U.S. and Korean ships transit Pacific Ocean in 13-ship formation led by USS *Tucson* during exercise Invincible Spirit, July 2010 (U.S. Navy/Adam K. Thomas)

After the First Shots

Managing Escalation in Northeast Asia

By Vincent A. Manzo

The United States has never fought a conventional war against a nuclear-armed adversary. Yet the United States and its allies must prepare for a range of military contingencies with both North Korea and China, and avoiding nuclear escalation would be a U.S. objective in all of them. Developing strategies for managing escalation will be an essential part of U.S. efforts to extend deterrence and assure its allies in Northeast Asia.

Thomas Schelling's writing on coercion and competitions in risk-taking remains valuable for analyzing the challenges associated with escalation management. A U.S. strategy for managing escalation under the nuclear shadow must compel an adversary to stop fighting while demonstrating restraint in U.S. goals and use of force—in other words, withholding punishment—to induce comparable restraint from the adversary. Madelyn Creedon, the former Assistant Secretary of Defense for Global Strategic Affairs, explained the relationship between reciprocal restraint, deterrence, and escalation management: "There is . . . an element of restraint in our reactions [to

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Kim Jong-un sitting at desk in what appears a dedicated military operations room (Korean Central News Agency)

attacks] as well that is a part of deterrence. Our restraint comes with a promise of more action if there is a response."[1]

This article applies that framework to U.S. military strategy in Northeast Asia. The first section summarizes developments in North Korean and Chinese strategic postures and the implications for U.S. defense strategy. The second part describes Schelling's concept of a competition in risk-taking and argues that it is a valuable framework for developing a strategy for managing escalation. The third section applies this framework to the Korean Peninsula. The final two parts apply the framework to a U.S.-China conventional conflict: the fourth section explores both deliberate and inadvertent escalation risks in such a conflict, and the fifth section discusses several measures for preventing inadvertent escalation.

U.S.–Republic of Korea (ROK) alliance efforts to coordinate a coherent strategy for managing escalation in confrontations with North Korea have made progress. Looking forward, ongoing challenges include identifying developments in a confrontation that would necessitate a shift in objectives from managing escalation to damage limitation or regime change, and determining the role of ROK conventional strike forces and how these capabilities would fit into the alliance's understanding of escalation.

Effective escalation management in a conventional conflict with China would require comparable understandings of escalation between U.S. and Chinese officials, the ability to avoid crossing key thresholds and convey to each other what limits are expected in return, and clear expectations about the consequences of escalation. Because even lower end conflicts would pose profound risks of inadvertent escalation, this article explores U.S. measures for reinforcing mutual restraint in the early phase of a confrontation, but these measures would quickly become infeasible if China did not reciprocate.

The analysis in this article includes two intentional simplifications. The discussion of the Korean Peninsula focuses exclusively on U.S.-ROK efforts to manage escalation in crises and does not address the role of China or Japan. For the U.S.-China section, the discussion explores escalation between the United States and China, but a more comprehensive analysis must also include intentions and actions of other countries involved in a serious U.S.-China crisis, such as Japan or Taiwan. Narrowing the

cast of characters hopefully illuminates fundamental issues, questions, and recommendations that more comprehensive studies can examine further.

Evolving Military Capabilities in Northeast Asia

Both China and North Korea are altering their strategic-military postures. Bradley Roberts, former Deputy Assistant Secretary of Defense for Nuclear and Missile Defense Policy, frames these challenges through two concepts: decoupling and the stability-instability paradox. U.S. allies are concerned that Chinese and, in the future, North Korean capability to strike the U.S. homeland with nuclear missiles could decouple them from U.S. security commitments. And North Korea or China could feel confident that their military capabilities create stable deterrence relationships with the United States, thus empowering them to challenge U.S. allies: North Korea may attempt to coerce and even mount conventional attacks on South Korea and Japan. China might engage in creeping expansionism, gradually asserting control over disputed territory.[2]

A dialogue about the implications of these trends for U.S. defense strategy is already under way.

China has a sophisticated nuclear arsenal and ballistic missile program and is committed to retaining a credible second-strike capability against the United States. For those reasons, several studies have concluded that mutual nuclear vulnerability with China is a fact of life for the United States.[3] China is also deploying a variety of nonnuclear systems, including conventional ballistic missiles for striking bases and aircraft carriers, counterspace weapons for destroying satellites, cyber capabilities for degrading network-dependent systems, attack submarines, integrated air defenses, and aircraft.[4] Many analysts argue that these capabilities support China's antiaccess/area-denial (A2/AD) strategy of defeating U.S. conventional forces in the Western Pacific and preventing additional U.S. forces from entering the region, in part by disrupting U.S. command and control (C2) and intelligence, surveillance, and reconnaissance (ISR) systems.

