

# U.S. Extended Deterrence in Europe and in the Asia-Pacific: Similarities, Differences, and Interdependencies

## Workshop Summary

January 2018

# CGSR

Center for Global Security Research



## **Summary of Workshop Discussion**

### **U.S. Extended Deterrence in Europe and in the Asia-Pacific: Similarities, Differences, and Interdependencies**

Center for Global Security Research  
Lawrence Livermore National Laboratory  
November 13, 2017

**Prepared by Jacek Durkalec**

#### **Key questions:**

1. What are the parallels, contrasts, and links between the European and Asia-Pacific security landscapes?
2. What are accomplishments and gaps in adapting regional deterrence policies in both regions? What are perceptions of credibility of U.S. extended deterrence in Europe and Asia-Pacific?
3. What can be done to improve extended deterrence hardware and software in both regions? Which options are region-specific, and which would address the needs of allies from both regions?
4. What are benefits and risks of closer interactions between U.S. allies from Europe and Asia-Pacific aimed at harmonizing deterrence policies in both regions?

#### **Context:**

The purpose of the workshop was to compare how U.S. extended deterrence in Europe and the Asia-Pacific has been adapting to growing security challenges, explore what U.S. allies from both regions can learn from each other, and examine how U.S. security guarantees in both regions are interrelated. The event brought together almost 60 government and non-governmental experts from the United States, NATO member states, Australia, Japan, and South Korea. This was the second workshop on cross-regional perspectives on U.S. extended deterrence sponsored by CGSR. The first event, co-organized by the CGSR, took place in October 2015.

The views summarized here are those of the workshop participants and should not be attributed to CGSR, LLNL, or any other organization.

## Panel 1: (Dis)similar and (Dis)connected Regional Security Environments?

- How do the challenges to U.S. extended deterrence in Europe and in the Asia-Pacific compare?
- To what extent do evolving threats and challenges to U.S. allies in the Asia-Pacific impact (directly or indirectly) U.S. European allies and vice versa?
- What kind of support, if any, do U.S. Asia-Pacific allies expect from U.S. European allies in addressing their security concerns and vice versa? What are the U.S. expectations?

Despite significant contrasts in the economic power, military capabilities and political influence of China, Russia, and North Korea, there are some similarities in the challenges that each poses to U.S. regional extended deterrence relationships. As one participant argued, the European security landscape is becoming more like the East Asian one.

All three countries want to reshape rule-based international and regional orders, albeit with different strategies, tactics, and final goals. They all wish the U.S. system of alliances, which brought U.S. military presence close to their neighborhood, would collapse. Toward this end, they explore different ways to drive wedges between the U.S. and its allies. All three countries are opportunistic and prefer to act in the so-called gray zone, between cold war and hot, with their own versions of hybrid warfare. They push boundaries as far as possible, stopping short of direct confrontation. They aim to skillfully turn the strengths of U.S. alliances, such as democratic societies, into weaknesses. They all not only talk but act. Among the three, China seems to be the most cautious. So far, its actions have not led to international response similar to global sanctions against the North Korea and Western sanctions against Russia.

China, Russia, and North Korea seem to have a time-space regional conventional advantage, as each of them has an ability to make a quick *fait accompli*, or at least in the case of North Korea, inflict serious damage to the U.S. and its allies. Yet, their overall military potential is weaker than that of the U.S. and its allies. Russia and DPRK, and possibly China, compensate for their overall weaknesses with increased reliance on nuclear weapons; indeed, they assign to them a central place in their theories of victory. Russia and China have also developed potent Anti-Access/Area-Denial (A2/AD) capabilities.

Even though China, Russia, and North Korea do not trust each other and some of their interests are contradictory, to some extent they support each other in opposing the United States. Chinese and Russia support to international sanctions on the DPRK has its limits. It can be assumed that each of the three countries would see a major conflict in the other region as a window opportunity to pursue its goals. Major conflict in the Asia-Pacific could strengthen Russia's position in demanding a new security architecture in Europe. A conflict in Europe might likewise be exploited by China or the DPRK. At least in theory, the future of U.S. extended deterrence in Europe could be defined by a conflict in the Asia-Pacific—or vice versa.

