



THE 2021 DEFENSE STRATEGY REVIEW AND MODERN STRATEGIC CONFLICT

Workshop Summary

Center for Global Security Research
LAWRENCE LIVERMORE NATIONAL LABORATORY

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Center for Global Security Research
Livermore, California, December 15-17, 2020

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On December 15-17, 2020, the Center for Global Security Research (CGSR) at Lawrence Livermore National Laboratory (LLNL) hosted a workshop titled “The 2021 Defense Strategy Review and Modern Strategic Conflict.” This session was the 7th Annual Deterrence Workshop that CGSR organized, bringing together participants drawn across the policy, military, and technical communities of the United States and its allies. The workshop examined the challenges of regional wars and multi-domain competition and how a potential 2021 defense strategy review should address them. A special attention was paid to the question of escalation and how it can be controlled at various levels of conflict.

Discussion was guided by the following key questions:

- How should the upcoming defense strategy review account for the particular demands of regional wars with significant potential for multi-domain and trans-regional escalation?
- What are the essential ingredients of an effective counter-escalation strategy for the United States and its allies and partners?
- How should answers to these questions be integrated into broader defense strategy?

Key take-aways:

1. The new strategic environment, as defined by the renewal of major power rivalry in combination with at least one nuclear-arming regional power, has brought with it new ways of thinking about conflict at multiple levels. The United States and its allies have begun to adapt to these new challenges over the past decade, an evolution which can be seen over the course of this CGSR workshop series. While some progress is being made, adaptation remains agonizingly slow and continues to be impaired both by bureaucratic processes and a need for deeper strategic thinking on the problems.

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2. A checklist for putting the United States and its allies in a better position to deter and defeat adversary strategies for regional war consists of the following: a sound understanding of Red's way of war; a clear and achievable set of U.S. strategic objectives; a plausible Blue theory of victory for deterring and if necessary, defeating Red; appropriate integration of the strategic domain with the joint theater war-fight; an appropriate mix of defensive means to reduce the adversary's expected benefits of attack; an appropriate mix of strike tools to increase the adversary's expected costs of attack; a coherent, whole of government approach to the political and diplomatic aspects of crisis management, off-ramps, and war termination; declaratory statements that reinforce the credibility of U.S. deterrence threats and security guarantees; and an inter-agency and inter-alliance process tailored to deliver these results.
3. A sound understanding of Red's way of war begins with an appreciation of the particular military challenge Red perceives in the new strategic environment. The leaders of China, Russia, and North Korea all perceive the United States as hostile to their regimes and bent on regime change. They also perceive the U.S.-led regional and global orders as inimical to their interests. Thus, they actively confront those orders while also preparing for the kinds of wars they fear America might bring to them. They have developed options across the domains to impose costs and risks on the United States and its allies, with the expectation that they can raise those costs and risks beyond what the United States and its allies might be prepared to bear.
4. These developments present the United States and its allies with a new problem of regional conventional wars with the potential for multi-domain and trans-regional escalation, as well as limited nuclear war. In such wars, the strategic dimension would be defined first and foremost by that limited nuclear element. But it would also be defined by the potential strategic roles of non-nuclear means. The 2021 cycle of defense policy and posture reviews should recognize that modern strategic warfare is no longer limited to the worst possible outcomes of large-scale nuclear war.
5. One solution to come to terms with this new strategic problem is the modification of the posture review process. Rather than focusing on adversary capabilities, the process should explain adversary security assessments, strategies, and ways of war. The policy and posture review process could then turn to the challenge of defining clear and plausible strategic objectives and a counter-escalation strategy.
6. U.S. policymakers must recognize the eroded status of the conventional deterrent. This raises many difficult questions, including the ability of the United States to credibly maintain a two-war planning construct. The unreliability of deterrence by denial at the conventional level of war increases the importance to the United States and its allies of an effective counter-escalation strategy for the strategic level of war. Success at both levels of war requires some degree of integration. That integration must be meaningful, in the sense that it usefully affects both Blue operations and Red calculus.
7. The transatlantic and transpacific alliances appear to be well behind their local major power neighbors in adapting their strategies for the new strategic environment. The United States

and its allies have yet to set out a coherent body of ideas about how they would achieve their intended war aims and terminate wars on their preferred terms when faced with an adversary willing and able to escalate, including by nuclear means.

8. The Blue counter-escalation strategy requires an appropriate mix of defensive means to reduce Red's expected benefits of attack on Blue and Green, and it also requires an appropriate mix of strike capabilities to increase Red's expected costs and risks of attack on Blue and Green. The appropriate mix of strike capabilities must also include a nuclear component.
9. Improved conventional-nuclear integration (CNI) has emerged as a U.S. priority in the effort to prepare for potential regional wars with a strategic dimension, and progress is being made within the DoD. The United States is focused on adapting conventional warfighting concepts, plans, and doctrine, as well as nuclear deterrence operations, to take account of adversary strategies that rely on the threat of limited nuclear escalation.
10. CNI cooperation with allies towards these ends has been mixed. NATO has made some good headway, though has fallen short on some of its leaders' ambitions. Progress within the U.S.-ROK and U.S.-Japan alliances is more difficult to identify. Further progress on CNI requires overcoming bureaucratic structures and deeply-rooted mindsets that are comfortable with a strict separation of the conventional and nuclear dimensions of conflict and a reticence to discuss nuclear issues publicly.
11. The Blue counter-escalation strategy requires a coherent, whole of government approach to the political and diplomatic aspects of crisis management and of the needed off-ramps for war termination short of major escalation. This implies that the 2021 review should include the participation of regional and diplomatic experts. It also implies that U.S. and allied planning must be guided by a set of ideas about how to achieve desired war aims at different levels of escalation.
12. The 2021 defense strategy review presents an opportunity to refresh and perhaps reformulate U.S. declaratory policy in the context of potential nuclear-backed regional aggression. The need to reinforce the credibility of such policy is greater than ever before.
13. To achieve these results in 2021, the review process must be tailored for the purpose. The current stove-piped approach might be made to deliver a more integrated approach with sustained leadership focus and engagement. One alternative to business-as-usual is to conduct two parallel major reviews: one focused on the joint war-fight (general-purpose military force and major combat operations) and overall defense strategy and the other on strategic capabilities (nuclear, precision strike, missile defense, counter-space, cyber and advanced ISR) and counter-escalation strategy. Whichever approach is chosen, meaningful progress on integration will require a clear top-down message of leadership intent.
14. A critical question for the design of the review process relates to the role of allies. Past practice relied on the standard consultative process. Instead, the US should pursue a more directly collaborative approach. Allies can bring much to the discussion.

