

August 17, 2022

Dear Friends of CERL:

Attached you will find a report on a conference held jointly by the Center for Ethics and the Rule of Law (CERL) and the Annenberg Public Policy Center (APPC) in April of 2021 entitled *Left of Launch: Communication and Threat Escalation in a Nuclear Age.* Despite the many changes that have occurred in the political landscape since the date of this conference, the issues the conference addressed could not be more timely.

The ongoing conflict in Ukraine has shown us the precariousness of the continued adherence to the philosophy of deterrence and the risk that conventional war will escalate to a nuclear confrontation. Pertinent to the *Left of Launch* project, the Ukraine conflict also illustrates the dangers of the rhetoric of nuclear threats and how the ability to threaten the use of nuclear weapons may tie the hands of Western nations bound by international humanitarian law to counter grave human rights abuses against civilian populations in armed conflict.

One of the main topics addressed at the April 2021 conference was when and whether the threat to use nuclear weapons itself amounts to a threat of force under international law, specifically under Article 2(4) of the U.N. Charter. If so, then the threat itself would potentially give rise to a right to take countermeasures to combat the threat. Thus, Kim Jong-un might have had the right to respond with countermeasures when President Trump threatened to rain "fire and fury" down on North Korea, and conversely when the United States receives such threats. Does the continued presence of nuclear weapons coupled with the law of armed conflict and the precariousness of the line between conventional and nuclear arsenals create a grave risk that conventional armed conflicts will evolve into nuclear confrontations?

Another element of international law and policy discussed in the report is the relationship between deterrence theory and tactical nuclear weapons. For example, weapons like the Iskander missile could foreseeably be used in Ukraine, particularly by Russia whose conventional forces have been met with unexpected military challenges, low morale, and poor leadership. At what point in a sequence of escalation does one side unilaterally refuse to respond in kind, despite the legal entitlement to escalate levels of force in response to an adversary's actions?

Perhaps most critical to consider in the Ukraine conflict, as relates to the *Left of Launch* conference, is what the United States would be legally entitled to do were Putin to actually detonate a nuclear device in a demonstration setting. Should the U.S. use a nuclear device in kind or resort to conventional means? If so, how many and where? Obviously, this analysis is highly factually dependent, but a robust discussion of these issues is in order as the conflict seems to be getting into a different and more dangerous phase now that Russian forces may be pivoting shortly to western Ukraine.

For these and many other reasons of current relevance, we highly recommend the attached conference report. CERL will continue to work on these topics and many others relating to the dangers posed by conventional and nuclear weaponry in transnational conflict. We welcome your thoughts and collaboration for further research.

Sincerely,

Claine Q. Tullelye

Claire O. Finkelstein Algernon Biddle Professor of Law and Professor of Philosophy CERL Faculty Director University of Pennsylvania

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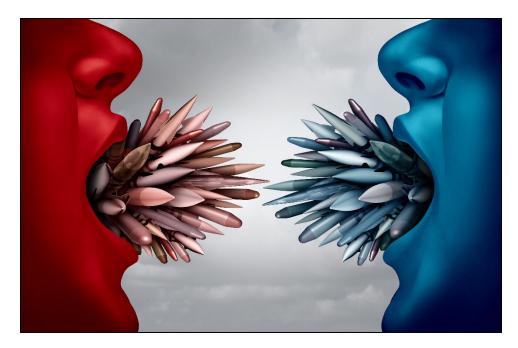
Jules Zacher, Esq. President, Jules Zacher, P.C. Member, CERL Executive Board Chairman of the Board, Council for a Livable World





LEFT OF LAUNCH: COMMUNICATION & THREAT ESCALATION IN A NUCLEAR AGE

CONFERENCE REPORT



PRESENTED BY:

CENTER FOR ETHICS AND THE RULE OF LAW

THE ANNENBERG PUBLIC POLICY CENTER

PREPARED BY:

ASHLEY FUCHS

FORMER CERL SUMMER INTERN UNIVERSITY OF PENNSYLVANIA SCHOOL OF ARTS AND SCIENCES (BA'22)

