the consequences would largely be limited to North Korea, although the resultant fallout could reach China, South Korea, or Japan. If outside powers intervened but the attacks were confined to targets within North Korea, then South Korean, US, or other foreign troops in North Korea could be subjected to the effects of the nuclear explosions and their aftermath. But otherwise, the direct effects on China, South Korea, or Japan would be limited to those caused by fallout. It is possible, however, that nuclear attacks could be directed against real or perceived external sources of support for invading forces or support for one or more factions in a civil war. In this case, targets in South Korea, Japan, or elsewhere might be attacked.

Senkaku Islands

A range of security challenges could occur around the Senkaku Islands. At one end of the continuum would be a continuation or intensification of China's efforts to use non-military assets to contest Japanese control of the islands. This could involve more frequent incursions into the islands' territorial waters and airspace using Chinese maritime law enforcement ships and aircraft. More provocative would be an attempt to land Chinese civilians on one or more of the islands (e.g., ostensibly to man a meteorological station). Even more confrontational would be the use of Chinese ships and

aircraft in an attempt to prevent Japanese ships and aircraft from entering the islands' territorial waters and airspace. Finally, China could attempt to land uniformed military personnel on the islands.

Without using force, it would be impossible to completely prevent incursions by Chinese vessels and aircraft into the territorial waters and airspace of the Senkaku Islands. However, Japan would likely want to respond to increased incursions by continuing to send Japanese ships and aircraft to intercept and escort the Chinese ships and aircraft, as well as to continue to patrol the waters and airspace of the Senkaku Islands itself. Otherwise, Japan would risk China creating the appearance that it had taken administrative control over the islands. If possible, it would be better for Japan to do so using civilian assets (i.e., the Japan Coast Guard), to avoid causing, or creating the appearance of, escalation or disproportionality by Japan.

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If China attempted to deliberately land civilian (but potentially armed) personnel on one or more of the islands, Japan would ideally want to be able to prevent such a landing, preferably with civilian assets and with minimal force. If Chinese personnel nonetheless succeeded in landing on some of the islands, Japan would want to remove them (or force China to do so) to prevent the islands from appearing to have fallen under de facto Chinese control. As before, Japan would prefer to use the Japan Coast Guard to do this, to avoid the appearance of escalation or disproportionality by Japan. However, if the Chinese "civilians" landed on the islands turned out to be better armed than typical civilian personnel, or if the landed personnel were protected by Chinese military units, then removing them might require the employment of Japan's SDF.

If China used ships and aircraft in an attempt to physically block Japanese ships and aircraft from entering the islands' territorial waters and airspace, then Japan would want to overcome those efforts and continue to be able to send ships and aircraft into the islands' waters and airspace. Again, this would be to avoid the appearance of the islands having fallen under China's control. If China attempted to use lethal force to sink Japanese ships in the islands' territorial waters or shoot down Japanese aircraft

18 Nuclear Threat Initiative, "Country Profile: North Korea/Biological," <http://www.nti.org/country-profiles/north-korea/biological>.

attempting to enter the islands' airspace, then Japan would want to defeat those efforts.

If China conducted a full-scale military operation to land uniformed military personnel on the islands, then Japan would want the capability to thwart the operation. If the operation nonetheless succeeded in landing military forces on the islands, Japan would want to prevent China from being able to keep those forces on the islands.

Other Japanese Islands

While an invasion of the main Japanese islands seems unlikely at present, seizure of one or more smaller islands is conceivable within the context of another contingency, such as a conflict over the Senkaku Islands or Taiwan. For example, in a conflict over the Senkaku Islands, it is conceivable that, to support its efforts to seize and hold the Senkakus, China could also attempt to seize one or more of the southern Ryukyu Islands—such as Ishigaki-shima or Miyako-jima, which have harbors and airfields and are less than 150 kilometers from the Senkakus. Indeed, some in China have claimed that the Ryukyu Islands are actually Chinese territory.¹⁹ More generally, it is a core responsibility of all armed forces to be able to defend the home territory of the nation. Consequently, Japan's security forces need to be prepared to prevent and defeat an invasion of Japanese islands other than the Senkakus.

Taiwan

Although Japan has no direct security commitments to Taiwan, the United States does have such a commitment and, in many circumstances, would want to operate forces involved in the defense of Taiwan out of bases in Japan. Thus, a conflict between the United States and China over Taiwan would almost certainly impose demands on Japan's security forces.

China could attempt a variety of different types of uses of force against Taiwan. One possibility would be to seize a Taiwanese-held offshore island, such as Kinmen, which lies less than ten kilometers from the Chinese mainland. This island is probably not defensible, as China could bombard it with ordinary land-based artillery while blockading it using shore-based antiship missiles and surface-to-air missiles. While a Chinese amphibious, heliborne, or airborne landing on the island would unavoidably involve some risk, it would be difficult for US forces to interdict such an operation in the face of Chinese fighters and surface-to-air missile defenses, particularly given the short distances the Chinese forces

WHILE AN INVASION OF THE MAIN JAPANESE ISLANDS SEEMS UNLIKELY AT PRESENT, SEIZURE OF ONE OR MORE SMALLER ISLANDS IS CONCEIVABLE WITHIN THE CONTEXT OF ANOTHER CONTINGENCY, SUCH AS A CONFLICT OVER THE SENKAKU ISLANDS OR TAIWAN.

would have to cover. Nonetheless, US naval assets would doubtless be deployed to the waters near Taiwan and US military aircraft would be operating at a high tempo from nearby air bases, such as those on Okinawa. Japan would likely be called upon to provide logistical and intelligence support to those naval and air forces.

Another possible Chinese use of force against Taiwan would be a coercive campaign involving missile and air strikes on Taiwan and/or an air and sea blockade of the island. If the campaign consisted purely of missile strikes, the United States might wish to deploy land-based missile defense systems to Taiwan, position missile defense ships in the Taiwan Strait, or conduct combat air patrols with fighter aircraft over the Taiwan Strait to help defend Taiwan against land-attack cruise missiles. In such a contingency, Japan would again likely be called upon to help provide logistical and intelligence support to the US forces involved. In addition, there could be a need to evacuate Japanese nationals from Taiwan.

If the coercive campaign included air strikes on and/or an air and sea blockade of Taiwan, there could be a protracted battle for air superiority and sea control in the airspace and waters around Taiwan. US military aircraft would likely be operating from multiple air bases in Japan (e.g., Kadena Air Base on Okinawa and others). In addition, US naval vessels and underway replenishment ships would need to frequently dock in Japan for repair and maintenance and to take on fuel and other supplies. As a result, China might attempt to disrupt the US ability to operate from bases in Japan by attacking these and associated facilities using ballistic missiles, cruise missiles, aircraft, or commandos, or by laying sea mines at harbors and ports in Japan. If this were to happen, Japan's security forces would need to

¹⁹ See Kathrin Hille and Mure Dickie, "Chinese Nationalists Eye Okinawa," *Financial Times*, July 23, 2012, and "China Should 'Reconsider' Who Owns Okinawa: Academics," *AFP*, May 8, 2013.

be able to defend Japanese territory against these kinds of attacks, in addition to providing logistical support to US forces and helping evacuate Japanese nationals from Taiwan. Moreover, Japan could be called upon to help protect US ships and aircraft involved in the defense of Taiwan and Japan, even if they were operating outside of Japan's territorial waters and airspace.

Another possible type of Chinese use of force against Taiwan would be a full-scale invasion of the island. As in the case of a coercive campaign as described above, this would likely involve a protracted battle for air superiority and sea control in the airspace and waters around Taiwan, but would also be followed by a landing on and battle for Taiwan itself. As in a coercive campaign, US military aircraft would be operating from multiple air bases in Japan, and US naval vessels and underway replenishment ships would frequently dock in Japan for repair and maintenance and to take on fuel and supplies. Consequently, just as in a coercive campaign, China might attack the bases and facilities in Japan using ballistic missiles, cruise missiles, aircraft, or commandos, or might lay sea mines at harbors and ports in Japan, and Japan could be called upon to help protect US ships and aircraft involved in the defense of Taiwan.

A final conceivable type of use of force against Taiwan would be an approach similar to that which Russia has employed in Ukraine. Less than 4 percent of Taiwan's population identifies itself as unambiguously Chinese, and less than 2 percent of Taiwan's population favors unification with mainland China in the near term.²⁰ Nonetheless, Beijing could attempt to seize control of Taiwan without a conventional amphibious invasion by channeling funds to people and organizations in Taiwan that strongly favor unification, covertly sending mainland soldiers into Taiwan, and attempting to convince some portion of Taiwan's military to side with the mainland. When sufficient numbers of mainland soldiers had infiltrated Taiwan and/or when Beijing was convinced that a sufficient proportion of Taiwan's military would side with it, the infiltrating soldiers and pro-mainland members of Taiwan's military could attempt to seize control of Taiwan's government. Such an action would unquestionably be opposed by the majority of people in Taiwan, including most of Taiwan's military. Even if the mainland forces succeeded in seizing control of Taiwan's capital, it is unlikely that

Taiwan's population or local governments outside Taipei would recognize them as legitimate. The likely result, therefore, would be continuing armed conflict between the pro-mainland forces and the remainder of Taiwan's military. Left to their own devices, the pro-mainland forces would be unlikely to prevail, but mainland China could attempt to provide additional soldiers, weapons, and supplies to the pro-mainland forces in Taiwan, or could take advantage of the resultant chaos to launch a traditional amphibious invasion of the island.

As long as China did not overtly use military force against Taiwan, the United States would likely be reluctant to intervene in conflict in Taiwan. Nonetheless, US naval assets would undoubtedly be deployed to the waters near Taiwan, and US military aircraft would likely patrol international airspace around Taiwan, in part to deter Beijing from a more overt use of force against the island. In addition, the United States might also want to provide the Taiwanese government and military with intelligence, equipment, and supplies. Japan, in turn, would undoubtedly be expected to provide logistical and intelligence support to the US forces conducting these operations. If Beijing's subversion attempt resulted in a traditional amphibious invasion, of course, the demands on Japan's security forces would include all of those associated with a full-scale invasion of Taiwan.