Panel 1: Understanding the Wars China and Russia Are Getting Ready to Fight

- How do Chinese and Russian military thought define and account for the strategic dimension of modern warfare?
- How do they envision escalatory action to deter and defeat the United States and its allies and partners?
- What key dilemmas and/or decision points in crisis and war do Chinese and Russian war planners seek to impose on the United States and its allies and partners?

There are far-reaching similarities between the Russian and Chinese views of future wars. Both countries reject binary thinking of peace and war being separate. Instead, they view conflict as a continuum with blurred lines between peace, crisis, and war. They believe that strategic deterrence relies on both nuclear and conventional weapons, as well as military and non-military means. Both prefer to avoid war if strategic goals can be otherwise achieved. Finally, they want to impose similar dilemmas on the United States and its allies: to blur the ability to assess when conflict becomes war; to coerce allies against supporting the United States and other allies; to deter the United States from defending allies by imposing high costs for bringing U.S. forces to the theater; to disrupt Blue command and control, strike capabilities, and logistics; and finally to test U.S. nuclear thresholds.

There are, however, some important differences. These include the level of emphasis on the role of non-military means, the level of effort in a potential war against the United States, the role and character of strategic weapons, and the attitude towards escalation and escalation control.

Russian military thought pays more attention to the role of non-military means than the PLA. For Russia, the preferred approach to achieve its strategic goal (i.e., to establish a European security architecture that is more favorable to Russia) is a strategic destabilization campaign using non-military means below the perceived threshold of U.S. military response. It is waged on both physical territory (e.g., Georgia, Ukraine, Syria) as well as cognitive-psychological territory and aims to deter and constrain adversary response, and to create more favorable conditions if war becomes necessary. Should there be an escalation to regional war, Russian weight of effort would shift toward military means, but non-military means would still be employed in the cognitive-psychological domain to disrupt command and control (C2), gain information superiority, divide NATO, neutralize individual allies, and ultimately force the adversary to capitulate.

The second difference between Russia and China is the level of effort and engagement. Even though Russian military thought defines a war in the European theater as a regional war, Russia prepares for a “whole of nation” fight. The Russian concept of regional war is specifically designed to counter perceived U.S. strategy, operational approaches, and strengths. If the war cannot be contained on a regional level, Russia would take into account the possibility of strikes on the U.S. homeland. Chinese strategists, on the other hand, believe that the main form of war since World War II is a limited war, where the survival of state is not at stake (contrary to

general war). This war is waged on limited area, towards limited goals, with limited methods and scale in order to avoid excessive costs. China does not at present have conventional capabilities that could reach the U.S. homeland, leaving only options such as nuclear or cyberattacks.

The third difference is the role of strategic weapons. While Russian strategic destabilization campaigns rely heavily on non-military means, the threat of military force, including the nuclear shadow, is an integral part of their approach. The category of strategic weapons includes conventional long-range precision weapons as well as nuclear weapons, and both are an important part of the intimidation and coercion toolkit. In a regional war, strategic and non-strategic nuclear forces would be mobilized for both deterrence purposes (to deter the United States and NATO from joining the conflict), and also for operational reasons should deterrence fail (to maximize the freedom of action of Russia's leadership by providing as many military options as possible). While Russia's concept of regional war assumes operating under the nuclear shadow, the PLA believes in strategic deterrence shifted away from the nuclear to the conventional realm: the high costs of nuclear use and the risks of nuclear retaliation reduce the credibility of nuclear deterrence, and thus its role in preventing conventional war. Nuclear weapons are conceived as a backstop—they exist to retaliate if China is attacked with nuclear weapons, and to deter the adversaries from threatening nuclear escalation. It should be noted, however, that China's current modernization of its nuclear forces could support a broader spectrum of goals. China has allowed limited ambiguity of its no first use policy in case of a conventional attack against its nuclear forces and supporting infrastructure.

The last area of difference is escalation and escalation control. Russian military strategists believe that imposing risk and uncertainty of nuclear escalation is the main way to defeat or degrade the main components of the U.S. reconnaissance-strike complex. Russian operational concepts and exercises indicate that Russia considers a range of flexible nuclear and conventional strike options to inflict incremental levels of unacceptable damage assessed at various levels in order to deter the adversary from further escalation, or to inflict damage sufficient to force the adversary to capitulate. China views the purpose of escalation similarly—to destroy the adversary's will to fight. However, the PLA does not appear to believe that nuclear escalation can be controlled and thus focuses on the non-nuclear means of escalation: counterspace weapons, cyberattacks on military networks or critical infrastructure, and conventional missile strikes on key targets in the East Asian theater. The purpose of these provocative non-nuclear actions is to bring the U.S. closer to the nuclear threshold and therefore impose a dilemma on U.S. decision-makers. The Chinese approach is evolving as their capabilities expand and mature. There is still a degree of overconfidence in their own signaling ability, little discussion about the steps China would take if conventional deterrence fails, and little recognition of the risks of inadvertent escalation (the latter is also visible in the Russian discussion of "unacceptable" damage).

Panel 2: Understanding the Wars the United States and its NATO Allies are Getting Ready to Fight

- How do the United States and its NATO allies account for the strategic dimension of modern warfare?
- What concepts inform their military thought on escalation in a regional conflict initiated by Russia?
- Are these concepts sound?
- As they adapt past deterrence practices to new challenges, what are their metrics of success?