Executive Summary¹

On April 21-23, 2021, the Center for Ethics and the Rule of Law (CERL), in partnership the Annenberg Public Policy Center (APPC), hosted a conference entitled *Left of Launch: Communication & Threat Escalation in a Nuclear Age.* The conference addressed the international legal framework governing nuclear weapons, the efficacy of deterrence policy, and whether it is illegal to issue a threat that, if executed, would violate international humanitarian law. During five closed sessions, conference participants discussed the definition of a "threat" and the various forms of strategic communications employed by international actors: explicit signaling from statements; implicit but deliberate signaling through postures, force structure, and declaratory policy; and unintended signaling. Participants also evaluated the legality of threats and nuclear weapons in relation to the U.N. Charter, the 1996 opinion by the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons, and the Department of Defense Law of War Manual. Importantly, effective nuclear policy must recognize that not all nations adhere to these legal principles and that the nature of U.S. nuclear adversaries has changed.

After considering several historical and hypothetical examples involving nuclear threats, participants widely endorsed No First Use (NFU) policies and a clearer international standard for what constitutes a threat. Yet, participants remained divided in their support of the Treaty on the Prohibition of Nuclear Weapons (TPNW). Portions of the conference focused on the benefits and dangers of integrating artificial intelligence and nuclear weapons, with participants agreeing that such technology is best utilized as a check human decision makers can override. Participants also explored alternatives to the current method for launching nuclear weapons that would minimize or circumvent the president's sole discretionary authority, noting the constitutional challenges that may arise. Despite some strategic disagreements, participants recommended that nations take actionable steps toward nuclear disarmament by reducing the threat of nuclear escalation in policy, fostering better communication practices, and softening the contention that conventional forces are not enough to maintain national security objectives.

¹ A special thanks to the conference notetakers who made this report possible: Ashley Fuchs, Natalie Heller, Clayton Keir, Natasha Spreadborough, and Anya Tullman.

Session One: Current Nuclear Policy and Nuclear Capability

Session Background:

Current nuclear policy and the doctrine of deterrence were developed in the crucible of conventional warfare. Session One examined whether there is a tension among the concepts of preemption, anticipatory self-defense, and nuclear deterrence as the default doctrine in an age where the legality of nuclear weapons is increasingly uncertain. The discussion began with a review of U.S. nuclear policy and capabilities. It included an examination of the United States' stated goal of nuclear deterrence and whether this conflicts with a nuclear arsenal that appears structured for first-strike capabilities. The discussion also explored whether current U.S. policy needs revision for philosophical or efficacy-based reasons and whether other policy options might better satisfy U.S. strategic ends. Does the use of nuclear weapons follow the same legal analysis as its contemporary counterparts? Does the analysis fall short when it comes to nuclear weapons? Should the analysis or the underlying rules change? The answers to these questions involved discussions of applicable international humanitarian law, the 1996 opinion by the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons, and the recently-enacted U.N. Treaty on the Prohibition of Nuclear Weapons.

Moderator:

Major Ryan M. Fisher, Professor, National Security Law Department, U.S. Army JAG School

Summary:

In order to establish the legal and political framework for the conference, participants first evaluated the legal principles governing the use of nuclear weapons and questioned whether U.S. nuclear capabilities and policy are well suited to safeguard national security interests. Participants characterized the development of U.S. nuclear policy as a gradual change in posture over several decades. While there has been a significant decline in nuclear weapons, the technology, tools, and policy have largely remained the same. Effective deterrence, according to some, has been defined by a triad of forces, robust first strike, and European Union basing of U.S. bombs. Participants then outlined three steps to reduce the threat of nuclear escalation in U.S. policy and extend the president's decision time: (i) end the policy of sole authority, (ii) end the policy of first use, and (iii) retire current first use weapons. There was disagreement regarding the extent to which current U.S. policy is in line with international law. Many participants argued nuclear weapons should be a means of deterrence rather than a sign of status.

The session then focused on how the strategic environment has changed. U.S. administrations have continued to prioritize meeting deterrence and security needs without excess, while also responding to post-Cold War changes in the world order. Participants recognized that the nature of U.S. adversaries has expanded beyond a nuclear Russian rival to include, for example, the smaller arsenal of North Korea. Furthermore, technological advancement has drastically improved weapon accuracy, particularly for low-yield weapons. It is therefore important to craft a doctrine that deters large and small states alike and manages the risk of low-yield weapons whilst adhering to international law.