South China Sea

Neither Japan nor the United States has an official position on the rightful ownership of the islands of the South China Sea. However, the United States does have a defense treaty with the Philippines, a claimant to some of the islands (the other claimants include China, Taiwan, Vietnam, Malaysia, and Brunei) and the United States insists that any ownership disputes be resolved peacefully.²¹ Thus, it is possible that the United States could become involved in a conflict over the islands of the South China Sea. In such an event, Japan could be called upon to provide logistical support to US forces deploying to the Philippines or the South China Sea. More generally, all countries of the Asia-Pacific region, including Japan, have an interest in freedom of navigation through the South China Sea. If Japan takes on the role of regional security leader—and one or more disputants attempt to enforce their claims by preventing or interfering with international shipping that is exercising the right of innocent passage through

20 National Chengchi University, Election Study Center, "Taiwanese/Chinese Identification Trend Distribution in Taiwan (1992/06~2015/06)," <http://esc.nccu.edu.tw/course/news.php?Sn=166>; National Chengchi University, Election Study Center, "Taiwan Independence vs. Unification with the Mainland Trend Distribution in Taiwan (1992/06-2015/06)," <http://esc.nccu.edu.tw/course/news.php?Sn=167>.

21 Mark Landler, "Offering to Aid Talks, US Challenges China on Disputed Islands," *New York Times*, July 23, 2010.

TABLE 1. Japan's Contributions to International Disaster-Relief Activities

Dates	Operation
September 1994–December 1994	Humanitarian relief operations for Rwandan refugees (378 personnel)
November 1998–December 1998	International disaster relief activities in Honduras (185 personnel)
September 1999–November 1999	International disaster relief activities in Turkey (426 personnel)
November 1999–February 2000	Humanitarian relief operations in Timor-Leste (113 personnel)
February 2001	International disaster relief activities in India (94 personnel)
October 2001	Humanitarian relief operations for Afghan refugees (13 personnel)
March 2003–April 2003	Humanitarian relief operations for Iraqi refugees (50 personnel)
July 2003–August 2003	Humanitarian relief operations for Iraqi victims (98 personnel)
December 2003–January 2004	Transportation of goods needed for international disaster-relief operations in Iran (31 personnel)
December 2004–January 2005	International disaster relief activities in Thailand (590 personnel)
January 2005–March 2005	International disaster relief activities in Indonesia (925 personnel)
August 2005	International disaster relief activities off Kamchatka Peninsula (346 personnel)
October 2005–December 2005	International disaster relief activities in Pakistan (261 personnel)
June 2006	International disaster relief activities in Indonesia (234 personnel)
October 2009	International disaster relief activities in Indonesia (33 personnel)
January 2010–February 2010	International disaster relief activities in Haiti (234 personnel)
August 2010–October 2010	International disaster relief activities in Pakistan (514 personnel)
February 2011–March 2011	Transportation of personnel and resources needed for international disaster relief activities in New Zealand (40 personnel)
November 2013–December 2013	International disaster relief activities in the Philippines

Source: Japanese Ministry of Defense.

TABLE 2. Japan's Participation in UN Peacekeeping and Other International Security Operations

Dates	Operation
April–October 1991	Minesweeping in Persian Gulf (6 ships, 511 personnel)
September 1992–September 1993	UN Transitional Authority in Cambodia (1,216 personnel)
May 1993–January 1995	UN operation in Mozambique (154 personnel)
February 1992–January 2013	UN Disengagement Observer Force in Golan Heights (1,411 personnel through September 2011)
November 2001–November 2007	Logistical support in the Indian Ocean for the United States and other nations engaged in the war on terror (320 personnel)
February 2002–June 2004	UN Transitional Administration in Timor Leste (2,304 personnel)
December 2003–February 2009	Humanitarian and reconstruction assistance in Iraq (1,240 personnel)
March 2007–January 2011	UN Mission in Nepal (24 personnel)
January 2008–January 2010	Logistical support in the Indian Ocean for the United States and other nations engaged in the war on terror (330 personnel)
October 2008–September 2011	UN Mission in the Sudan (12 personnel)
March 2009–present	Antipiracy activities off the coast of Somalia and in the Gulf of Aden (580 personnel as of September 2011)
February 2010–February 2013	UN Stabilization Mission in Haiti (1,542 personnel through September 2011)
September 2010–September 2012	UN Integrated Mission in Timor-Leste (6 personnel through September 2011)
November 2011–present	UN Mission in the Republic of South Sudan

Source: Japanese Ministry of Defense.

the South China Sea²²—Japan's security forces could be called on to help protect that shipping, just as the United States helped protect neutral shipping in the Persian Gulf during the "tanker wars" of the 1980s.

Natural and Man-Made Disasters

A variety of natural and man-made disasters could potentially occur in Japan or elsewhere in Asia and the world during the next ten to fifteen years. These include earthquakes, typhoons, tsunamis, volcanic eruptions, floods, accidents at industrial facilities, civil wars, and so on. Multiple such events can occur together, as happened with the Tohoku earthquake of March 2011, which triggered tsunami waves that in turn resulted in meltdowns at the Fukushima Daiichi Nuclear Power Plant complex. In any major disaster that occurs in Japan, the country's security forces are expected to be at the forefront of response efforts. Japan's security forces might also be called upon to provide relief and assistance for disasters that occur elsewhere in the region and the world. More than one thousand Japanese personnel participated in international disaster-relief and humanitarian assistance operations between 1994 and 2004, and more than three thousand did so between 2004 and 2014²³ (see table 1, page 21). If Japan takes on the role of being a regional security leader, the frequency of such operations is likely to increase.

International Security Operations

Japan has been a regular contributor to international security operations over the past twenty years, having deployed more than 9,300 personnel to thirteen different UN peacekeeping operations since 1992.²⁴ Japan has also participated in a variety of other international security operations, such as minesweeping in the Persian Gulf and antipiracy patrols off the coast of Somalia (see table 2, page 22). As a regional security

leader, Japan's contributions to such operations would further expand in coming years.²⁵

Partner Capacity-Building

As the East Asian security situation becomes more complex and challenging, many countries in the region, particularly those in Southeast Asia, will want Japan to play a greater role in regional security. One way to contribute, aside from directly responding to the types of contingencies described above, is to increase the capabilities of other regional countries to respond to contingencies by providing them with training and advising. Demands on Japan's security forces for partner capacity-building activities, therefore, are likely to increase.

Regional Security Cooperation Activities

In addition to the demands described above, Japan engages in a variety of other security-cooperation activities with regional partners, such as joint training and exercises, military academic exchanges, and so on. If Japan is to become a regional security leader, the scope and frequency of these activities will need to increase.

22 For example, China has claimed that the waters enclosed by the disputed Paracel Islands, with an area of more than twenty thousand square kilometers, represent Chinese internal waters (even though the total land area of the islands themselves is less than ten square kilometers). See United States Department of State Bureau of Oceans and International Environmental and Scientific Affairs, "Limits in the Seas, no. 117, Straight Baseline Claim: China," July 9, 1996, <http://www.state.gov/documents/organization/57692.pdf>.

23 Japanese Ministry of Defense, "The Contribution of the Ministry of Defense and Self-Defense Forces in Overseas Activities."

24 Japanese Ministry of Foreign Affairs, "Japan's Contribution to United Nations Peacekeeping Operations," March 2014, <http://www.mofa.go.jp/policy/un/pko/pdfs/contribution.pdf>.

25 Japanese Ministry of Defense, "National Defense Program Guidelines for FY 2014 and Beyond," December 17, 2013, p. 17, http://www.mod.go.jp/j/approach/agenda/guideline/2014/pdf/20131217_e2.pdf.

Priority Capabilities

The set of capabilities required to respond to the range of demands for which Japan's security forces could be called upon, as described in the previous section, are derived in the appendix. Japan's security forces already possess or plan to acquire many of the needed capabilities. Nonetheless, there are key capability gaps that should be addressed. In addition, even in cases where Japan's security forces already possess the requisite capabilities, those capabilities must be sufficient to meet future demands. At the same time, the resources available for security are finite and, with the ongoing fiscal constraints on Japan's government, it is unlikely that dramatically more resources will become available over the next ten to fifteen years. Increasing capability in one area, therefore, necessarily requires limiting or reducing capability in other areas. This chapter, consequently, describes security capabilities that should be priorities for improvement in Japan as well as capabilities for which sufficiency for the future should be further assessed.

Capabilities That Should Be Priorities for Improvement

1. *Maritime Domain Awareness.* Japan's security forces should strengthen their capability to detect, track, and identify surface ships (including small craft), submarines, and aircraft on, under, or over the sea areas around Japan out to a distance of at least 1,200 nautical miles from Japanese territory (the distance between Okinawa and Guam). This capability must function in the face of efforts to blind, jam, or deceive Japanese sensors and communication systems. This might entail acquiring additional surveillance assets—such as satellites, unmanned aerial vehicles, manned aircraft, and land-based radars—or improving the capabilities of existing platforms (like the recent Radar System Improvement Program for the Air Self-Defense Force's E-767 Airborne Warning and Control Systems Aircraft²⁶). Before making any additional acquisitions in this area, Japan should first conduct a comprehensive assessment of the optimal mix of maritime domain awareness assets that accounts for the various threats and challenges it might face over the next fifteen to twenty years.