The panelists argued that there are four main factors that influence how NATO allies are getting ready to fight: time, space, function, and structure. Regarding the time element, the Alliance needs to stop thinking about Russia as today's problem; it is a long-term and persistent problem. For a long time, NATO has remained slow, static, and stagnant in its response to Russia. NATO strategic concepts have traditionally codified what the Alliance has learned instead of looking ahead. NATO's military thinking and planning have also been strictly confined by political parameters. The good news is that NATO has finally picked up the pace of adaptation and started to think long-term. On the political side, there is a 2030 reflection process looking 10 years forward, and on the military side, the Alliance is working on the NATO Warfighting Capstone Concept (NWCC) looking 20 years forward. Recognizing the long-term competition adversaries are preparing for, NATO has become more forward looking and more forward leaning. Defense is still the key principle of the Alliance, but it does not mean reactive only or that NATO cannot take proactive action.

The second element that influences NATO thinking is space. Russia is not a problem of geography or a problem of certain regions—it is a multi-region, multi-domain, multi-dimensional problem in an increasingly boundless battlespace. Technological changes and Russian hybrid techniques are blurring what is inside NATO territory, what is inside the boundary of political-military questions, what are the civil-military boundaries, what are the boundaries between domains, and what are the boundaries between different instruments of power. In the past, the Alliance has dealt with complexity by trying to avoid it, oversimplifying things, and putting issues into discrete committee boxes. NATO finally recognized the scale of the problem, and the challenges of multi-domain, multi-regional warfare are being translated into military-strategic concepts.

Regarding the multi-domain aspect, NATO is connecting the dots and discussing the notion of managing and controlling multi-domain escalation. This is underlined by vigorous training, exercises, and wargaming. Looking forward, the NWCC is trying to transpose those non-physical domains onto a traditional warfighting domain. This has led to a three-dimensional battlespace: physical, virtual, and cognitive. Combining and integrating fires on the strategic, operational, and tactical levels in different domains to deliver decisive effects in these three dimensions is the key aspect of developing a NATO theory of victory vis-à-vis Russia and potentially China.

The functional element means NATO needs to stop thinking about Russia in a linear and binary way. Russia is deploying and employing different instruments of power simultaneously, including energy, economy, information, military, and diplomatic tools. NATO should stop thinking in boxes and start shaping, contesting and fighting. NATO trains and exercises for executing kinetic strikes in a warfighting context, but it is not at all prepared to shape the period before the kinetic strikes would start. The Alliance needs to learn how to operate in a non-kinetic environment to shape the battlespace and contest the increasingly important 'below threshold' activities of Russia and China.

In terms of structure, NATO needs to decide how to restructure militaries to meet the new challenges of long-term competition and a boundless battlespace. Heavier and larger land formations might not be the best approach to shape and contest the new battlespace.

Moving forward, the Alliance will face many challenges. First, it needs to acknowledge simultaneous risks across regions and domains. Second, implementing and actualizing multi-domain thinking means NATO cannot rely on the traditional force generation process and command structure; it will need new expertise and broader burden-sharing. NATO also needs to revisit how it thinks about the full spectrum of conflict. Thinking in peace, crisis and conflict as separate pieces of the competition is not useful anymore. They are increasingly blurred, and they are happening at various degrees simultaneously. One of the most difficult projects for NATO is the notion of political control: how to get a consensus-based Alliance on the same page about how modern warfare will be waged. If the Alliance believes that it is really about crisis decision making once the shooting starts, then NATO has already lost the opportunity to end conflict at the lowest level of violence. This is no longer acceptable, and it requires a bigger cultural transformation of the Alliance.

NATO has made great advancements in its reinforcement strategy, but there are challenges ahead. NATO has increased the amount of ready forces, but it still has a readiness and reinforcement challenge well understood by the Russian side. Enablement and mobility is a real struggle since NATO relies immensely on the EU to fund dual structures to move forces. So far, the EU has not provided the necessary commitment for this project, while China is snapping up infrastructure in Europe that NATO needs to support combat operations in case of a crisis. While NATO is working on a modernized C2 system, adaptations are needed. While NATO is getting better at making decisions quickly and crisis management exercises are establishing a better rhythm for the Alliance, problems likewise remain in this area.

Success for the Alliance has many metrics. A key element is updated political objectives, and discussing hedging and risks. In warfare development, NATO must protect its own deterrence chain while exploring options to undermine the adversary's kill chain at multiple points. In the very near term, NATO will need to address a growing Russian advantage in missiles. The Alliance also needs to think hard about conventional and nuclear coherence, which it has long worked to keep separate in its bureaucracy and its documents. In the medium term, NATO must revisit the escalation ladder as a model for NATO since Russia is moving in some ways beyond that. The Alliance should also move from simple risk assessment towards risk management. NATO does not have to respond at the same time, the same way in the domain where Russia is pressing. It might want to respond in a different domain, which will require flexibility and comfort with non-

linear challenges, both things that will need to be prepared and tested in exercises. NATO also needs to understand that it has vulnerabilities along the periphery and addressing Russia in these areas will require better partnership relations. Finally, the Alliance needs to come back and re-define political control at the various stages of a increasingly fast moving crisis.

Panel 3: Understanding the Wars the United States and its Northeast Asian Allies are Getting Ready to Fight

- How do the U.S.-Japan and U.S.-ROK alliances account for the strategic dimension of modern warfare? How should they?
- What concepts inform their military thought on escalation in a regional conflict?
- Are these concepts sound?
- As they adapt past deterrence practices to new challenges, what are their metrics of success?

At present, the U.S.-Japanese alliance is ill prepared for the escalation of a regional conflict in Northeast Asia. Multiple options exist to deny China's air, sea, or land forces, yet neither the United States or Japan have invested the time or intellectual capital into cultivating a unified theory of victory that would define the metrics of success. In spite of initial progress in advancing U.S.-Japanese multi-domain deterrence, haste is paramount to prepare for the strategic dimension of modern warfare. Improved U.S.-Japan operational planning, strategic dialogue on missile defense, and conferences on great power competition deserve praise and demonstrate the health of the bilateral strategic relationship.

