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# **Restraints at the Nuclear Brink: Factors in Keeping War Limited**

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NATIONAL INSTITUTE FOR PUBLIC POLICY

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Factors in Keeping War Limited**

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## Preface

As Russia's renewed offensive against Ukraine unfolded in 2022, I grew increasingly dissatisfied with the way news organizations and government officials described the risks of nuclear escalation in the war. Reporters, academics, and government officials often outlined many of the reasons why events could escalate to nuclear employment but often left out the factors that could produce caution and restraint. Part of the reason for this dynamic, undoubtedly, is the nature of what is considered newsworthy. A defense official downplaying the likelihood of nuclear escalation, or coolly weighing the factors that might increase or decrease the probability of nuclear employment is less likely to be quoted than the confident alarmist. Even worse, a continued series of one-sided reports about all the potential *incentives* for nuclear escalation could bias U.S. political leaders' decision-making by omitting all the potential *disincentives* to nuclear escalation.

I saw a need to restore some balance to this discussion—surely there must be a number of reasons why state leaders may choose restraint in the nuclear age, even under difficult circumstances. The current literature on the topic is sparse at best, which might be acceptable if the great works of the past were widely known and cited—yet that is not the case. Thus, I saw an opportunity to revisit the classic (and lesser well-known) works of the past, apply them to the present, and aid future U.S. defense officials' efforts to better tailor deterrence threats. I am well aware that the topics covered in this *Occasional Paper* are not new, *per se*, but I am not aware of any recent publication that focuses specifically, and at great length, on the factors that might promote restraint—be it refraining from nuclear employment during a conventional conflict or limiting nuclear strikes during a nuclear conflict. The better we understand the reasons for restraint, the better we can tailor deterrence threats—in

effect, reinforcing those reasons for restraint in the adversary's mind.

I emphasize repeatedly throughout the *Occasional Paper* that this discussion is not predictive—nobody can credibly predict the full range and relevance of all the factors potentially promoting restraint or escalation in a future conflict. Instead, I focus on the factors that are potentially most likely to promote restraint in the hopes that by identifying them, and their supporting logic, U.S. officials can make better net assessments of the risk of nuclear escalation and improve tailored deterrent threats to preclude such an event.

Writing on topics such as nuclear deterrence, escalation, and employment doctrine is a fraught exercise. There are important subtleties and nuances within these subjects that, if misstated, can mislead the reader or misrepresent the author's intentions. Making the writing process even more daunting is the reality that scholars and practitioners in these fields often have different priorities and interests. Thus, writing an *Occasional Paper* that can potentially benefit both scholars and practitioners, while retaining the interest of the layman, requires experienced guides.

I have been blessed by three such guides, the Senior Reviewers for this project: Dr. Keith Payne, Amb. Bob Joseph, and Hon. Frank Miller. All first-rate scholars and practitioners, they selflessly provided their extensive comments and criticisms on the whole draft. I have benefited immensely from their wisdom in the classroom and the workplace—a vicious cycle for them that will undoubtedly lead me to eagerly seek their counsel in future projects.

As part of the research and writing phases of this project, I also benefitted enormously from numerous interviews, conversations, and webinar discussions with subject matter experts, including: Jennifer Bradley, Kevin Chilton, Jacek Durkalec, John Harvey, Heino Klinck, Pat

McKenna, Jared McKinney, Mark Schneider, and Greg Weaver. I thank them all for their time and insights. I must state, however, that the views encompassed in this report are my own and not necessarily representative of their views. All mistakes are, of course, my own.

I also wish to thank the Smith Richardson Foundation and the Sarah Scaife Foundation for their generous financial support for this project and commitment to improving public policy.

Finally, and most importantly, I must thank my wife, Lindsey, for enduring late-night writing sessions with the appropriate mix of sympathy and exhortation.





## Executive Summary

The classic questions of the Cold War about nuclear escalation and how to potentially stop it may have receded for a time with the fall of the Soviet Union, but today the United States confronts these questions anew, and more frequently as the number of nuclear-armed adversaries has grown. U.S. officials navigating the very real dangers of an adversary's threats of nuclear employment are unhelpfully bombarded with news reports about how this action or that policy might cause the adversary to escalate a conflict—often without voicing the other perspective: why a state may *refrain* from escalation. This *Occasional Paper* examines this latter possibility in depth—not because it is necessarily the most likely possibility in all cases, but because studying a state's reasons for restraint may illuminate some factors U.S. decisionmakers and intelligence analysts can employ to better tailor deterrence threats. In short, understanding the potential reasons for restraint can help produce more effective deterrence threats to reinforce and strengthen the validity of those reasons in the adversary's mind.

Each adversary will likely have a different set of values, goals, worldviews, risk propensities, and other unique factors relevant to deterrence, so this *Occasional Paper* cannot present a universal “how to” guide for promoting adversary restraint. Its goal, instead, is to examine the *political* reasons why a state leadership may choose to limit its actions in two scenarios: refraining from employing nuclear weapons during a conventional conflict and trying to keep an ongoing nuclear war limited in some fashion. This *Occasional Paper* acknowledges that there are other factors pertinent to whether states act in a restrained fashion when considering nuclear employment beyond political reasons, such as operational factors (the resilience of command and control capabilities) and bureaucratic factors (whether the war plan in practice meets the intent of stated

political objectives). These factors, however, are beyond the scope of this paper. The assumption for the purpose of this discussion is that political leaders have the means to signal or demonstrate restraint—with the obvious caveat that in reality such an assumption may not be true; and, even if it was, the adversary still may not respond as desired.

Instead, this *Occasional Paper* focuses on potential choices made at the strategic level for restraint instead of escalation. To examine these potential choices, this *Occasional Paper* is organized in six parts, with the first being an explanation about why this topic in particular is relevant today and for the foreseeable future. Even looking past today's news headlines concerning potential Russian nuclear employment against Ukraine, U.S. officials since the Obama Administration have repeatedly stated their belief that the risk of an adversary's nuclear employment is rising. Yet this relatively recent concern is not reflected in the current academic or strategic literature. Put simply, there is a gap between what U.S. officials are concerned about—i.e., promoting adversary restraint in a conflict—and what today's available literature discusses. While Cold War discussions of deterring Soviet nuclear employment, or strengthening intrawar deterrence, cannot be applied without caveat to today's issues, those classic works and their historical context are the appropriate places to start the process of addressing current threats from a policy perspective. Thus, where appropriate, this *Occasional Paper* cites past U.S. government documents and classic deterrence theorists whose insights remain relevant for current issues.

The reasons why a state leader may choose restraint in one context may not be the same in another context, which is why it is important to examine each scenario individually. This is not to say that factors promoting restraint are mutually exclusive or bound to *only* apply in specific scenarios to the exclusion of others—but each scenario may

dictate that some factors are uniquely relevant to a decision for restraint or escalation.