Japan's security forces should also increase their capability to share maritime domain awareness data with different services, agencies, and countries. For example, Air Self-Defense Force aircraft should be

JAPAN'S SECURITY FORCES SHOULD STRENGTHEN THEIR CAPABILITY TO DETECT, TRACK, AND IDENTIFY SURFACE SHIPS (INCLUDING SMALL CRAFT), SUBMARINES, AND AIRCRAFT ON, UNDER, OR OVER THE SEA AREAS AROUND JAPAN OUT TO A DISTANCE OF AT LEAST 1,200 NAUTICAL MILES FROM JAPANESE TERRITORY.

able to share surveillance information directly with Maritime Self-Defense Force ships operating in the same area, rather than having to relay the information through a major command headquarters, as is currently the case. Similarly, the SDF should be able to exchange surveillance information with the Japan Coast Guard and with the US military.²⁷ The modifications to communications and data processing systems and protocols required to implement this data sharing may be challenging, but the benefit will be a greatly increased capability to monitor activities in the air and seas around Japan at a time when potential threats in those areas are increasing. In addition, this will improve Japan's capability to respond to crises with an appropriate level of force. For example, the Japan Coast Guard could use information provided by SDF sensors to respond to an intrusion by foreign civilian ships.

2. *Cybersecurity.* Cyberattacks present a threat to both civilian and military information systems. In the case of civilian systems, the greatest danger is attacks on the control systems of critical infrastructure, such as power, water, transportation, and telecommunication systems. Successful attacks could cause power or water outages, transportation or communications breakdowns, physical damage, or even loss of life. Although the specific government and nongovernmental organizations in charge of this infrastructure have primary responsibility for securing and defending their information systems, the Japanese government needs to exercise oversight to ensure that

26 "Japan Orders Upgrades for Its 4 E-767 AWACS," *Defense Industry Daily*, October 29, 2014, <http://www.defenseindustrydaily.com/japan-orders-4-e767-awacs-radar-mission-upgrade-kits-for-147m-02215>.

27 Ideally, this would include integration into the US Navy's Naval Integrated Fire Control-Counter Air capability.

adequate protective measures are taken. The Japanese government should also maintain an independent capability to quickly detect and neutralize cyberattacks against civilian computer systems.²⁸

Similarly, the Ministry of Defense needs to ensure that the vulnerability of Japan's military computer systems to computer network attack has been minimized and that it possesses the capability to quickly detect and neutralize attacks on Japan's military computer systems. This is particularly important if Japan's military information systems are going to become more closely integrated with those of the United States and other countries.

3. *Reduced Vulnerability of Critical Civilian Facilities to Physical Infiltration and Attack.* At the same time as Japan is securing the computer control systems for its critical civilian infrastructure, the country should also be minimizing the vulnerability of these facilities to physical infiltration and attack by well-armed and highly trained commandos or other covert operatives. Such measures include improving the physical security of these facilities, ensuring that the National Police Agency and SDF have sufficient capabilities and assets to rapidly respond to simultaneous attacks, and having the capability to rapidly repair damage caused by attacks.
4. *Logistical Support to US and Other Security Partner Forces.* In the event of a major conflict in Northeast Asia, it is possible that US bases in the region would be insufficient to support all of the US forces involved, or that they could be put out of action by missiles or other types of attacks. Under such circumstances, the SDF could play a critical role in ensuring an outcome favorable to Japan and the rest of the region without directly participating in combat operations by providing logistical support for US aircraft and ships. Japan should ensure that key Air and Maritime Self-Defense Forces bases are capable of fueling, arming, maintaining, repairing, and resupplying major types of US aircraft and ships. They should also ensure that Japan's logistical capabilities can provide support to other security partners more generally, including to countries such as South Korea and Australia.
5. *Missile Defense.* The threat to Japan from ballistic and cruise missiles is increasing. Japan's missile

defense capabilities need to increase correspondingly. Although it is impossible to provide complete protection against missile attacks, missile defenses can nonetheless significantly reduce the amount of damage. Missile-defense capabilities are not limited to kinetic interceptors. They can also include electronic warfare systems designed to cause missiles to fail or fly off target. Over the longer run, they may include new types of systems, such as high-energy lasers and electromagnetic rail guns.

6. *Anti-Submarine Warfare.* Advanced conventional and nuclear submarines pose a serious and growing potential threat to Japanese and US surface ships. Japan should continue to increase its capabilities to find and sink submarines, particularly along Japan's coast and near ports and harbors, but also farther out into the seas around Japan.
7. *Base Defenses.* Missile, aircraft, and commando attacks on air and naval bases could severely hamper the ability of the SDF to operate in a contingency. Effective base defense is a multilayered system that includes ground-based air and missile defenses, hardened shelters for aircraft, buried fuel storage and distribution systems, effective perimeter defense and response capabilities against commando attack, and rapid repair capabilities, particularly rapid runway repair. Air bases in southwestern Japan should be priorities for base defense improvement.
8. *Strengthened Coast Guard Authorities and Capabilities.* A significant challenge for Japan over the next ten to fifteen years is likely to be "grey zone" conflicts that do not involve the use of lethal force or which are conducted by personnel other than uniformed military. One example would be if China were to send large numbers of fishing boats into the territorial waters of the Senkaku Islands. To counter such a possibility, the Japan Coast Guard should expand its capability to use nonlethal means to prevent small craft from entering the waters of the Senkakus and to force them to leave if they have already entered the islands' territorial waters. Another potential challenge would be if China were to land armed civilians (e.g., police officers) on the Senkaku Islands. Currently, the Japan Coast Guard would have neither the legal authority nor the physical capability to remove them. This task, therefore, would fall to the Maritime Self-Defense Forces, resulting in the appearance of Japan having escalated the crisis from one involving purely civilian organizations to one involving military forces. To avoid such dilemmas, the Japan Coast Guard should acquire the legal authority and physical capability to land civilian law-enforcement personnel on small islands and to disarm and remove armed civilians, including foreign law-enforcement officers. This capability could

²⁸ The National Information Security Center is responsible for crafting cybersecurity policy and strategy, and for disseminating information about cyber threats and vulnerabilities. However, it lacks the legal authority and capability needed to ensure that adequate protective measures are being taken, or to detect and neutralize cyberattacks. See Mihoko Matsubara, "Japan's New Cybersecurity Mission," *Diplomat*, August 2, 2013, <http://thediplomat.com/2013/08/japans-new-cybersecurity-mission>; Yuriy Humber and Gearoid Reidy, "Japan Takes Its First Step to Fight Hackers," *Bloomberg Business*, July 24, 2014.

be organic to the Japan Coast Guard, or it could be developed jointly in coordination with another civilian organization, such as the National Police Agency's Special Assault Team or Anti-Firearms Squad.

9. Interoperability with US and Other Partner Security Forces. As Japan's participation in international security operations increases, it will be increasingly important for Japan's security forces to be able to interoperate with those of regional partners. This includes the ability to securely exchange voice communications and data, as well as knowledge and understanding of partner capabilities, organizational culture, and tactics, techniques, and procedures.

10. Amphibious Landing. If China landed armed forces on an island belonging to Japan, it would be difficult and risky to land SDF units on the island to evict the occupiers. The waters around the islands would undoubtedly be patrolled by Chinese submarines, and Japan's southwestern islands are within the range of Chinese land-based naval strike aircraft. A Japanese amphibious counter-landing on the islands, therefore, would require that the SDF be able to protect landing ships against these threats throughout several hours of transit.²⁹ Similarly, an aerial invasion using paratroops or rotary-wing aircraft would require the capability to protect transport aircraft from interception by Chinese fighters or ship-based or land-based surface-to-air missiles in the area. If the seized islands were uninhabited at the time, as the Senkaku Islands are today, a blockade would be a less risky and more easily achievable approach to regaining control of the islands, by forcing the withdrawal or surrender of the occupying forces. The capabilities needed to enforce a blockade (primarily, the capability to contest air superiority and the capability to conduct anti-surface warfare in the East China Sea) are less difficult to achieve than the capabilities that would be needed to protect a Japanese counter-invasion. The possession of the capabilities needed to enforce a blockade, moreover, would help Japan deter and prevent a Chinese landing on the islands to begin with.

It is possible, however, that there could be circumstances under which an amphibious counter-invasion capability would be required. For example, if China seized one of the Ryukyu Islands—such as Yonaguni-shima, Ishigaki-shima, or Miyako-jima—Japan would not have the option of imposing a blockade, as these islands all have substantial civilian populations. The SDF, therefore, should conduct an assessment of the requirements for a capability to conduct a counter-invasion of one or more of these

islands, and begin to acquire those capabilities that can be acquired at a reasonable cost. For example, the SDF do not currently possess landing ships with bow doors and beaching capability, which would be required to land heavy armored vehicles. Such ships are relatively inexpensive. Conversely, “multipurpose vessels” similar to US amphibious assault carriers (LHAs or LHDs) are expensive (costing approximately \$4 billion each in the United States), and would be of limited utility in a high-threat environment such as a conflict with China in the East China Sea.³⁰ Such ships should not be an acquisition priority for the foreseeable future.

11. Capability to Destroy Ground Vehicles from Standoff Distances. In the event of a Chinese seizure of Japanese territory such as a small island, in addition to the ability to achieve air and sea superiority and the ability to conduct an amphibious counter-invasion, Japan would need several other capabilities. These would include the capability to destroy fixed fortifications, the capability to clear landmines and obstacles, the capability to kill or suppress dismounted infantry, and the capability to destroy ground vehicles. The last of these would be particularly important, because the ground vehicles of concern could include not just armored vehicles and trucks, but also mobile surface-to-air and anti-ship cruise missile launchers. If such launchers were positioned on or near the seized island, they would need to be destroyed or suppressed before a counter-invasion could be conducted. Thus, having the capability to retake an island seized by another country requires the capability to destroy ground vehicles from standoff distances (i.e., from land bases or from ships or aircraft that are beyond the effective ranges of China's land-based surface-to-air and anti-ship missiles).

Such a capability would also be of potential utility against North Korean ballistic missiles, as many of these missiles are launched by road-mobile transporter-erector-launcher (TEL) vehicles.³¹ Finding and destroying mobile ballistic missile launchers before they have launched their missiles, however, is extremely difficult—particularly in mountainous and forested terrain, such as that covering much of North Korea. The US military has

²⁹ The nearest Japanese port is on the island of Ishigaki-shima, approximately ninety nautical miles from the Senkaku Islands, a six-hour transit at fifteen knots.