The potency of traditional U.S.-led deterrence has evaporated over time in Northeast Asia. The United States' reluctance, thus far, to integrate strategic nuclear planning at the regional level vexes some Japanese policy makers. STRATCOM and INDOPACOM could remedy this by streamlining their regional planning for the use of strategic weapons in Asia. Along with the assurance of the nuclear triad and the stockpile, rebuilding extended deterrence comes at the low cost of information sharing with Japan's strategic community about the key questions surrounding potential nuclear use and strategic collaboration in activities such as wargaming which test assumptions and responses and incorporate lessons learned into joint planning. Strategic communication also presents a cheap solution to restoring the credibility of extended deterrence and the confidence of Northeast Asian allies in the United States, but this must overcome strong allied domestic political sensitivities to mentioning the nuclear issue publicly.

Within Japan, government public discussion regarding an indigenous missile program buoys the prospects for Japan to develop strikes assets for deterrence and defense purposes. Such a capability comes at a critical time, as aerial evidence of PLA missile drills reveals troublingly destructive strikes on replicas of key Japanese bases. The architecture of the PLA rocket force relies on accurate, targetable missiles that are poised to strike Japan's bases. Nurturing Japan's non-nuclear strike capabilities could offset China's accurate missiles and adapt beyond the traditional deterrence practices for China and North Korea.

The ROK presents a markedly different threat picture from Japan, owed in part to the armistice that maintained a state of war that continues even if it remains absent from news coverage. Cyber attacks, weapons testing, and penetration testing at sea and land represent examples of how the war never ended and how it thrives in the gray zone. ROK military attention centers primarily on the gray zone, and the alliance's planning focuses on deterring a war with North Korea. Current deterrence thought addresses preventing escalation to war, rather than escalation within a kinetic conflict to prevent North Korea from using nuclear weapons. This thinking crowds out all other strategic dialogue. One suggestion to resolve this issue could include the creation of a strategic institute based in Seoul with sufficient autonomy to ask new questions about war on the Korean Peninsula and preserve institutional memory on the strategic dimensions of modern war beyond deterring the outbreak of war with North Korea.

Meanwhile, Beijing aims to become the primary power broker on the Korean Peninsula. Chinese economic, military, and political influence cannot be divorced from politics in North or South Korea. The question of potential Chinese military intervention is sorely understudied. Neither the ROK nor the alliance are investing the strategic resources to consider a war with China on the Korean Peninsula.

In terms of advancing conventional strike capabilities, the ROK upgraded payload capacity and guided missile design without advertising its advances. Policy makers wisely avoid any discussion of targeting China or the capabilities of missiles to strike Chinese targets. The United States should not expect its Korean ally to deploy missile batteries to deter China. The THAAD imbroglio and subsequent fallout eliminates the possibility for any further deployment of U.S. conventional strike missiles that reach targets beyond 300 kilometers.

The metrics of success for the United States and the ROK are cloudy. Little progress has been made on the planning for the transfer of Operational Control Authority (OPCON) from the United States to the ROK in wartime, or in the event of North Korean nuclear weapons use. Seoul routinely minimizes the threat of North Korea's nuclear weapons without an honest appraisal of the risks or deterrence. It is in the long-term interests of the United States and the alliance to overcome the political risks and confront the issue directly with Seoul. Lastly, there can be no claims to arrive at metrics of success unless the alliance grapples with the question of China, the potential of Chinese military intervention during war or a peaceful unification, or how China challenges U.S. extended deterrence.

Panel 4: Integrating the Joint Warfight with the Strategic Domain

- In the development of the new Joint Warfighting Concept, how have potential escalatory actions of Red and Blue been accounted for?
- From a strategy perspective, what progress has been made in conventional/nuclear integration? In all-domain integration? In Blue/Green integration?

The Defense Department has made progress in adapting its thinking, planning, and concepts to meet the various strategic and operational challenges posed by nuclear-armed major powers. This adaptation involves several ongoing initiatives undertaken within the Joint Staff and in the geographic and functional Combatant Commands.

First, the Joint Staff is focused on improving its ability to integrate planning and operations across domains to support a Blue “theory of victory.” Much of this effort is being conducted within the framework of Global Integration, with the Chairman of the Joint Chiefs of Staff in the lead. As designated global integrator, the chairman is responsible for making recommendations to the Secretary of Defense about strategic and operational priorities, risk management, and global force allocation.

Second, the Joint Staff is pursuing significant changes to the planning guidance issued to all the Combatant Commanders. This guidance seeks to address the central strategic challenge identified in the National Defense Strategy of deterring, competing, and prevailing against nuclear-armed major powers in regional conflicts. Among the revisions to this guidance are elements that recognize the potential for future conflicts to involve significant coercive threats to the U.S. homeland.

Third, the development of the Joint Warfighting Concept is intended to create a Blue theory of victory at the operational level of war. The Joint Concept serves to help senior leaders to prioritize investment decisions in the near- (1-2 years), medium- (3-7 years) and long-terms (5 or more years). When completed, the Concept will address how the United States can win at the operational level of war.

Nevertheless, panelists agreed that much more was left to do. Two areas stood out as in need of particular attention. First, the Defense Department and the broader strategic community must identify Red’s likely escalation thresholds within all of the relevant operational domains. This effort should aim to understand the time, place, and *rationale* underlying adversary escalation. Only after Red’s potential thresholds are better understood can new operational concepts for defeating adversary aggression account for and manage escalatory risks. As of yet, the United States still lacks a robust understanding of how adversary escalation will affect its ability to operate and achieve its wartime aims.

Second, the strategic community needs a better conceptual understanding of *how* future conflicts might transition from limited conventional wars to overtly nuclear conflicts. In this regard, the Defense Department’s efforts in conventional-nuclear integration are still in early

stages. Some participants felt that the Department's efforts had not progressed beyond the initial recognition of the complexity of the challenge. The Defense Department, they argued, lacks a framework for conceptualizing the command and control challenges likely to arise in the transition of a limited regional war to one with potential strategic nuclear employment. While the combatant commanders, according to one view, recognize and embrace the challenge, the broader Department does not provide the command staffs with the incentives or the capability to contend with a strategic challenge that will require working beyond existing bureaucratic structures. Similar challenges limit the pace of the Department's progress in all-domain integration. Other participants conceded that much more analysis and concept development need to take place to contend with challenges facing the United States at the strategic level of war.