Participants then considered how adversaries such as Russia and China view nuclear policy, noting that, from their perspective, the United States is engaged in both deterrence and damage limitation policy. The United States is undertaking efforts to develop missile defenses, various conventional weapons, and nuclear delivery systems (e.g., target detection and artificial intelligence-based detection of missile launchers). The U.S. Nuclear Posture Review addresses Russia, China and North Korea; however, participants questioned whether such declaratory policies really matter. If nations change their declared policies, how will this impact the U.S. response? Participants specifically considered the seriousness of China's declared policy. It is well within U.S. interests for China to have a NFU policy. Given that no nation wants to start a nuclear war because of unconventional weapons, the United States should support China's NFU policy by embracing a similar position. President Joseph Biden is moving in that direction by considering a sole purpose policy with the sole purpose being deterrence. Several participants also argued the United States should move away from chemical weapon maximum deterrents and mutually assured destruction, both of which are not in compliance with the U.N. Charter. In order to fulfill international obligations, nations should abandon notions that security only comes with maximum destruction policy, thereby raising the norms against use of force for all countries and facilitating the implementation of NFU policies.

Participants debated the overall efficacy of an NFU policy, noting that adversaries may not trust it, and allies may not require it from each other. Ultimately, any policy will be ineffective without the geopolitical work that makes the security environment less dangerous. Participants

thus characterized the problem as one of both law and policy. Relating an NFU policy to questions of deterrence and nuclear threats, participants disagreed over the notion of "fetishizing legality" and the broad scope assigned to the legality of nuclear weapons. If most uses of nuclear weapons are illegal, then questioning the illegality of threats is important. Deterrence theory is in fact premised on the assumption that issuing threats is legal, even if following through on them is not.

To conclude the session, participants affirmed that communication—which necessarily encompasses concerns about nuclear weapons—is a central tenet of international policy. The United States should work to decrease the importance of and its reliance on nuclear weapons, thereby fostering better communication practices and softening the contention that conventional forces are not enough to maintain national security objectives.

Session Two: Determining the Rules-Based Order with Respect to Threats to Use Force and Anticipatory Self-Defense

Session Background:

The law of armed conflict (LOAC) recognizes that sovereign states possess the inherent right to use force to defend themselves against certain acts perpetrated by others. The "acts," which may trigger invocation of the right of self-defense, may include threats to use force. This right of self-defense also extends, in some cases, to the right to anticipate an attack and act in advance of the attack—though how much in advance remains an issue of contention. Session Two focused on the legal predicate of the authority of states to issue threats and, when threatened, to respond in self-defense from both a domestic and an international law perspective. Domestically, does a president have the authority to threaten other sovereigns unilaterally? Is it permissible for a president to threaten to take actions that are not legally permissible for the president to unilaterally direct? Do such threats constitute acts of war? If so, must the president comply with the War Powers Resolution after making the threats? Under international law, does threat-making comply with Article 2(4) of the U.N. Charter? Is it possible for nations, acting pursuant to Article 51 of the U.N. Charter, to create the conditions for their defense, thereby opening the door to anticipatory military strikes? These are just a few of the questions that this session tackled in the hopes of achieving greater clarity in this enigmatic but pressing area of international law.

Moderator:

Charles Moxley, Adjunct Professor of Law, Fordham Law School

Summary:

Participants began this session by affirming the rule of law's importance in nuclear policy and deterrence. By enriching conventional definitions of what law is and does, participants recognized how legal principles are essential to and integrated throughout every aspect of war waging and prevention. Operational planning is thus profoundly shaped by legal principles, and fundamental political concepts (e.g., state, geopolitics) are often derived from international law. As a critical aspect of training for the Judge Advocate General's (JAG) Corps and senior military leaders, law inculcates principles of legal and responsible behavior among individuals in the national security establishment, giving them the necessary skillset to determine an order's legality. The chairman of the Joint Chiefs of Staff, for example, would not follow an illegal order issued by the president. With that being said, legal considerations are not explicitly present in daily practice because, according to some participants, legal principles are well understood in nuclear policy. Many participants agreed that all weapons are presumably useable and that the rules of necessity, proportionality, distinction, and humanity apply. There was, however, some disagreement regarding the overall legality of nuclear weapons under international humanitarian law (IHL), specifically contrasting interpretations of the Martens Clause.