The Joint Operational Access Concept and the related Air-Sea Battle (ASB) concept are intended to ensure the effectiveness of U.S. conventional forces as China and other countries field A2/AD capabilities. The concepts envision strikes against strategic targets in an adversary's territory early in a conflict. These attacks against C2 and ISR, offensive weapons such as ballistic missiles, and military infrastructure would, if successful, leave the adversary blind, deaf, and dumb in the theater of conflict and much less capable of effective military operations. This would enable the United States and its allies to maintain escalation dominance in a conventional conflict.[5] Yet many analysts argue that this concept underestimates how much China's nuclear posture would constrain U.S. actions in a conventional war. They question whether a President would ever authorize large-scale conventional strikes on mainland China.[6]

The military balance with North Korea is also evolving. The country continues to advance toward an operational capability to deliver nuclear warheads via ballistic missiles. It completed its third nuclear detonation in February 2013, and the U.S. Intelligence Community assesses that it will eventually be capable of miniaturizing nuclear warheads and mounting them on ballistic missiles. A successful satellite launch in December 2012 illustrates progress on the path to developing intercontinental ballistic missiles, while North Korea's current missiles can reach targets in Japan.[7] North Korea also possesses sufficient short-range munitions to devastate Seoul with rapid strikes, which enables it to threaten catastrophic conventional escalation for coercion and deterrence.[8]

Analysts warn that North Korea's emerging nuclear arsenal requires the United States to adjust its plans for conflicts on the Korean Peninsula. North Korean officials would interpret large-scale conventional strikes against high-value political, C2, ISR, and weapons system targets as the start of a campaign to destroy the regime, prompting it to unleash a desperate attempt to end the war through limited nuclear attacks on its neighbors and/or U.S. forces in the region. This development would leave U.S. officials with two horrible options: either continue to fight with conventional means while risking further nuclear attacks, or disarm or destroy the regime and much of the country with nuclear weapons, killing hundreds of thousands of civilians in the process.[9]

The theme running through these critiques is that attempting an early knockout blow could strip away an adversary's incentives for nuclear restraint, and U.S. policymakers might refuse to authorize such operations at the outset of a confrontation. This disconnect could undermine U.S. deterrence. Deterrent threats that are anchored in realistic employment strategies are more credible precisely because the United States might use them. But to be credible, employment plans must acknowledge that escalation concerns would permeate U.S. decisions through every phase of a military confrontation with North Korea and China. As Paul Bracken persuasively argues, managing nuclear risks must be a defining feature of U.S. military strategy in Northeast Asia.[10]

Concepts for Managing Escalation

This reality does not mean the United States should forswear offensive operations against aggressors. Effective and credible extended deterrence and assurance require the United States and its allies to develop effective military options for a variety of contingencies. Otherwise, North Korea or China might see an opportunity to coerce their neighbors while U.S. allies might fear that the emerging military balances with China and/or North Korea could decouple them from U.S. security guarantees.[11] Because of the catastrophic consequences of a limited nuclear exchange, U.S. and allied strategic goals might fall short of total destruction of the adversary's military forces or achieving regime change, at least at the outset of conflicts. Instead, the United States would try to compel the adversary to

stop fighting and restore the status quo while simultaneously deterring it from escalating. Achieving these goals would require both deliberate escalation and establishing mutual limits on the use of force. A coherent strategy for managing escalation would draw upon two related concepts: a competition in risk-taking and deterring escalation.

The goals of employing force in a risk-taking competition are twofold: demonstrate resolve and create a high-risk situation that compels adversary leaders to stop fighting. The magnitude and targets of military operations are calibrated to convince an adversary that the conflict is spiraling out of control, but not to the point where nuclear escalation is a better option than negotiating a peaceful off-ramp. Thomas Schelling described this concept as the threat that leaves something to chance; military actions are extraordinarily dangerous because their consequences are impossible to predict and control. However, employment options tailored to these goals could be compatible with narrower military objectives, such as dislodging forces that recently seized an island. Measured punishment and operations that deny adversary objectives could influence its perceptions about both the costs of escalation and continuing on the current course. From this perspective, deterrence threats do not always succeed or fail in an absolute sense. Threats that do not deter initially can eventually influence an adversary through a process of "progressive fulfillment."[12]