The United States, some participants argued, needs an improved strategy for intrawar deterrence. Such a strategy would: communicate the actions that the United States considers significant escalation; draw on a range of effective response options that would impose costs and limit adversary achievements; signal the real risk that the U.S. stake in a conflict would increase significantly if the adversaries engage in certain forms of escalation; highlight the potential that significant escalation could also change U.S. war aims; and present adversaries with a plausible de-escalatory "offramp."

The response options underlying intrawar deterrence should achieve a number of objectives: 1) to clearly convey that adversary escalation represents a profound miscalculation and entails the significant risk of uncontrolled escalation; 2) to prevent adversaries from benefiting from escalation; 3) to alter adversary's mistaken perceptions that they enjoy an asymmetry of stakes; 4) to allow U.S. national leaders to recognize situations in which the U.S. stake in a conflict might indeed fall short of an adversary's.

Participants recognized that this was an ambitious goal. One participant pointed out the difficulties of using military force to communicate restraint in the fog of war, as adversaries might fail to recognize the restraint behind certain U.S. actions or interpret them as weakness. While there is no single way to completely eliminate this risk, participants suggested that more detailed and nuanced understanding of adversary decision making could suggest ways to better tailor U.S. responses to intrawar escalation. Deeper understanding of Russian and Chinese war plans could allow U.S. planners and strategists to examine a range of plausible crisis scenarios. Better understanding of Red should also inform a comparative analysis of how Blue's own war plans would shape the development of crisis and conflict scenarios. Participants also made a case for drawing on the insights of cognitive and behavioral science to understand the options available for Blue to shape Red's escalatory calculus.

Panel 5: Ensuring the Needed Mix of Cost-Imposing Tools

- In countering Red's strategy for escalation, what are the roles of strike systems?
- What are the different roles of different tools (kinetic and non-kinetic, nuclear and non-nuclear) from a strategy perspective?
- What are the particular roles of nuclear weapons?
- Do the United States and its allies and partners have the right mix? Are there critical gaps? Synergies?

The goal (and also the greatest challenge) for the United States and its allies is deterring non-nuclear attacks. As the threat environment evolves to include a growing number of non-nuclear strategic threats, non-nuclear and conventional deterrence are becoming increasingly important. Thus, the United States must develop a set of operational, cost-imposing concepts that embrace the asymmetry of offense-defense balances.

Currently, the United States is adopting a more defense-centric approach to avoid provocation and limit damage, while Russia and China are deploying an offense-centric approach via an arsenal of strategic conventional capabilities including hypersonic boost glide vehicles. Financially, an asymmetrical strategy is the most palatable and most reasonable approach given the increased level of contestation across all domains. As the panelists agreed, offense tends to have either the advantage and thus the dominant role in conventional conflicts, and this is not likely to change. Defending in the space or cyber domains, for example, is much pricier and more difficult to achieve than a kinetic or non-kinetic offensive strike. States must impose a sufficient threat of retaliation on one another in order to deter these types of attacks while simultaneously working on responses.

The critical gap with regards to conventional deterrence thinking remains the fog of war. States assume that maintaining absolute or relative power over another state guarantees deterrence against or victory in a future conflict, which convinces policymakers existing strategies are sufficient. This, however, is not the case. Russia and China arguably believe that there are plausible scenarios by which they can defeat the United States and its allies through advanced technological capabilities, so it must be the American mission to undermine that confidence.

Blurred thresholds and guidelines in the cyber and space domains are a recurring challenge. There is no consensus, for example, whether a large-scale Distributed Denial of Service (DDoS) or anti-satellite attack constitutes an act of war, and there is no prior awareness of how escalatory such actions are. Therefore, in order to develop an effective cost-imposing strategy there must be a general agreement as to what is acceptable and unacceptable or escalatory behavior in these domains. Otherwise, deterrence will fail based on misplaced understandings of the adversary's intentions or opinions.

Due to the recent cyberattacks on the U.S. government and the perceived lack of response to these incidents, one might argue that the United States is falling behind with regards to its ability to deter conventional attacks. Since deterring at the conventional level is necessary to avoid large-scale war, the United States needs to demonstrate its readiness to respond at the

same level or close to its competitors. Additionally, the United States and its allies must close the current gap of operational thinking between them and their adversaries. Cross-domain deterrence must include developing operational concepts, threshold building, and consistent responses to adversaries.

On the one hand, the United States wants a toolkit with substantial escalatory potential for more effective deterrence, and on the other hand, it also wants a toolkit that does not make adversaries feel too threatened. Instead of these conflicting desires, the goal should be to strike a sustainable balance between risk avoidance and risk acceptance, especially with the potential that a conflict might easily move from non-kinetic to kinetic, or non-nuclear to nuclear. Economically and diplomatically, the United States and its allies have been strong in terms of signaling, but militarily they fail to meet the necessary level of pressure on the adversaries.

One of the panelists argued the approach of the United States towards nuclear weapons often leads to self-deterrence, since the public fear of a potential attack by a rogue state puts pressure on policymakers to appease rather than exert strength on the adversary. This self-deterrence signals to Russia and China that at the strategic level, there is hesitancy in the United States to approach the nuclear threshold. The United States is more reactive than proactive when it comes to nuclear issues. Another example of this behavior is the practice of downplaying the advancements North Korea and Iran have made in their nuclear programs. By adhering to the status quo and pushing a rhetoric of limited threats, the United States risks being caught off-guard if North Korea decides to launch a nuclear missile. The narrative that the United States should use for nuclear weapons need to be one of strength, emphasizing the willingness to respond, and the ability to absorb an attack.

Altogether, the appropriate mix of strike capabilities must include a nuclear component. The role of nuclear weapons in the deterrence architecture is to signal that the risks of escalation are essentially incalculable—and thus cannot be accepted. Other tools in the deterrence toolkit can complement these nuclear roles; but none can substitute for them in the face of nuclear-backed aggression.

Panel 6: Getting the Roles of Defenses Right

- What can missile defenses reasonably contribute in the near term to reduce Red's expected benefits of attack on Blue and Green? What can they not be expected to contribute?
- What more can and should be done to deter and defeat attacks of all kinds on the American homeland? Is "resilience" an adequate organizing concept?
- Do the United States and its allies and partners have the right mix of defensive capabilities? What goals should guide their further development?