The session then addressed shortcomings of the legal framework in nuclear policy and deterrence, initially framed by an expert's observation that not all nations or international actors adhere to the aforementioned legal principles. Russia and other powers, for example, are reluctant to apply LOAC in cyberspace. Participants also argued that the law does not adequately protect nuclear bystanders, nor does it dictate whether a nation must use conventional weapons as opposed to nuclear weapons. In regard to the principle of precaution, several participants agreed that it is problematic to determine collateral damage relative to military advantage. If the goal is state survival (i.e., the military advantage is incredibly high), then huge amounts of collateral damage are acceptable. Further complicating this issue is the fact that reducing collateral damage subsequently weakens nuclear deterrence.

After articulating the law's relevance and limitations in nuclear policy, participants discussed the definition of a "threat" and whether it is illegal to issue a threat that, if executed, would violate IHL. Comparisons to U.S. criminal law suggest there are certain illegal actions that individuals can lawfully threaten to take for the purpose of deterrence, although several participants recognized the drawbacks of such comparative models. There was widespread agreement on the importance of differentiating between *jus in bello* and *jus ad bellum* when considering the legality of threats. One expert argued that the U.N. Charter does not meaningfully consider threats, although Article 2(4) and Article 39 provide some general framework. Adding to this point, another participant noted that certain threats are illegal because of the positive language in Article 2(4): the same prohibition exists for threat and use. The 1996 opinion by the ICJ on the Legality of the Threat or Use of Nuclear Weapons states, "The notions of 'threat' and 'use' of force under Article 2, paragraph 4, of the Charter stand together in the sense that if the use of force itself in a given case is illegal—for whatever reason—the threat to use such force will likewise be illegal." With that being said, participants agreed the international community has yet to establish a clear threshold for what constitutes a threat.

Additional questions arose when participants discussed Article 51 and the law of anticipatory self-defense: What is an imminent and credible threat? Would this be of concern for Russia alone given the type and kind of its nuclear arsenal? Furthermore, can signaling, such as moving weapons to a border, be considered a threat? What about preparations or attempts to use nuclear weapons? Are there cases in which the act of procuring weapons is illegal? One expert noted that, in practice, U.S. presidents make illegal threats for strategic purposes (i.e., threatening to respond in a manner that is illegal).

In considering whether deterrence is itself a threat, participants enumerated three central complexities and questions:

- 1. Deterrence hinges on credible threats.
- 2. Deterrence can be understood as a threat issued in advance of a particular action or sequence of actions. If a state were to act on such a threat, it would be acting in reprisal.
- 3. There is uncertainty around the kind of probabilities that might permit a nation to take an action pre-emptively. One participant noted that deterrence is structured as a defensive statement and thus should not be characterized as an illegal threat to use illegal force.

Another participant argued that deterrence is a threat, but that not all threats are illegal, citing Article 2(4), Article 33, and Article 2(3) as pertinent sources of legal authority. National deterrence policies offer a different perspective. The U.S. statement, for example, is structured as "if you cross this line, then we reserve the right to respond with nuclear weapons"; therefore, the United States is simply reserving the option to use nuclear weapons.

Two scenarios were considered: (i) President Donald Trump's "fire and fury" tweet directed at North Korea and (ii) President Trump's threat to destroy 52 Iranian sites, including those classified as cultural heritage sites. Participants starkly disagreed on the nature of the threat in the former with some arguing the threat was based on preventive war, not retaliation. President Trump could not legally issue such a threat based on the testing of intercontinental ballistic missiles. Others observed that the ambiguity of the language rendered it legal albeit not advisable. Threatening a nuclear attack is not synonymous with issuing a threat that ambiguously includes the use of nuclear weapons. In other words, vague unspecified threats are not necessarily illegal and do not necessarily connate nuclear warfare. By contrast, participants widely agreed the second scenario more appropriately illustrated the complexities of determining the legality of threats under IHL.

