



ESCALATION, DE- ESCALATION, AND INTRA- WAR DETERRENCE

Workshop Summary

April 3-4, 2024

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Escalation, De-Escalation, and Intra-War Deterrence

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On April 3-4, 2024, the Center for Global Security Research (CGSR) at the Lawrence Livermore National Laboratory (LLNL) hosted a workshop on escalation, de-escalation, and intra-war deterrence. This event brought together over 100 participants drawn from across the policy, military, scientific/technical, academic, and think-tank communities, from the United States and a wide spectrum of allied countries.

The discussion was guided by the following key questions:

1. How do adversaries think about and prepare for escalation in limited regional wars under the nuclear shadow?
2. What are the particular challenges of deterring such escalation and inducing de-escalation and war termination?
3. What is the US theory of victory in such conflicts? Is it sound?
4. What can be learned from unclassified wargaming?

Key take-aways:

1. Intra-war deterrence addresses a particular part of the continuum of conflict: that segment on the continuum that begins with the first failure of deterrence when an adversary steps onto the road to war with the US and ends with the last failure of deterrence, a full nuclear exchange. Here, the US has three primary deterrence objectives: to inhibit escalation, both horizontal and vertical, to motivate de-escalation, and to set the conditions for war termination and a durable peace. There will be separate operational objectives as well—for example, to defend the interest put in jeopardy or to limit damage. But the focus here is on the strategic level as opposed to the operational level, where the cognitive aspect is supreme—that is,

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where we operate in order to persuade an adversary to make a choice to accept an undesirable outcome rather than escalate.

2. Military experts and leaders in Russia, China, and North Korea have thought in depth about this part of the spectrum, given their common focus on “deterring and defeating a conventionally superior and nuclear-armed major power and its allies.” Much of that thinking was done in the first two decades after the Cold War. The period since has been devoted to assembling the tools to implement their theories of victory. Those theories are built on the judgments that their stake in a war on their periphery outweighs that of the US and that limited escalation can be effective in awakening US leaders to that asymmetry of stake, leading to a US decision to de-escalate. They also see US allies as points of leverage, separable from the US given their vulnerability to coercion and attack.
3. This thinking about the feasibility of fighting and winning a regional war with a limited nuclear dimension does not appear to extend to the strategic level, where the potential for large-scale strategic exchanges appears to remain too risky in their eyes. These adversaries also seem to believe that war can be avoided because the US and its allies can be made to recognize this new strategic landscape and accede to their demands for change. They may, in fact, be averse to direct conflict with the US, seeing it as a last-resort option only if the US chooses not “to be subdued without fighting.”
4. These Red theories of victory are also built on the flawed assumption that the US and its allies and partners are paper tigers, unwilling to defend their interests when they are put at significant risk. Accordingly, the potential for strategic miscalculation by Moscow, Beijing, or Pyongyang seems substantial. Their growing capabilities and confidence magnify this risk, as does the fact that that key decision-makers in those capitals govern through dysfunctional regimes.
5. While US adversaries were focused on developing new ways of war to contend with the unipolar era, the US was focused on counter-terrorism and counter-insurgency. This innovation mismatch left the US unprepared for the new landscape that came into focus with Russian annexation of Crimea in 2014. In 2018, the bipartisan National Defense Strategy Commission concluded that the US “could lose” a war against a nuclear-armed adversary because it was unprepared with the needed concepts. The commission’s key findings on this topic were that “DoD leaders had difficulty articulating how the US would defeat major power adversaries should deterrence fail ... There was little consensus among DoD leaders on what deterrence means in practice and how escalation dynamic might play out.” Its key recommendation was to conduct “a serious study of escalation dynamics.” Six years later, we can look back and find good new work on tailored deterrence, integrated deterrence, and risk reduction. But the recommended study and the needed new concepts for strategic deterrence do not evidently exist.

6. The challenges of intra-war deterrence have grown more complex in the new security environment and promise to become even more so. That complexity is driven by China's emergence as a major challenger to US interests with a substantial and growing capacity to wage war at the strategic level, North Korea's growing capacity to wage nuclear war, and President Putin's demonstrated capacity for both escalation and miscalculation. The right label for this new complexity has not yet been found. The "three-body problem" and the "two-peer problem" both neglect the potential for opportunistic aggression by North Korea and the important role of US allies in the new strategic equation. In a future war, US intra-war crisis management strategy must account for the actions and equities of all of these actors, and also for potential cooperation among adversaries.
7. The US faces varied nuclear dangers in this environment. In a war with Russia, the US and its allies would face a significant nuclear risk arising from the fact that Russia does not have the means to prevail in prolonged conventional conflict and might see nuclear escalation as useful for breaking Western resolve before Russia comes to a point of military collapse. In a war with China, the burden of nuclear escalation may well fall onto the US, given China's growing potential to dominate decisively in the early phases of war over Taiwan. In a war with North Korea, the opening phase of conflict could involve large-scale tactical use on the peninsula by the DPRK. There is also the risk associated with a loss of confidence in the US nuclear umbrella and more generally in US security guarantees.
8. The risks of opportunistic aggression may be compounding. If one US adversary seizes an opportunity to try to gain some military advantage over the US while it (the US) is heavily engaged elsewhere, another adversary may see an even larger window of opportunity.
9. The management of future multipolar crises will inevitably be clouded by uncertainty and disagreement about the intentions, red lines, and capabilities of both adversaries and allies. These can be reduced by exploring possible information needs in crisis and filling the gaps in the pre-crisis phase.
10. Front-line US allies are highly motivated by the risks in this new strategic landscape. Some bristle at American short-hands that leave them out of the new strategic equation (e.g., the three-body problem). In both Europe and Asia, alliances are well along on long-term projects to adapt and strengthen deterrence for new purposes. A great deal has been accomplished: modernized capabilities, better information and intelligence sharing, updated strategy, improving conventional-nuclear integration, and more realistic exercises. Particularly important are improvements to the military planning process, which now better accounts for the competing demands of the multipolar security environment.
11. But much more remains to be done. Many policymakers in national capitals are struggling to make sense of the new security environment, the breadth and depth of adversary animosity and activity to undermine allied security, the changing nuclear threat, and shifting public opinion. A special concern attaches to the credibility and

thus effectiveness of US extended nuclear deterrence. Allies are anxious that the pace of adaptation is not competitive. There is an even deeper angst that the US may abandon this project under different political leadership, leaving them with no good options for the intra-war deterrence problem.

12. US allies have done a lot of thinking over the last two decades about war prevention, general deterrence, and conventional deterrence, but less so about intra-war deterrence. To the extent US allies have a theory of victory for intra-war deterrence, it focuses on the coherent and coordinated application of comprehensive instruments of national power across alliances to achieve desired strategic effects, all under strong US leadership. They also emphasize the impact of peacetime behaviors on the wartime choices of enemies.
13. The US has also done a lot of thinking about elements of deterrence other than the intra-war component. Like its allies, it has put much of its emphasis on strengthening deterrence at the conventional level of war (in part because of the judgment that this is the surest way to avoid nuclear escalation). But over the last couple of years, there has been a rapidly growing appreciation of the need to re-think the US nuclear posture, beginning with the premise that the program of record for nuclear modernization is necessary but not sufficient (a view now shared by many in the Biden administration). There has also been substantial improvement in the planning for integrated strategic effects across domains and across the DIME construct.
14. But development of a Blue theory of victory remains incomplete. Such thinking has been stymied in part by the understanding that outright military defeat of a nuclear-armed adversary appears impossible, given the potential for a last-resort shot at nuclear revenge. It has also been stymied in part by a left-over confidence in US escalation dominance from the unipolar era when the US enjoyed conventional and nuclear superiority over potential adversaries.
15. The three different deterrence objectives in the inter-war phase each require a theory of victory (or success). To inhibit escalation, whether vertical or horizontal, requires a theory about how manipulation of the adversary's calculus of the benefits, costs, and risks of different courses of action will restore restraint *after the initial failure of deterrence* (with the adversary's decision to step onto the road to war with the US). To motivate de-escalation requires a theory about how reassurance of an adversary that some of its goals may remain within reach will translate into new restraint *despite ongoing war with the US*. To set the conditions for war termination requires a theory about how compromise and/or punishment might lay the foundations for a just and durable peace. In the absence of systematic thought on these matters, policy development has lagged.
16. Wargaming has helped illuminate the underdeveloped state of thinking on these matters. Blue theories of victory emerge idiosyncratically in game play. That is, among the players, there are few shared concepts or approaches, leaving each to plot his or her own solution. Many players fall back on the logic of the joint concept on

strategic deterrence—the deterrence calculus. They believe/hope that the US can increase the costs to any adversary beyond any potential benefit that adversary might perceive in continued conflict—and that this will, sooner or later, persuade an adversary to retreat from confrontation. This way of thinking discounts the potential role of asymmetric stake as well as the costs that the adversary can impose on US allies, US forces, and the US homeland.