³⁰ The current Medium Term Defense Program states that the Ministry of Defense will “consider the role of multipurpose vessels.” See Japanese Ministry of Defense, *Defense of Japan*, 2014, p. 163. The term “multipurpose vessel” refers to a ship like a US amphibious assault carrier.

³¹ North Korea is reported to have approximately 50 TEL vehicles for Nodong 1 and Nodong 2 missiles, which have ranges of 1,300 and 1,500 kilometers and are thus capable of reaching targets virtually anywhere within the main islands of Japan. See “No Dong 1/2,” *Jane's Strategic Weapon Systems*, February 5, 2015.



F/A-18's from Marine Corps Air Station Futenma, Okinawa, Japan, taxi out to the runway during exercise Northern Edge 2009, Alaska, June 2009. *Photo credit: Alaskan Command/Flickr.*

focused on this problem for more than two decades, ever since the Iraqi Scud attacks of the 1991 Gulf War. Even today, however, the US capability to accomplish this task is limited. For Japan to acquire an independent capability to perform this mission would require an enormous investment of resources by a country whose defense spending is tightly constrained. For these reasons, Japan should refrain from attempting to acquire a capability to find and destroy mobile missile launchers greater than that required to neutralize the mobile missile launchers that could be landed on a small island such as Ishigaki-shima or Miyako-jima. Defense against the North Korean ballistic missile threat should center on improved missile defenses and nuclear, biological, and chemical incident-response capabilities. Japan should depend on the United States to deter North Korea from launching missiles against Japan or, if deterrence fails, to conduct any operations to find and destroy missile launchers before they can launch their missiles.

Capabilities for Which Sufficiency for the Future Should Be Further Assessed

1. Search and Rescue. Several potential future contingencies could place significant demands on Japan's search-and-rescue capabilities. These include responding to large numbers of refugees attempting to leave North Korea as a result of state failure or conflict in North Korea, evacuating Japanese nationals

from South Korea or Taiwan in the event of conflict involving those places, and responding to natural or man-made disasters. Japan should conduct a comprehensive assessment of the adequacy of its civilian and military search and rescue capabilities, including their ability to perform operations in a military threat environment (combat search and rescue), and should make any adjustments indicated as a result of that assessment.³²

2. Numbers and Capabilities of Japan Coast Guard Ships and Aircraft. China has been rapidly building up its maritime law enforcement assets in recent years and

³² The closest Japanese airfield to South Korea is in Fukuoka, on the island of Kyushu, more than two hundred kilometers from Korea, and some locations are as far as six hundred kilometers from Fukuoka. Thus, many locations in South Korea would be beyond the practical operating radius of most helicopters operating from airfields in Japan. The V-22 tiltrotor aircraft, however, has an operating radius of more than 700 kilometers, and no location in South Korea is more than about 125 kilometers from the nearest coast. Thus, any location in South Korea could be reached by V-22s operating from Japanese territory or by helicopters operating from ships off South Korea's coast. The nearest Japanese territory to Taiwan is Yonaguni Island, about 110 kilometers away from the closest point on Taiwan and about 360 kilometers from the farthest point. The latter is beyond the operating radius of most helicopters unless they were refueled en route, and Japanese ships would probably not be able to safely operate near Taiwan's coast in the event of a war between China and Taiwan. However, 360 kilometers is well within the 700-kilometer-plus operating radius of the V-22 tiltrotor.

has used these to challenge Japan's administrative control over the Senkaku Islands. To prevent China from creating the impression that Japan no longer exercises administrative control over the islands, Japan needs to ensure that it continues to have the ships and aircraft needed to respond to Chinese incursions into the islands' territorial waters and airspace, even if these incursions increase in frequency and duration. To avoid the impression that Japan is escalating the issue, these ships and aircraft should be civilian assets. The Japan Coast Guard should conduct an assessment of the capabilities it needs to be able to respond to this challenge over the long term and should be provided with the resources needed to meet this challenge.

THE AIR SELF-DEFENSE FORCES SHOULD CONDUCT AN ASSESSMENT OF THE REQUIREMENTS FOR AIR SUPERIORITY IN THE EAST CHINA SEA OVER THE NEXT FIFTEEN TO TWENTY YEARS AND PROMULGATE A PROGRAM FOR PROVIDING THAT CAPABILITY.

3. *Air Superiority.* China's air warfare capabilities are improving steadily. In the event of a conflict over the Senkaku Islands, Japan's ability to achieve air superiority over the East China Sea—or at least to deny China the ability to do so—would be critical to preventing China from taking control of the islands. Given the distance between the Senkaku Islands and the nearest other Japanese territory—and given the vulnerability of Japanese surface ships operating near the Senkaku Islands to submarine, air, and surface attack—for at least the medium term the capability to contest air superiority over the Senkaku Islands will be a function of the capabilities of Japan's combat aircraft. Consequently, the Air Self-Defense Forces should conduct an assessment of the requirements for air superiority in the East China Sea over the next fifteen to twenty years and promulgate a program for providing that capability. Given what is known about the capabilities that China is developing, this program must include the ability to engage and shoot down stealthy fighter aircraft and the ability to avoid interception by modern, high-performance air-to-air

and surface-to-air missiles. Likely elements of this capability include: advanced active electronically scanned array radars, infrared search-and-track systems, low-probability-of-intercept digital data links, stealth, and advanced electronic warfare systems. Over the long run, alternative concepts for providing air superiority should be explored, such as extremely long-range air-to-air missiles, unmanned combat aerial vehicles, and directed-energy weapons.

4. *Anti-Surface Warfare.* In the event of a conflict over the Senkaku Islands, Japan's ability to achieve sea control in the East China Sea, or at least to deny China the ability to do so, would be critical to preventing China from taking control of the islands. Consequently, the Maritime Self-Defense Forces should conduct an assessment of the requirements for sea control in the East China Sea over the next fifteen to twenty years and promulgate a program for providing that capability. Elements of that capability include improved capabilities to find and disable or sink surface ships (including, potentially, large numbers of small craft like China's Houbei-class fast attack craft), and improved capabilities for Maritime Self-Defense Force ships to defeat antiship missiles, including supersonic antiship cruise missiles and antiship ballistic missiles.
5. *Airlift and Sealift.* The SDF's airlift capabilities currently consist primarily of sixteen C-130 medium turboprops, which have a maximum payload of nineteen thousand kilograms each.³³ Over the course of the current Medium Term Defense Program (FY2014-FY2018), the Ground Self-Defense Forces will acquire seventeen V-22 tilt-rotor aircraft, which have a maximum payload of nine thousand kilograms each, and the Air Self-Defense Forces will acquire ten C-2 transport aircraft, which have a maximum payload of thirty thousand kilograms each.³⁴ The SDF's sealift capabilities consist primarily of three Osumi-class amphibious landing ships, each of which can carry 330 troops and 1,400 tons of equipment.³⁵ It is not clear that these airlift and sealift assets are adequate for all foreseeable contingencies. A US infantry brigade combat team (IBCT), for example, consists of 3,600 soldiers and about 2,000 tons of equipment.³⁶ It would,

33 "Lockheed Martin (Lockheed) C-130 Hercules," *Jane's Aircraft Upgrades*, September 16, 2014.

34 Japanese Ministry of Defense, *Defense of Japan*, 2014, p. 170, http://www.mod.go.jp/e/publ/w_paper/e-book/2014/_SWF_Window.html; "Bell Boeing V-22 Osprey," *Jane's All the World's Aircraft*, December 4, 2013; "Kawasaki C-2," *Jane's All the World's Aircraft*, July 29, 2014.

35 "Oosumi Class," *Jane's Fighting Ships*, February 17, 2014.

36 Robert W. Button, John Gordon IV, Jessie Riposo, Irv Blickstein, and Peter A. Wilson, *Warfighting and Logistic Support of Joint Forces from the Joint Sea Base* (Santa Monica, CA: RAND Corporation, 2007), pp. 75-86.

therefore, take approximately seven days for the SDF's organic airlift assets (including the seventeen V-22s and ten C-2s currently being acquired) to transport a US IBCT to the Korean peninsula, or a comparable Ground Self-Defense Forces unit to the southern end of the Ryukyu Island chain.³⁷ A US heavy brigade combat team (HBCT) consists of about 3,800 soldiers and 20,000 tons of equipment.³⁸ It would take approximately fifteen days for the SDF's organic sealift assets to transport a US HBCT from Japan to the Korean peninsula, or approximately thirty days to transport a comparable Ground Self-Defense Forces unit to the southern end of the Ryukyu Island chain.³⁹ The SDF should conduct an assessment to ensure that their programmed airlift and sealift capabilities are sufficient to respond to foreseeable contingencies over the next fifteen to twenty years.

THERE ARE A NUMBER OF CIRCUMSTANCES UNDER WHICH IT IS POSSIBLE THAT NORTH KOREA COULD ATTACK JAPAN USING NUCLEAR, BIOLOGICAL, OR CHEMICAL WEAPONS.

6. Nuclear, Biological, and Chemical Incident Response.

There are a number of circumstances under which it is possible that North Korea could attack Japan using nuclear, biological, or chemical weapons. Japan should

ensure that its military and civilian organizations have sufficient capability to, at multiple locations at a time, quickly detect and characterize radiological, biological, and chemical hazards; treat the victims of exposure to such agents; safely evacuate people from affected areas; and decontaminate areas exposed to such agents. These capabilities would also be valuable in the event of industrial accidents involving radioactive materials, biological agents, or poisonous chemicals.