The first scenario to examine is a nuclear-armed state involved in a conflict with a non-nuclear state. Even though the nuclear-armed state faces no threat of a response in kind from the non-nuclear state, there are still a number of reasons why its leadership may refrain from employing nuclear weapons, including:

- *Nuclear employment may provoke other states to enter a conflict.*
  - A state may not want to risk threatening another state's vital national interests by employing nuclear weapons. Such an act may raise the perceived stakes for other states outside the conflict and cause them to enter the conflict on the side of the non-nuclear state.
- *Nuclear employment may damage relations with vital allies or partners.*
  - Vital allies and partners of the nuclear-armed state may pressure it not to employ nuclear weapons as a condition for their continued good relations, and perhaps military aid. Nuclear employment against a non-nuclear state might prompt other states outside the conflict to impose severe economic sanctions, or worse, on the aggressor state's allies and partners.
- *Resorting to nuclear employment against a non-nuclear state might be seen as a sign of weakness.*
  - State leaders may be reluctant to employ nuclear weapons against a non-nuclear state, especially if there is a chance it would not achieve the military or political objective, because others may perceive the act as a sign of weakness. If a state leader greatly values his

reputation, or how history might perceive him, the prospect of having to resort to employing nuclear weapons may—in combination with other factors—promote restraint.

- *Nuclear employment would be out of proportion to the political goals of the conflict.*
  - States in the nuclear age have gone to war over claimed vital interests which inform the political objectives that leaders set for the conflict. Yet, even while leaders of nuclear-armed states have borne enormous costs in conventional war, they have not resorted to nuclear strikes because those means exceed what is needed to accomplish the political objectives at an acceptable cost. Thus, proportionality and relation to political goals appear to be particularly important factors in why a nuclear-armed state may choose to refrain from employing nuclear weapons against a non-nuclear state.
- *Nuclear employment may incentivize nuclear proliferation among hostile states, thus damaging long term security.*
  - If a state employed nuclear weapons against a non-nuclear state, others may reassess their deterrence requirements against the nuclear-armed state—perhaps even concluding that they need to develop their own nuclear weapons programs or, if they already have a nuclear force, expand it. While such effects may not be immediate, the long-term security implications for the nuclear-armed state may make even a potentially effective nuclear strike for short term gains appear too costly on balance.

- *Escalation of a conventional conflict to nuclear employment may affect domestic support at home or abroad.*
  - Dictatorships and democracies, to one extent or another, must account for their publics' reactions to major decisions, likely including nuclear employment. For a dictatorship, like Vladimir Putin's or Xi Jinping's, a nuclear first use against a non-nuclear state may fracture domestic support for the conflict by raising the prospect that another nuclear-armed power might enter the conflict and impose severe costs on the aggressor's homeland. For a democracy, political leaders must consider how their populace might react to the perceived wisdom and necessity of nuclear first use against a non-nuclear power—with the attendant consequences for re-election prospects.
- *Nuclear employment in a scenario short of national survival may be perceived as immoral.*
  - While unlikely to be a major factor for restraint in Russia or China, some state leaders may believe, or perceive their population believes, that nuclear employment against a non-nuclear state transgresses some moral boundary to a degree that is unacceptable under the circumstances.

Another important scenario to examine is when two nuclear-armed states engage in a conventional conflict and consider employing nuclear weapons. In this case, as in the previous scenario, a number of factors may promote restraint from nuclear employment, without excluding those already mentioned. These include:

- *Nuclear employment could lead to uncontrolled escalation.*
  - The uncertain course of war in general, and nuclear war in particular, may provide state leaders with a persuasive reason for restraint. Whatever gains a state may have made during the conflict may be put at greater risk with nuclear employment; or, whatever losses it may have suffered may only be compounded with nuclear employment. If political leaders have any ambitions beyond the conflict they are engaging in, they must first survive that conflict—a potential reason for refraining from nuclear employment and its unknown consequences.
- *Nuclear employment could reduce the chance for a favorable political settlement.*
  - A state leader may refrain from employing nuclear weapons against a nuclear-armed opponent because nuclear use might cause the opponent to expand its war aims and efforts, ultimately reducing the chance for a favorable political settlement. Nuclear first use may be one of the key catalysts for subverting the prospects for lasting peace since it could help change the political calculus of other states that then seek, as the Allies did in World War II, a policy of “unconditional surrender.”
- *A state’s leadership may perceive weaknesses in its military capabilities that were unknown when the conventional conflict began—sowing doubt about a nuclear attack’s efficacy and likelihood of success.*
  - An ongoing conflict may reveal serious vulnerabilities or weaknesses in a state’s military such that those deficiencies begin to

cause a state's leaders to doubt whether a nuclear attack will be effective. A poor performance in a conventional conflict might indicate that the military may be ill-equipped to carry out nuclear strikes at an acceptable cost.

- *A nuclear attack might fail because of the opponent's active defenses.*
  - Given the proliferation and improvement of air and missile defenses, and the "no fail" nature of a nuclear strike, state leaders may refrain from nuclear employment if military leaders express significant doubt about the probability of a strike's success. An unsuccessful nuclear strike would provide no benefits and might still provoke an unacceptable response, the worst of both worlds.
- *If the opponent responds with a comparable strike, the relative damage will be disadvantageous.*
  - If a state leader employs nuclear weapons against the opponent, and the opponent responds in kind, although the states may suffer similar levels of damage the kinds of targets that are destroyed may be more important to one state's theory of victory and chances for success. That is, a tit-for-tat exchange may be too costly to initiate, even if the exchange stayed limited.
- *The opponent's nuclear signaling, short of employment, may demonstrate more resolve than expected.*
  - Misperceptions can play a major role in decision making before and during a conflict, making signals of resolve between two nuclear-armed powers particularly important.



If a state leader believes the opponent is unwilling to employ nuclear weapons for some reason, then an opponent's demonstration of resolve via nuclear means short of employment (raising alert levels, dispersing launch platforms, etc.) may—in combination with other factors—cause the state leader to reassess the opponent's resolve, thus promoting restraint.

Before examining the most relevant factors that could potentially promote restraint during a limited nuclear war (i.e., below an unrestrained general nuclear war), it is important to address the long-debated theoretical question of whether nuclear war can indeed stay limited. On this point, classic scholars of nuclear deterrence such as Thomas Schelling, Herman Kahn, Robert Jervis, and Colin Gray agree that there are rational reasons why state leaders would attempt to keep nuclear war limited. Prominent U.S. defense officials such as Secretaries of Defense James Schlesinger, Harold Brown, and Caspar Weinberger—although they disagreed on the relative *likelihood* of limiting nuclear war—agreed that the United States must make such an attempt. Additionally, there are clear indications in public Russian nuclear doctrine that it envisions the possibility of limited nuclear war at a level below general nuclear war; and, while China's stated nuclear doctrine is less clear, its shifting nuclear posture indicates it may be moving toward a strategy that accounts for the possibility of limited nuclear war. These factors indicate that nuclear war could potentially stay limited, assuming each side has the requisite operational command and control capabilities, and if three conditions are fulfilled: both sides believe nuclear war *can* stay limited, both sides *prefer* limited nuclear war to general nuclear war, and one or both sides can clearly *demonstrate* their beliefs to the other in a credible manner.