U.S. allies from the Asia-Pacific have been closely watching what the U.S. and NATO have been doing in response to Russia's aggressive actions in Europe. Increasingly, Europeans are looking to the Asia-Pacific, to U.S. actions there, and especially to the new long-range threat from North Korea to inform thinking about their own security. As but one example, NATO has recently adopted "an approach" to Northeast Asia, as reflected in the visit of the NATO Secretary General to Japan and South Korea and by the first ever NATO defense ministerial meeting focused on North Korea. Article 5 applies to defense and deterrence against an attack from any adversary on any NATO ally, wherever the threat originates. While within NATO there is a recognition of a threat posed by North Korea to the United States, South Korea and Japan, and to the global nonproliferation regime, Europeans do not think they are high on a list of potential North Korean targets. Still, some Europeans are making the argument that Europe can no longer afford to ignore the potential threat.

Global factors inform local perceptions of U.S. credibility. U.S. behavior anywhere can impact confidence in the U.S. commitment to an ally however distant it may be. On the other hand, global factors are not decisive. The direct interactions between the U.S. and its allies matter the most.

U.S. allies from Europe and the Asia-Pacific seem to recognize that their security is indivisible – that a success of U.S. extended deterrence in one region contributes to the security of U.S. allies in another region and that a failure in one region may beget failure in another region. Yet, their willingness to support each other is limited as their mutual partnerships focus mainly on uncontroversial, globally-recognized and accepted challenges. While they are willing to cooperate on North Korea, they are reluctant to strongly support each other politically in their dealings with Russia and China.

One of the reasons is their divergent security perceptions. While Japan has been concerned about some Russian activities in its neighborhood, it does not perceive Russia as a regional challenge. Similarly, Europeans tend to look at China mostly as an economic opportunity. The unresolved question is how to deal with different faces of Russia and China in different regions. So far, many in Japan believe that Europeans are too tough on Russia and too soft on China, while many in Europe believe that Japan is too tough on China and too soft on Russia.

The expectations of the U.S. and its Asia-Pacific allies about European support in dealing with the North Korean threat seem to be limited to tight enforcement of UN Security Council sanctions. There are no expectations about meaningful European military support. But if the U.S. were to be attacked by North Korea, invocation of Article 5 would be of important political and symbolic value to the United States—and also to Japan and South Korea.

Given limited U.S. resources, U.S. allies seem to compete for U.S. attention and military resources. They tend to look primarily into negative consequences and risks associated with sharing the U.S. as a key ally, without putting greater attention into potential benefits. European allies worried that the Obama re-balance to Asia would come at their expense, just as Asian allies worry that Russia's challenge to NATO will draw attention and resources

away from East Asia. This zero-sum view is a barrier to improved cooperation among U.S. allies more generally.

The common, and still underappreciated, challenge to U.S. extended deterrence in two regions is posed by the Treaty on the Prohibition of Nuclear Weapons. If the Treaty succeeds in creating widespread perception of nuclear weapons as immoral, it will be difficult for democratic nations to continue using them in their security doctrines. Cohesion of all U.S. allies in opposing the ban might be difficult to maintain.

U.S. commitments to treaty-based allies in Europe and the Asia-Pacific may also be significantly affected by developments in the Middle East. For example, cohesion among the U.S. and its allies might be tested by divergent approaches toward the future of the Joint Comprehensive Plan of Action (JCPOA).

## **Panel 2: Evolution of Regional Deterrence Strategies and Policies**

- How have NATO and U.S. bilateral alliances with Japan and South Korea adapted to increasing regional threats and challenges?
- Are steps taken so far perceived as credible and sufficient to reassure allies and deter potential adversaries?
- Have the adaptations so far undertaken affected allied security perceptions in the other region?
- Where we should be heading? What do allies expect from the United States, and what does the United States expect from its allies?

NATO and U.S. bilateral alliances with Japan and South Korea have been undergoing significant adaptations to meet growing security demands.

Since 2010, working within the context of a new bilateral mechanism to strengthen cooperation on extended deterrence, the United States and the Republic of Korea (ROK) have cooperated to focus and update policy, strategy, and capabilities. As a result, bilateral efforts to address the increasing North Korean threat have become more integrated, holistic, and flexible. The established consultation and coordination mechanisms facilitate better coordination of diplomatic, information, military, and economic actions across U.S. and ROK inter-agencies. While ROK and U.S. militaries have been disproportionately focused on enhancing cost imposition or retaliation capabilities through the Tailored Deterrence Strategy and Comprehensive Counter-Missile Strategy, these frameworks contributed to the Alliances' deterrence-by-denial capabilities. Capabilities to detect, defend, and/or disrupt North Korean missiles, including the Terminal High Altitude Area Defense (THAAD), would be further enhanced by the ROK decision to purchase intelligence, surveillance and reconnaissance (ISR) capabilities like Global Hawk. The U.S.-South Korea deterrence posture has been reinforced by: enhanced cooperation with states contributing to the United Nations Command and Japan; recognition of the need to work more closely in space and cyberspace; increased frequency and intensity of deployments of U.S. military assets, including rotational deployments of U.S. strategic capabilities in and around the

Korean Peninsula; the decision to remove limits on ROK missile payloads; and more diligent crisis management and defense exercises for civilian populations.