How can an attack impose serious costs and create shared risks yet also convey boundaries on the use of force? The answer lies in the link between reciprocal restraint and deterrence. Every deterrent threat contains a promise of restraint: do not attack us, and we will not attack you. Escalation management requires combatants not to use certain types of weapons and avoid attacks on certain types of targets even after efforts to deter conflict in the first place fail. For example, we will not attack your nuclear weapons as long as you do not use them. To achieve these results, the United States needs to clearly convey that its limited objectives are contingent upon the adversary's willingness to forgo use of nuclear weapons. Delivering this message to adversary leaders in public or private channels would be necessary but not sufficient; U.S. actions must match this message by withholding use of more destructive weapons, limiting the size of an attack, or avoiding certain types of targets, such as C2, political leadership centers, and nuclear forces. Alternatively, deliberately or accidentally ignoring these constraints could precipitate nuclear escalation. Translating this concept into practice requires a sustained effort to understand an adversary's perceptions, values, and strategic goals.[13]

That the United States would need to demonstrate this restraint to its adversary amid the uncertainty, chaos, and mistrust of war poses extraordinary challenges. Misperception, misunderstanding, accidents, faulty intelligence, and inaccurate information could derail efforts to manage escalation. More fundamentally, the United States and its adversary might interpret events differently because escalation is subjective. A 2008 RAND study defined *escalation* as "an increase in the intensity or scope of conflict that crosses thresholds considered significant by one or more of the participants."[14] Two states might observe the same action but interpret its significance differently. One state might cross an adversary's threshold without realizing it. Leaders might not know a threshold exists until it is crossed, or they might not know how they would respond to a provocation until it occurs. Compounding these challenges, the United States would need to balance between resolve and restraint while coordinating its actions with allies, who will have their own goals, concerns, thresholds, and capabilities.

The remainder of this article explores these challenges in the cases of the U.S.-ROK alliance and U.S.-China relations.

Managing Escalation on the Korean Peninsula

Managing escalation in conflicts with North Korea is already a priority for the U.S.-ROK alliance. Following the 2010 Nuclear Posture Review, the alliance began meeting on a regular basis to develop and refine shared strategic concepts for scenarios involving the risk of nuclear escalation. In the words of a South Korean official, the goal of a tabletop exercise at one of these engagements was improving "mutual understanding on responses to nuclear crises."[15] On the operational side, the alliance has agreed upon a counter-provocation plan for small-scale conventional attacks and a tailored deterrence strategy for North Korean nuclear threats. It is also developing a counter-missile strategy and has adopted new guidelines that permit South Korea to deploy longer range conventional ballistic missiles.[16]

Yet questions and challenges remain. The counter-provocation plan is part of alliance efforts to strengthen deterrence of the type of small-scale yet fatal conventional attacks that South Korea suffered in 2010: the sinking of the ROK ship *Cheonan* and the shelling of Yeonpyeong Island. The principal goal of a counter-provocation would be to compel North Korea to stop what it is doing and deter additional attacks without triggering a larger conflict.[17] Unconfirmed articles report that the plan calls for ROK forces to launch an immediate proportionate response against the source of an attack and potentially against one other target, such as forces providing logistical support for the initial provocation.[18]

Confining the military response to targets involved in the attack is a logical approach to preventing escalation. But there is no guarantee that North Koreans would interpret the response in this light. ROK forces involved might conclude that a variety of supporting units were involved in the attack and are thus fair game in the response, resulting in a large retaliatory operation that North Korea could perceive as disproportionate.[19] Another possibility is that North Korean officials authorize a covert provocation to solidify their position against challenges from within the regime. Given those motivations, they might see the consequences of not retaliating against the counter-provocation as more dangerous than escalation.[20] Of course, the alliance must weigh risks that its efforts to manage

escalation might fail against the danger that North Korea's attacks will continue and become more brazen if South Korea forgoes a swift military response. The counter-provocation plan's consultative mechanisms are intended to address situation-specific circumstances that could make responding too dangerous.

Integrating the counter-provocation plan with the alliance's broader strategy for managing escalation, complete with shared concepts, understandings of escalation and alliance options, is an ongoing challenge.[21] What is the line of demarcation between the objectives and options considered under the counter-provocation plan and the ones included in larger military plans to destroy North Korea's conventional and nuclear missiles? Just as importantly, how will U.S. and ROK officials consult over these questions during crises?