In addition to the points above that indicate nuclear war could potentially stay limited, there also appear to be logical gaps in the arguments advanced by critics who believe limited nuclear war is impossible or exceedingly unlikely. First, although many critics generally believe states will refrain from nuclear war for fear of its unimaginable consequences, there is no logical reason why those same fears should cease having a restraining effect once a limited nuclear war does begin. In other words, limited nuclear war with all of its attendant horrors may in some cases produce an overwhelming fear of further consequences where there was no fear before, or, it may strengthen a pre-existing fear so that it becomes overwhelming. Second, and on a similar point, critics who claim limited nuclear war is unlikely or impossible often mischaracterize the “survival instinct” that purportedly would drive escalatory pressures. That is, the “fight or flight” response to danger that leaders may experience could in fact cause some pressure to escalate the conflict to a higher level in an attempt to escape or minimize danger, but this neglects the other potentially overwhelming pressure of “flight” (i.e., political accommodation). In short, limited nuclear war need not only produce escalatory pressures.

The question is, therefore, what factors may contribute to restraint if one or both nuclear-armed states conduct limited nuclear strikes against one another? Stated differently, why might a state choose to respond to a limited nuclear strike in a restrained fashion, that is, without significant escalation to a massive response or a disarming first strike attempt? There are several potential reasons for restraint in such a situation, including:

- *A state leader seeks limited political aims through limited strikes but believes anything beyond limited nuclear war would unacceptably threaten any political gains.*
  - A state leader may believe there are some stakes so high that they are worth entering into

limited nuclear war over, yet not so valuable that they warrant going beyond that. At some point, one side's major escalation of nuclear strikes, beyond limited ones, may begin to look like the start of an unrestricted all-out attack to the other side. Seeing little benefit and too many costs to that course of action, a state leader may then decide that all the coercive bargaining leverage that could be gained at an acceptable cost has been gained, and continuing the conflict only places perceived gains at risk. In short, engaging in limited nuclear war and surviving may be enough to convince a leader that he has reached the end of the acceptable options available to him.

- *The military balance beyond a limited nuclear exchange does not appear favorable for gaining a better bargaining position by continuing the conflict.*
  - Once both nuclear powers know that the other is willing to employ nuclear weapons to accomplish their objectives, the two remaining primary questions will be which side has the most resolve to continue, and which side might the military balance favor during and after the conflict? As nuclear scholars throughout the Cold War recognized, these two factors may in some situations be related: the side with a perceived advantage in the military balance may have, and be seen as having, the advantage in resolve. This realization may in some situations promote restraint against further conflict.
- *A state leader may limit nuclear strikes because the more devastating the prospective defeat the opponent perceives, the more desperate or irrational the opponent may become.*

- A state leader may limit the initial nuclear strikes to minimize the risk of inadvertently promoting the adversary's belief that an unrestricted general nuclear strike is his only chance for survival. By withholding strikes from particular targets of great value to the adversary (i.e., holding them at risk), or restricting the size of the strikes overall, a state leader may try to minimize the risk that the adversary comes to believe the best remaining course of action is escalation. In short, a state leader may have great incentives to limit initial nuclear strikes in ways that are obvious and of great value to an adversary, to lower the risk the adversary believes he has nothing left to lose.
- *A state leader may limit nuclear strikes to achieve a decisive conventional victory or avoid decisive battlefield defeat.*
  - A state leader may see the tactical advantages of employing nuclear weapons in a limited fashion on the battlefield as outweighing the risks of additional costs. The purpose of limited nuclear strikes, in these scenarios, would be to gain some advantage at the tactical level or avoid some decisive defeat. A state leader may believe nuclear employment on the battlefield may be primarily for achieving some tactical military benefit with only the secondary (but still important) benefit of sending a strategic deterrent signal to others. Any larger strike beyond those that are militarily necessary might be seen as placing the larger political objective at risk.

This *Occasional Paper* applied these potential factors that may promote restraint to the cases of China and Russia in a preliminary analysis that regional experts could perhaps build on in the future, with more detailed country and scenario specific work. Choosing what appears to be the most likely scenario in which Chinese officials may consider nuclear employment, a conflict against Taiwan, and potentially the United States – there seems to be a number of factors that could promote Chinese restraint in such a case. If the United States, for example, had not yet formally entered an ongoing China-Taiwan conflict on Taiwan’s side, then China’s leaders may wish to keep the conflict non-nuclear for fear that it could raise the stakes of the outcome by employing nuclear weapons and threatening U.S. vital interests. China may also wish to keep any conflict against Taiwan non-nuclear to minimize the chances that U.S. allies in the region pursue their own nuclear weapon programs. If China perceived that nuclear employment was in its national interest, it may choose to limit the size of its strikes or the targets aimed at since a much larger strike may provoke a U.S. response that is costlier than China is willing to incur.

Russia, for its part, may refrain from nuclear employment against Ukraine because that may minimize the chances that the United States and other military powers become direct participants in the conflict on Ukraine’s side. Russian nuclear employment might also severely damage diplomatic relations with states like China, India, or Iran who may not want to be associated with a regime that could then become subject to unprecedented economic sanctions. Moreover, Russia’s leadership may believe that employing nuclear weapons against Ukraine may in fact make a favorable political settlement more difficult to achieve – if in fact, that is an acceptable solution. In a scenario in which Russia and the United States were in direct conventional conflict, there is a chance that the conflict could stay non-

nuclear. Moscow may choose not to employ nuclear weapons because the conventional conflict revealed severe deficiencies in its military forces that may extend to its nuclear forces as well. Additionally, Russian leaders may choose not to employ nuclear weapons because if they did, that would open up Russia to symmetrical strikes that could cripple their theory of military victory.

There are three major findings that result from this analysis overall. First, the most valuable intelligence during a crisis or conflict that may involve nuclear employment will likely be focused on an adversary's "red lines," values, decision-making process, centers of power, and a host of other factors. The value of "tailoring" deterrence, while often applied as a label to U.S. nuclear strategy broadly speaking, shows through the examples in this study its value for the narrower focus of escalation control. Thus, even though tailoring deterrence threats, both pre-conflict and during a conflict, is not new to the field *per se*, this study demonstrates U.S. escalation control strategy is being built on a firm theoretical foundation.