Since 2010, the bilateral U.S.-Japan alliance has worked within the context of a new bilateral mechanism—the Extended Deterrence Dialogue—to focus and update policy, strategy, and capabilities. The 2015 U.S.-Japan Defense Cooperation Guidelines are in fact “deterrence guidelines.” The term “deterrence” is used in the document over 25 times. The 2015 Guidelines also reflects a difference in approach to nuclear deterrence between Japan (with South Korea having a similar approach) and U.S. European allies. While the contribution of U.S. nuclear forces to extended deterrence is emphasized on the first page of the document, this is in contrast to the NATO communique issued at the 2016 NATO summit, which first mentions nuclear deterrence only in paragraph 52. Arguably, the U.S.-Japan Extended Deterrence Dialogue has evolved into the most sophisticated discussion the U.S. has with any other ally on nuclear deterrence-related issues. Both countries also increased consultations and cooperation on ballistic missile defense, cyber, and space capabilities, and on addressing gray zone challenges posed by China.

Also since 2010, NATO has been adapting its overall deterrence and defense posture. This began with the elaboration of the new Strategic Concept at the Lisbon summit. It continued with the 2012 Deterrence and Defense Posture Review. The adaptation process significantly accelerated and was reinforced at the 2014 Wales summit following Russia’s military annexation of Crimea. At a high level, NATO progress so far is mixed. On the positive side, NATO’s deterrence and defense posture has evolved with decisions taken at the summits in Wales in 2014 and in Warsaw in 2016. The list of decisions taken and implemented by NATO is extensive. They have adapted the deterrence posture with the addition of territorial missile defense against threats from outside the Euro-Atlantic security environment and of cyber means. They have also taken significant steps to increase conventional deterrence in the Baltics. The allies have also started to invest more in defense, slowly reversing the process leading to atrophy of territorial defense capabilities. Recently, all allies accepted all capability targets, a goal significantly influenced by pressure from the United States.

On the negative side, however, several important capability gaps persist, and some key questions remain unresolved. There are divergent views whether NATO is at the start or at the end of the adaptation process. While some think that the Alliance has reached its limits, others think the measures taken so far are only the beginning. There also is no agreement about the relationship between deterrence and defense. Some member states think that the two should be separated and that deterrence does not require “a readiness to fight tonight.” For others, such readiness is essential to make deterrence credible. Coherence between conventional and nuclear deterrence is an additional challenge, as French long-standing policy clearly separates the two. The Alliance has not yet overcome a challenge of “stove pipes of excellence,” what makes it hard to build coherence along the whole spectrum of deterrence and defense capabilities, including cyber.

NATO also still struggles to find a common understanding of Russia. Some emphasize Russia’s inflated threat perception and point out that any further steps taken by the

Alliance would only exacerbate Russia's paranoia and might only worsen Russia's misperceptions. Others believe that Russia was "thrilled" by seeing how relatively modest were deterrence and assurance steps taken by the Alliance.

The varied responses of NATO allies to Russia's Zapad 2017 military exercise illustrates the divergence of views on Russia within the alliance. Some observers criticize the Alliance for a failure in maintaining a dialogue with Russia from a position of strength. Instead of criticizing the most sophisticated Russia's military exercise conducted so far, the Allies were "thankful" to Russia that it did not use the exercise to invade a NATO country. Others think that Zapad 2017 was a defensive exercise aimed at securing Belarus place in Russia's sphere of influence. While many NATO members were downplaying the exercises, U.S. bolstered its conventional presence in the Baltic region.

NATO allies also disagree about the need for further deterrence adaptation. For some, NATO deterrence is strong; for others, it is "deterrence by reputation," which has not undergone a stress test in realistic exercises. Perceptions of U.S. credibility and reliability differ among European allies. In general, governments of those U.S. allies who feel the most vulnerable also convey a high degree of confidence in the U.S. commitment to their security.

In the Asia-Pacific, U.S. extended deterrence is under stress. Whether it is credible and sufficient to reassure U.S. allies and deter the DPRK or China depends on the objectives and the audiences.