Ultimately, U.S. and South Korean perceptions of thresholds, risks, and stakes will vary depending on a variety of situation-specific factors. But U.S. and ROK officials would need to coordinate and execute or forgo employment options in complex scenarios that could escalate quickly, especially if North Korea has operational nuclear missiles and attempts to leverage them for coercion. It is worth remembering that during the Cuban Missile Crisis a handful of governments and news outlets controlled the release of information. Today, North Korea could exploit social media for threats and signaling. Public fears of nuclear escalation might echo through cable news coverage and the blogosphere; rapid dissemination of information and images, accurate or not, could sway domestic opinion either against U.S. involvement or in favor a more drastic response than the President prefers.

For instance, during the spring of 2013, North Korea released a photograph of Kim Jong-un in a command center with large maps depicting missile flight paths to the United States. The state advised diplomats to evacuate and moved ballistic missiles to its coast and mounted them on launchers.[22] Future North Korean attempts at signaling may mirror these displays and include more dangerous actions. As examples, North Korea could detonate a nuclear weapon in the ocean and upload images of the explosion on YouTube, or it might visibly mate nuclear warheads with missiles and deploy them on launch-ready status. How would the alliance respond to small-scale conventional attacks, threats, or demands that occur immediately after these nuclear provocations?

An alliance strategy for escalation management would become increasingly important as South Korea's conventional strike forces evolve. Currently, South Korean declaratory policy is to develop a capability for preemptive conventional strikes against North Korea's nuclear forces. Described as a "missile kill chain," the concept reportedly includes investments in ISR, missile defenses, longer range conventional ballistic missiles, and potential acquisition of air-launched cruise missiles capable of penetrating hardened and buried targets.[23] Beyond technical assessments about the requirements and feasibility of this concept, the alliance would need to address qualitative questions about when to initiate such an employment option, and whether and how the alliance could conduct joint strike operations using both U.S. and ROK capabilities. How would the alliance decide the goal of managing escalation has been overtaken by events and the least bad option remaining is damage limitation?

In theory, this decision is tightly coupled to whether the alliance's overarching objective is regime change or providing Kim Jong-un an off-ramp to save face. Ultimately, U.S. and ROK officials likely will want three types of employment options: options that prioritize managing escalation while the alliance defends itself and seeks a diplomatic end to the war; options for conventional strikes against North Korean nuclear forces; and finally, limited nuclear strike options for achieving the same objective.[24] A unilateral decision by either could leave the United States and South Korea working at cross-purposes, and disagreements about fundamental goals could pull at the seams of the alliance. Fortunately, the alliance has a variety of venues to work through these difficult issues in peacetime.

Deliberate and Inadvertent Escalation with China

Managing escalation with China would be an altogether different challenge. U.S. policy seeks to facilitate greater cooperation with China while tempering military competition through greater transparency, predictability, and eventually common understandings of strategic stability. The emerging competition between China's A2/AD posture and the U.S. ASB concept is one of the most complex challenges these efforts must address. The ASB concept is largely a response to China's A2/AD capabilities, which many U.S. analysts perceive as geared toward providing China with a decisive conventional military advantage over the United States, in part by exploiting U.S. vulnerabilities in space and cyberspace. Interactions between China's A2/AD and U.S. ASB forces could encompass both countries' conventional, space, cyber, missile defense, and nuclear capabilities. In a conventional conflict, both countries would have incentives to coerce the other into making concessions while simultaneously preventing escalation to high-end conventional war and nuclear weapons use.[25] A strategy for managing escalation must understand the risks that stem from these dynamics.

One of the biggest points of contention in debates over ASB is whether a military strategy that relies on striking targets in mainland China with conventional weapons is necessary for effective deterrence or too reckless to be credible. Of course, whether the United States would or should strike the mainland in a specific contingency is impossible to judge in the abstract; the details would matter. Whether the United States should develop conventional strike options is a different question: A credible deterrence posture must at least give the President options to hit targets in the mainland for several reasons. Mainland China would be the staging area from which China would launch conventional missiles at U.S. and allied forces. Purely defensive measures, such as missile defenses and hardening, dispersing, and concealing regional military

South Korean and U.S. admirals inspect wreckage of ROKS *Cheonan* at Pyeongtaek, September 2010 (U.S. Navy/Jared Apollo Burgamy)

assets, would be insufficient as the sole means for coping with China's large conventional strike force.[26] Treating mainland China as a sanctuary could signal that the United States is unwilling to take risks to contest this threat and might reinforce Japanese concerns about decoupling. It could also feed into perceptions among Chinese officials and strategists that they have greater stakes, and thus a decisive advantage, in any conceivable regional conflict.[27]

Moreover, limited conventional strikes on nonnuclear military targets would be consistent with Schelling's concepts of competitions in risk-taking and deterrence through progressive fulfillment. Attacking the homeland of a nuclear power armed with a secure second-strike capability would be an unprecedented action for the United States. It would be a clear sign that the situation is getting out of control. If Chinese strategists previously questioned U.S. commitments, this deliberate decision to escalate could change their calculus and motivate them to seek a peaceful off-ramp.