Another major finding of this study begins by acknowledging U.S. officials potentially have two ways of influencing an adversary leadership. First, in the more familiar case, the United States has a variety of deterrence tools that it can threaten to employ so that the adversary would bear a cost greater than the benefits it seeks. Second, in the less familiar case, the United States can gain a better understanding of the factors that are internal to an adversary's leadership, those most outside U.S. control, relevant to restraint. Whether it is the prospect of a major loss of prestige, domestic unrest, or the fear of losing the support of a major ally, there are many internal factors an adversary leadership may consider that could, in their minds, indicate restraint is the better course of action.

This study of restraints also suggests another finding: that U.S. leaders will likely benefit from a range of military

capabilities, non-nuclear and nuclear, whose diverse characteristics can be applied in a tailored manner. That is, weapons that leaders can employ selectively, both in number and physical effects, will be more likely to support deterrence signaling in crisis and limited conflict scenarios than weapons that are less discriminate. If the goal is to identify an adversary's potential reasons for restraint and send deterrence signals tailored to reinforce those reasons for restraint, then U.S. leaders will be better served by a more diverse set of weapon types and characteristics.

As a final finding, it is interesting to note the number of factors that might promote restraint (as listed in the Appendix) that include states not directly involved in the conflict. That is, state leaders must not only contemplate the potential effects nuclear employment may have on the adversary, but also the effects it may have on that adversary's allies and partners, or the state leader's allies and partners—all of whom could in some combination change the nature and direction of the conflict. This finding thus confirms the prudence of the long-standing U.S. practice of forming alliances and partnerships around the world.

The prospects for success in keeping war limited are, admittedly, uncertain at best. The cost of failure is potentially existential, yet so too is the cost of *not trying* to limit destruction. Leaving U.S. leaders with only two possible choices in the face of nuclear conflict, surrender or suicide, is an invitation for adversary coercion and even outright aggression. As long-standing U.S. policy has recognized, U.S. officials are obligated to find ways to deter aggression, and should deterrence fail, end the conflict with the lowest level of damage possible consistent with achieving U.S. objectives. No matter how difficult it may seem, the stakes are simply too high to ignore any opportunity to influence an adversary toward restraint at the nuclear brink.

# Chapter 1

## Asking the Right Questions About Nuclear Escalation

*We usually think of deterrence as having failed if a major war ever occurs. And so it has; but it could fail worse if no effort were made to extend deterrence into war itself.<sup>1</sup>*

~ Thomas C. Schelling

### Introduction

Nuclear escalation is strangely one of the easiest to imagine, yet difficult to study phenomena in the vast literature on strategy. This is both a blessing and a curse. There is no more consequential topic for which an active imagination is helpful than avoiding those circumstances that could lead to nuclear war. Imagining “the worst that could happen” has likely helped decisionmakers, thankfully, avoid employing nuclear weapons in war since 1945. On the other hand, the wholly necessary and commendable emphasis on identifying and avoiding potentially escalatory actions has overshadowed the equally important flip side: why a state may choose *not* to escalate. Or, stated positively, why might a state choose restraint? Decisionmakers are often flooded with news stories and expert analysis on why current events or future actions could escalate to nuclear war, but to judge the *actual* likelihood of nuclear escalation, decisionmakers must undertake a net assessment of how the adversary may weigh the factors both for *and against* escalation.

This *Occasional Paper* attempts to restore some balance to the discussion about nuclear escalation by focusing on the factors that could potentially influence an adversary leadership to refrain from nuclear employment during a

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<sup>1</sup> Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 2008 edition, first published 1966), p. 191.



conventional conflict, plus, why an adversary leadership may limit an initial nuclear strike and refrain from escalating to major nuclear strikes after an initial nuclear attack. To state the obvious upfront, even though this *Occasional Paper* focuses on the potential reasons for restraint in limited nuclear war scenarios, that should not be perceived as any sort of prediction that all war, including nuclear war, will or even likely will stay limited.

Instead, by focusing on the factors that may lead to restraint—whether originating from U.S. deterrence efforts or a leadership’s own independent decision-calculus—the goal is to improve U.S. decision making and tailored deterrence threats. If U.S. officials can better identify and understand an adversary’s potential barriers to escalation, they will have a better chance of crafting the deterrence threats most likely to drive the adversary’s decision calculus towards restraint. Each adversary will likely have a different set of values, goals, worldviews, risk propensities, and other unique factors relevant to deterrence, so this *Occasional Paper* cannot present a universal “how to” guide for promoting adversary restraint. Its goal, instead, is to examine the *political* reasons why a state leadership may choose to limit its actions in two scenarios: refraining from employing nuclear weapons during a conventional conflict and trying to keep an ongoing nuclear war limited in some fashion.

It is important to note that this *Occasional Paper* is focused on the political reasons why a conflict might remain limited but is acutely aware of the operational or bureaucratic reasons why it may not. This study acknowledges the long-running debate over whether the command and control (C2) capabilities of a nuclear-armed state will be sufficient to allow political leaders to retain positive control over their forces.<sup>2</sup> Suitable command and

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<sup>2</sup> For some classic contributions to the debate, see, Desmond Ball, *Can Nuclear War Be Controlled?* (London: International Institute for Strategic

control is undoubtedly an important prerequisite for limiting nuclear war, but it is beyond the scope of this paper. Similarly, as the history of U.S. nuclear policymaking demonstrates, there may be bureaucratic barriers to effective escalation control. Brig. Gen. William Odom, then-military advisor to National Security Advisor Zbigniew Brzezinski, described U.S. nuclear war plans in the 1960s and early 1970s, stating, “The SIOP [Single Integrated Operational Plan] and its executive plan... was a war plan that did not allow for choosing specific war aims at the time and in the context of the outbreak of hostilities. It was just a huge mechanical war plan aimed at creating maximum damage without regard to political context.”<sup>3</sup> The story of why U.S. nuclear war plans were seemingly mechanistic and indiscriminate during this time period, and how that was steadily corrected over the course of a decade, is crucial history.<sup>4</sup> But, again, this study assumes for the purposes of the discussion that the operational and bureaucratic tools are functioning as needed for restraint, so a political leader that wants to send a signal of restraint can do so. Whether the adversary will receive and interpret the signal correctly is, of course, a separate discussion.

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Studies, Autumn 1981), *Adelphi Paper #169*; and, Albert Wohlstetter and Richard Brody, “Continuing Control as a Requirement for Detering,” and, Paul Bracken, “War Termination,” and, Ashton B. Carter, “Communications Technologies and Vulnerabilities,” chapters in, Ashton B. Carter, John D. Steinbruner, and Charles A. Zraket, *Managing Nuclear Operations* (Washington, D.C.: The Brookings Institution, 1987).

<sup>3</sup> William Odom, as quoted in, Edward C. Keefer, *Harold Brown: Offsetting the Soviet Military Challenge* (Washington, D.C.: Office of the Secretary of Defense, Historical Office, 2017), p. 138.