17. Wargaming has also revealed a common penchant for an elusive “sweet spot”—that is, a response to adversary aggression that optimally balances actions calculated to send messages of both resolve and restraint. But subtle messages are generally misunderstood in game play. And messages of restraint are often received as messages of appeasement, encouraging more Red aggression.
18. Many US and allied analysts have a simple mental picture of the escalation process, reflecting the ideas that wars are fought at certain levels of escalation and that these levels may change up or down at key decision points. The reality is more complex. The parties to a conflict each fight at their own level of escalation, not a shared level—a fact that becomes more apparent the more parties there are to a conflict. Decision points are embedded within decision windows, bounded by the opportunity and necessity to react to new circumstances; in this way, decision points are interconnected. And the choices available to a decision-maker are not just to increase or decrease the level of violence; a choice might also be made to end the war by acceding to the enemy’s demands or to continue to prosecute the conventional war without escalation or de-escalation.
19. At such critical decision windows, the US president is likely to have the time and means to deliberate and consult, perhaps widely. He or she is also likely to be surrounded by political and military advisors with little or no prior exposure to these issues. The legacy decision support process is not tailored for this purpose and instead emphasizes the need for prompt decisions and military consultations in a launch-under-attack scenario. The process should prepare to provide answers to many military, political, humanitarian, legal, and environmental questions. It should also prepare to provide answers to questions a president may not think to ask. Ideally, key decision-makers and their staffs would not be introduced to such information for the first time in the midst of a crisis.
20. The president is very likely to want to know whether and how US nuclear employment would prevent further nuclear employment and indeed end the war and create the conditions for an enduring peace. Answers to these questions require, among other things, a sound understanding of the effects on the ground and the cognitive effects on enemy leaders.
21. Especially when making a decision about whether to employ nuclear weapons on behalf of an ally, a president is going to want to consult with the leader of that allied nation, and potentially with many other allied leaders. They will bring interests, equities, capabilities, and vulnerabilities that are best understood ahead of time.

Those allied leaders should also expect to share the responsibility for the consequences of this choice.

22. Moral and legal questions may play a significant role in the deliberative process. They are certain to be of enduring political interest and to shape the post-war peace. A clear view of these matters requires dispelling confusion about the requirements of proportionality. In common usage, the term equates with the imposition of effects on the enemy commensurate with those resulting from the actions of that enemy (“tit for tat”). In fact, the term refers to the relationship between the advantage gained by an action and the damage done by that action. If the damage is excessive to the benefit, then the response violates the principle of proportionality. Notably, the benefits are not limited to the destruction of particular targets; they encompass also operational and strategic benefits, which might include escalation control or war termination. Thus, legally proportional response options need not be proportionate to the offending conduct.
23. In the new strategic environment with multiple nuclear-armed adversaries and multiple US-led alliance structures, the operational and strategic consequences of US choices take on a new meaning, as the failure to end nuclear escalation in one context would have truly global repercussions. The US stake in the preservation of the existing nuclear order must inform US deliberations about what is the necessary proportional response to an enemy’s nuclear attack. A failure to act at all could change the very nature of our societies and sovereignty. A case can be made that a significantly escalatory response by the US would be proportional to the operational and strategic benefits of such a response.
24. Improved understanding of these decision factors is needed. Wargaming can play a valuable role in this regard. Well-constructed strategic analytical games can illuminate the potential dynamics of such contingencies, the interests and roles of US allies and partners, the decision windows and decision points that might take shape, and the decision-making and decision-support processes. They can test Red theories of victory and help develop and test Blue theories. In recent years, DoD and NATO leaders have recognized wargaming’s potential, participated more actively in games, and invested in these methods. But to realize its full potential, wargaming has to adapt. The methods and tools to systematically integrate insights across games are still lacking, so that lessons learnt are fragmented across institutions and individuals; emerging scientific approaches and new technologies can help with this. The US GAO has recently taken stock and concluded that, despite some advances, important gaps remain; it called for improved collaboration and cross-learning and more scientific approaches.
25. The significant challenges to intra-war deterrence are a potent reminder of the urgency of ensuring that we are doing our best on pre-war or general deterrence, where our concepts are more developed and our tools more numerous.

Panel 1: Game Review and Lessons Learned about Intra-War Deterrence

- What did the game reveal about the nature of the problem?
- What did it reveal about the nature of the needed solution?
- What worked for the US and its allies? What did not work? Why?

The discussion focused on the wargame that workshop participants had played online prior to the workshop. Exploring deterrence strategies in the simulated environment provided by the wargame provides insights regarding the complexity of problems occurring during a crisis. An important question that surfaced during the discussion of the wargame was how well it could capture cultural differences in how the concept of deterrence is understood. The understanding of deterrence shared by the United States and its allies may not be shared by our adversaries. This discrepancy in perception can unintentionally lead to escalation or miscalculation since the adversaries might not recognize when conflict starts and ends. At the start of a conflict, an adversary may believe that its loss is already greater than that of the other, causing difficulties in crisis management or de-escalation. Thus, an adversary may see itself as further along the escalation ladder, having already invested more into the conflict.

Similarly, the concept of a “window of opportunity” can be misleading. An aggressor may see the opportunity to attack today as positive rather than delaying (thinking “today is a great day to invade”). However, it also has a negative connotation. That is, an aggressor may act even though they recognize today is bad for action because they think that tomorrow could be even worse. An historical example of this latter mode of thinking is Japan’s decision to attack Pearl Harbor in World War 2.

In addition to the nature of the problem, participants pointed out the lack of holistic and integrated approaches to defense strategy. First, the war game demonstrated a deficiency in operational understanding concerning the impact of limited nuclear use in a military campaign. Such scenarios are not gamed through. This challenge hinders the comprehension of capabilities related to nuclear use and its potential outcomes. Notably, Russia and China are presumed to have simulated these scenarios and therefore may possess a deeper understanding of their practical implementation. The United States may therefore face challenges in effectively deterring these adversaries from considering limited nuclear use in conflict situations. The second issue discussed related to the inadequacy of multitasking and coordinating responses across various government sectors, including the State Department, the Treasury Department, and other agencies. This limitation affects the concept of integrated deterrence, which is crucial for intra-war deterrence. Therefore, maintaining a balance between rapid response and strategic planning is important.

The panel discussed divergent approaches for improving future iterations of the wargame. Panelists highlighted responses to the adversaries for de-escalation. To prevent escalation, swift responses to the adversaries’ vulnerabilities are encouraged with disproportionate actions, demonstrating resolve and increasing the perceived costs for the aggressor. Furthermore, punitive measures against the adversary were deemed necessary but can be complemented by a promise of restraint, encouraging the adversary to also show restrained actions. Panelists also underscored ways to improve wargames by incorporating virtual platforms instead of relying solely on tabletop exercises. Employing more scientific wargaming methods can generate new

data that can be compared across multiple scenarios. Analyzing this data may help to answer strategic-level questions. Online platforms may also help engage a more diverse set of players.

In addition, participants focused on enhancing the realism of wargames. One participant stated that 90 percent of reality is never demonstrated in a game; others discussed ways to bridge the gap between wargames and real-life crises. First, incorporating psychological factors such as stress and pressure on players is essential because of their impact on decision-making in the real world. Second, it is crucial to consider the inclusion of multiple actors such as politicians, military leaders, and other key stakeholders, granting different incentives during a crisis. Third, the game cannot extend infinitely, unlike real-world crises; thus, a constrained time frame for the war games will provide players with a more realistic experience. Fourth, tabletop exercises tend to guide players toward specific behaviors due to scripted scenarios. Dynamic scenarios can overcome this limit, bolstering players to adapt to real-time situations and their decision-making capabilities. However, implementing wargames with dynamic scenarios is challenging.