Session Three: Nuclear Weapons as a Form of Strategic Communication

Session Background:

The size of nuclear arsenals, the positioning of nuclear weapons, and the intricate wording of policy pronouncements have as much to do with internal military readiness as they do with a state sending deliberate signals to their adversaries. This "signaling" aspect of nuclear weapons and policy is, at its core, a form of communication. The Cuban Missile Crisis serves as the benchmark for these high-stakes, political conversations. Such conversations, of course, are not unbounded. Although it has failed to establish an outright ban on nuclear weapons, international law has been instrumental in shaping the nuclear conversation. The participants in this session discussed how nuclear possessor states signal to one another, both in times of relative peace and during periods of crisis. Participants also addressed whether this form of communication is effective at promoting the peaceful resolution of disputes, or whether it increases the chances of a deliberate or an inadvertent nuclear crisis. Implicit in this conversation was an exploration of the factors that frustrate the delivery and receipt of an intended message. For example, signals can be inconsistent with other strategic messaging, blocked or occluded by cyber operations, and unintentionally create time pressures that further complicate complex crisis management. The panel discussed the risks inherent to nuclear signaling, the potential ramifications of allowing states to carry out their strategic communications in an unregulated environment, and the limits that international law should impose in this arena.

Moderator:

Michael Horowitz, Director of Perry World House and Richard Perry Professor at the University of Pennsylvania

Summary:

The session began by establishing a tripartite framework for categorizing strategic communications: explicit signaling from statements; implicit but deliberate signaling through postures, force structure, and declaratory policy; and unintended signaling. Participants also considered three events—both historical and hypothetical in nature—to elucidate the impact of signaling. Harkening back to the prior session's discussion of President Trump's "fire and fury" tweet, several participants emphasized that engaging in preventative war is illegal, but the use of nuclear weapons is not. According to some, these statements deliberately signaled that the United States might engage in preventative war with North Korea; others continued to defend the threat's legality. Participants also cited President Richard Nixon's private note to the Soviets in which he threatened to use nuclear weapons in Vietnam if the North Vietnamese refused to negotiate. Since the United States was unwilling to do this publicly, the threat lacked credibility and the Soviets did not take it seriously. Lastly, participants considered threatening to use nuclear weapons in response to a cyber-attack, immediately agreeing that it would be dangerous, not credible, and an ineffective form of deterrence. Issuing a threat creates a commitment trap—not executing the threat subsequently undermines a nation's honor and credibility.

The session then focused on the norms of nuclear signaling and instances of unintentional signaling. One participant noted there is little utility to nuclear signaling in low-conflict scenarios, with others acknowledging, as a general principle, that there are few threats nations want to issue in this political and technological landscape. Bringing policy considerations to the discussion's forefront, another participant argued that the United States has sent unintentional, yet destabilizing signals because of civil society pushback. The United States has underfunded its nuclear infrastructure and undercapitalized maintaining its command, control, and communications infrastructure.² This lack of robustness both encourages U.S. adversaries and signals that the U.S. does not intend to ride out future conflict. Participants agreed that fewer but better maintained weapons are indicative of a strong nuclear posture.

Participants also outlined the consequences of signals being misread by adversaries, other nations, and scores of international actors. One participant sharply contrasted real world crisis communication with rationalist games, characterizing Thomas Schelling's writings as especially dangerous. Misinterpreted signals can escalate a given crisis and the overall conflict, even against the interests of the parties involved. Some participants commented that the American policy establishment is largely insensitive to these problems because it is rooted in the kinds of rationalist games that Schelling employed to distinguish between risk and uncertainty. According to some, Schelling's estimates of risk were wrong and decidedly naïve. During the Cuban Missile Crisis, for example, many thought and continue to maintain that the United States had the advantage because it was defending the status quo whereas the Soviets were attempting to change it. The Soviets, however, saw it as precisely the opposite, implying that the United States may have been more lucky than strategic in securing a favorable outcome. When considering how domestic signaling interfaces with signaling to adversaries, however, it is important not to overextend these interpretations. Nuclear weapons spending may be driven simply by domestic politics. It is also important to differentiate between signals and noise. Technological advancements should result in more signals and less noise, yet many questioned whether such trends would lead international actors to behavior more rationally. Others argued the United States should resist the temptation to quantify any of this as risk.