<sup>4</sup> Janne E. Nolan, *Guardians of the Arsenal: The Politics of Nuclear Strategy* (New York: Basic Books Inc., 1989), pp. 248-261.; and, George Lee Butler and Franklin C. Miller, “Masters of the Nuclear Enterprise,” chapter in, George Lee Butler, *Uncommon Cause: A Life at Odds with Convention – The Transformative Years, Vol. II* (Parker, CO: Outskirts Press, April 21, 2016), pp. 1-21.

This *Occasional Paper* proceeds in six parts, first, by exploring the topical relevance of escalation and limited nuclear war and where there appear to be gaps in the current literature. Second, this report examines the factors that could potentially influence a state's leadership to refrain from employing nuclear weapons during a conventional conflict—against a non-nuclear state and against a nuclear-armed state. Third, before examining the factors that may keep nuclear war limited, this report quickly surveys and assesses those schools of thought that discuss whether such limitations are even possible from a policy standpoint. Fourth, after establishing that prominent state leaders (in agreement with distinguished scholars) have historically believed that limiting nuclear war is a possibility, or at least desirable, this report examines those factors that may apply uniquely toward supporting restraint in that scenario. Fifth, there is a section that examines how the factors that may promote restraint might apply to China and Russia. Finally, the report concludes with some observations relevant for U.S. decisionmakers who may find themselves contemplating the likelihood and potential scale of nuclear war, both now and in the future.

### **Restraints on Nuclear Employment: Relevant, but Understudied**

While U.S. nuclear policy during the 1950s and 1960s focused on the threat of a Soviet first strike, and the parallel U.S. deterrence threat of massive retaliation, U.S. strategists in the 1970s began to believe that the President should have additional deterrence and response options beyond large scale retaliation. The National Security Study Memorandum 169 (NSSM 169) *ad hoc* working group, known as the Foster Panel, noted the need for a more flexible U.S. nuclear employment plan for the 1970s, stating, "The Soviets now have a highly capable deterrent to

strategic attack and this has been codified by the SALT I agreements. As a consequence, the credibility of large-scale retaliation as a deterrent to anything but a massive attack on the United States may have become seriously eroded.”<sup>5</sup> This insight, among others in the Foster Panel’s *Summary Report*, led to the creation of Richard Nixon’s National Security Decision Memorandum-242, which, for the first time in official U.S. presidential policy, focused both on how best to deter an opponent’s first use and, should deterrence initially fail, how best to deter further adversary nuclear employment.<sup>6</sup>

The concept of extending deterrence within an ongoing conflict, also known as intrawar deterrence, is not new to U.S. leaders today; but, it has taken on new urgency given senior U.S. defense leaders’, including President Biden’s, expressions of concern over the possibility of conflict and escalation with Russia or China. The late Secretary of Defense Ashton Carter explained the issue succinctly in 2016, stating “... it’s a sobering fact that the most likely use of nuclear weapons is not the massive nuclear exchange of the classic Cold War-type, but rather the unwise resort to smaller but still unprecedentedly terrible attacks, for example, by Russia... to try to coerce a conventionally

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<sup>5</sup> Inter-Agency Working Group on NSSM 169, *NSSM 169 Summary Report* (Washington, D.C.: Department of Defense, June 8, 1973), p. 6, available at <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB173/SIOP-21.pdf>.

<sup>6</sup> Richard Nixon, *National Security Decision Memorandum 242: Policy for Planning the Employment of Nuclear Weapons* (Washington, D.C.: The White House, January 17, 1974), p. 2, available at [https://www.nixonlibrary.gov/sites/default/files/virtuallibrary/documents/nsdm/nsdm\\_242.pdf](https://www.nixonlibrary.gov/sites/default/files/virtuallibrary/documents/nsdm/nsdm_242.pdf).; For a commentary on the implications of NSDM 242, and related public pronouncements, see, Keith B. Payne, “The Schlesinger Shift: Return to Rationality,” chapter in, Keith B. Payne, C. Johnston Conover, and Bruce William Bennett, *Nuclear Strategy: Flexibility and Stability* (Santa Monica, CA: California Seminar on Arms Control and Foreign Policy, March 1979), Student Paper No. 82, pp. 1-48.

superior opponent to back off or abandon an ally during a crisis.”<sup>7</sup>

Indeed, even though Russia and China may hold local advantages in conventional forces in plausible scenarios, these states’ leaders may perceive U.S. overall potential superiority in conventional forces as one, among many, possible reasons to employ nuclear weapons first during a conflict. They may hope, for example, that the shock and destruction of nuclear employment will deter the United States from continuing the conflict and coerce war termination on terms favorable to the adversary. According to many open U.S. official statements, civilian and military, Russia includes this coercive threat as part of its approach to nuclear forces.<sup>8</sup> Moscow’s nuclear threats in the context of its aggression against Ukraine, and China’s explicit threats against those who would aid Taiwan during a Chinese invasion, are indicators that there is a critical need to once again seriously consider the requirements for the deterrence of intra-war escalation.<sup>9</sup>

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<sup>7</sup> Ash Carter, “Remarks by Secretary Carter to troops at Minot Air Force Base, North Dakota,” *Defense.gov*, September 26, 2016, available at <https://www.defense.gov/News/Transcripts/Transcript/Article/956079/remarks-by-secretary-carter-to-troops-at-minot-air-force-base-north-dakota/>.

<sup>8</sup> See, for example, Commander, U.S. Strategic Command, ADM Richard’s remarks as quoted in, “U.S. Strategic Command and U.S. Space Command SASC Testimony,” *STRATCOM.mil*, March 9, 2022, available at <https://www.stratcom.mil/Media/Speeches/Article/2960836/us-strategic-command-and-us-space-command-sasc-testimony/>; and, the discussion of coercive threats in, Michael Kofman, Anya Fink, and Jeffrey Edmonds, *Russian Strategy for Escalation Management: Evolution of Key Concepts* (Arlington, VA: CNA, April 2020), available at <https://www.cna.org/reports/2020/04/DRM-2019-U-022455-1Rev.pdf>.

<sup>9</sup> Keith B. Payne and David J. Trachtenberg, *Deterrence in the Emerging Threat Environment: What is Different and Why it Matters* (Fairfax, VA: National Institute Press, 2022), *Occasional Paper*, Vol. 2, No. 8, available

There is a long history of bipartisan support for two of the primary goals of U.S. nuclear policy: deterring an adversary's nuclear attack and, should deterrence fail, limiting further damage to the lowest possible levels via intra-war deterrence, while achieving U.S. objectives. Since the U.S. homeland is broadly vulnerable to Russian and Chinese missile strikes, U.S. defense leaders have stressed the importance of deterring an adversary's escalation to nuclear employment, or additional nuclear employment, via a flexible and graduated series of response options, meant to demonstrate "resolve and restraint."<sup>10</sup> What vastly complicates the already risky U.S. strategy is the fact that there are diverse reasons why an adversary may resort to the first use of a nuclear weapon in a conflict against the United States or its allies. Those reasons for an adversary's nuclear first use may lead to a condition in which deterrence cannot reliably be re-established via a threatened U.S. nuclear response – thus increasing the danger of adversary escalation.