The panelists also presented the result of the wargame run before the workshop. During the wargame, players were divided into two teams representing the United States and Russia in a scenario where Russia had just used a nuclear weapon to sink two NATO ships. The players were also asked questions about their strategic goals in the exercise and how they thought their chosen actions aligned with those goals. An additional set of questions asked players to indicate their expectation that their recommended course of action would actually be taken in a crisis and their expectation of its success. The responses chosen by U.S. players were highly escalatory; nearly all U.S. players favored inflicting more damage on Russia than Russia had inflicted in its initial attack. However, views on whether the United States should respond with nuclear weapons was mixed, with many U.S. players preferring to inflict large-scale damage on the Russian military without resorting to nuclear weapon use if possible. In response to the U.S. players' escalatory actions, Russia players tended to favor responses to de-escalate the crisis or at least avoid escalating it further.

Panel 2: Adversary Approaches to Escalation, De-Escalation, and Intra-War Deterrence

- How do experts in Russia, China, and North Korea think about the escalatory dynamics of regional wars under the nuclear shadow?
- What is their theory of victory?
- How do they intend to keep a limited war limited?

Escalate to deescalate is deeply engrained in Russia's approach to conflict. President Putin is the ultimate escalation manager in Russia, and he has gained a lot of experience during the war against Ukraine. This experience is qualitatively different to that of any NATO leader. Russia's approach starts in peacetime, so well before the onset of regional war. Key elements of Russia's preparation include assembling its strategic toolkit, training its forces, and building expectations with its strategic messaging. One characteristic of this information confrontation that Russia wages plays on our fears that Russia sees.

Russia's approach to escalation management includes the full spectrum of capabilities, including nonnuclear, nuclear, cyber, and space. Another key element of Russia's approach centers on dosing and calibrating deterrence and damage in a way to sober but not enrage the enemy to counter escalation. This dosage of damage needs to be tailored to historical, economic, cultural and other factors, and it needs to be tailored to particular phases of the conflict. This means that Russia has developed its own version of an escalation ladder, which is not linear but consists of three phases: conventional counterforce (focusing on targets and some space-based assets), conventional destruction of military infrastructure and civilian infrastructure, and preemptive employment of nonstrategic nuclear weapons against critical economic, military, political objects (using nonstrategic and then strategic nuclear weapons).

The discussion highlighted that Russia seeks escalation dominance at every level of the conflict. This is why Russia has greatly expanded its escalation options over the last 20 years, bragging about having developed a nuclear scalpel and chainsaw for every military problem in Europe, encompassing everything from ultra-low yield nuclear weapons to doomsday nuclear weapons. Further, Russia has expanded its options across the time continuum: prompt escalatory options, very fast missiles that can be launched from a short distance, and nuclear loitering options. Russia has also diversified the geography of its deployed nuclear forces by forward-basing nonstrategic nuclear weapons to Belarus, giving Lukashenko the Fidel Castro power to call for nuclear escalation.

Russia also tailors its options to different actors (e.g., Europe and the United States) and possesses the legislative freedom of action for escalation (e.g., the recent withdrawal of Russia ratification of the CTBT) to allow Russia to test, if necessary, as an escalation measure. At the same time, Russia seeks to limit escalation options for the US and its allies, for example through BMD.

The discussion highlighted that Russia's approach to a red line is different to the Western perception of red lines. To Russia, red lines do not serve as final warnings (i.e., they do not define a point of no return), but they reflect temporarily shifting circumstances. This is why Russia declares almost everything a red line. The goal is to create more dilemmas for the West to guess where its actual red lines are.

Russia's theory of victory is driven by the assumption that escalation can be managed, and damages dosed in a way that does not enrage the adversary. In the view of participants, this represented a bold assumption. Russia also assumes that they can use their nuclear superiority at the regional level.

One of the underlying assumptions of Russia's theory of victory is that Russia would set the pace of escalation, including through preemptive options. Keeping the war limited includes a demonstrated willingness to risk nuclear war, believing that nuclear escalation constrains the West. For example, President Putin expressed his view that the West was not ready to fight a nuclear war whereas Russia was.

Participants inquired about how Russia judges the impact of its high casualties in Ukraine on deterrence, wondering whether Russia believes that its high losses strengthened or weakened

deterrence. Some participants argued that Moscow probably believes that its high rate of attrition in Ukraine strengthens deterrence.

Although Russia's theory of victory has some merits, it also has some limits that have been demonstrated in a local war against Ukraine. Nuclear threats did not prevent Western military aid to Ukraine. Russia may also underestimate the unpredictability of fighting against 32 nations, including three nuclear-armed nations. Another difficulty with Russia's theory of victory is that Russia can never be sure that dosing the damage will not enrage the adversary and create more resolve to fight and win. Indeed, Russia miscalculated the level of support that NATO provides to Ukraine, especially in the beginning.

Some participants argued that there may be a discrepancy between how experts and the political leadership view the country's theory of victory. President Putin believes Russia can manage escalation with NATO. Russia may rely more on nuclear weapons because of conventional losses, and because Russia feels confident to rely more on nuclear weapons (because it is ready to fight a nuclear war if necessary). Some Russian experts may have a more nuanced view. Experts tend to think that the theory of victory as such is sound, but its implementation is not. For example, before the war against Ukraine, some experts argued that Russia should do more to determine the desired damage level/dosage for deterrence to work. But based on observations from the war, some experts have criticized Russia's approach in Ukraine, arguing that Russia was unable to instill fear in the war to the extent that it should have. President Putin's deployment of nuclear weapons to Belarus and Russia's withdrawal of its ratification from the CTBT appear to substantiate that line of reasoning. Some participants thus argued that in a regional conflict with Russia, NATO should expect Russia to seek to instill greater fear from the outset.

China's approach to conflict and crises differs significantly from that of the United States and its allies, which is why China has shown little interest in Western offers of dialogue on crisis management and arms control. Much of China's thinking is laid out in the 2020 Science of Military Strategy. Although China has never really ignored these questions, it has focused on them to a greater extent recently, with the 2020 document devoting a full chapter to crises.

Much of China's thinking focuses on conflict with the United States over Taiwan, the Korean peninsula, and the East China Sea. Crises are "the crossroads between war and peace." China's thinking includes the idea of a continuum between war and peace. These are distinct but not completely removed from the normal course of events. The 2020 Science of Military Strategy refers to a new normal in world politics that is crisis prone.

In dealing with crises, conflicts, wars, China approaches this problem through a two phased approach: prevention and handling. Prevention is the targeted preparation taken in advance to prevent the occurrence of military problems. In Chinese thinking, the prevention phase is an active phase, espousing the need to "pre-manage crises." China sees multiple ways in which crises and conflicts can be prevented. While China emphasizes the importance of stopping crises from developing in the first place, it also highlights the need to be ready if crises do develop. If a crisis does break out, China believes that it can control escalation from crises to conflict to war.

The handling phase is to "control and guide the development of crises and conflict in a direction that is beneficial." In this phase, China sees a critical role for diplomatic and political means, as well as military means and deterrence. If deterrence is ineffective, then combat operations are designed to "further deter and stop the war." This is what Xi calls "the peaceful employment of military force." Crises can have an engineering solution. The unfolding of a military escalation can be controlled and shaped and China can get the outcomes it wants if it does the right things (such as escalating militarily).

For China, crises and conflict handling is about handling a disadvantageous situation but also about advancing Chinese national interests. Beijing may equate crisis management with crisis prevention and handling. The 2020 Science of Military Strategy refers to crisis handling in terms of compromise, but also about gaining the upper hand over its competitors in a crisis.

China's thinking about conflict and crises differs significantly from that the United States. Whereas the United States sees crises as problems to resolve, China does so only to some extent. For China, crises are opportunities to advance its interests. China seeks to win a conflict, not to manage it. Beijing believes it can manage escalation up until the nuclear threshold. But China does not believe it can control a conflict once it has gone nuclear, though it remains unclear if China's thinking on nuclear escalation control has changed in light of its ongoing nuclear forces buildup.

China further views crisis management as a trick to avoid a Chinese gain. China believes that avoiding crises is the responsibility of the United States and that China is only reacting to problems the United States is creating.

Participants highlighted that North Korea's approach to these questions remains much more ambiguous because we know very little about how experts in North Korea think about escalation under the nuclear shadow. It remains also unclear whether there are even true nuclear escalation dynamics experts in the DPRK. Some participants suggested that the DPRK is both a hard and a moving target. It is a hard target because it is difficult to understand what the DPRK thinks as there is very little publicly accessible. The DPRK is also a moving target because of such rapid change in the DPRK's capabilities and doctrine and strategic environment in Northeast Asia. Wargaming could help test our knowledge of the DPRK's concepts and theory of victory in different scenarios.