In order to successfully deter adversaries, the United States and its allies at NATO and in Asia must form an integrated defense policy that addresses the roles of defensive capabilities, broadly defined, in peacetime, crisis, and war.

As it was demonstrated by the Navy's recent launch of an SM-3 Block IIA interceptor, which successfully destroyed an ICBM, the lines between what is considered "regional" and what is considered "strategic" missile defense are blurring. This does not mark a significant shift for the strategic calculus of Russia, North Korea, or China, but it does create a window of necessity where the United States must articulate its intentions and the goals of its missile defenses. To Russia and China, the test was perceived as a step towards creating a layered U.S. homeland missile defense capability that integrates enhanced systems previously identified as regional missile defense capabilities. Since 2012, NATO has argued that its European missile defense deployment is not about Russia but regional missile threats. In light of the recent SM-3 test, it will be difficult to maintain this argument, and Russia and China will continue to exploit these contradictions around regional missile defense deployments, in an attempt to divide the Alliance. Therefore, the United States should address how it views the future of its missile defense architecture for homeland defense and what is the delineation between the defenses that are directed against Russia and China vs. the ones that are part of the Iran and North Korea deterrence calculus.

Despite the developments in missile defense technologies, it is clear that NATO and the United States have no method of adequately defending their entire region from a Russian strike. This puts NATO governments in a position where they need to decide what are the crucial assets that point defense needs to protect, a hugely difficult discussion in a consensus-based organization. Even from the perspective of the United States, achieving full homeland protection against a near-peer threat through missile defense is an unrealistic and prohibitively expensive goal. Instead, the onus is on improving the probability of intercept and imposing sufficient costs on the adversary to deter them from launching in the first place. In U.S. homeland missile defense, North Korea has been the driving factor. At the same time, the United States cannot ignore the fact that its homeland would not be a sanctuary during a regional crisis with Russia and China, and they are likely to directly threaten the U.S. homeland for coercive reasons and also to achieve operational goals. This might require the United States to revisit the goals of its homeland defense architecture.

NATO and the United States must also continue to strengthen and fully integrate existing air and missile defense systems. These capabilities can play an important deterrence role if they are integrated into coherent defense planning and backed up by political cohesion. A better integration of defense and deterrence tools would mean that the Alliance has to look more at the concepts of 'deterrence by denial' and 'deterrence by punishment' and see how missile defense fits into this realm. While future thinking about missile defense moves into areas like left-of-launch and tailored boost phase intercept capabilities, Russia and China will rightfully see these as destabilizing. There is also a greater sense of urgency to defend against limited cruise missile attacks, and defend against hypersonic systems. As the threat environment becomes more complex, integrated responses are becoming more important. The focus of future defense postures must also address the need to defend against cyber attacks, information operations, electromagnetic pulse, and more. A strong response should aim to reduce the perceived benefit of an attack in the adversary's eyes.

The panelists agreed that the continued deployment of defensive capabilities has a negative affect on the prospects of arms control and strategic stability talks with Russia. Starting from the Obama administration, the United States has affirmed that it will not engage in discussions of limits on missile defenses in Europe, but it simultaneously called for reductions in offensive capabilities. However, Russia is right to argue that there is a direct link between offensive and defensive capabilities, and we cannot expect much movement on arms control until defenses are addressed. Past negotiations and non-proliferation agreements have made it clear that there are avenues towards arms control, but Russia ultimately lacks trust in the United States and acts as if it is unwilling to be reassured. It seems that the United States and NATO are willing to embrace confidence building measures, as seen during the Lisbon, Sochi, and Chicago Summit discussions, but the panelists stressed that a quid pro quo is necessary. Unilateral missile defense concessions will be politically unfeasible; and it is imperative that Russia also agrees to limits on its conventional kinetic forces. The lack of Russian willingness to be transparent in this area is another demonstration of the closeness between offensive and defense capabilities at the strategic level. Building transparency and taking confidence-building measures will require concessions on both the offensive and defensive sides.

Lastly, it is time to restructure and assess the existing missile defense posture. Instead of bandaging BMD and short-range air defense with speedy fixes, it is time to revamp missions and programs. A push must be made towards deploying the Next Generation Interceptor and exploring ideas like a limited airborne defense, specifically tailored to the North Korea threat, that is cost-effective, quick to achieve, and avoids stability risks associated with fielding a new system.

Panel 7: Resolve, Credibility, and Counter-Escalation Strategy

- How do Russia and China assess the resolve of the United States and its allies and partners to defend their interests generally? In an escalating regional conflict?
- Is there a credibility deficit? If so, are its sources temporary or enduring?
- Is declaratory policy a major or minor factor in shaping adversary perceptions of United States and allied resolve? What should the United States and its allies and partners say about their counter-escalation strategies to reinforce deterrence?

The panelists argued that in Europe, the United States and its allies are capable of shaping, contesting, and fighting well in a kinetic environment. Russia knows this, and it is genuinely worried about the military capabilities of the Alliance. In Russia's view, NATO is shading from defense into offense, especially with regards to the left-of-launch actions in the space domain. Altogether, Russia has a healthy respect for NATO and U.S. military technology, but very often Moscow attributes greater capability to these technical assets than what they actually have.

For years, Russia has tried to subvert the Alliance, but NATO has been able to maintain solidarity and consensus. Russia's hybrid techniques, however, have created a credibility problem for NATO. Russia is pouring enormous amounts into hybrid techniques, and they are attacking the United States and its allies on a daily basis. In this non-kinetic environment NATO is not well

constituted to shape, test, and fight in domains where the Alliance must have the ability to present strategic and operational dilemmas across this full spectrum. The current environment is neither peace nor war; it is a hybrid environment that includes constant attacks on the Alliance members which are difficult to attribute and not easily called out. As a result, there is no clear focal point for deterrence messaging and actions. NATO needs to find a coherent way to address such actions and shape responses. It is a temporary problem, but it demands constant attention and creative solutions. There is no hardware solution for these problems, and this is never going to disappear unless Russia changes course.