The United States, when faced with a nuclear-armed opponent in a conflict, must consider four fundamental questions, two for itself, and two for the adversary. Concerning the United States, its leadership must ask what factors might cause it to escalate a conflict, i.e., determining "red lines," and what factors might cause it to refrain from escalating a conflict? The same two questions apply to the nuclear-armed adversary: what factors may cause it to escalate a conflict, and what factors may cause it to refrain

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at <https://nipp.org/wp-content/uploads/2022/08/OP-Vol.-2-No.-8.pdf>.

<sup>10</sup> U.S. Department of Defense, *Report on the Nuclear Employment Strategy of the United States – 2020* (Washington, D.C.: Department of Defense, 2020), p. 7, available at [https://www.esd.whs.mil/Portals/54/Documents/FOID/Reading%20Room/NCB/21-F-0591\\_2020\\_Report\\_of\\_the\\_Nuclear\\_Employment\\_Strategy\\_of\\_the\\_United\\_States.pdf](https://www.esd.whs.mil/Portals/54/Documents/FOID/Reading%20Room/NCB/21-F-0591_2020_Report_of_the_Nuclear_Employment_Strategy_of_the_United_States.pdf).

from escalating a conflict? These questions are all inter-related of course; the United States, for example, may adjust its “red lines” based on its perception of the adversary’s “red lines,” and vice versa. The fundamental point, however, is that without an adequate sense of the range of factors an adversary may consider before deciding whether to escalate a conflict, U.S. leaders will be hard-pressed to clearly understand the potential levels of risk of each U.S. decision to take action, or refrain from an action. In short, understanding an adversary’s decision-making calculus, part of “tailoring” deterrence, will help U.S. leaders set their own goals and “red lines” to strengthen deterrence against adversary escalation.

### *Literature on Nuclear Escalation: A Brief Survey*

Given the importance of understanding the full range of policy choices available to an adversary considering nuclear escalation, the literature on the topic has a long history going back to the earliest days of the Cold War.

There are, broadly speaking, two major schools of thought concerning the prospect of nuclear escalation, exemplified most clearly by two of the most famous classic deterrence theorists, Thomas Schelling and Herman Kahn. Official U.S. nuclear policy has, over the decades and in different areas, adopted some of the basic assumptions and prescriptions attributed to Schelling and Kahn—although not without some internal contradictions and competing incentives, as would be expected. Thus, for the purpose of describing the broader policy debate, it is most useful to describe how Schelling and Kahn, among others, covered the topics of escalation and the factors that may incentivize or disincentivize it—followed by a summary of current U.S. nuclear policy on the topic and the gaps in the existing literature.

Scholars Keir Lieber and Daryl Press usefully categorize the two schools of thought on escalation as the “optimistic”

school—represented by Thomas Schelling, and the “pessimistic” school—represented by Herman Kahn.<sup>11</sup> Schelling represents the “optimistic” school of escalation because his writings indicate that both the United States and its nuclear-armed adversary are likely to recognize the uncontrollable nature of crises and conflicts, thus inducing overriding caution. This general recognition of the risk of accidents, misperceptions, or misjudgments between states should make aggressive behavior appear far too costly—thereby rendering policies of deterrence reasonably reliable. As Schelling writes in his classic work *Arms and Influence*, “... there is a strategy of risky behavior, of deliberately creating a risk that we share with the enemy, a risk that is credible precisely because its consequences are not entirely within our own and the Soviets’ control.”<sup>12</sup>

If, as Schelling stated, the mutual recognition and fear of conflict potentially escalating uncontrollably was sufficient for deterrence to hold, then it stood to reason that all a state needed for deterrence to succeed was a relatively small and invulnerable nuclear force that could reliably inflict widespread destruction against the adversary. Anything more would be overkill, according to this logic. Thus, Robert Jervis, who agreed significantly with Thomas Schelling, stated, “The healthy fear of devastation, which cannot be exorcised short of the attainment of a first-strike capability, makes deterrence relatively easy.”<sup>13</sup> Or, as Jervis stated in one of his classic works, *The Meaning of the Nuclear Revolution*, “With victory at the highest levels of violence impossible, the capability to win at lower levels is neither necessary nor sufficient for deterrence. For example, in a conventional war in Europe or in a counterforce nuclear

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<sup>11</sup> Keir A. Lieber and Daryl G. Press, *The Myth of the Nuclear Revolution* (Ithaca, NY: Cornell University Press, 2020), pp. 98-101.

<sup>12</sup> Schelling, *Arms and Influence*, op. cit., p. 109.

<sup>13</sup> Robert Jervis, “Why Nuclear Superiority Doesn’t Matter,” *Political Science Quarterly*, Vol. 94, No. 4 (Winter, 1979-1980), pp. 617-618.



war, the state that was falling behind would have the option of attacking the other's values... Thus even if the United States lacked the ability to contain Soviet threats at lower levels of violence, the USSR could not be confident that it could wage war without courting destruction."<sup>14</sup> Thus, the "optimistic" school of escalation believes states can rely on both sides recognizing the dangers of escalation— leading to caution and restraint in their actions. If true, this would ultimately render nuclear deterrence generally reliable and lessen the requirement for nuclear forces dedicated to intrawar deterrence threats.

The "pessimistic" school of escalation, however, believes that for deterrence threats to be credible, they cannot rely solely on the mutual threat of uncontrollable escalation. This school, typified by Herman Kahn, also believes the possibility of accidents or inadvertent escalation are potential problems that may induce some deterrent effect. Indeed, Kahn stated in his classic work *On Thermonuclear War*, "It is important that all possessors of nuclear capability be fearful of starting an accidental war, so fearful that they will be willing to accept large peacetime operating costs and substantial degradations of capability in order to decrease the possibility of accidents and to increase the likelihood of error-free behavior."<sup>15</sup>

But, unlike the "optimistic" school that concludes that retaining the capability to counter an adversary at every level of conflict is *unnecessary* for deterrence (relying instead on the mutual fear of uncontrolled escalation for deterrence at all levels), the "pessimistic" school emphasizes the importance of strong military capabilities (which, in turn, could strengthen resolve) at each possible level of violence

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<sup>14</sup> Robert Jervis, *The Meaning of the Nuclear Revolution* (Ithaca, NY: Cornell University Press, 1989), pp. 96-97.