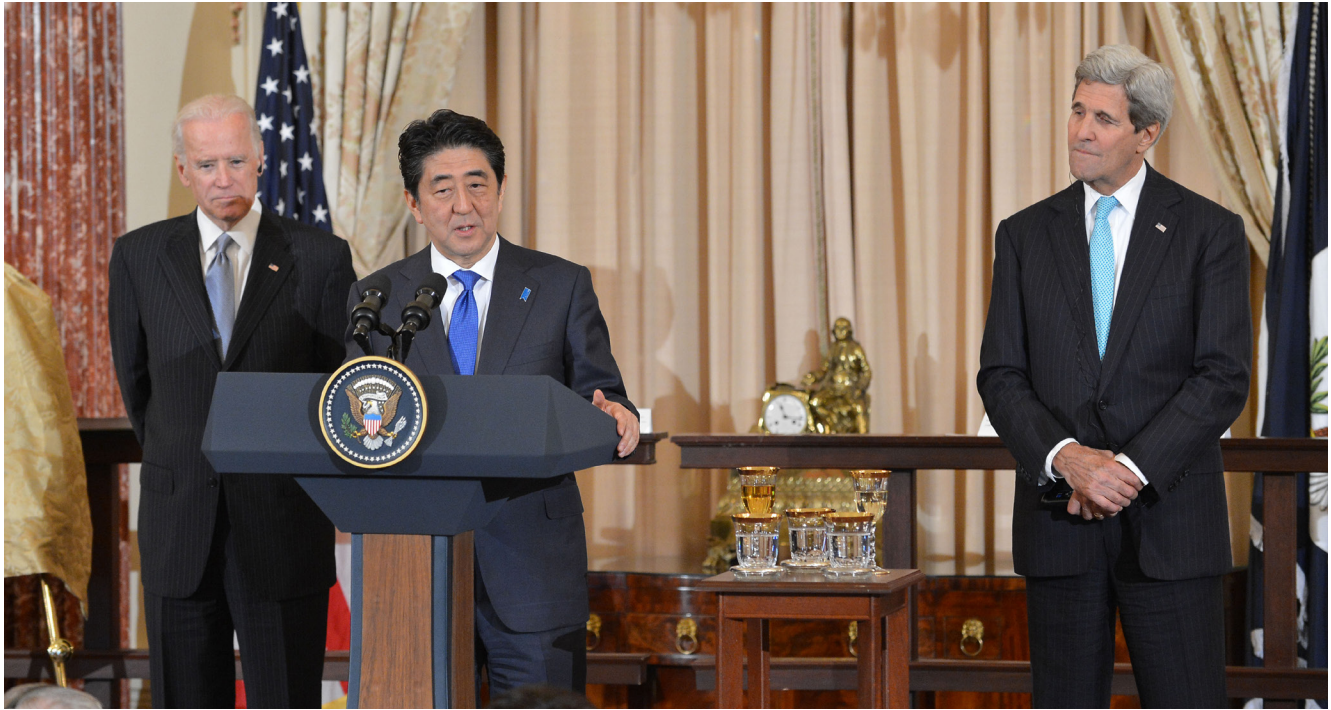
7. *Sustainment at Sea and Aerial Refueling.* Certain missions that the SDF could be called upon to perform, such as monitoring the seas around Japan or protecting international shipping in the South China Sea, could require SDF and Japan Coast Guard ships and aircraft to operate at long distances from Japan. These missions could require ships to be replenished at sea and aircraft to be aerially refueled. The SDF currently have five underway-replenishment ships and four KC-767 aerial refueling aircraft.⁴⁰ The SDF and Japan Coast Guard should conduct a joint assessment of potential demand for sustainment at sea and aerial refueling in a range of plausible contingencies over the next fifteen to twenty years and ensure that programmed capabilities are sufficient for responding to those contingencies.

37 Assuming 80 percent of the aircraft are able to fly each day and that each aircraft is able to make one round trip (including loading and unloading time) every two days. Depending on where the aircraft were flying to and from, the amount of space available for loading and unloading at each airfield could be a limiting factor. An IBCT also consumes about three hundred tons of supplies per day during heavy combat operations. See *Ibid.*, pp. 75-86.

38 *Ibid.*, pp. 75-86.

39 Assuming all three Osumi-class ships were available continuously throughout the operation. Each ship would be able to make approximately one round trip every three days between Kure and Busan (one day each for loading and unloading, and approximately half a day each way for transit at an average speed of fifteen knots), with the unit utilizing rail and road transport prior to embarking at Kure and after debarking at Busan. Each ship is assumed to be able to make one round trip every six days between Kure and the southern Ryukyu Islands (one day each for loading and unloading and two days each way for transit at an average speed of fifteen knots). The armored vehicles of a heavy brigade (US HBCT or Ground Self-Defense Forces equivalent) are too heavy to be carried by C-130s, C-2s, or V-22s. An HBCT also consumes about six hundred tons of supplies a day during heavy combat operations. See *Ibid.*, pp. 75-86.

40 International Institute for Strategic Studies, *The Military Balance 2014* (London: Routledge, 2014), pp. 252-253.



US Secretary Kerry co-hosts lunch for Japan Prime Minister Abe with Vice President Biden, at the US Department of State in Washington, DC, April 2015. *Photo credit: US Department of State/Flickr.*

Conclusion

This report has identified a future security role for Japan, that of a regional security leader, that responds to the growing challenges to security in the region but is achievable within the constraints of the domestic and international political environment and Japan's fiscal realities. Based on the potential demands associated with playing such a security role, the report then identified the capabilities of Japan's security forces that should be priorities for improvement or whose sufficiency for the future should be further assessed. How Japan goes about acquiring those capabilities, however, will affect its ability to play the role of regional security leader and how effective the capabilities are. One issue has to do with Japan's approach to procuring weapon systems. In the past, in an effort to foster the development of Japan's indigenous defense industries, Japan's government has preferred for a significant portion of the Self-Defense Force's equipment to be domestically produced. Because Japan was prohibited from exporting weapons, however, Japan's defense industries were limited to producing weapons only for the Self-Defense Forces. The small size of this market greatly increased the unit cost for weapon systems produced in Japan. Now that the ban on exporting weapon systems has been eased, this limitation no longer applies and Japan has the opportunity to greatly increase the economies of scale for Japanese domestic defense

industries. These economies of scale can best be achieved, however, not by competing in the extremely tight world market for complete weapon systems, but rather by engaging in cooperative development and production of weapons in partnership with other advanced countries, such as the United States. Such an approach should enable Japan's defense industries to generate at least as much revenue as before but significantly reduce per-unit acquisition costs for Japan's Self-Defense Forces. This is because, rather than producing whole systems for the small market represented by the Self-Defense Forces, Japan's defense industries would produce portions of weapon systems that are sold to a much larger market that includes not just Japan's Self-Defense Forces but also the defense forces of its co-production partners (e.g., the US military) and the export markets that are available to these partners.

A second issue has to do with the diplomatic work that must be done to ensure that Japan playing a more pro-active role in East Asian security results in a net increase in regional security. Although this study did not analyze the issue in detail, it is clear that any increase in Japan's security role and capabilities must be accompanied by efforts to assure other countries in the region that these increases do not threaten their legitimate security interests. In particular, because of

THE UNITED STATES, AS JAPAN'S ONLY TREATY ALLY AND MOST IMPORTANT SECURITY PARTNER, HAS A VITAL ROLE TO PLAY IN FACILITATING JAPAN'S ABILITY TO MAKE A GREATER CONTRIBUTION TO REGIONAL SECURITY.

Japan's history of aggression in the late nineteenth and first half of the twentieth century, special efforts must be made to reassure countries in the region that this type of aggression will not be repeated. Any perceived attempts to deny or minimize the impact of Japan's actions during this period undermine such efforts. As Prime Minister Abe pointed out in his statement on the 70th anniversary of the end of World War II, the vast majority of Japan's population was born after World War II. It is not necessary, therefore, for people in Japan today to personally apologize for acts committed before they were born. Nonetheless, there is no question that Japan as a nation committed acts of aggression against other countries in Asia, or that its occupation of those countries was oppressive and brutal. Perceptions that Japan's leaders do not recognize the severity of these actions or accept Japan's responsibility for them, as Mr. Abe's speech was seen by some as implying, weaken Japan's ability to assure countries in the region that Japan playing a more pro-active role in East Asian security affairs does not threaten their security. It is in Japan's interests, therefore, for its leaders – while emphasizing that Japan is now a different kind of country with a different kind of government – to be forthright about the suffering that resulted from decisions made by Japan's leaders in the late-nineteenth and first half of the twentieth century. If Japan can convince the people of Asia that the country fully recognizes its actions and their consequences during this period, the door will be open for Japan to become a regional security leader, which the region needs.

Implications for the United States

The United States, as Japan's only treaty ally and most important security partner, has a vital role to play in facilitating Japan's ability to make a greater contribution to regional security. The findings of this study imply three primary imperatives for the United States.

1. *Support Japan's Acquisition of New Capabilities.* Closer technical and operational cooperation will be needed for Japan to become a stronger security partner of the United States in Asia. This includes the sharing of US technical and operational data with Japan. Data sharing between allies inevitably entails an increased risk that this data will be compromised, but Japan has taken steps to improve its protection of classified information, including the enactment of a law that strengthens the protection of such information.⁴¹ If Japan continues to increase the security of information and systems, including against cyberattack, then the United States should be willing to more closely integrate its combat information systems with Japan's so that the two countries can share a common operational picture. The United States should also be willing to provide Japan with the advanced weapon systems and related technical data needed for Japan to become a full-fledged security partner of the United States.
2. *Strengthen Capability to Deter and Respond to Missile Threats to Japan.* This report has recommended that Japan develop only a limited capability to find and destroy mobile missile launchers and instead rely on a combination of US nuclear deterrence and US conventional military capabilities to protect it against missile attacks. The corollary of this recommendation is that the United States must make clear to both Japan and North Korea the United States' continued capability and will to use nuclear weapons in response to a nuclear, biological, or chemical weapons attack on Japan. The United States must also continue to improve its capabilities to prevent and defend against ballistic missile attacks, including the capability to find and destroy mobile missile launchers.
3. *Jointly Develop New Weapon Systems with Japan.* As noted earlier, Japan's recent easing of restrictions on defense exports markedly increases opportunities for cooperative US-Japan development of weapon systems. The United States should take advantage of this opportunity. Japan has considerable technological and financial capabilities to contribute, which can reduce the cost of development for the United States. Engaging in cooperative weapons development and production would enable both nations to reduce costs, take advantage of their respective technological strengths, and increase interoperability. Potential areas for cooperation include, among others, the next generation of air superiority systems and air and missile defense systems.