In South Korea, there is significant confidence about the U.S. commitment to come to the defense of ROK in an all-out war, including in case of a nuclear attack. There is, however, a perception that the U.S. is less agile and effective in addressing competition or aggression below a threshold of a blatant aggression. In the region, there is a high degree of skepticism that anything could be done to stop North Korea from further missile testing, or about stopping Chinese actions in the South and East China Seas.

Confidence in the U.S. is strong in Japan and is enhanced by strong personal ties between President Trump and Prime Minister Abe. In South Korea, however, confidence in the U.S. is accompanied by lingering concerns about being abandoned by the U.S. or entrapped in unwanted military confrontation. On the one hand, there has been an enduring fear of what South Koreans call "Korea Passing"—a situation in which the United States sidelines the ROK in decisions pertaining to the future of the Korean peninsula. On the other hand, there are concerns that with its growing nuclear and missile capabilities, North Korea will be able to de-couple the Alliance and effectively disrupt the flow of additional U.S. forces to the Korea Theater of Operations. South Koreans closely follow the debate in the United States—from questions about the efficacy of missile defense systems, including for the U.S. homeland, to opinions that it is better to have a war in Korea now than to face a direct attack on the U.S. in the future. South Korea's anxieties about decoupling are not shared or understood by everyone. If the U.S. were to be deterred and de-coupled from the ally by North Korea, would it be possible for U.S. allies to believe that the United States would instead stand up to Russia or China?

The Republic of Korea, and most likely the DPRK, carefully watch U.S. involvement in other regions. Both countries, however, mainly focus on how such involvement may limit U.S. ability to support missions in Korea. There is an enduring perception in South Korea, and perhaps in the DPRK, that U.S. strategic deterrence is less integrated with the conventional posture of the ROK military than in the NATO context.

In Japan and in NATO, there is a recognition that they can learn from each other on countering cyber or hybrid threats or information warfare. While updating their regional deterrence postures, there is, however, is little cross-regional reference.

Following strong U.S. demands, in both regions there is a recognition that greater allied investments in defense are necessary, and there is a need for a renewed division of deterrence labor between the US and its allies. There is also a need for addressing “hardware” and “software” gaps in deterrence postures. Willingness and capacity of various U.S. allies to do more, however, varies.

### **Panel 3: Extended Deterrence Hardware: In Search of a New Appropriate Mix?**

- Is the mix of nuclear and non-nuclear capabilities in Europe and in the Asia-Pacific appropriate?
- What is the strongest and the weakest element of the mix in each region?
- What are desirable and possible options of upgrading the deterrence capabilities in Europe and in the Asia-Pacific?
- Which options for improving deterrence capabilities would need to be tailored to regional requirements and which could suit the needs of U.S. allies from both regions?

How best to mix nuclear and non-nuclear capabilities is a matter of intense interest and debate in both regions. There are similarities in the mix of U.S. nuclear and non-nuclear capabilities committed to allies in Europe and in the Asia-Pacific. U.S. security guarantees in both regions are underpinned by the full force of the U.S. strategic triad. Theater ballistic missile defense systems are forward-deployed in both regions. There are substantial U.S. and allied conventional forces in-theater, highly-proficient and experienced multinational integrated military commands, and regular demonstrations of surge capability.

There are also notable differences. U.S. non-strategic nuclear weapons are forward-deployed in Europe, while they were removed from Asia at the end of the Cold War. In NATO, there is extensive integration of and participation by allies in nuclear force policy, posture and training, while in the Asia-Pacific, there is no nuclear sharing role for allies. At NATO, UK and French independent strategic nuclear forces are recognized as contributing significantly to overall alliance nuclear deterrence capabilities and are specifically cited as sources of independent nuclear decision-making that complicates a potential adversary’s decision-making. In the Asia-Pacific region, there are no equivalent independent strategic nuclear forces.

In both regions, there are gaps in the existing deterrence “mix.” The wish list of how to close these gaps is extensive and may include: expansion of THAAD inventory for point defense of high value assets against Russia and DPRK missile threats to lessen reliance on crisis deployment; increase in European contribution to NATO Upper Tier theater missile defense against Russia’s missile threats; acceleration (if feasible) of deployment of U.S./Japanese SM-3 IIA interceptor or re-examination of feasibility of SM-3IIB against limited Iran and DPRK threats; clear alignment of NATO Dual-Capable Aircraft (DCA) “first availability” with the Very High Readiness Joint Task Force (VJTF) response timelines to deter Russia’s nuclear threats; or consultations on a role of in-theater U.S. non-strategic nuclear weapons against DPRK threats.