<sup>15</sup> Emphasis in the original. Herman Kahn, *On Thermonuclear War* (Princeton, NJ: Princeton University Press, 1960), p. 183.

to deter escalation, including intrawar escalation. As Kahn stated in another of his classic works, *On Escalation*:

One side must not be given reason to believe that he can outdo the other in low-level escalations since this might tempt him to risk such escalations in the belief that the other side will capitulate before it escalates higher. And indeed, the alternative to having significant capabilities for low-level escalation is to make sufficiently credible threats of going higher. However, there is a temptation to rely on this tactic too heavily, and it may be well to remind ourselves that in dealing with violence there is a tendency in the United States to take strong moral stands and then, because we have defined the issue as a moral one, to make excessive threats and take excessive risks.<sup>16</sup>

In short, a weak deterrence position at one level of conflict might invite an adversary to exploit the fear of escalation, especially if the adversary perceives itself to be the more risk tolerant, highly motivated, and with more at stake. Thus, Herman Kahn concluded that flexible capabilities were critical for intrawar deterrence, "It is therefore very important to enlarge so far as possible the disparity between the damage the enemy has already suffered, and the damage that he will suffer if he continues the war."<sup>17</sup>

Among the second generation of scholars in the "pessimistic" school of thought, Colin Gray stands preeminent as one who emphasized the need for deterring escalation via a manifest will and determination supported by the military forces necessary to deny the adversary its

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<sup>16</sup> Herman Kahn, *On Escalation: Metaphors and Scenarios* (New York: Frederick A. Praeger, 1965), pp. 14-15.

<sup>17</sup> Kahn, *On Thermonuclear War*, op. cit., p. 183.

objectives *at a reasonable cost and risk to the United States*. To Gray, and others, this meant acquiring active and passive defenses of the homeland such that the United States would not be seen as deterred from potentially escalating a conflict via nuclear first use. These capabilities were seen as especially important given the multitude of U.S. commitments to allies overseas who, with local U.S. forces, were at a conventional disadvantage in the region.<sup>18</sup> Similarly, Keith Payne noted the importance of active and passive defenses in the “preservation of the U.S. deterrent” during a protracted conflict, i.e., protecting the means for potentially controlling escalation and sustaining intrawar deterrence.<sup>19</sup>

Gray also expanded on Schelling and Kahn by noting that while the process of escalation can resemble a “bargaining” situation in some contexts, the United States must beware that strategies of bargaining may only work if the adversary views the conflict in the same manner. That is, according to Gray, “... one cannot deny the strong possibility that, in the Soviet perspective, military force—once applied—is to be applied effectively for the end of securing whatever political goals are in contention. If this were to prove true in practice, it could mean that the Soviet armed forces would be bent upon victory, for clearly defined reasons, while the United States or NATO were approaching the military crisis from the perspective of political bargaining.”<sup>20</sup>

The contemporary literature on escalation and intrawar deterrence is sparse compared to the classic Cold War-era

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<sup>18</sup> Colin S. Gray, *Nuclear Strategy and National Style* (Lanham, MD: Hamilton Press, 1986), pp. 176-177.

<sup>19</sup> Keith B. Payne, “The Deterrence Requirements for Defense,” *The Washington Quarterly*, Vol. 9, No. 1 (Winter 1986), p. 152.

<sup>20</sup> Colin S. Gray, “Strategic Forces, General Purpose Forces, and Crisis Management,” *The Annals of the American Academy of Political and Social Science*, Vol. 457 (September 1981), pp. 75-76.

works already cited, and those not yet mentioned, but worth re-examining in light of today's challenges.<sup>21</sup> Today's publications on these topics typically fall into two categories, those works that focus on policies and weapons the United States should utilize to deter adversary escalation, and works that focus on policies and weapons that the United States should avoid lest it trigger inadvertent escalation. Examples of the former include books such as Matthew Kroenig's *The Logic of American Nuclear Strategy*, which argues that U.S. nuclear superiority would be beneficial in crises and conflict situations, in part to deter escalation.<sup>22</sup> Similarly, authors such as Elbridge Colby advocate for the United States developing additional lower-yield nuclear weapons that could be utilized against an adversary's conventional forces as a way to signal U.S. resolve while being militarily effective.<sup>23</sup>

Others, such as James Acton, emphasize the possible dangers of inadvertent escalation via attacks on dual-use command and control capabilities, and advocate for the United States to undertake risk reduction measures through increased dialogue with Russia and China on those

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<sup>21</sup> Among the important classic works are, Morton H. Halperin, *Limited War in the Nuclear Age* (New York: John Wiley & Sons, Inc., 1963).; Richard Smoke, *War: Controlling Escalation* (Cambridge, MA: Harvard University Press, 1977).; Robert E. Osgood, *Limited War Revisited* (Boulder, CO: Westview Press, 1979).; Michael Howard, ed., *Restraints on War: Studies in the Limitation of Armed Conflict* (London: Oxford University Press, 1979).; Gordon A. Craig and Alexander L. George, *Force and Statecraft: Diplomatic Problems of Our Time* (New York: Oxford University Press, 1983).; and, Richard Ned Lebow, *Nuclear Crisis Management: A Dangerous Illusion* (Ithaca, NY: Cornell University Press, 1987).

<sup>22</sup> Matthew Kroenig, *The Logic of American Nuclear Strategy* (New York: Oxford University Press, 2018).

<sup>23</sup> Elbridge Colby, "If You Want Peace, Prepare for Nuclear War," *Foreign Affairs*, Vol. 97, No. 6 (November/December 2018), pp. 25-34.

dangers.<sup>24</sup> Additionally, authors such as Caitlin Talmadge examine the role of technology development and its effects on escalation factors by conducting case studies from the Cold War.<sup>25</sup>

Recent U.S. government statements on the possibility of nuclear escalation have, like the academic literature, been sparse compared to the Cold War. Unlike the unclassified Secretary of Defense *Annual Reports* to Congress of the 1970s and 1980s, which regularly featured whole sections on escalation control and limited nuclear war, today's reports and testimonies speak far less to these topics. When U.S. officials do mention these topics, however, the comments tend to be short and appear to vary in meaning based on the emphasis that the speaker wishes to convey. For instance, in 2015, just after Russia's initial invasion of Ukraine, Deputy Secretary of Defense Robert Work and Vice Chairman of the Joint Chiefs of Staff Admiral James Winnefeld, during joint testimony before the U.S. Congress, sought to convey the recklessness of Russia's so-called "escalate to de-escalate" strategy, remarking, "Anyone who thinks they can control escalation through the use of nuclear weapons is literally playing with fire. Escalation is escalation, and nuclear use would be the ultimate escalation."<sup>26</sup> Additionally, the 2018 *Nuclear Posture Review*

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<sup>24</sup> James M. Acton, "Escalation through Entanglement: How the Vulnerability of Command-and-Control Systems Raises the Risks of Inadvertent Nuclear Escalation," *International Security*, Vol. 43, No. 1 (Summer 2018), pp. 56-99.