Despite our limited knowledge of the DPRK, it would be a mistake to underestimate the veracity of the threat that the DPRK poses. The DPRK is well experienced in limited wars: the Korean war itself was the first limited war of the post-World War 2 era.

Whereas some observers argue that the DPRK is irrational, suggesting that it may not be possible to truly deter the DPRK and understand its escalation calculus, workshop participants suggested that it is important to counter this notion because the DPRK's historical behavior reveals that its thinking on escalation follows a clear pattern and seems rational.

The DPRK is now in a different place than it was a few years ago in terms of its military strength, thinking on nuclear weapons, and the sweeping changes in its strategic environment (Russia-

DPRK rapprochement, PRC-DPRK rapprochement). North Korea's goal is to survive, prompting the question of whether Pyongyang would actually employ nuclear weapons in conflict. One participant speculated that conventional wisdom may be wrong because it is based on backward looking assumptions. The DPRK's risk benefit calculus might be different in different scenarios.

The DPRK's theory of victory begs the question of whether the DPRK would repeat its 1950 actions but with a new level of capability; that is, to overrun the Korean peninsula before the United States could send reinforcements, thereby enforcing its will.

Another interesting development is that Kim Jong-un has publicly abandoned the idea of unification. If North Korea has abandoned the idea of unification per se, then it is unclear why Pyongyang would launch a full-scale attack on the Korean peninsula. But if Pyongyang gave up peaceful unification only, then a military attempt at unification may still be likely. A major conflict on the Korean peninsula could also begin as a result of a PRC-U.S. conflict over Taiwan (opportunistic aggression).

In the judgement of some participants, a major conflict is far more likely to begin with a limited DPRK escalation rather than a conscious decision to go to full-scale war. In such a scenario, Pyongyang is likely to use nuclear threats to prevent the war from escalating, including to prevent regime change at home.

At the same time, the DPRK will try to retake the initiative with nuclear strikes if necessary. The DPRK believes that it can minimize escalation by threatening escalation to deter Washington, particularly in an ongoing conflict. Pyongyang believes that if needed, it should strike first in a limited manner to set limits for the ROK and the United States through the threat of nuclear escalation. If this fails, Pyongyang will try to retake the initiative by striking.

Panel 3: Understanding the Requirements of Multipolar Crises

- How does the risk of coordinated aggression by a second challenger impact US intra-war deterrence strategy?
- Does the risk of opportunistic aggression have the same impacts?
- Does it matter whether the second challenger is a major or regional power?

Panelists began by discussing the realities faced by the United States in this new two nuclear peer environment. They stressed that we are in a new security environment to which the United States must adapt its existing equipment and strategies. This is simply a challenge that the United States has not had to confront before, and the existing concepts from the Cold War era are not sufficient to address the challenges faced by the United States. To succeed in a multipolar crisis, panelists stressed that policy, strategy, planning, and requirements must be realigned. While this is typically achieved across a long timeframe—several years to a decade—in this instance we do not have the luxury of time.

Panelists stressed that the biggest challenge is determining what the relationship between our adversaries will look like in a multipolar crisis. There are several possibilities for collaboration: adversaries could launch attacks either synchronously or asynchronously. Alternatively, one adversary might act opportunistically during a crisis between the US and the other adversary. Each of these scenarios presents unique challenges for the US and its allies, although both panelists and participants agreed that opportunistic aggression was the most likely scenario in a multipolar crisis. Both participants and panelists agreed that the presence of additional regional adversaries poses further problems for intra-war deterrence, although not on the same level as adversaries that are major powers. Despite these issues, participants stressed that our own allies pose similar problems for our adversaries in a potential conflict, especially if they are properly integrated into planning. Panelists argued that the mere presence of a second potential adversary casts a shadow over the first conflict, which presents major challenges for planning. In addition to issues like magazine depth and the possibility of the second adversary learning lessons from the conflict with the first adversary, the presence of a second adversary simply makes navigating escalation harder. As one panelist put it bluntly, interwar dynamics are hard but intra-war dynamics are even harder.

One issue raised by participants in the workshop was concerns about the current magazine depth of the U.S. military. They argued that currently, the magazine depth of the United States is insufficient to address two separate adversaries. During a conflict, this issue will lead to the husbanding of munitions for use in potential second conflict, which limits the capabilities of the United States in the first conflict. However, this issue is present in the minds of planners. One participant noted that there are efforts being made to address this issue. Conversations around integrated planning for the combatant commands are occurring right now within the Office of the Secretary of Defense (OSD). Additionally, these conversations within the OSD seek to address not just traditional magazine depth issues, but also shortfalls related to ISR and LDHD assets as well. While progress has been made within the US military for integrated planning, further work needs to be done to address integrated planning with allies in areas such as integrated munitions and manufacturing.

The role of allies was brought up multiple times. The support of allies both in Europe and the Indo-Pacific will be essential for addressing the multipolar problem. Participants pointed out that the degree to which allies are integrated into planning varies greatly between Europe and Asia, something that has been a concern for our allies in the Pacific. Additionally, both participants and panelists stressed that the global community as a whole will feature prominently in a potential conflict between nuclear powers. They agreed that countries across the global south will play an essential role in terminating a future conflict. In a modern war, conflict is not limited to the theater in which kinetic conflict is occurring. The increasing militarization of the cyber and space domains means that any conflict will have global implications regardless of where the conflict takes place.

Both panelists and participants emphasized the importance of a theater level nuclear capability. They agreed that the current reliance on F-35s and the B61-12 for a theater-level nuclear deterrent has created a gap in our potential responses to nuclear use by an adversary. A number of challenges exist that make addressing this gap difficult. One panelist pointed out that

developing additional theater-level nuclear capabilities could come at the cost of conventional forces. Additionally, they asserted that the current modernization of the strategic arsenal will hinder further development of a theater level nuclear force as well.

The realities of what the end state of a war with either Russia or China would look like were raised multiple times throughout the workshop. Participants generally agreed that defeating two nuclear adversaries in the traditional sense is impossible. Instead, panelists argued that any Blue theory of victory will revolve around denying the adversary its objectives. In order to do this, we need to find where the Red lines for our adversaries are and ascertain if these even exist.

Panel 4: Allied Approaches (Europe)

- How have US allies and partners thought about and prepared for these challenges?
- Do they judge alliance responses to be sufficient or inadequate relative to the goal of preserving allied strategic advantage? If not, why not?

Participants argued that NATO as an alliance has not thought about these questions for decades. NATO was busy doing expeditions against non-peer opponents and tended to see nuclear deterrence as an abstract guarantee. But nuclear deterrence has never been a guarantee of anything; rather a way of managing risks. Yet, NATO favored risk reduction and arms control rather than deterrence in the post-Cold War world as a means of controlling risk.

Since Russia's resurgence as a geopolitical threat, NATO has once again started thinking about how the sub-threshold risks Russia poses might escalate into a more strategic-level confrontation and conflict. Specifically, NATO has seen the beginnings of a narrow debate about the need to rethink nuclear deterrence for the alliance. Only a few allies used to consider how deterrence was changing in the post-Cold War era. Even the collapse of the INF treaty was seen as an arms control problem rather than a deterrence problem. This has started to change after February 2022. If prior to Russia's full-scale invasion of Ukraine, a large-scale war in Europe seemed unimaginable, then it has now become a real possibility. NATO has recognized that many allies had misunderstood President Putin's risk calculus. In the words of one participant, "People have stopped apologizing that NATO is and has always been a nuclear alliance."

NATO has become more willing to communicate about its nuclear role (e.g., declaratory statements at recent summits, communicating about the annual Steadfast Noon exercises). NATO has also worked relentlessly behind the scenes to ensure that its nuclear planning is fit for purpose. A lot of work has been undertaken on alliance coherence; that is, to ensure the alliance can deal with conventional and nuclear conflict in a coherent way.² For example, France, the United Kingdom, and the United States have joined forces to raise the overall nuclear IQ of the alliance. This effort resulted from a recognition that NATO has had two generations of leaders who have not had to think about how a conventional conflict might escalate into a nuclear one and how NATO might handle it. Participants argued that there was a real need to go through this intellectual exercise. To this end, NATO has been using cultural wargaming, exposing leaders to

² Some participants suggested that the word "coherent" was more appropriate in this context than "integrated."

the kind of scenarios they might face and the consequences of potential decisions. If Russia's best strategy is to escalate to the nuclear domain quickly, then it will not be easy to dissuade Moscow from pursuing this strategy. Thus, NATO may need to consider more sub-strategic nuclear options and conventional options to achieve strategic effect on an adversary and implement efforts to enhance resilience (e.g., to protect communications, assets, infrastructure as well as psychological resilience to maintain public support). Since we cannot know how Russia might behave and since NATO is not totally sure how the alliance will behave, NATO's best bet is to ensure that it has as many options as possible that could be put before decision-makers. After all, there is a clear difference between strategic ambiguity and not knowing what you might do yourself.