In the past, declaratory policy has played a role in shaping adversary perception of U.S. and allied resolve, and it will continue to play a role. However, the lack of agreement over attribution in the case of hybrid threats has hindered its development. A well crafted declaratory policy could inject uncertainty into Russian thinking. A good example is when NATO declared the cyber domain as an operational domain. As NATO is working to operationalize this domain and makes offensive cyber actions available, it triggers a lot of questions in Russia. Other measures to deter in this setting are the “bread and butter” of deterrence policy: more redundancy, more resilient C2 systems, and better training and exercises to withstand hybrid attacks. These efforts should also be complemented by more societal resilience. NATO needs a better strategy in the border lands between hybrid methods and kinetic attacks, and a better ability for detection and attribution. In the past, the Alliance had a tendency to wait until a kinetic attack occurred, even if hybrid attacks already led to a loss of life. In the future, NATO should revisit these thresholds and find better responses. The last area that is worthy of attention is the periphery. The Turks, the Syrians, and the Israelis have been interacting in the Middle East—these military-to-military relations are good case studies to learn lessons about escalation and escalation management in an active conflict.

In the Asia-Pacific theater, one of the first tasks is to re-evaluate the information that the United States and its allies work with. There is only one decision maker in China whose decisions matter in questions of escalation. The choices that China makes and the level of risk that it is willing to run depend largely on President Xi Jinping. Unfortunately, it is mostly unknown what he thinks about these topics. What the United States knows is what comes out of publications from Chinese scholars, but these foreign policy scholars are less well connected, less well informed, and less influential than in the Hu Jintao era. Besides, the PLA officers who speak to a foreign audience are only doing their job, and they are not the ones who participate in the planning process. Therefore, the United States and its allies have to pay special attention to China’s behavior—there is a lot of heated rhetoric to convince U.S. allies that the United States is weak, but it may not reflect what Chinese leaders actually believe. While some of these sources are largely designed to influence the perception of allies towards the United States, the behavior of Chinese leaders suggests a level of caution towards actions that might lead to escalation.

China thinks that the balance of resolve probably favors them. This is especially true with respect to issues that relate to their core interests, such as sovereignty and territorial integrity. Beijing believes that it has more at stake and therefore has a higher level of resolve with respect to Taiwan or the South China Sea. Chinese leaders have calculated that they are able to deter the United States from going into the Senkaku Islands or using force to coerce Taiwan. They also

think that in the lower tiers of conflict the options of the United States are not well-designed to respond to Chinese grey zone activities, and the United States may not really have adequate resolve to act. Therefore, China is actively pursuing hybrid actions that do not rise to the level of military response by the United States.

From the perspective of Washington, the question is whether strategic ambiguity has outlived its usefulness and whether U.S. declaratory policy should be more explicit about defending Taiwan. But this issue is not only about declaratory policy, it is also about how China perceives U.S. military capabilities and political resolve. The United States should continue to convince China that it can intervene in a Taiwan conflict and it can do so decisively. Operational concepts and capabilities need to be adequate to respond to China's military modernization and hybrid warfare. Training and exercises are crucial to give forces readiness and credibility. Ultimately, PLA officers have to plan for the worst and assume that the United States would intervene in a Taiwan crisis.

In general, there is still some degree of credibility deficit and declaratory policy can be helpful to address that. If there are doubts about the U.S. willingness to intervene on the behalf of allies, maybe it is worth explaining that the interests at stake for the United States may be different than the stakes for China, but they are more important than China thinks. The value the United States attaches to the freedom of the seas is not the same as territorial integrity for China, but those are certainly important and enduring interests for the United States. Washington should also communicate in a convincing way that it has developed the necessary concepts and capabilities to address hybrid challenges—it might be worth to reveal more about these concepts and capabilities to influence Chinese calculations. The Chinese counterparts tend to take U.S. declaratory policy fairly seriously, but if the United States wants to shape Chinese perceptions it also needs to make sure that its modernization and training efforts match its declaratory policy.

Altogether, declaratory policy can help to reinforce deterrence. In the grey zone, declaratory policy should emphasize that the United States came up with a better set of options, and it has the resolve to act. In case of a higher level of conflict, declaratory policy should focus on communicating to China that it is overconfident in its ability to control escalation, things will not necessarily unfold according to their plans, and the United States might respond in unexpected ways. Injecting some extra caution into Chinese deliberations could convince them that they will not be able to modulate their options as they thought.

Panel 8: War Termination in Limited Wars

- What would winning mean? What would success require?
- How might Red's willingness to accept Blue's off-ramps change after escalation?
- How might coalition partners, foreign and domestic, shape war termination choices?

This panel centered on how the United States and its allies should perceive winning in a conflict and what war termination would look like in practice, with the key takeaway being that these were both important questions requiring a great deal more exploration by both military and diplomatic officials. Conflict termination and escalation are largely situationally dependent. After escalation happens, the available off-ramps change in ways we cannot predict, but there was an overwhelming discussion throughout the workshop about the importance of wargaming to prepare for these scenarios. The panelists also highlighted the ambiguous role that allies would play and the desire for the United States to not be perceived as a "bully" in a limited war, which would shape termination choices.

The question of what winning would mean is not an easy question, and the discussion was suffused with themes of regime change and punishment. With Russia and China, the general consensus was achieving the lowest possible damage while still negotiating a lasting peace. While some would like to see regime change in Moscow or Beijing as a punishment for aggression, there is little conception of how this might be achieved, little articulation of this as a clear policy goal, and little recognition of whether this would be de-stabilizing or lead to a lasting peace. Russia and China clearly fear that regime change is a U.S. policy goal, and loose talk in the U.S. national security community has done little to dissuade this fear. This is fundamentally different in the case of North Korea, where regime change may be seen as more achievable and is clearly articulated in the Nuclear Posture Review as a policy goal under certain circumstances. While the restoration of the status quo may be ideal, it may not be possible after Red crosses the nuclear threshold—this is an event which has never occurred, and it is difficult to assess the emotionalism of such a decision on war winning and termination policy formulation. In ideal circumstances, winning at the conventional level must encompass a way for each side to save face while still signaling that nuclear escalation is unacceptable, which may include destruction of the military means used by the aggressor.