² No major updates have been made since the Ronald Reagan administration.

In subsequent discussion, participants continued to differentiate the practical consequences of risk and uncertainty, noting that the former can be measured and the latter has no attached probability. People also behave differently in risky situations as opposed to in uncertain ones. With that being said, there was widespread disagreement regarding the overall relevance of this distinction for any legal doctrinal issue. Some participants invoked suits for exposure to risk and noted that LOAC is ingrained with reasonability (e.g., it holds people accountable for how a reasonable commander would react in a given situation), yet others contended the law does not divide reasonableness in terms of risk and uncertainty. Drawing from behavioral economics, one participant distinguished between reducible uncertainty and irreducible uncertainty, which depends in part on an actor's confidence level in a given situation. Participants suggested that imminence may be the practical impact of the aforementioned distinctions, since it feeds into the calculus of likelihood and consequences. The session concluded with consideration of the Article 51 right to self-defense, namely how uncertainty fits into imminence calculations if risk cannot necessarily be quantified.

Session Four: What Role Does International Law Play in Shaping Nuclear Dialogue, Including the Constraint of Nuclear Threats by Sovereigns?

Session Background:

Technological advances have increased the lethality and efficiency of current weapons systems. Compounding the danger is the fact that advances in technology continue to reduce traditional barriers to entry, thus increasing the likelihood that rogue actors can obtain the means to inflict a high degree of destruction. The speed at which new weapons are being developed severely impacts the ability to create adequate defenses. Moreover, nations are compelled to take increasingly offensive postures as they address their expanding national security concerns. While these developments generally involve conventional weapons, they apply with equal force to nuclear weapons. What role will international law play in managing the complexity of future nuclear communications? Are there other ways for the international community to compel recalcitrant nuclear states to comply with emerging norms? Can law compete with the speed of change, and the intransigence of key actors? What does the withdrawal of leading nations from existing nuclear treaties say about the ability of law to anticipate and manage present and future nuclear communications?

Some of those nuclear communications involve threats. Does current international law, particularly the language of Article 2(4) of the U.N. Charter, prevent the threat of nuclear force to be used as a policy tool? What role might international humanitarian law play in constraining threats to use force when it can be ignored without consequence? Assuming such constraints are enforceable, should the international community even want to circumscribe behavior that might prove beneficial for preventing or mitigating threats to international peace and security? Do nuclear-based threats promote peace and security or do they undermine the global order? What role should non-nuclear actors play in shaping future nuclear conversations? Can the signatories to the TPNW drive the conversation internationally towards a nuclear-free world? Session Four examined these issues, with an emphasis on threats in the emerging "new" nuclear age. In particular, the panel members addressed the power of social media as a platform for threats in light of the sole authority of many leaders of nuclear possessor states to authorize nuclear strikes. Due attention was also paid to the vulnerabilities of social media accounts to hacking and the resultant potential for inadvertent escalation of threats to lead to the use of nuclear weapons.

Moderator:

Jules Zacher, Lawyer, CERL Executive Board Member

Summary:

Participants first considered how the application of artificial intelligence (AI) to the U.S. nuclear arsenal would affect compliance with IHL in the realms of decision-making and targeting. In regard to decision-making, there is no historical practice to inform the development of algorithms for escalatory processes. The data used to train algorithms is based on theory and provides little reliability. Consequently, participants drew the critical distinction between using AI as a central component in decision-making and using it as a decision aid. It is unlikely Western governments would embrace an automated decision-making approach, although the same cannot be said of Russia and other adversaries (e.g., the Dead Hand system). Participants articulated with greater specificity the role AI could play in human decision-making, agreeing that AI should not

be given any veto power. AI is perhaps best utilized as a check human decision makers could override. Automated processes can also outline a variety of choices for decision makers and yet, as many participants emphasized, it is important to consider whether these choices are prejudicial towards escalatory approaches. Importantly, officials cannot predict how learning algorithms will evolve nor how a computer will behave just prior to the outbreak of violence. Thus, participants widely opposed merging AI with nuclear launch capabilities, which would rely too heavily on the judgement of an autonomous system. Offering an opposing viewpoint, one participant suggested that in some cases computers, which are devoid of emotions, may make better decisions than humans. A more favorable proposition, however, would be to use AI to support human decisionmaking (e.g., finding ways to reduce collateral damage). Participants widely agreed that the main issues surrounding AI stem from policy, not IHL.