France finds conversations about intra-war deterrence and escalation management difficult because Paris has espoused a different approach to nuclear deterrence compared to the United Kingdom and the United States because France does not extend deterrence. Intra-war deterrence implies a failure of deterrence. For France, deterrence only protects France's vital interests and France thus seeks to avoid giving the impression that it was possible to challenge France's vital interests in a graduated manner. France does think about escalation because on the one hand in practice, Paris realized that threatening rapid and brutal escalation may not be credible to an adversary, Paris' doctrine notwithstanding. Thus, France coupled a conventional response to a nuclear response to make it hard for an adversary to calibrate an attack. If France has conventional forces in the fight, and French lives are at stake, then France may have greater reason to use nuclear weapons. On the other hand, no matter how France approaches things nationally, it still remains a nuclear ally. Given the geography of NATO, it is not reasonable to assume that NATO deterrence would be tested without testing France's deterrence. France's deterrence cannot hold if NATO deterrence fails.

France also believes that nuclear and conventional forces are mutually supportive; that is, nuclear deterrence cannot operate on its own and it must be supplemented by conventional forces. During the Cold War, the first army supplemented deterrence with forces partially stationed in Germany.

Another idiosyncrasy of French deterrence thinking is the concept of a nuclear warning shot. The warning shot did not form part of French doctrine in the early stages, but it was incorporated in the 1970s to signal to an adversary that the stakes of the conflict, as perceived by France, were becoming extreme. The nuclear warning shot is designed to force the adversary to sober up.

Several implications follow from France's deterrence thought:

- Russia's war against Ukraine has accentuated the need for both instruments (mutually supportive conventional/nuclear forces and the nuclear warning shot) and the need for both instruments will increase if Russia escalates to de-escalate the conflict in Ukraine (e.g., with limited nuclear strikes) or if Russia intensifies its nuclear threats to seize Ukraine. It is thus not surprising that the value of mutual support between conventional and nuclear forces was less explicit at the end of Cold War, but has been stated more explicitly in presidential speeches and official documents in recent years due to the rapid deterioration of the security environment.

- The principle of the warning shot has been reaffirmed, and the mode of delivering it has evolved. Delivered by “pre-strategic weapons,” a French nuclear warning shot would take the form of a strategic strike (and would not be tactical in nature). In a key difference to the American concept of flexible response, France envisages only one warning shot. The French arsenal has also become more flexible since the end of the Cold War to deliver the nuclear warning shot. Traditionally, France assigned the mission to a dedicated tactical unit to deliver it, but in the 1990s, the strategic gravity bomb air force received the mission. France’s deterrent today consists of two strategic legs, both capable of delivering the warning shot if needed, using long-range cruise missiles instead of a gravity bomb.
- (Non-nuclear) escalation management starts by accepting that it is a natural option to force an adversary to reconsider. Escalation management must thus recognize that our adversaries also fear escalation, not just us. Escalation is important to signal our determination. How limited would be the first use of nuclear weapons by the alliance? Who would go first? While legitimate, France sees deterrent value in some ambiguity and slightly diverging answers among the allies because it would make it impossible for President Putin to calibrate his attack.

There has been a recognition that our national security is intrinsically linked to the outcome of the war in Ukraine and that we must seize the opportunity to adapt now, resulting in the biggest uplift in defense spending since the end of the cold war. Allies have recognized that becoming versed in the art of deterrence is important. NATO’s intellectual adaption has included the quest for new concepts and understanding of escalation dynamics. After all, the job of the strategist is to simplify complexity. Strategy is the search for an asymmetric advantage. NATO thus needs an integrated approach comprising broad tools to manage escalation and deterrence. This integrated approach must be comprehensive (taking into account all levers of state power to change perception of enemy), coordinated (with allies and partners to ensure impact of our posture is greater than the sum of its parts), and coherent. To this end, NATO needs better burden-sharing and coordination on issues like vital interests, dialogue, off ramps, military-political communications to find off ramps and manage escalation.

Panel 5: Allied Approaches (Indo-Pacific)

- Same substantial questions as panel 4

Allied approaches to intra-war deterrence in the Indo-Pacific differ from those in the North Atlantic in a several ways and for a variety of reasons. The most significant of these are the geography of the region and the nature of political relationships across the Pacific. The geography of the Pacific increases the relative importance of air and sea assets, though land-based assets remain crucial on the Korean peninsula. The vast spaces of ocean in the Indo-Pacific region also impose logistical constraints and increase the time required for the United States to send physical materials to key allies and partners. The political landscape also differs from that of the North Atlantic with significant implications for alliance management, strategy, and

theories of deterrence, and conflict termination. While the North Atlantic alliance network is connected by a highly institutionalized multilateral framework, the sinew linking allies and partners in the Indo-Pacific is largely bilateral, undergirded by a growing but comparatively small patchwork of multinational frameworks. It also bears mentioning that, while nuclear weapons were and remain central to the broader security architecture in Europe, they were used to terminate a conflict in the Pacific. This distinction is palpable in the way key Pacific partners discuss the role of nuclear weapons.

Allies have slightly different but complementary views on intra-war deterrence and their role within it. Japan, for example, has given considerable thought to the issue of war termination and intra-war deterrence, but this has given rise to a variety of perspectives without a single coherent national policy. Many of these Japanese framings, though, recognize a need for specific “playbooks” tailored to each potential adversary. Often, approaches to intra war deterrence or conflict termination are framed within an escalatory spectrum beginning at peacetime and spanning through open conflict with different strategic considerations at various levels of this spectrum. In this way, many Japanese approaches eschew a binary of pre- and intra-war deterrence for a continuous spectrum. This is mapped onto the interpretation of allied and adversary strategy that assumes they, too, frame deterrence needs in a wide-ranging and continuous spectrum.

The South Korean (ROK) approach, perhaps due to a clearer hierarchy of likely threats, appears to have coalesced on a more unified framing. This framing sees deterrence at any stage as “perpetual work”; an effort rather than a state of being. It emphasizes constant adjustment of strategy and the development of new capabilities where this strategy dictates. Because the ROK works very closely with the United States in a bilateral capacity, much of this deterrent logic must be made explicit to facilitate the logistics of burden sharing. Today, this means identifying “loopholes” in the ROK’s deterrent posture and eliminating them with postural changes or new capabilities across all domains of potential combat. Because the primary threat to the ROK, the Democratic People’s Republic of Korea (DPRK), is geographically proximal, nuclear, and (partly) ideologically motivated, it is likely to take advantage of simultaneous crises and begin conflict at high levels of escalation management. Perhaps for this reason, ROK thinking appears to be focused on deterring an initial DPRK decision to launch a highly escalatory attack amid a crisis more than mitigating escalation across a spectrum of conflict intensity.

Australia’s views on conflict termination and intra-war deterrence are heavily shaped by its Cold War experience and historical association with the United Kingdom. During the Cold War, Australia had a well-developed cadre of strategists working to position Australia in the broader alliance network. Many of these had ties to academia and engaged with academics across the anglosphere. Appreciation for Australian strategic acumen augmented the country’s position in the Pacific Cold War architecture and earned it leverage and occasional deference in its relationship with the United States. Australian scholars lament the atrophy of this acumen and see its recovery as key to both building relationships with allies and deterring adversaries. Australia primarily practices deterrence by denial, placing emphasis on deterring low level actions to prevent higher levels of escalation. Conflict termination by Australia is likely to involve the United States and the United Kingdom because of the countries’ historical relationships and connections through AUKUS. This multilateral approach is reflected in other ways, too.

Australian scholars and practitioners seek to frame ongoing Indo-Pacific competition as one between democracies and authoritarian states rather than one between the US alliance network and China and likeminded states.

Panel 6: US Approaches to Intra-War Deterrence

- What are the main elements of continuity and change in recent national defense strategies and national military strategies bearing on this topic?
- What has the National Defense Strategy Commission had to say?
- How has the US adapted its deterrence posture to meet these challenges?