Although conventional strikes on mainland China would be escalatory by design, they would not inevitably lead to *nuclear* escalation. Elbridge Colby argues that China's investment in an integrated air defense system suggests that it anticipates defending against attacks on the homeland during a conventional war, while the threat of U.S. nuclear retaliation creates strong incentives for China to forgo a nuclear response to a conventional attack. Colby also describes how the United States could reinforce these incentives by tailoring conventional strikes to reflect limited objectives and demonstrate a willingness to show continued restraint and/or withhold punishment: "Logical steps include observing geographic boundaries for such a fight, cordoning off certain kinds of targets [nuclear C2 and weapons; leadership headquarters], and clearly and credibly communicating efforts at limitation to an adversary."[28]

Operationalizing this framework requires U.S. strategists to address several worrisome risks of inadvertent escalation. Could the United States reliably avoid the targets that are off limits during a conventional conflict, and would Chinese officials perceive this as a deliberate act of restraint? Just as importantly, if the United States hit the wrong target by accident or due to flawed intelligence, would Chinese officials see it as an intentional expansion of U.S. war objectives?

One reason for skepticism is that both countries see early attacks on C2 and ISR via conventional weapons, cyber attacks, and counterspace weapons as a means of negating the other's military power. Although this could yield significant military advantages, it could also cause either or both to lose the ability to

communicate clearly and quickly, operate with precision, and assess what is and is not happening on the battlefield. Without reliable C2, deployed forces may take actions that exceed the limits senior officials believe are necessary to induce reciprocal restraint and may fail to receive ceasefire orders. A study of Iraqi decisionmaking during the first Gulf War concluded that a commander decided to burn Iraqi oil fields because he was unable to communicate with his superiors in Baghdad and "feared the worst."[29] In that sense, undercutting China's C2 system could undercut U.S. efforts to manage escalation.

Additionally, space and cyber assets are integral to U.S. and Chinese C2 and ISR systems. Strategists in both countries argue that attacking assets in space and cyberspace would be an effective means of severing links between the other military's sensors, command systems, and deployed forces.[30] Fear of losing C2 and ISR as a result of the adversary's blinding attack, combined with the possibility of gaining a decisive advantage by attacking first, could create pressure for nonnuclear preemptive strikes anytime a military conflict appears likely.[31] Although resilient and redundant systems could dampen this pressure, uncertainty about the capabilities and effects of cyber and counterspace attacks and the absence of clear thresholds in these domains open the door to misperception and miscalculation.[32] Hostilities or misunderstandings in these domains after an accident or incident among U.S., Japanese, and Chinese forces could transform an isolated crisis into a larger military confrontation that none sought.[33]

Blurred nuclear thresholds create additional risks of inadvertent escalation. China deploys both nuclear and conventional variants of its medium-range ballistic missiles, such as the DF-21, and some of its bases, command headquarters, and ground-based sensors might serve both conventional and nuclear operations. The ASB emphasis on achieving both force protection and coercive leverage by suppressing Chinese conventional missiles could translate into large-scale strike operations against a range of targets on the mainland. Yet U.S. forces might struggle to distinguish between nuclear and conventional targets. Chinese officials, in turn, could interpret an inadvertent U.S. strike on a nuclear missile or dual-purpose base or sensor as an attempt to destroy China's nuclear deterrent, especially in light of their concerns about the first-strike potential of U.S. conventional weapons and missile defenses.[34]

Under these circumstances, Chinese strategists may envision limited nuclear strikes against military forces in the region as a last resort option for shocking U.S. officials and compelling them to de-escalate. Whether the Second Artillery Corps has developed such employment options is unclear; it is also unclear whether China's no-first-use policy considers conventional strikes against targets on the mainland as crossing the first-use threshold.[35] Additionally, national decisionmakers in both countries simply do not know how they would react as a conventional conflict escalates.