The session transitioned to how nuclear weapons can be consistent with U.S. military directives, namely Department of Defense (DOD) Directives 3000.09 and 2311.01. The DOD Law of War Manual addresses the use of military force and control mechanisms for all weapons (i.e., conventional and nuclear weapons). Some participants argued that creating additional references in the Law of War Manual for nuclear weapons may be counterproductive since the existing policies are already applicable. Importantly, there were several points of contention regarding whether, in practice, directives are incorporated with IHL and, more generally, whether law and policy can be separated in such discussions.

Participants then broached the subject of belligerent reprisal, immediately recognizing the importance of clarifying "retaliation against what." Although it is easy to envisage scenarios that might warrant a large-scale response, one participant observed the asymmetry between not carrying out small-scale reprisals (e.g., for the rape or torture of a U.S. civilian) and potentially endorsing large-scale reprisals. Belligerent reprisals require an extreme set of circumstances, and the authority to order them is reserved to the highest levels of government. Such actions are likely to resemble an attack on a genuine military target and not against civilians. Participates agreed certain acts, even in reprisal, are wrong.

Returning to whether IHL is sufficient to govern nuclear weapons, participants discussed a range of possible nuclear effects that are not adequately addressed by international law (e.g., radioactivity, electromagnetic pulse effects, nuclear winter, and the likelihood of a nuclear response). All weapons are vetted by U.S. Strategic Command, the Office of Legal Counsel, or other lawyers who use target and weapons analysis to assess compliance with international law. Several participants wondered whether issues such as radiation or nuclear winter factor into targeting considerations. Others responded by emphasizing that black letter law constitutes only one input in nuclear decisions. The United States considers immediate and direct harms that foreseeably result from an attack—as per the DOD Law of War Manual—regardless of the form or fashion of the weapon system. For example, there are sophisticated modeling analysis reports for radiation plumes. Although additional information remains classified, some participants noted that the considerations are focused more on collateral damage estimations to mitigate civilian harm than on how the adversary may escalate the conflict. With this in mind, participants feared that the rule of proportionality—which is central to U.S. decision-making—may be used to justify vast civilian causalities. This may necessitate a specific prohibition of indiscriminate attacks. Importantly, AI could help determine propagation models by factoring in concrete effects and military necessity.

The session concluded by returning to the complexities associated with autonomous weapons, namely how accidents are inevitable in complex systems. Participants embraced a broad definition of risk that encompasses both technical issues and modern inventions like social media. For example, a serious crisis between India and Pakistan was fueled by social media. Additionally, one participant referenced how changes in public opinion can impact violence. Although President Harry Truman's decision to drop the nuclear bomb is now viewed less favorably, this might be attributed to changes in U.S. perception of Japan, not nuclear weapons. In fact, 60% of the public would support dropping a bomb on Iran in a 1945-like situation, even if 2 million people would perish. This powerful poll illustrates why LOAC serves as a critical constraint on decision makers who may be goaded by the public opinion.

Session Five: Other Constraints Within the U.S. Polity

Session Background:

Within the United States, the tension between the executive and the legislative branches over the exercise of war powers has evolved throughout U.S. history. The executive branch now plays the dominant role in our system. This panel examined the practicality of having a commander in chief who is unfettered by domestic hard law in the ability to issue threats to use force. The panel discussed the origin and history of the War Powers Resolution and its attempt to reset the balance of war powers between the two political branches. The panel also examined other constraints that operate within the U.S. political system and discussed whether new political processes are warranted or even wanted. The discussion also covered the impact that technological advances in the means and methods of warfare will have on the need to constrain unilateral executive action.