Implementation of any of the above measures would be difficult because of political sensitivities and cost. For example, alteration of NATO ballistic missile defense to counter DPRK threats is constrained by anxieties about Russia’s reactions to such a step. Europeans also would most likely oppose any mandatory investments in ballistic missile defense beyond common funding of command and control of the NATO-wide system.

There are, however, concerns that even ambitious but evolutionary approaches to improving extended deterrence “hardware” (having more, better, and in a faster way those capabilities which exist or are planned today) would not be enough.

A key question for Europeans relates to the modernization of the nuclear sharing arrangements—the U.S.-supplied B-61 bombs and associated dual-capable aircraft (DCA) owned and operated by a few allies. The B-61 provides a military option which is tested and exercised and is of great political value. Yet, there are doubts about the ability of US DCA to penetrate advanced Integrated Air and Missile Defense (IAMD) and the speed of NATO’s nuclear decision making. There are questions about whether it is just a weapon for assurance or also has military utility in deterring potential adversaries.

Experts from Japan and South Korea debate whether the availability of DCA to support military contingencies in the Asia-Pacific theater is sufficient from an operational perspective. One participant from the region expressed anxieties about whether U.S. nuclear capabilities are well suited to deter North Korea or China as they further develop their nuclear capabilities. He went on to argue that the existing nuclear deterrence posture of the United States must be augmented by substantial damage limitation options to preemptively destroy nuclear-tipped missiles before they are launched—a view not endorsed by other participants. There was also discussion of the deterrence value of improvements to missile defenses, antisubmarine warfare capabilities and conventional strike capabilities. Some Japanese non-governmental experts argue that an ideal type of theater-based system would be able to strike targets promptly; would be forward-deployed and sustained in theater to assure allies; would be survivable; would be of a low-yield; and would be available in sufficient numbers to credibly hold nuclear forces at risks. It could be a new sea-launched cruise missile. A ground-based missile system might fit the definition as well, but would be even more politically controversial.

Russia's violation of the INF Treaty catches the attention of not only experts from Europe but also from the Asia-Pacific. Observers from the Northeast Asia, however, concentrate on possible indirect effects of the violation on their security. It is unclear, however, if any U.S. response option would be designed in a way that would fit into hardware needs of both regions or only of Europe.

Despite a long discussion about the strengths and weaknesses of the current US nuclear posture, there seems to be a recognition that any revolutionary hardware changes are not realistic. The center of gravity of adaptation of U.S. extended nuclear deterrence lays not in hardware, but in improved deterrence software enabling to take a full advantage of capabilities which are available. Also, while any hardware changes in nuclear capabilities depends on the decision of the United States, U.S. allies have a much more substantial role in updating the software.

#### **Panel 4: Options for Updating Extended Deterrence Software**

- What is the role of declaratory policies, consultations, planning, exercises and U.S. deterrence operations in assuring allies and deterring potential adversaries?
- What further steps are needed, and what should be avoided?
- What are the main barriers to strengthen coherence between nuclear and non-nuclear tools of extended deterrence in both regions?
- Are there any lessons from signaling credibility of U.S. extended deterrence in one region which can be applied to another region?

In Europe and the Asia-Pacific, there is a significant room for updating extended deterrence software. The agenda includes updating overarching strategies; strengthening consultation, planning, and decision-making processes; enhance capability planning; tailoring messaging, including declaratory policies; and re-focusing exercises. In Europe, NATO is approaching a line across which lie the most sensitive, most consequential, most challenging set of issues, and decisions facing any nation, and certainly any Alliance, both strategically and tactically. In the Asia-Pacific, the U.S. may have to take steps it was reluctant to do in the past eight years when it comes to: 1) information sharing on nuclear deterrence; 2) crisis consultation mechanisms; 3) more robust emphasis on the role of nuclear weapons in regional extended deterrence architectures; and 4) declaratory policies.

One barrier to further progress in deterrence software in the absence, in both regions, of a high-level strategic framework. NATO's Strategic Concept, for example, dates to 2010 and needs to be updated to take account of the changed relationship with Russia.

NATO's consultations and decision-making processes need to take into account that the Alliance is facing nuclear armed adversaries. It applies to formats and levels at which consultations take place, their frequency, scope, topics, and circumstances – day-to-day, crisis short of conflict, and actual conflict. Integrated strategic deterrence requires changes

in how NATO bureaucracy operates (committee structure, staff structure, or political-military structures and relationships).