Panelists started the discussion with an assessment of the security environment. In this regard, they noted that characterizing the nuclear challenge as a “two-peer problem” might not be the best approach. First, China is not yet a peer to the United States, and second, ignoring possible issues with others such as North Korea, Iran, and maybe even Pakistan would be a mistake. The nuclear landscape is more complex than just Russia and China, and a limited nuclear war scenario could occur with others as well. The new security environment is a multiple-nuclear-challengers problem.

As the United States prepares for intra-war deterrence, it has to think more about conventional-nuclear integration. If an adversary is losing a conventional war and decides to use nuclear weapons in a limited way, that does not automatically mean the end of the conventional fight. Most likely, the United States and its allies will need to continue the conventional war, try to restore deterrence, and also deter further escalation. Although there is no substitute to nuclear weapons, supplemental non-nuclear strategic assets, such as conventional deep strike, outer space and cyber capabilities can all play a useful role in these challenges.

Given that the security environment has deteriorated much quicker than anticipated, nuclear weapons will remain central to U.S. deterrence strategy in the foreseeable future, and further adjustments might be needed. The current modernization program was sized to a stagnant Chinese arsenal and a Russia that is constrained by the New START Treaty. Today, however, none of these remains true. What might be sufficient today, may not be enough in the 2030s. This is compounded by delays in the Intercontinental Ballistic Missile (ICBM) and Ballistic Missile Submarine (SSBN) legs which are creating new problems for the transitional period when the old systems will retire, and the new ones will come online. The Strategic Posture Commission (SPC) has delivered a long list of recommendations, and the United States needs to consider whether the current program of record is enough to maintain a robust central deterrence if adversaries keep increasing their arsenals in the 2030s and 2040s. The Biden administration agrees with the core findings of the SPC, but it cannot implement all 94 recommendations. Instead, the administration is trying to prioritize and implement measures that can maximize deterrence gains without breaking the nuclear program of record.

In terms of strategic nuclear platforms, the United States has a fixed path for at least 15 years. This means that response options to a changing security environment have to come from somewhere else. One option is upload and having the capacity to quickly increase the number of deployed warheads is probably the best way to provide a theoretical upper hand. However, this requires an ability to build warheads at scale and in time, and it also requires thinking outside of the box. The W76-2 and the B61-13 were both modest adjustments that increased flexibility; they did not break the bank, and they were implemented fast. The nuclear enterprise needs to look for similar opportunities to strengthen deterrence quickly and inexpensively. These adjustments, however, might require a fundamental culture change at the National Nuclear Security Administration (NNSA). Because of how it was conceived, NNSA is a risk-averse organization that has extremely high safety standards, and it generally moves slowly. In the post-Cold War era, developing and producing weapons was not a priority and NNSA was instead focused on assuring weapons safety. This shift in philosophy led to increasingly stringent standards for protecting the weapons against new types of threats, such as insider threats or theft by violent extremist organizations. Today, DOE's safety standards are an order of magnitude higher than the risk of nuclear war in any year. According to one panelist, what the United States really needs in the current security environment is more akin to the Atomic Energy Commission that had a much smaller staff that was laser focused on one mission.

For regional deterrence, the United States is looking at both software and hardware adjustments. The administration is going to comply with the law and explore what version of the nuclear sea-launched cruise missile (SLCM-N) would best serve the interests of the United States and fulfill Congressional requirements. On the software side, strengthening the consultative mechanisms with allies and revitalizing the nuclear debate are key aspects of building solidarity and strengthening unity. As the Biden administration is exploring further adjustments, it is applying a problem-driven approach that takes a holistic view of the entire nuclear landscape. However, despite all these adjustments, intra-war deterrence will remain extraordinarily challenging, or maybe even impossible. If a conflict emerges, it will be very hard to keep adversaries from escalating. The good news is that Russia (and possibly also China) wants to avoid a direct conflict with the United States. The bad news is that if a confrontation is inevitable, it will be very difficult to deter them. In Russia's case, they simply do not have any other option—Russia is a nuclear peer but not a peer in any other domain, so if they feel the need to escalate to nuclear use as a matter of national survival, it will be very difficult to deter them because they do not have too many alternatives to defend their core interests. China, on the other hand, might be an easier case. China is becoming a peer in many domains, including most likely the nuclear domain by the 2030s. This means that in an escalating conflict, they might have a greater variety of options, and they could be less dependent on nuclear use to achieve their objectives. The other factor that makes China a somewhat easier case is that the political leadership stands on more stable grounds. While Russian leaders are unlikely to stay in power after a defeat from NATO, Chinese leaders could potentially survive a conventional defeat from the United States and its allies. This implies that intra-war deterrence and war termination could be easier to achieve in the Chinese case.

However, U.S. leaders should not ignore the possibility that the United States might be the one that faces a conventional defeat on the ground, and it might be the one that needs to escalate to nuclear use. Convincing Russia and China not to respond to a U.S. nuclear attack is going to be

an even harder problem. If it comes to a conflict with another major power, the United States has options, including limited nuclear use options. Having a variety of options is crucial for intra-war deterrence, as well as the ability to fight and prevail in difficult environments. In this regard, the United States has demonstrated the ability to continue fighting through a conflict where adversaries might use chemical, biological, radiological, or nuclear weapons and this ability in itself has a deterrent effect.

The possibility that the United States might face Russia and China simultaneously or in close sequence only compounds the intra-war deterrence problem. Addressing these challenges requires further integration, especially in planning. In a simultaneous conflict scenario, the regional combatant commands would have competing demands, and the United States simply does not have all the necessary assets to meet these demands—certain capabilities might be withheld simply because they are also crucial for central deterrence. Telling military leaders that they can plan with certain assets while others would be unavailable would force some difficult conversations. These exercises could help to think through the implications of the two-peer environment and develop the right approaches to force posturing in the early stages of a conflict. While there will be temptations to use every asset to win early on in a conventional conflict, U.S. leaders also have to consider that if intra-war deterrence fails and the war escalates, early use of certain capabilities could create vulnerabilities for the later stages of war and invite further escalation by adversaries. Conversely, holding back in the early stages means that the United States is assuming the risk that it could lose conventionally, and it might be the one that has to escalate. Military and political leaders should both work to identify the balance between these two. “Going big or going home” cannot be the only option. However, there is a benefit in demonstrating the ability to “go big” and casting a long shadow over adversaries. Figuring out how to do that without triggering escalatory moves by adversaries is the ultimate question of intra-war deterrence.

Panel 7: Understanding Decision Points

- In the escalation and de-escalation processes, is each decision point unique or do they have some common attributes?
- Do the decision points of Red and Blue necessarily correspond?
- What are the differences between de-escalation and war termination?

Decision-making is a complex process and understanding the dynamics of the process can help to lead to decisions that support long- and near-term objectives without having to sacrifice one for the other. In the context of escalation in a conflict with two nuclear armed adversaries, understanding the decision-making process is vital in managing escalation. During the intra-war period the early decision-making process focuses on three specific decision points in deciding whether to conduct nonnuclear, limited nuclear, or large-scale nuclear strikes. Decision points help to achieve the end goal of deterring the adversary from acting or compelling them to comply with demands leading to de-escalation or conflict termination.

Decision windows are the span of time in which the decision maker must decide on a course of action, although these windows are fluid and complex. These windows can be compressed

because of an escalatory action by an adversary or prolonged if one is capable of deterring the adversary from escalating. In the intra-war period, the decision windows to escalate or de-escalate a conflict can compile in the face of multiple peers that pose capabilities to equally threaten one's own national security.

There are two perspectives when considering how decision-making affects decisions in the present and in the future. Forward connectivity is the understanding that all decisions made in the past will help to shape the decision in the future, and the risk that is faced now will translate to the risk in the future. Backwards connectivity is the understanding of how all decisions made up until the present are interconnected. Additionally, presidential decisions are linked but they are not deterministic; past presidential decisions will influence future decisions. Domestic decisions are not the only interconnected ones. Decisions by Red and Blue will also impact and shape the other decisions making them interconnected.

Strategies ought to be developed during the intra-war period to better understand the way in which an adversary is thinking, how they will interpret a decision Blue makes, and if they will view Blue's decision as escalatory. Coupled with this, interoperability among combatant commands in the decision-making process should be developed before a conflict begins, at both the strategic and operational levels. The strategic and operational levels will require different strategies, with the understanding that they occur at the same time and there is a risk transfer potential from one to another that must be recognized.