41 Lucy Craft, "Japan's State Secrets Law: Hailed by US, Denounced by Japanese," NPR, December 31, 2013, accessed September 17, 2015, <http://www.npr.org/sections/parallels/2013/12/31/258655342/japans-state-secrets-law-hailed-by-u-s-denounced-by-japanese>.



US Air Force, Japan Air Self-Defense Force and Royal Australian Air Force aircraft, fly in formation during an exercise Cope North 15, off the coast of Guam, February 2015. *Photo credit: Pacific Air Forces/Flickr.*

Appendix: Security Force Missions and Required Capabilities

The main body of this report identified a range of potential demands on Japan's security forces that the country becoming a regional security leader would entail. Responding to each of these potential demands would require Japan's security forces to perform a set of specific missions, each of which would require a specific set of capabilities. These missions and capabilities are described below. Since many capabilities would contribute to the response to multiple demands, the complete set of capabilities is collated and listed in Table A.

Contingencies on the Korean Peninsula

Missions for Japan's security forces that could result from contingencies on the Korean peninsula include evacuating Japanese nationals from South Korean territory; helping to respond to large numbers of refugees attempting to leave North Korea by sea; providing logistical support for US (and, possibly, South Korean) forces involved in an invasion or occupation of North Korea; defending against computer network attacks; defending against raids by North Korean

armed naval craft, aircraft, submarines, or commandos; defending against attacks by North Korean ballistic missiles; and responding to the effects of North Korean chemical, biological, or nuclear weapons.

If events required Japanese nationals to evacuate from South Korean territory, most would be able to leave by commercial aircraft or ship. However, it is possible that some Japanese nationals (e.g., backpackers or mountain climbers) could be in remote areas at the outbreak of hostilities or that South Korean airports and seaports could be unusable for some period of time after the outbreak. If using commercial aircraft and ships is not feasible and if South Korea's domestic search-and-rescue assets are unavailable or overburdened, the South Korean government could potentially give Japan and other countries permission to deploy search-and-rescue assets to South Korea for the purpose of evacuating their citizens. Thus, Japan's civilian and/or military security forces should have the capability to find people stranded in remote locations (including in complex terrain such as forested mountains), and then retrieve them and bring

them to safety. Moreover, because airfields in South Korea might be unusable, these operations might need to be conducted from ships off of South Korea's coast or from nearby Japanese territory.

Responding to large numbers of refugees attempting to leave North Korea by sea would require several capabilities. One would be the ability to detect small craft in the Sea of Japan, the Yellow Sea, and the East China Sea. A second would be the ability to determine the nature (e.g., a fishing boat catching fish vs. a fishing boat loaded with refugees) and condition (operating normally, dead in the water, sinking, etc.) of the small craft detected. A third would be the ability to rescue and bring to safety people who are in distress at sea (e.g., those who are on boats that are dead in the water or sinking, or who are already in the water).

Providing logistical support for US and South Korean forces involved in an invasion or occupation of North Korea could require a range of capabilities. If US air and naval bases in Japan had insufficient capacity or were put out of action by North Korean missile or commando attacks, required capabilities could include fueling, arming, maintaining, repairing, and resupplying US aircraft and ships at Japanese air and naval bases. Logistical support could also entail transporting US ground forces and supplies from Japan to the Korean peninsula, as well as providing supplies (fuel, ammunition, equipment, food, medical supplies, etc.). Finally, logistical support could include providing medical care for injured or sick US and South Korean personnel, including those who had been subject to chemical, biological, or nuclear attack.

Capabilities required to defend against computer network attacks include military and civilian computer systems that have reduced vulnerability to such attacks; the capability to detect such attacks as quickly as possible; and the capability to quickly neutralize the effects of such attacks once they are detected.

Defending against raids by armed naval craft from North Korea, much like responding to refugees attempting to leave North Korea by sea, requires the capability to detect small craft and ships on the surface of the Sea of Japan, the Yellow Sea, and the East China Sea. It also requires the capability to determine their identity (e.g., a North Korean fast attack craft vs. a North Korean civilian ship or a Chinese fast attack craft) and intentions (e.g., routine patrol vs. intention to attack Japanese ships or coastal installations). For those naval craft determined to have hostile intentions, effective defense requires the capability to disable or sink them before they reach their intended targets. Note that the number of craft that would need to be neutralized could be large, as North

Korea is currently estimated to have more than three hundred patrol and coastal combatants.⁴²

North Korea's air force is highly antiquated, with the vast majority of its aircraft based on aging Soviet designs, and its capabilities appear unlikely to significantly improve over the next ten to fifteen years. Nonetheless, North Korea currently possesses an estimated eighty H-5 light bombers (Chinese-made versions of the 1950s-era Ilyushin Il-28) that could potentially reach and attack targets in Japan.⁴³ Defending against such attacks, therefore, would require the capability to detect and track aircraft flying over the Sea of Japan, the Yellow Sea, and the East China Sea; the capability to identify such aircraft (by type, if not by nationality); the capability to intercept them with Japanese aircraft if their intentions are unclear; and the capability to shoot them down if their intentions are determined to be hostile.

PROVIDING LOGISTICAL SUPPORT FOR US AND SOUTH KOREAN FORCES INVOLVED IN AN INVASION OR OCCUPATION OF NORTH KOREA COULD REQUIRE A RANGE OF CAPABILITIES.

North Korea's submarine force is also of limited capability, consisting of twenty aging, Chinese-built versions of the 1950s Soviet "Romeo" design, along with about thirty small coastal submarines and about twenty midget submarines.⁴⁴ The operability of the Romeo-class submarines is increasingly questionable, and North Korea's submarine capabilities appear unlikely to significantly improve during the next fifteen to twenty years. In theory, however, the Romeo-class vessels have the range to attack ships or lay mines in the Sea of Japan, Yellow Sea, and East China Sea, along Japan's eastern coast, in the Philippine Sea, and in the northern Pacific approaches to Japan. Being able to defend Japan's ports against North Korean submarine attacks, therefore, requires the capability to find and sink submarines in

42 International Institute for Strategic Studies, *The Military Balance 2014* (London: Routledge, 2014), p. 255.

43 Ibid., p. 256. The H-5 has a combat radius of about eight hundred kilometers, enabling it, in theory, to attack targets in western Honshu and Shikoku. See "Harbin (Ilyushin) H-5," *Jane's Aircraft Upgrades*, January 29, 2009.

44 Ibid., p. 255.

JAPAN'S SECURITY FORCES SHOULD SEEK THE CAPABILITY TO RESPOND TO THESE CHALLENGES AT THE MINIMUM FEASIBLE LEVEL OF ESCALATION.

those sea areas, as does the ability to defend US, South Korean, and Japanese ships.

North Korean commando attacks could be directed against military facilities such as air and naval bases or against critical infrastructure such as key telecommunications nodes; power stations; fuel terminals, manifolds, pumping stations, storage facilities, and pipelines; water supplies and pumping stations; and railways, bridges, and other key transportation nodes. Given the large number of such potential targets, it would be impossible to provide a complete defense for all of them. Still, capabilities that would reduce the likelihood and impact of attacks include the ability to detect and intercept unauthorized penetrations of Japan's sea and air borders; the ability to identify individuals in Japan who are there illegally from North Korea or who are in contact with North Korean security services; reduced vulnerability of critical facilities to infiltration and attack; civilian and military security forces able to rapidly respond to attacks on military and civilian facilities, including attacks by well-trained and heavily armed individuals or units; and the ability to rapidly repair critical damage caused by such attacks.

Capabilities that would contribute to defense against attacks by North Korean ballistic missiles include the ability to detect, track, and calculate the likely impact locations of ballistic-missile launches from North Korea; the capability to destroy missiles in flight; the ability to send missiles off course or reduce their accuracy; reduced vulnerability to missile strikes at key civilian and military facilities; and the ability to rapidly repair critical damage caused by missile strikes. The ability to prevent missiles from being launched in the first place is an additional capability that could potentially contribute to defense against ballistic missile attacks.

In addition to preventing their delivery (that is, preventing North Korean ships, aircraft, missiles, or commandos from reaching Japanese territory, as described above), responding to the effects of North Korean chemical, biological, or nuclear attacks requires the ability to quickly detect and characterize such attacks; the ability to safely evacuate people from the

areas affected by the attacks; the capability to treat the victims of such attacks; and the ability to decontaminate the affected areas.

Challenges around the Senkaku Islands

Missions for Japan's security forces that could result from challenges around the Senkaku Islands include continuing to conduct regular patrols of the waters and airspace of the Senkakus; responding to incursions by Chinese ships and aircraft into the waters and airspace of the Senkakus; preventing China from landing civilian personnel on the islands; removing potentially armed Chinese civilian personnel from the islands; overcoming efforts by Chinese ships and aircraft to physically block Japanese ships and aircraft from entering the islands' territorial waters and airspace; defeating efforts by Chinese ships and aircraft to sink or shoot down Japanese ships and aircraft attempting to enter the islands' territorial waters and airspace; preventing the seizure of one or more of the islands by Chinese military forces; and forcing China to relinquish any islands it seizes.

Japan's security forces should seek the capability to respond to these challenges at the minimum feasible level of escalation. Continuing to conduct regular patrols of the waters and airspace of the Senkaku Islands with civilian ships and aircraft requires that the Japan Coast Guard continue to operate sufficient numbers of these assets capable of conducting such patrols. Responding to incursions by Chinese ships and aircraft into the waters and airspace of the islands, and preventing China from landing civilian personnel on the islands requires the capability to detect and track ships and aircraft in and over the East China Sea; the capability to dispatch Japan Coast Guard ships and aircraft in time to intercept the intruding Chinese vessels; and, if China attempts to land civilian personnel on the islands, the capability to force away or disable Chinese ships and aircraft attempting to enter the islands' waters and airspace.