Deliberate nuclear signaling by both countries before the start of a conventional conflict could exacerbate all of these dynamics. China might disperse its mobile nuclear-armed missiles to signal resolve; however, U.S. officials could interpret these actions as preparation for an attack.[36] Alternatively, U.S. officials could interpret the signal correctly and conclude a strong response is necessary to demonstrate that nuclear threats against the United States are ineffective. Such calculations could prompt the United States to draw attention to its own nuclear capabilities. Yet the preferred means of nuclear signaling for the United States—forward deploying or exercising nuclear-capable bombers—could further blur the nuclear threshold if the United States later employs these types of platforms for conventional strikes on the mainland.[37]

Managing Escalation in Conflicts with China

Given these dangers, U.S. officials may want measures for preventing quick escalation in lower level conflicts. A declaratory and employment policy of early restraint in space and cyberspace would help establish a barrier between an accident or isolated confrontation and a larger conventional conflict. Constraining offensive actions in these domains until the President decides to escalate might be sufficient. U.S. restraint would thus not need to be permanently tied to Chinese reciprocation (that is, a no-first-use pledge). This policy could clarify that counterspace and cyber attacks would be legitimate options in an outright conventional war but disproportionately dangerous in contingencies short of that. The message to China would be that the United States will not attack in these domains until the President concludes that conventional war is inevitable. The corollary is that U.S. officials would interpret Chinese attacks in these domains as a deliberate escalation. Taken together, these measures create incentives for China to forgo attacks on U.S. space and cyber assets in small-scale confrontations.

The United States could also develop conventional options for striking Chinese territory that would be tailored to managing escalation. Such options would employ a small number of U.S. assets in a short-duration strike. Importantly, U.S. officials would need to select potential military targets that meet three criteria:

- The targets would be in range of standoff weapons, so that attacking them would not require large suppression operations against Chinese air defenses; this would be essential to keep the operation small and quick.
- The targets would not be part of China's nuclear posture. This would require detailed analysis during peacetime to determine, as examples, air defense nodes, antisatellite weapons, conventional missiles, naval bases, or sensors that do not have nuclear functions.
- The targets would not be part of the regime's political leadership.

The United States could develop a spectrum of strike packages tailored to managing escalation, from an attack on a single target to larger attacks against

Launch of North Korea's Unha-3 rocket in December 2013 (Korean Central News Agency)

multiple targets that satisfy these criteria. The goal of this employment option would be to escalate by crossing a profound geographic and symbolic threshold while minimizing the chances that China would react rashly for fear of losing key strategic capabilities. U.S. officials could also follow up the operation with a cease-fire offer. Every aspect of the response would highlight the willingness to do something dangerous and the promise of reciprocal restraint. Of course, this option would entail a tradeoff with mounting an operation to dramatically degrade Chinese capabilities. Yet it may be more prudent than authorizing a larger, messier campaign for limited U.S. goals. At the least, it is an option that the President may want to consider.

This concept would probably not work after China launched a large-scale missile salvo on a U.S. base, struck an aircraft carrier, or unleashed unrelenting attacks in space and cyberspace. As a conflict progresses, the United States might need to launch large-scale conventional attacks on Chinese ISR, C2, and missiles on the mainland. The inescapable nuclear shadow means that managing escalation would remain a U.S. objective even in a high-end conventional conflict, but other military objectives would also come to the fore if U.S. and allied forces were under sustained attack.

The prospects for mutual restraint early in a conflict are most promising if the United States and China both understand the perils of inadvertent escalation. As a RAND study observes, "to reduce the risk of inadvertent escalation, the adversary . . . must *first* be enlightened, after which deterrence may or may not still be required."[38] China has thus far been suspicious of U.S. efforts to explore how a conflict between the two might spiral out of control and how they might cooperate to manage escalation, although constructive dialogues on these and other strategic issues at the unofficial level continue.[39] The escalatory danger of counterspace and cyber attacks, blurred nuclear thresholds, and nuclear signaling all merit continued discussion in these venues. China might balk, but persistent efforts to raise these issues and explain U.S. concerns would be worthwhile.

As an example, U.S. participants could explain that some in the United States would interpret China's dispersal of mobile missiles in a crisis as a provocation while others would see it as stabilizing because it reduces vulnerability and thus early-use incentives. The ultimate impact of this signal would depend on the subjective perceptions of a variety of different individuals, many of whom would have different assumptions and possibly differing information. At the least, explaining the diversity of views within the United States ensures that China's strategic community is aware of some of the complex challenges that would confront U.S. and Chinese officials during a limited conflict.