Once a limited war has started, there are critical decision points that will determine termination choices. These decision points include de-escalation after conventional use, termination after the nuclear threshold is crossed, termination after a limited retaliation, or an all-out war that was not desired. Each of these scenarios would be dependent on how unbearable the costs are and the perception of stake by each side. This is also impacted by how much punishment is enough to signal that this behavior will not be tolerated. The question of whether or not Blue would be capable and willing to give Red acceptable off-ramps after escalation is important to consider, particularly when the return to a status quo involves territorial disputes and the forcible ejection of an aggressor from that territory. It is less likely that Red would be willing to accept a Blue off-ramp unless it allowed Red to save some degree of face, and there has been little exploration of what these off-ramps might look like.

Each situation is also impacted by allies. For Blue, they must build political cohesion as war termination may be more politically divisive than war escalation. A limited war may also test allied cohesion, as each state must be ready for a negotiated outcome and decide how much sacrifice is acceptable in service to Blue. In order to signal nuclear use as intolerable, Blue and its allies must determine what an acceptable compromise would be without looking like “bullies” or looking too weak.

The panelists drew on previous war termination choices, specifically in Afghanistan and Vietnam. The failures from these wars are very visible to adversaries, including the constant change in strategy and definition of winning. The cases also showed that the United States has a limited understanding of the environment it is entering. To successfully end a war going forward, Blue must address these weaknesses. The final points from the panelists were suggestions for the future. The desire to win the peace after the war ultimately shapes the decision to terminate the war. This will require fundamental changes to the approach, specifically an understanding and respect, and a willingness to address a win-win. These changes will require close collaboration and discussion between various communities, including defense and diplomatic communities, those of the U.S. and its allies, and those of the U.S. and its potential adversaries.

Panel 9: Toward a Better Result in 2021

- By what metrics might a 2021 result be judged “better” than the prior National Defense Strategy review?
- What lessons follow from this workshop for the 2021 review?
- How can the US improve its cooperation with allies toward these ends?

Going forward, the review process needs to be updated to reflect the multi-domain nature of future wars. There is frustration with the proliferation of separate reviews for different capabilities, with consequences in the U.S. inability to think coherently across domains about escalation and counter-escalation. The current approach needs to be more coherent, and this final panel had a debate about what form of process innovation would be most productive. The first option is to seek a single integrated review of general purpose military forces, along with the new strategic toolkit and nuclear weapons. The counter argument is that it would be too bureaucratically and substantively complicated, and there is too much secrecy around these specialized domains. Instead, the United States could run a review about conventional forces, which is essentially the National Defense Review, and a separate review about strategic forces that would blend together all of the remaining capabilities. While the first one would be a coherent integrated review of everything, the second one would entail two parallel reviews. This could create new problems: hard trade-offs exist between the strategic tools but between the strategic and the conventional tools, and the United States needs to stop pretending that those trade-offs do not exist.

The United Kingdom is already very close to publishing its own integrated review. Their experience suggests that it is not easy to do an integrated process. One can be easily submerged

in the multitude of questions, but it is still better to look at everything holistically. In order to avoid getting lost in the details, the integrated review should focus on the large issues, then mini-reviews could follow and look at the specifics. Based on the UK example, a possible metric of success could include the following considerations: 1) how accurately did the review evaluate the overall strategic context, 2) how well did it set the policy headline goals, 3) did it set the capabilities right, 4) how much was the projected budget in line, and 5) did it get the organizational responses right.

Another important argument about the review process suggested that the United States and its allies should orchestrate a whole of government response to the broad spectrum of threats that they face today from the grey zone up to the level of regional wars. What is needed is a coordinated approach across the U.S. government (DoD, State, Treasury, Commerce, and possibly others as well). This seems to be a huge challenge for the United States because the agencies have been Balkanized, and they do not coordinate well on these kinds of challenging issues involved hard trade-offs. In principle, it should be the National Security Council that brings these together, but they are mostly consumed by short-term problems and immediate responses. Instead, the United States and its allies need a sustained, long-term interest and effort to think through how they can coordinate response to Russian and Chinese challenge.

Besides these bureaucratic questions, the role of allies also needs to be determined. Are they mainly interested bystanders that the United States occasionally consults with? Are they true analytical and operational partners to the United States? There is a great deal the United States can achieve with its allies and partners, if they think together. However, it requires real consultation, with allies having a seat at the table. Conducting the review with more allied involvement can also inform allied thinking that could help to reduce redundancies, synchronize acquisition, and encourage the sorts of development that would contribute to a more efficient response on the alliance level.

On the question of escalation, the discussion of multi-domain conflict leads many people to look for a model other than Kahn's escalation ladder. But departing too far from the ladder model could mean that we lose the whole framework about escalation, de-escalation, and war-termination, while much of this framework is domain agnostic. Although the escalation ladder remains a useful model, the multi-domain aspect of conflict changes things. The United States and its allies need to revisit how ambiguity and lack of attribution affects this model. Russia, China, and North Korea all believe that they can get away with a higher level of escalation if they can conceal the fact that certain actions are happening, detach themselves from these actions, or delay the attribution of their actions. They believe covert or deniable actions might end up being less escalatory, which is a completely new aspect of the multi-domain environment. This leads to the question of how important is "time" in escalation, as the escalatory significance of certain actions might fade away over time.

Regarding the question of deterrence, it may be constructive to think about deterring adversary campaigns, instead of adversary acts, or thinking about how adversaries might cross certain thresholds. The United States and its allies need a deterrence strategy that engages on the campaign level. Another suggestion in this domain was increasing the focus on conventional deterrence. Deterring nuclear war has an intellectual history, while deterring conventional

conflict does not have this past, and it is not as simple. The United States and its allies will need to revisit how deterrence might work in a high-end conventional conflict in this multi-domain environment. The primary challenge of constructing an effective conventional deterrent in a multi-domain world is that many of the capabilities that the United States and its allies are developing are highly classified. Even top policy makers are not aware of what these capabilities are, which hinders the development of a coherent escalation strategy.



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This work was performed under the auspices of the US Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344. LLNL-TR-818713