Moderator:

Major Justin Ulrich, Professor, National Security Law Department, U.S. Army JAG School

Summary:

The session began by exploring alternatives to the current method for launching nuclear weapons that would minimize or circumvent the president's sole discretionary authority. Participants observed that creating a commission would likely violate the executive's constitutional powers and thus require an amendment to the Constitution. Others suggested that Congress should make nuclear weapons statutorily special, similar to covert action and national security surveillance under the Foreign Intelligence Surveillance Act (FISA). This would effectively demarcate congressional and executive responsibilities, structure a decision-making process for nuclear force, and bolster norms and expectations governing nuclear weapons use. Despite this proposal, participants recognized that the president may still unilaterally launch an ill-advised nuclear strike, since Congress and the courts have tended to exercise limited authority when constraining the president, particularly in times of war.

Participants then focused on the constitutionality of the War Powers Act and broader constitutional questions concerning Congress' ability to restrict the executive's commander in chief powers, agreeing that there is a strong case for Congress defining the scope of and legislating wartime activities. Several participants cited a number of meaningful statutory policies that place restrictions on the executive use of force. The Supreme Court has never sided with the president in cases that challenged these statutes so long as Congress did not replace the president as commander in chief or command the president to do something (e.g., *Hamdan v. Rumsfeld*, *Youngstown Sheet & Tube Co. v. Sawyer*). These arguments led participants to ask the following: To what extent does Supreme Court precedent apply to nuclear powers or other wartime actions?

Although Congress should be able to restrict a rogue or precipitous president, this may not occur if the United States is attacked. A provision of the covert action statute allows the president to use covert action without informing Congress, rendering this a poor example of congressional restraint on the president. Given the long history of the executive branch ignoring congressional attempts to constrain its authority, serious proposals to restrict the president's ability to act unilaterally with regard to nuclear weapons should be tied to Congress' enumerated powers. Some participants thought it would be more likely to have Congress approve the first use of nuclear weapons.

Participants then questioned whether deterrence is still a meaningful position to support and what restrictions Congress can place on the executive within this framework. An NFU law may be unconstitutional given Congress' relatively weak war powers, a reality that puts the United States out of step with its allies. One participant, however, noted that there is a protective power vested in the federal government by the Constitution and that the Necessary and Proper Clause allows Congress to make laws to fulfill such responsibilities. This may serve as a constitutional basis for legislative checks on executive war powers.

Transitioning to a critical discussion of international law, participants starkly disagreed on the efficacy of U.S. opposition to the TPNW. While some argued that embracing the TPNW is the next logical step toward eliminating nuclear weapons, others claimed it is not an effective measure toward disarmament and threatens to undermine progress on the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). For context, TPNW emerged from a series of conferences originally hosted by Norway on the consequences of nuclear war. Many participants commented on widespread, contemporaneous frustration that nuclear states were refusing to comply with Article VI of the NPT, which the United States has violated, and continuing to modernize their weapons. Over time, these frustrations and conference discussions morphed into advocacy for the TPNW. Some participants thought it would be useful to reignite the humanitarian consequences effort; others continued to characterize the TPNW as a distraction from other arms treaties, a non-arms treaty that purports to be a disarmament treaty. Speaking in support of the treaty, one participant described the TPNW as a strong statement outlining the principles that should guide the abolition of nuclear weapons. Theoretically, if the major powers (i.e., United States., Russia, and China) decided to create a world free of nuclear weapons, it would be possible for them to work within the TPNW framework. One participant, pointing to the effectiveness of the NPT, noted that the U.S. nuclear arsenal has been reduced by approximately 90% since it was opened for signature.

There is a similar trend in Russia. Consequently, why is the United States spending \$1.3 trillion to nuclearize its arsenal? Importantly, the NPT should be understood as a bargain between both nuclear states and non-nuclear states as well as between all non-nuclear states not to develop nuclear weapons.

The session concluded with participants assessing the feasibility of total nuclear disarmament. Given that the technology exists, each state will likely retain a minimum number of nuclear weapons. This reality is compounded by political leaders' beliefs that nuclear weapons are essential to their security. Participants discussed the importance of verifiability and the need to reduce other countries' capacity to build weapons quickly. In a future disarmed world, countries in conflict would have a strategic incentive to build and use nuclear weapons because they already have the necessary infrastructure. Offering a different perspective, one participant suggested that nuclear weapons may become obsolete. Alleviating poverty and economic inequality, combating the climate crisis, and prioritizing international collaborations to address global issues may serve as important precursors to achieving disarmament.