Conclusion: Institutionalizing Escalation Management

The risks of nuclear escalation in Northeast Asia will endure for years. Escalation management should be a standard metric for evaluating potential contingency and employment plans for conventional conflicts with nuclear-armed adversaries. This would help U.S. planners and policymakers scrutinize options that might be attractive for tactical military goals but carry a high strategic risk of escalation. Developing a set of criteria for assessing the escalation risks of employment plans is a good starting point:

- Would an adversary perceive a particular action as escalatory? Why?
- How might the adversary respond?
- Is this option deliberately escalatory, or is the risk of escalation a consequence of achieving a tactical objective? Are there other means for achieving these tactical objectives?
- If this option is deliberately escalatory, what is the objective and how can we mitigate the risks of the conflict getting out of control?

At the end of the day, national leaders might have little confidence in their ability to manage escalation under the nuclear shadow. Clearly, deterring potential adversaries from deciding to use force against the United States and its allies and resolving disputes diplomatically are higher priorities. But that does not obviate the need for the United States and its allies to grapple with this unpleasant topic and be as prepared as possible. **JFQ**

Notes

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[11] Roberts.

[12] The best discussion of the concepts and mechanics of competitions in risk taking is Thomas Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966). See also Schelling, *Strategy of Conflict* (Cambridge: Harvard University Press, 1960).

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[14] Forrest E. Morgan et al., *Dangerous Thresholds: Managing Escalation in the 21st Century* (Arlington, VA: RAND, 2008), 7–45; see also Richard Ned Lebow, *Nuclear Crisis Management: A Dangerous Illusion* (Ithaca: Cornell University Press, 1987), 104–153.

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[16] "Joint Communiqué: The 45th ROK-U.S. Security Consultative Meeting, October 2, 2013, Seoul," available at <www.usfk.mil/usfk/Uploads/200/Joint_Communique_45th_ROK-US_Security_Consultative_Meeting.pdf>; and Choe Sang-Hun, "U.S. Agrees to Let South Korea Extend Range of Ballistic Missiles," *New York Times*, October 7, 2012.

[17] David Sanger and Thom Shanker, "U.S. Designs a Korea Response Proportional to the Provocation," *New York Times*, April 7, 2013.

[18] Daniel Pinkston, "The New South Korean Missile Guidelines and Future Prospects for Regional Stability," *International Crisis Group Strong and Prosperous Blog*, October 25, 2012; Yuka Hayashi and Julian E. Barnes, "U.S., Seoul Plan Response in Case of North Korean Attack," *Wall Street Journal*, March 26, 2013; and Richard Weitz, "North Korean Threats Deepen Southern Nuclear Insecurities," *Diplomat*, July 4, 2013.

[19] Abraham M. Denmark, *Proactive Deterrence: The Challenge of Escalation Control on the Korean Peninsula*, On Korea: Academic Paper Series (Washington, DC: Korea Economic Institute of America, December 2011).

[20] Ken E. Gause, *North Korean Calculus in the Maritime Environment: Covert Versus Overt Provocations* (Alexandria, VA: Center for Naval Analyses, July 2013). Gause argues that retaliation for proportionate South Korean responses to overt provocations is unlikely because the initial attacks were probably motivated by a desire to reinforce North Korean statements and redlines, whereas North Korean covert provocations are motivated by internal dynamics and regime powerbrokers' concerns about their own weaknesses relative to others in the regime, and therefore retaliation is more likely.

[21] Roberts; James L. Schoff, *Realigning Priorities: The U.S.-Japan Alliance and the Future of Extended Deterrence* (Cambridge, MA: Institute for Foreign Policy Analysis, 2009). Both analysts are referring to the U.S.-Japan alliance, but the insight is relevant to the U.S.-ROK alliance as well.

[22] Chico Harlan, "N. Korea warns of 'moment of explosion,' bans South's workers from border factory," *Washington Post*, April 3, 2013; Choe Sang-hun, "North Korea Moves Missile to Coast, but Limited Threat Seen," *New York Times*, April 4, 2013.

[23] In a statement released several days before she took office and several days after North Korea's third nuclear test, President Park Geun-hye pledged that "Missile capability will be expanded to develop a 'Kill Chain' system to preemptively strike North Korean missile launchers and nuclear facilities." See Sangwon Yoon, "Park Lists Top Priorities as South Korean Jobs, North Deterrence," *Bloomberg.com*, February 21, 2013; "Defense Ministry: NK Nuclear," Yonhap News Agency, March 31, 2013; Julian Barnes, In-Soo Nam, and Kwanwoo Jun, "U.S. Moves Missile Destroyer Near North Korea," *Wall Street Journal*, April 1, 2013; "South Korea Selects the Taurus KEPD 350 Cruise Missile," *Defense Update*, April 5, 2013; and Kim Eun-jung, "State Arms Procurer Requests 11 [Trillion] Won Budget for Next Year," Yonhap News Agency, June 18, 2013.