In the decision window of an intra-war period the goal is to achieve de-escalation or war termination. To do this effectively one must understand the adversary's standpoint on what war termination is, and what objectives they will have to concede to achieve it. Achieving de-escalation can take many forms in multiple domains of conflict. It can be through the ways and means of various domains to include nuclear, biological, cyber, or space, directed at military, civilian, cultural, or geographic targets of interest. The decision-maker will have to understand the interconnectedness of the diplomatic, informational, military, and economic (D.I.M.E.) strategies to achieve the end point objectives of de-escalation or war termination. Following nuclear use, the termination vs de-escalation debate is likely to change for each adversary. U.S. declaratory policy is committed to a war termination approach following nuclear use by North Korea, ending the regime. However, the United States would not seek regime change following a Russian or Chinese nuclear use.

Decision-making by Red and Blue is interdependent, specifically at the strategic level, and there needs to be an overlap in objectives to achieve de-escalation, with an underlying belief that restraint is the best way to achieve each objective. However, managing risk between Red and Blue is extremely difficult in the intra-war period. Each side has veiled red lines that, if crossed, will lead to escalation, however these red lines remain behind the veil of calculated ambiguity, in order for a decision-maker to not be backed into a corner. This also allows for strategic messaging to both adversaries and allies, in order to avoid misconceptions of failing to act on a violated red line, and ambiguity allows for flexibility in the decision window.

Messaging in decision windows becomes increasingly complex in a multiparty environment with multiple adversaries to deter and signal support for allies. It is also possible that acting against

one adversary can be used to message resolve to another adversary and allies. In light of this, the imperative goal is to extend the decision window, making it as long as possible, allowing for more options to appear in a limited window. Extended windows also allow allies to be consulted and to coordinate response and unify messaging and operations. Investing in the coordination among allies early on will lead to better decision-making down the line, in the event of further escalation by an adversary.

Finally, strategic and operational levels of a conflict occur at the same time, while requiring different resources, messages, and decisions. This requires sacrifices to be made when allocating resources and objectives, but the decision maker must understand the consequences of their decisions on both the strategic and operational levels. This can be executed through strategic planning by pulling together all combatant commands to produce greater interoperability across the spectrum of options the decision maker has to decide upon in the decision window.

Panel 8: Understanding De-Escalation and War Termination

- What are the similarities and differences between the two?
- Why do most wars take so long to end?
- How does the nuclear shadow affect the prospects for a just, enduring peace?

What are the real analytical differences between de-escalating and terminating a conflict? While “less war” and “no war” are qualitatively very different things, there are several underlying similarities which shape both processes. In addition to the obvious similarity in that both are reductions in intensity, the first of these analytical similarities is that both de-escalation and war termination require something to change—a departure from the status quo. Somehow, Blue must eliminate Red’s confidence in the merits of continuation or escalation. Second, both are complex and contextually dependent. What works to deescalate or terminate one conflict may be unsuccessful in another, even between the same pair of belligerents. Third, both processes are mutual, requiring red and blue to act together to reduce conflict intensity. Either party can unilaterally resist this reduction. Relatedly and finally, there must be something in it for both sides. Even the losing party must get something it sees as valuable to prefer termination or de-escalation to continued fighting. Where deterrence requires a theory of victory, war termination and de-escalation require a theory of success.

This is not always easy. The historical record indicates that the termination of conflict is a hard thing indeed. Conflicts which do not end within the first month—often in uneasy, unofficial peace following the rapid achievement of limited aims—tend to drag on for over a decade. In many cases, most of the loss of life in a conflict occurs when the military outcome is no longer in question. In light of these difficulties, experts note that it is not fleeing from intellectual complexity to insist that we do not get to a point where we are forced to engage with them. This may have contributed to a paucity of strategic thought on war termination across various national departments of defense. It is reasonable to assume that, while plans for war termination and de-escalation are vital, they are employed only when deterrence has failed, typically establishing the complexity and setting the conditions with which strategists seeking to

de-escalate or terminate a conflict must contend. This makes serious pre-conflict thought on war termination a real challenge.

Nuclear weapons cast a long shadow over this challenge by raising the stakes of escalation. Paradoxically, this both increases the costs of runaway escalation and provides powerful incentives to seek offramps and firebreaks to contain escalation. The 1999 Kargil War and the ongoing war in Ukraine evidence this. Nuclear weapons also require that leaders consider war termination at an earlier stage of conflict. A Blue leader considering the use of nuclear weapons must have a sound theory of de-escalation and war termination before using such a weapon because a nuclear adversary can maintain very high levels of conflict intensity even after it has been functionally destroyed.

Participants suggested that, in order to more effectively manage escalatory risks and to reduce the impact of future conflict, the United States and its allies should invest in a better understanding of war termination and de-escalation. This will require better integration of strategic communities within the United States, across the alliance network, and even between the United States and key adversaries. Building connections and patterns of behavior before a conflict will be important to finding offramps in the event of a crisis or at the termination of a long conflict. This is perhaps more important to the United States than to its adversaries because finding a suitable peace for a variety of allies and partners presents the United States with a unique challenge not faced by Red. The allied strategic community should also assess the need for red to “save face” in the event of conventional defeat to consider de-escalation or the termination of hostilities. This must be balanced against setting a precedent for undue restraint that encourages future aggressive behavior.

Panel 9: Understanding the Requirements of Proportionality

- What is the legal requirement?
- In practice, what does this imply for decisions about nuclear employment?
- How does this differ from the common judgment that a proportionate response is one that is roughly equivalent in effect?

In a crisis faced with responding to an attack by an adversary, decision-makers must understand the concept of proportionality when developing response options. Proportionality does not mean equivalence, and proportionality lives within the realm of customary law and the laws of armed conflict. The legal requirement for a proportionate response is that the target selected must be a lawful military target and cannot be a civilian target. Military targets can extend beyond military personnel or equipment to an object or structure that gives the adversary an obvious military advantage, such as a vital bridge. Under international law, the response must not be disproportionate in damage or cause undue harm to civilian and other unlawful targets. One of the panelists suggested that all options should consider *Jus Ad Bellum*; that is, whether the outcome justifies the action, and *Jus in Bello*, meaning that the tactics used are justifiable. A proportionate response is required to take feasible precautions to avoid undue harm to civilians

and understand that an extensive response does not mean excessive when considering greater operational and strategic objectives.

The panel discussed in depth aspects to consider when crafting proportionate response options at the operational and strategic levels of conflict. Is the target a lawful target and will the effect be considered a proportionate response? How many weapons are required and what types of weapons will be used to strike the target? Does the response merit the initiation of a nuclear war or escalating the conflict even further? Is the survival of the state at risk? Can the desired objectives be achieved with the use of conventional capabilities instead of nuclear weapons? These are some questions that the decision-maker and their advisors should be obligated to consider throughout the process, and only then might the lawful use of nuclear weapons against military targets be justified under international law.

Understanding the strategic environment and how the proportionality of a response might signal or send a message to other adversaries and allies is another critical aspect. Will the early use of a nuclear weapon signal or deter a second nuclear adversary from intervening or escalating the conflict from a regional to global level? If the strategic objective is deterrence of a second nuclear adversary, then early use as a proportionate response might have to consider the consequences of no action. Is there a chance that failing to terminate the war with the first adversary quickly will lead to escalation if the second becomes involved? The panel stated that if we do not fail with our first response, then we do not have to worry about failing in deterring the second nuclear adversary.

Participants highlighted five questions that should be considered when considering using nuclear weapons as a proportionate response:

- 1) Do we care about proportionality, and does the Department of Defense law of war or law of armed conflict matter in a nuclear war?
- 2) Do others care about proportionality, and do we care if they care?
- 3) What is the desired effect that would make it proportionate, or will the objective inhibit further vertical or horizontal escalation and set the conditions for war termination and enduring peace?
- 4) What are the tools to achieve the desired outcome? Single or multiple nuclear weapons? Or can conventional capabilities achieve the same effect?
- 5) What are the alternatives if no action is taken?

There is a growing argument within the deterrence field that the use of nuclear weapons cannot be justified if an actor has the conventional capabilities to achieve the desired outcome. A participant asserted that this argument only looks at what it takes to destroy a target; it does not address the location of the target and whether the conventional capabilities have delivery capabilities to strike the targets. Modern nuclear weapons possess delivery vehicles that can strike targets deep into an adversary's territory that many conventional capabilities do not. Their delivery vehicles may have to be launched from within the adversary's territory or near it to reach the target to achieve the same effect, or it will require an alternative target. It is imperative when considering a variety of response options that all the weapons and capabilities are thoroughly investigated, not only their damage potential but also how and from where they will be required to be delivered.