U.S. Asia-Pacific allies advocate for NATO-like consultations on nuclear deterrence, without a clear understanding of what actually happens in NATO consultations. There was general agreement that the bilateral U.S. deterrence dialogues with Japan and South Korea can be deepened. Content and scope of nuclear consultations within NATO might be, however, unsatisfactory for U.S. allies in the Asia-Pacific. They seem to require consultations that NATO no longer has—or has never had. For example, experts in Tokyo and Seoul seek close discussion of nuclear planning on the model of the NATO Nuclear Planning Group (NPG), though they generally do not appreciate that actual operational planning is done on the military side at the Supreme Headquarters Allied Powers Europe (SHAPE) and the NPG is a ministerial-level forum for discussion of nuclear policy and strategy.

With regard to NATO exercises, there is a recognition that they need to be linked to plans and concepts and reflect the nature of the threat posed by a nuclear-armed adversary. They should have a signaling value and therefore should be scalable. They should also enable gap analysis. There is a recognition that a nuclear component should be included in the exercises in the Asia-Pacific. In the case of South Korea, combined exercises, both naval and air, that include ROK conventional forces and U.S. strategic assets can address ROK concerns about a lack of sufficient linkage between conventional and strategic deterrence.

Both the U.S. and its allies in the Asia-Pacific and in NATO can further improve strategic communication to strengthen deterrence, assurance and credibility. U.S. nuclear declaratory policy could become nimbler and more specific, following the NATO example. The U.S. and its Asia-Pacific allies should also more innovatively think about further assurance measures, especially those which follow North Korean missile or nuclear provocations. U.S. allies seem to be asking for the same type of assurances because they do not know what else is possible to ask for. There is concern that if the U.S. keeps doing the same thing in response to the DPRK nuclear threat, at some point it will run out of assurance strategies, and its credibility may be lost. There is a need to break existing patterns of behavior.

NATO itself has room to more clearly express what it means that its nuclear deterrent is effective and that its commitment to maintaining the DCA force is enduring. The Alliance could be explicit that all three NATO nuclear weapon states and countries that contribute to nuclear sharing arrangements and overall deterrence posture have deployed their troops to Poland and the Baltic States. NATO also needs a better narrative about the case for nuclear weapons in its overall deterrence posture. The moral dimension is linked to NATO strategy, messaging, and ultimately credibility. All NATO nuclear weapon states have a critical role in differentiating NATO nuclear policy and posture from other nuclear weapon states. They should clearly articulate what it means to be a responsible nuclear weapon state.

## Conclusions

- Is there a need for more interaction between U.S. allies from Europe and the Asia-Pacific to harmonize regional deterrence policies? What are the possible benefits and costs?
- What factors may lead to increasing interdependence of U.S. allies in Europe and the Asia-Pacific?
- What further steps might be considered to increase understanding about how developments in one region may affect U.S. extended deterrence in another region?

U.S. extended deterrence arrangements in Europe and the Asia-Pacific are more closely connected than specialists on one region or the other tend to appreciate. Thinking about U.S. extended deterrence in cross-regional terms does not come naturally and must be stimulated. The results of such thinking can be helpful to the formulation of more effective deterrence and assurance strategies. U.S. allies from the Asia-Pacific are asking questions about NATO deterrence and defense that are new and different in a European context. U.S. allies from Europe could do more to share their thinking about deterrence strategies and requirements. More similarities, differences, and interdependencies between U.S. extended deterrence in two regions can be explored.

The zero-sum cross-regional perspective noted above is a significant and underappreciated barrier to more effective extended deterrence. U.S. allies seem to focus on negative spillovers and on how U.S. engagement in the other region might divert U.S. attention and resources from their region. There is a need for more in-depth discussions about positive spillovers between the two regions. In particular, the workshop discussion showed that there are clear opportunities in further exchange about strengthening extended deterrence software in the two regions.

The pace of adaptation of U.S. alliances in both regions to tackle assurance and deterrence challenges has accelerated significantly in recent years, but future trajectories are uncertain. In NATO, there is a rising debate about whether or not there has been enough adaptation of the alliance's deterrence and defense posture since the annexation of Crimea to essentially erase the risk of Russian aggression against NATO. In Northeast Asia, there is rising concern that the United States may be reluctant to continue the process of adaptation and strengthening of extended deterrence. Yet in both regions there is recognition that the challenges to allied security seem destined to grow. The onus falls on the United States to provide the necessary leadership in this time of uncertainty.

This work was performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344. LLNL-TR-741148