[24] Lieber and Press, *Coercive Nuclear Campaigns in the 21st Century*, 46.

[25] Avery Goldstein, "First Things First: The Pressing Danger of Crisis Instability in U.S.-China Relations," *International Security* 37, no. 4 (Spring 2013), 49–89; and Vincent Manzo, "The Threat that Leaves Something to Chance in U.S.-China Relations," *Nuclear Scholars Initiative: A Collection of Papers from the 2011 Nuclear Scholars Initiative* (Washington, DC: Center for Strategic and International Studies, 2011).

[26] Van Tol et al.

[27] Goldstein argues that China's perceptions of asymmetric stakes would be a likely driver of miscalculation and escalation in U.S.-China crises.

[28] Elbridge Colby, "Don't Sweat AirSea Battle," *The National Interest*, July 31, 2013.

[29] Scott Sagan, "Deterring Rogue Regimes: Rethinking Deterrence Theory and Practice," Center for International Security and Cooperation, July 8, 2013, 11–12.

[30] For a thorough analysis of U.S. and Chinese strategic thinking on offensive cyber and counterspace operations, see David C. Gompert and Phillip C. Saunders, *Paradox of Power: Sino-American Strategic Restraint in an Era of Vulnerability* (Washington, DC: NDU Press, 2011), chapters 1, 2.

[31] Hammes; Goldstein; and David C. Gompert and Terrence Kelly, "Escalation Cause: How the Pentagon's New Strategy Could Trigger War with China," *Foreign Policy*, August 2, 2013.

[32] Vincent Manzo, *Deterrence and Escalation in Cross-Domain Operations: Where Do Space and Cyber Fit?* INSS Strategic Forum No. 272 (Washington, DC: NDU Press, December 2011).

[33] For a discussion of the potential for accidents or incidents between U.S., Japanese, and Chinese air and naval forces in the region, see Shawn Brimley, Ben Fitzgerald, and Ely Ratner, "The Drone War Comes to Asia," *Foreign Policy,* September 17, 2013.

[34] Thomas Christensen, "The Meaning of Nuclear Evolution: China's Strategic Modernization and U.S.-China Security Relations," *Journal of Strategic Studies* 35, no. 4 (August 2012); and Christopher P. Twomey, "Asia's Complex Strategic Environment: Nuclear Multipolarity and Other Dangers," *Asia Policy*, no. 11 (January 2011). For discussions of Chinese concerns about U.S. conventional strikes on nuclear forces, see Lora Saalman, *China and the U.S. Nuclear Posture Review* (Washington, DC: Carnegie Endowment for International Peace, February 2011), 22–26; and Thomas Fingar, "Worrying About Washington: China's Views on the U.S. Nuclear Posture," *Non-Proliferation Review* 18, no. 1 (March 2011). See Van Tol et al., 56–69, for a discussion of how the United States might suppress China's conventional missile force in the ASB concept.

[35] For a discussion of China's nuclear employment plans, see M. Taylor Fravel and Evan S. Medeiros, "China's Search for Assured Retaliation: The Evolution of Chinese Nuclear Strategy and Force Structure," *International Security* 35, no. 2 (Fall 2010).

[36] Michael Chase, "China's Transition to a More Credible Nuclear Deterrent: Implications and Challenges for the United States," *Asia Policy*, no. 16 (July 2013).

[37] The 2010 *Nuclear Posture Review Report* identified visibly forward-deploying nuclear-capable bombers as a valuable capability for signaling U.S. resolve in crises, and in March 2013, the United States publicized that nuclear-capable B-2 bombers conducted test runs over South Korea during a period of heightened tension with North Korea. See *Nuclear Posture Review (NPR) Report* (Washington, DC: Department of Defense, April 2010), 24; and Thom Shanker and Choe Sang-Hun, "U.S. Runs Practice Sortie in South Korea," *The New York Times*, March 28, 2013.

[38] Morgan et al., 24–25.

[39] Ralph Cossa, Brad Glosserman, and David Santoro, "Progress Continues, but Disagreements Remain: The Seventh U.S.-China Strategic Dialogue on Strategic Nuclear Dynamics & The Inaugural China-U.S. Dialogue on Space Security," *Issues and Insights* 13, no. 6 (January 2013). On the role and value of unofficial and official strategic dialogues with China, see Colby and Denmark, *Nuclear Weapons and U.S.-China Relations.*