Domestic audiences, including those of allies and partners, will be a factor when considering the use of nuclear weapons and how it will be perceived by the public. How will the public view it differently if nuclear use is in response to a nuclear attack versus the United States initiating a nuclear conflict? There might be an obvious strategic advantage but there is likely to be immense international pushback to whoever crosses the nuclear threshold first from a moral perspective. The added level of complexity comes into play when considering the long-term objective of whether one wants to be seen as a moral authority or a credible ally in the aftermath of using nuclear weapons in conflict. This highlights that the use of nuclear weapons is fundamentally a policy question and not a legal question. Although calculated ambiguity allows for flexibility in determining whether to use nuclear weapons or not, a state must decide its limits and intentions.

Panel 10: Anticipating POTUS Requirements

- What questions is the president going to want answered as he/she deliberates about escalating?
- How will those questions differ when deliberating about de-escalation?
- What perspectives will allies want to bring to the deliberative process?

The key points and concerns in this panel can be organized around three themes. First, the decision-making process will not be easy. It will depend on the president's specific goals, and there will be many questions that need to be answered, but the process will face a variety of issues, including adversaries' efforts to complicate the decision-making process. Second, the presidential decision-making process needs to be rehearsed frequently. The process and questions will be specific to the scenario and will differ across presidents due to differing expertise, goals, and interests. Finally, to be effective at answering the president's questions, preparation will have to take place early and even among allies. For example, work needs to be put into gathering and consolidating the answers to the many potential questions, establishing new forms of presidential decision support systems, and setting up communication channels with allies and ensuring that there are cadres of people in each country that are prepared to discuss these difficult issues.

First, it is important for the president to articulate their objective because escalation and de-escalation are tools to achieving this objective—not ends in and of themselves. The president's objective would guide the relevant commands in translating goals into plans as they figure out the best way to achieve the objective and consider factors such as the variety of options, targets, and the time needed to implement each plan, especially when the duration would influence the president's decision time and the recallability of action.

However, the decision-making process will not be easy. While it is likely that the president will not have to decide within seconds of a limited nuclear attack, the president will want to have many questions answered within the short time. For example, the number of lives that can be saved, the effect on Red and Blue in a limited nuclear exchange, the long-term effects of the various options, and the issues of fairness and public opinion. Moreover, there will be questions

which the president may not know to ask, such as, the impact of executing a given option on the remaining options and how to communicate restraint and proportionality. Some of these questions may not be answerable. Still, it is crucial to communicate answers effectively, including the uncertainties and gaps in knowledge, so that the president is not confused or misinformed. Meantime, advisors need to help the president overcome decision paralysis by reminding them that by not deciding, they are making a decision.

Second, the presidential decision-making process must be rehearsed frequently. Different scenarios will raise different questions that need to be answered. For instance, to restore deterrence after an adversary launches a limited nuclear strike, the president would want to know the adversary's objective, the effect of the strike on the military campaign, the adversary's expectations of the United States' response, the conventional and nuclear options, the probability that the adversary will strike the U.S. homeland, and ways to signal the allies' unity. In a different situation, where the goal is to restore U.S. military advantage and counter the impact of the adversary's limited nuclear use, the president may want to know whether there are viable options to further reduce the adversaries' threat capability, the survivability of nuclear forces, the viable conventional options, and ways to counter the adversary's counter-escalation and deter the adversary's new aims. Moreover, given the range of each president's expertise and interests, rehearsals will also have to include learning how to present ideas in a way that caters to the president. There has to be a balance between advice and opinion, particularly since some answers may not be objective.

Third, because of the difficult process, preparation must begin early both within the United States and among allies. Given that plans will be specific to the president's goals, it is unlikely that responses will follow off-the-shelf plans. As such, adaptive planning will be necessary, which means a good knowledge of options and answers to the potential questions must be readily available. Currently, it is not clear who is conducting tests and analyses on the long-term effects of limited nuclear use. Moreover, while there may be organizations that are putting together answers to some of the questions that the president might ask, these results are not presently consolidated and compiled in a way that can be delivered to the president in a timely manner. Meanwhile, more thought needs to go into thinking about new forms of presidential decision support to increase the knowledge of the president and advisors regarding, for instance, the requirement and capacity of adaptive planning and the availability of nuclear forces. One way to streamline and smoothen the knowledge transfer and the decision-making process is to integrate nuclear advice into the planning and review of conventional and crisis plans from the start. In terms of advisors, there needs to be consideration for who should be included into, or dropped from, the advisory group. Advisors need to comprise people whom the president trusts and who knows the president well and can anticipate the questions the president will ask. The group of advisors also needs to be diverse, so that they can offer advice on a variety of issues, including domestic public opinion and allies and other countries' opinions on the use of nuclear weapons.

Finally, with the allies, the president will likely want to consult with the most affected leader(s). Thus, there needs to be the technical means to communicate with allies through appropriate and classified channels. Within allied countries, there, too, needs to be a cadre of people who

know deterrence well, are able to work with the United States, and are familiar with the factors for consideration when decisions have to be pondered and made.

The presidential decision-making process is an overlooked aspect of operations. Few have seen the process or are involved in its preparation. It will be difficult, and in part because of that, will require rehearsals and a lot of work to be done in advance so that options can be provided, even if one cannot think like a president.

Closing session: Back to the Blue Theory of Victory

- What have we learned about the main requirements of a viable Blue theory of intra-war deterrence?

In the closing session, attendees shared key takeaways from the conference. These points and reflections revolve around four areas: understanding and changing the adversaries' perceptions; the need for more difficult conversations among allies; the utility and limits of wargames; and the moral and domestic issues with which the US have to contend.

On adversaries and their perceptions:

- Blue can no longer think about responding to adversaries separately. In the face of a two-peer problem, Blue would have to contemplate the tradeoffs, question if continued restraint would make intra-war deterrence more difficult in the future, and adjust its thinking, so that escalation thresholds, the conditions of nuclear use, and the consequences of actions and targeting choices are considered.
- Because the current international system introduces much uncertainty to decision-making, Blue has to arm itself with as much information as possible about both Blue's and Red's capabilities and goals. Blue needs to find the adversary's sweet spot (i.e., an outcome that the adversary finds acceptable) and bake it into its deliberations, so that Blue can have an array of meaningfully different options.
- Russia and China currently believe that Blue has a low-risk appetite, and they are willing to exploit Blue's apparent tendency to exercise restraint. Thus, Blue needs to start injecting uncertainty into Red's calculations and project unity and resolve to change Red's perceptions.
- Beyond the nuclear options, there is a long list of capabilities (e.g., cyber, space, sanctions, and public messaging) that Blue can use as supplements and in parallel with nuclear weapons. Some of these efforts may not be anticipated by Red, and hence, can provide Blue with advantages in a conflict. Blue's (especially the United States) advantages also include its ability to develop technology innovatively, and thus, Blue should do everything it can to bring this advantage to bear.
- Considering that conflicts can be deterred but hard to stop once they escalate, it would be better for Blue to prevent wars from starting in the first place.

On collaboration with allies:

- Given the changing security environment, Blue needs to discuss how to do things differently both within itself and with partners.

- Allies' concerns will be important, but they will also add complications to the president's decision-making because it is difficult to derive consensus among allies on the de-escalation and termination of war.
- Allies need to practice making hard choices together with the United States and get into details on priorities and the division of responsibilities.

On wargames:

- Blue needs to accumulate knowledge from wargames and do so in an effective manner. Blue can also consider using unclassified wargames to revise Red's perceptions of Blue, considering that Red is likely studying the results of wargames published by Blue.
- Blue needs accurate models of Red's goals and revisit these models to revise Red's wants.
- However, Blue cannot wargame out of capability gaps. Deterrence cannot be bluffed – Blue needs to have both the capability and will to deter Red from considering aggression.

On the moral and domestic issues:

- It will be difficult for the United States to walk the line between wanting Red to not use nuclear weapons while also contemplating using nuclear weapons first.
- More people need to understand the laws of arms conflict as it relates to nuclear weapons and use, but it will require an understanding of public opinion, messaging, and ways to help the public learn these issues.
- Many of these discussions are not happening among people who need to know these concepts, issues, and scenarios. Hence, there will be a steep learning curve for people outside of this community.
- There is a need to fill the gap given the missing generation of thinkers and practitioners who are well versed in deterrence issues.



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