Removing civilian (but potentially armed) Chinese personnel from the islands requires that Japan's civilian security forces have the capability to land personnel on the islands, to apprehend potentially resisting and possibly armed people, and then to remove the apprehended people from the islands. If the firepower of the "civilian" Chinese personnel landed on the islands exceeds the capability of Japan's civilian security forces to overcome it, then Japan's military forces must have that capability.

Overcoming efforts by Chinese civilian ships and aircraft to physically block Japanese ships and aircraft from entering the Senkaku Islands' territorial waters and airspace requires that Japan Coast Guard or other

Japanese civilian ships have sufficient numbers, speed, and agility to evade or overwhelm these efforts and enter the islands' waters and airspace. If China were to also use military ships and aircraft to physically block Japanese ships and aircraft, then Japan's civilian and SDF ships and aircraft would need to collectively have sufficient numbers, speed, and agility to evade or overwhelm those efforts.

Preventing Chinese ships and aircraft from sinking or shooting down Japanese ships and aircraft attempting to enter the islands' territorial waters and airspace would require a combination of capabilities, including some or all of the following: the ability to detect, track, and identify Chinese aircraft, surface ships, and submarines in the East China Sea; the ability to blind, jam, or deceive Chinese sensors and communication systems; reduced observability (stealth) for Japanese ships and aircraft; in the case of aircraft, the capability to outmaneuver or otherwise defeat Chinese surface-to-air and air-to-air missiles; in the case of surface ships, the ability to shoot down or otherwise defeat anti-ship missiles; and the ability to shoot down, sink, or drive off Chinese aircraft and ships that are attacking Japan's ships and aircraft.

EVEN IF IT CHOSE TO USE LETHAL MILITARY FORCE TO SEIZE AND HOLD THE SENKAKU ISLANDS, THE CHINESE LEADERSHIP WOULD LIKELY SEEK TO KEEP THE CONFLICT LIMITED.

A seizure of one or more of the Senkaku Islands by Chinese military forces would potentially be a large-scale military operation. Therefore, to identify the capabilities required to prevent such a seizure, the disparate elements of that operation must first be considered. Based on what is known of Chinese military doctrine, a seizure of the islands would likely proceed in three phases. The first phase would consist of efforts to seize information superiority, air superiority, and sea control in the area around the islands, and the clearing of any mines or obstacles in the intended landing areas. The second phase would consist of embarking the landing force and sailing to the intended landing areas. The third phase would consist of landing and establishing a beachhead.⁴⁵

Even if it chose to use lethal military force to seize and hold the Senkaku Islands, the Chinese leadership would likely seek to keep the conflict limited, at least initially, by not attacking targets on Japanese territory (other than the Senkakus) or Japanese ships and aircraft that were not engaging Chinese forces or otherwise threatening the landing force. To achieve information superiority, air superiority, and sea control in the area around the Senkaku Islands, China would therefore likely use a variety of nondestructive means—including cyber warfare, laser dazzlers, and electromagnetic interference—to temporarily blind, jam, or deceive Japanese and US sensors and communications systems. Japanese aircraft and ships in the immediate vicinity of the Senkaku Islands, however, would likely be attacked and shot down, sunk, or driven off.

If these efforts were insufficient, it is possible that the Chinese military might choose to expand its destructive attacks to all Japanese ships and aircraft in the East China Sea, Japanese satellites, targets in the Ryukyu Islands, or even the southern portion of the main islands of Japan.⁴⁶ These targets could include air and naval bases, ground-based sensors such as radars, and communications installations. Depending on the type of target, the means for attacking could include high-energy lasers, antisatellite missiles, ballistic and cruise missiles, aircraft, submarines, sea mines, and commandos.

Preventing China from achieving information superiority, air superiority, and sea control in the area around the Senkaku Islands would require a wide range of capabilities. Defeating Chinese cyberattacks requires military and civilian computer systems that have reduced vulnerability to such attacks; the capability to detect such attacks as quickly as possible; and the capability to quickly neutralize the effects of such attacks once they are detected. Preventing China from blinding, jamming, or deceiving Japanese sensors and communications systems requires sensors and communication systems that are resistant to such tactics, and possibly the capability to destroy the sources of that blinding, jamming, and deception. Preventing China from shooting down, sinking, or driving off Japanese aircraft and ships would require some or all of the following capabilities: the ability to detect, track, and identify aircraft, surface ships, and submarines in the East China Sea; the ability to blind, jam, or deceive Chinese sensors and communication systems; reduced observability (stealth) for Japanese ships and aircraft; in the case of aircraft, the capability to outmaneuver or otherwise defeat surface-to-air and air-to-air missiles;

⁴⁵ See Zhang Yuliang et al., ed., 《战役学》 [Campaign Studies] (Beijing: National Defense University Press, 2006), pp. 316-330.

⁴⁶ China might also attempt to seize Japanese islands other than those in the Senkaku group. The following section discusses the implications of such a seizure.



Chinese Military Parade during the Victory Day celebrations, Beijing, September 2015. *Photo credit: GovernmentZA/Flickr.*

in the case of surface ships, the capability to shoot down or otherwise defeat anti-ship missiles; and the ability to shoot down, sink, or drive off Chinese aircraft and ships (including submarines) that are attacking Japan's ships and aircraft.

Defeating destructive Chinese attacks on Japan's satellites could entail a range of capabilities, including the ability to monitor the presence of potential threats to Japan's satellites; increasing the resistance of Japan's satellites to high-energy laser attacks; and increasing the capability of the satellites to conduct orbital maneuvers so that Chinese space-tracking sensors have difficulty acquiring and tracking Japan's satellites. It could also entail dispersing satellite-borne sensors across a larger number of lower-cost satellites, as opposed to concentrating multiple sensors on a small number of higher-cost satellites. Finally, it could entail (where possible) using terrestrial means, such as high-altitude unmanned aerial vehicles, to substitute for capabilities currently provided by satellites.

Effectively countering Chinese missile attacks on targets in Japan requires multiple capabilities. These include the ability to detect, track, and calculate the likely impact locations of those missiles; the ability to make missiles fly off course or reduce their accuracy; the ability to destroy missiles in flight; reduced vulnerability to

missile strikes at key potential targets; and the ability to rapidly repair critical damage caused by missile strikes.

Defeating Chinese aircraft attacks on targets in southern Japan requires the capability to detect, track, and identify aircraft flying over the Sea of Japan, the East China Sea, and the northern Philippine Sea; the capability to shoot down aircraft (including, in the future, stealthy aircraft); the capability to defeat or reduce the accuracy of the munitions (such as air-to-surface missiles or guided bombs) launched by those aircraft; reduced vulnerability to such attacks at key potential targets; and the ability to rapidly repair critical damage caused by such attacks.

Protecting Japan's ports from attacks by Chinese submarines requires the capability to detect and track submarines along Japan's coast in general and near its ports in particular. It also requires the capability to attack and sink submarines that are detected in these areas. Protecting Japan's ports and other coastal facilities (e.g., offshore oil and gas pipeline terminals) from sea mines requires the capability to detect and destroy the platforms used to lay the mines (i.e., submarines, aircraft, and surface ships, including what appear to be civilian ships), as well as the capability to find and clear mines.

Capabilities that would reduce the likelihood and impact of Chinese commando attacks include the ability

to detect and intercept unauthorized penetrations of Japan's sea and air borders; the ability to identify individuals in Japan who are there illegally from China or who are in contact with Chinese security services; reduced vulnerability of critical facilities to infiltration and attack; military and civilian security forces able to rapidly respond to attacks on military and civilian facilities, including attacks by well-trained and heavily armed individuals or units; and the ability to rapidly repair critical damage caused by such attacks.

If China succeeded in landing civilian or military personnel on the Senkaku Islands, there would be two options for forcing China to relinquish them. One would be to prevent the islands from being resupplied, forcing the occupiers to surrender or withdraw. The other would be to land Japanese forces on the seized islands to evict the occupiers. Preventing the resupply would require the capability to detect and track Chinese aircraft and ships (including submarines) attempting to bring supplies to the occupied islands, and to neutralize them in the face of Chinese opposition. These capabilities are essentially the same as those required to prevent a Chinese attempt to land forces on the island in the first place.

Landing Japanese forces on the island to evict the occupiers would also require these capabilities, but to a greater degree, as the goal would be for Japan to achieve information, air, and sea superiority—not just to deny them to China. In addition, Japan would need the ability to destroy obstacles and fortifications; the ability to destroy or suppress air defenses; the ability to land ground forces on the islands; the ability to destroy ground vehicles; the ability to kill or suppress dismounted infantry; and the ability to clear landmines.

Defense of Other Japanese Islands

Defense of Japanese islands other than those in the Senkaku group would require essentially the same capabilities as would be required to defeat seizure of one or more of the Senkaku Islands, with two principal differences. One is that the scale of an invasion could potentially be much larger, as the largest of the Senkaku Islands (Uotsuri-shima), has a total land area of only about four square kilometers and is steeply sloped, limiting the ability of ground vehicles to operate there.⁴⁷ By contrast, Yonaguni-shima, the smallest of the Ryukyu Islands that China might plausibly invade (because it is the closest to Taiwan and mainland China and has a two thousand-meter airstrip), has a land area of nearly

IF CHINA SUCCEEDED IN LANDING CIVILIAN OR MILITARY PERSONNEL ON THE SENKAKU ISLANDS, THERE WOULD BE TWO OPTIONS FOR FORCING CHINA TO RELINQUISH THEM. ONE WOULD BE TO PREVENT THE ISLANDS FROM BEING RESUPPLIED, FORCING THE OCCUPIERS TO SURRENDER OR WITHDRAW. THE OTHER WOULD BE TO LAND JAPANESE FORCES ON THE SEIZED ISLANDS TO EVICT THE OCCUPIERS.

thirty square kilometers and is relatively flat.⁴⁸ A second difference is that there could be Japanese ground forces present on the invaded island at the time of the invasion, as Japan has, or plans to deploy, troops on many of the islands China might consider invading.⁴⁹

Conflict over Taiwan

Missions for Japan's security forces that could result from a conflict over Taiwan include providing logistical support to US naval assets deployed to the waters near Taiwan and to US military aircraft operating from air bases in Japan; helping defend US naval ships and aircraft; evacuating Japanese nationals from Taiwanese territory; defending against computer network attacks; and defending Japanese territory against attacks by Chinese ballistic missiles, cruise missiles, aircraft, submarines, sea mines, and commandos.

Providing logistical support to US naval assets deployed to the waters around Japan and to US military aircraft operating from air bases in Japan primarily requires the capabilities to fuel, arm, maintain, repair, and resupply those aircraft and ships. It could, however, include providing medical care for US personnel injured onboard

⁴⁷ On its more gently sloped northern side, Uotsuri-shima gains over 300 meters of elevation in a horizontal distance of about 750 meters—an average slope of about 25 degrees. Based on Google Earth.

⁴⁸ Based on Google Earth.

⁴⁹ Shannon Tiezzi, "Japan to Station Troops on Yonaguni, Near Disputed Islands," *Diplomat*, April 19, 2014; Doug Tsuruoka, "Japan Plans to Deploy Military Unit to Island Near Disputed Area with China: Report," *Asia Times*, May 1, 2015.

US aircraft or ships, or at US military bases in Japan that were attacked by China.

As in the case of the Korean contingency discussed earlier, most Japanese nationals would likely evacuate by commercial aircraft or ship in the event of a conflict over Taiwan. Similarly, however, it is possible that some Japanese nationals could be in remote areas at the outbreak of hostilities, or that Taiwan's airports and seaports could be unusable for some period of time due to Chinese attacks. If Taiwan's domestic search-and-rescue assets were unavailable or overburdened, or if commercial aircraft and ships were not usable, Japan could be allowed to deploy its own search-and-rescue assets for the purpose of evacuating Japanese nationals. If Japanese aircraft were unable to use airfields in Taiwan, these assets would need to operate from nearby Japanese territory or ships to conduct the evacuations.

Defending against attacks by Chinese cyber weapons, ballistic missiles, cruise missiles, aircraft, submarines, sea mines, and commandos would require all of the same capabilities as would be required for defending Japan against such attacks in a conflict over the Senkaku Islands, as described in the previous section. Helping defend US naval ships and aircraft from attack would require a combination of capabilities that includes the ability to detect, track, and identify aircraft, surface ships, and submarines in the East China Sea, South China Sea, and Philippine Sea in the face of Chinese efforts to blind, jam, or deceive Japan's sensors and communication systems; the ability to blind, jam, or deceive China's sensors and communication systems; the ability to shoot down or otherwise defeat anti-ship missiles; and the ability to shoot down, sink, or drive off attacking Chinese aircraft and ships. Effective employment of these capabilities, moreover, would require a high degree of interoperability between US and Japanese forces, so that US and Japanese units could share information about the locations and actions both of China's forces and of each other's forces, and coordinate their responses to China's actions.

Conflict in the South China Sea

Missions for Japan's security forces that could result from conflict in the South China Sea include providing logistical support to US forces deploying to Southeast Asia or the South China Sea and helping to protect international shipping passing through the South China Sea.

Providing logistical support to US forces in this situation would primarily require the capabilities to fuel, arm, maintain, repair, and resupply US aircraft and ships. Helping to protect international shipping would require the capability to detect, track, and identify aircraft,

surface ships, and submarines in the South China Sea; the ability to shoot down, sink, or drive off aircraft and ships attempting to attack that shipping; and the ability to shoot down or otherwise defeat antiship missiles that might be launched against the shipping.

Natural and Man-Made Disasters

Responding to natural and man-made disasters could require a variety of capabilities including the ability to find and rescue people stranded in remote locations on land or at sea; the ability to bring drinking water, food, shelter, and medical treatment to people in remote locations; the ability to quickly detect and characterize chemical, biological, or nuclear hazards; the ability to treat the victims of chemical, biological, or radiological exposure; and the ability to decontaminate areas affected by chemical, biological, or nuclear accidents.

International Security Operations

Contributing to international security operations requires military and police forces that are specifically trained in the skills associated with certain specialized operations, such as peacekeeping and ship inspections, as well as capabilities associated with standard military operations of the types described above, such as minesweeping, naval escort, and logistical support.⁵⁰

Partner Capacity-Building

Building partner capacity requires the capability to provide training to foreign military and civilian security forces that operate within physical, political, cultural, economic, and linguistic environments that differ from those of Japan. In the US military, this expertise is provided by the US Army Special Forces and by similar organizations in the other branches.

Regional Security Cooperation Activities

Security cooperation activities with regional partners would primarily require the capabilities needed to respond to other potential demands for Japan's security forces, as described above. In addition, however, such activities require the capability to communicate with the partner forces, and will be more effective if Japan's security forces possess a good understanding of the capabilities and organizational cultures of their foreign counterparts.

50 For a US military description of the requirements of peace operations, see Joint Publication 3-07.3, *Peace Operations*, August 1, 2012, <https://fas.org/irp/doddir/dod/jp3-07-3.pdf>.

TABLE A. Capabilities Required for a Regional Security Leader

Capabilities
<p>Search and Rescue</p> <ul style="list-style-type: none"> • capability to find people needing rescue on land (including in complex terrain) or at sea • capability to evacuate people stranded at sea or in remote locations on land • air- and sea-deployable capability to treat illness and injuries
<p>Maritime Domain Awareness</p> <ul style="list-style-type: none"> • capability to detect, track, and identify small craft, surface ships, submarines, and aircraft on, under, or over the seas around Japan—particularly those craft that are approaching Japan's sea and air borders • capability for the Japan Coast Guard and SDF to share maritime domain information • sensors and communications systems that are resistant to blinding, jamming, and deception
<p>Civilian Security Forces</p> <ul style="list-style-type: none"> • capability to rapidly dispatch Japan Coast Guard ships and aircraft to the Senkaku Islands in response to intrusions by Chinese ships and aircraft • capability to nonlethally force away or disable Chinese civilian ships and aircraft • civilian ships (e.g., Japan Coast Guard or other Japanese civilian law enforcement) with sufficient numbers, speed, and agility to overcome efforts by Chinese civilian ships and aircraft to block them from entering the waters and airspace of the Senkaku Islands • capability to land civilian law enforcement personnel on small islands • capability to disarm and apprehend armed civilians • capability to transport people from small islands • reduced vulnerability of critical civilian facilities to physical infiltration and attack • capability to rapidly repair damage caused by attacks on critical civilian facilities • capability to identify individuals in Japan who are there illegally from North Korea or China or who are in contact with North Korean or Chinese security services
<p>Logistics</p> <ul style="list-style-type: none"> • capability to fuel, arm, maintain, repair, and resupply US aircraft and ships at SDF bases • capability to transport US ground forces and supplies from Japan to the Korean peninsula • capability to provide supplies (fuel, ammunition, equipment, drinking water, food, medical supplies, etc.) to US forces or to domestic or foreign disaster victims

TABLE A. Capabilities Required for a Regional Security Leader (continued)**Capabilities****Cyber and Electronic Warfare**

- reduced vulnerability to cyberattacks of military and critical civilian (power, water, transportation, communications, etc.) computer systems
- capability to quickly detect cyberattacks against military and civilian computer systems
- capability to quickly neutralize cyberattacks against military and civilian computer systems
- sensors and communication systems that are resistant to blinding, jamming, and deception
- capability to blind, jam, or deceive adversary sensors and communication systems

Missile Defense

- capability to detect, track, and calculate the likely impact locations of ballistic and cruise missile launches from North Korea or China
- capability to destroy ballistic and cruise missiles in flight
- capability to send ballistic and cruise missiles off course or reduce their accuracy

Naval Combat

- capability to disable or sink surface ships, including large numbers of small craft or ships with advanced air defenses
- capability to sink submarines
- reduced observability (stealth) for surface ships
- capability to shoot down or otherwise defeat anti-ship missiles
- capability to find and clear sea mines

Aerial Combat

- capability to shoot down aircraft (including stealthy aircraft)
- reduced observability (stealth) for aircraft
- ability to avoid interception by advanced surface-to-air and air-to-air missiles
- capability to destroy or suppress air defense systems

Ground Operations

- capability to destroy fixed fortifications
- capability to destroy ground vehicles
- capability to kill or suppress dismounted infantry
- capability to clear landmines and obstacles
- capability to perform peace operations

TABLE A. Capabilities Required for a Regional Security Leader (continued)

Capabilities
Special Operations Forces <ul style="list-style-type: none"> • capability to rapidly respond to and defeat attacks on military and civilian facilities by well-trained and heavily armed commandos • capability to provide training to foreign military and civilian security forces that operate within geographic, political, cultural, economic, and linguistic environments that differ from Japan's
Base Defenses <ul style="list-style-type: none"> • defenses against short-range ballistic and cruise missiles • reduced vulnerability of key military facilities to infiltration and physical attack • capability to rapidly repair damage caused by physical attacks
Nuclear, Biological, and Chemical Incident Response <ul style="list-style-type: none"> • capability to quickly detect and characterize chemical, biological, and radiological hazards • capability to safely evacuate people from the areas affected by chemical, biological, and nuclear incidents • capability to treat the victims of chemical, biological, and nuclear incidents • capability to decontaminate areas affected by chemical, biological, and nuclear incidents
Space <ul style="list-style-type: none"> • capability to monitor the presence of potential threats to satellites • increased hardness of satellites to high-energy laser attacks • increased capability for satellites to conduct orbital maneuvers • dispersal of sensors across multiple lower-cost satellites • high-altitude unmanned aerial vehicles that can substitute for functions provided by satellites
Interoperability with US and Other Partner Militaries <ul style="list-style-type: none"> • capability to conduct voice communications with partner forces • capability to share digital data with partner forces • understanding of partners' capabilities and organizational culture • knowledge of partners' tactics, techniques, and procedures

About the Author



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