<sup>25</sup> Caitlin Talmadge, "Emerging Technology and Intra-War Escalation Risks: Evidence from the Cold War, Implications for Today," *Journal of Strategic Studies*, Vol. 42, No. 6 (2019), pp. 864-887.

<sup>26</sup> Robert Work and James Winnefeld, as quoted in, *Statement of Robert Work, Deputy Secretary of Defense, and, Admiral James Winnefeld, Vice Chairman of the Joint Chiefs of Staff* (Washington, D.C.: House Armed Services Committee, June 25, 2015), p. 4, available at <https://docs.house.gov/meetings/AS/AS00/20150625/103669/HHRG-114-AS00-Wstate-WorkR-20150625.pdf>.

emphasized U.S. flexible response options to strengthen intra-war deterrence to limit damage in case of deterrence failure: "Every U.S. administration over the past six decades has called for flexible and limited U.S. nuclear response options, in part to support the goal of reestablishing deterrence following its possible failure. This is not because reestablishing deterrence is certain, but because it may be achievable in some cases and contribute to limiting damage, to the extent feasible, to the United States, allies, and partners."<sup>27</sup> This point was in line with the bipartisan evolution of U.S. deterrence policy since the mid-1970s, led most famously by the previously mentioned NSSM-169 study and the 1978 "Nuclear Targeting Policy Review" headed by Leon Sloss.<sup>28</sup>

The most comprehensive current U.S. government report on how the United States approaches intra-war escalation risks is the 2020 *Report on the Nuclear Employment Strategy of the United States*. In it, the Department of Defense states:

If deterrence fails, the United States will strive to end any conflict at the lowest level of damage possible and on the best achievable terms for the United States, and its allies, and partners. One of the means of achieving this is to respond in a manner intended to restore deterrence. To this end, elements of U.S. nuclear forces are intended to provide limited, flexible, and graduated

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<sup>27</sup> U.S. Department of Defense, *Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2018), p. 23, available at <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>.

<sup>28</sup> U.S. Department of Defense, *Nuclear Targeting Policy Review: Summary of Major Findings and Recommendations* (Washington, D.C.: Department of Defense, November 28, 1978), available at <https://www.archives.gov/files/declassification/iscap/pdf/2011-064-doc39.pdf>.

response options. Such options demonstrate the resolve, and the restraint, necessary for changing an adversary's decision calculus regarding further escalation.<sup>29</sup>

The report also differentiates between situations in which the United States is responding to an adversary's limited nuclear employment, and U.S. priorities in such an event, versus a larger nuclear attack, and the potentially different U.S. priorities in such an event.

### ***Gaps in the Literature***

A review of four recent reports on escalation illustrates a glaring gap in the literature, namely, the relative lack of focused analysis on the factors that may persuade or compel an adversary to refrain from nuclear escalation, as perceived by the adversary. That is, the current literature covers a number of reasons why Russia or China may escalate a conventional conflict with the United States via the employment of nuclear weapons, but very rarely do analysts focus on the potential disincentives, or restraints, both external and internal, that might influence an adversary to refrain from nuclear escalation.

For example, analysts at the RAND Corporation wrote a detailed report on potential escalation dynamics, the potential motivations behind escalation, a case study on China's reported views on nuclear escalation, and a host of other topics, yet only devoted two pages of sustained analysis on why an adversary may choose to refrain from nuclear escalation.<sup>30</sup> In a 2018 report for the Center for Global Security Research at Lawrence Livermore National

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<sup>29</sup> U.S. Department of Defense, *Report on the Nuclear Employment Strategy of the United States – 2020*, op. cit., p. 2.

<sup>30</sup> Forrest E. Morgan, Karl P. Mueller, Evan S. Mederios, Kevin L. Pollpeter, and Roger Cliff, *Dangerous Thresholds: Managing Escalation in the 21<sup>st</sup> Century* (Santa Monica, CA: The RAND Corporation, 2008), available at <https://www.rand.org/pubs/monographs/MG614.html>.

Laboratory, John Warden spends a total of two pages providing a brief summary of the potential reasons why an adversary may choose not to escalate a conventional conflict via nuclear employment or continued nuclear employment.<sup>31</sup> Other publications, such as Rebecca Hersman's journal article "Wormhole Escalation in the New Nuclear Age," and Madison Estes' report *Prevailing Under the Nuclear Shadow* provide interesting comments on how to think about the process of escalation itself, but again, provide very little analysis of the factors that may keep war limited in the nuclear age.<sup>32</sup> In short, a net assessment is needed, but most contemporary works on the subject focus almost entirely on the potential for escalation.

If U.S. defense leaders better understood the range and relative importance of these and other factors that an adversary may consider before engaging in nuclear war with the United States, that understanding could provide a more informed basis for U.S. decision-making on deterrence strategies. Such understanding would also contribute to developing U.S. goals in those situations and a range of prudent actions, plus knowledge of the kind of information to request from the intelligence community to most effectively tailor deterrence threats.

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<sup>31</sup> John K. Warden, *Limited Nuclear War: The 21<sup>st</sup> Century Challenge for the United States* (Livermore, CA: Center for Global Security Research, Lawrence Livermore National Laboratory, July 2018), pp. 24-25, available at [https://cgsr.llnl.gov/content/assets/docs/CGSR\\_LP4-FINAL.pdf](https://cgsr.llnl.gov/content/assets/docs/CGSR_LP4-FINAL.pdf).

<sup>32</sup> Rebecca Hersman, "Wormhole Escalation in the New Nuclear Age," *Texas National Security Review*, Vol. 3, No. 3 (Autumn 2020), pp. 90-109, available at <https://tnsr.org/2020/07/wormhole-escalation-in-the-new-nuclear-age/>; and, Madison A. Estes, *Prevailing Under the Nuclear Shadow: A New Framework for US Escalation Management* (Arlington, VA: CNA, September 2020), available at <https://www.cna.org/reports/2020/09/DRM-2020-U-027973-Final.pdf>.





## Chapter 2

# Restraints on Nuclear First Use

*Theory, therefore, demands that at the outset of a war its character and scope should be determined on the basis of the political probabilities. The closer these political probabilities drive war toward the absolute, the more the belligerent states are involved and drawn into its vortex, the clearer appear the connections between its separate actions, and the more imperative the need not to take the first step without considering the last.*<sup>33</sup>

~ Carl von Clausewitz

## Introduction

No state has employed nuclear weapons in a conflict since 1945, though the historical record indicates there have been a number of close calls. Political and military leaders from diverse strategic cultures, across time and geographic distance, have opted for restraint rather than nuclear first use.<sup>34</sup> The question is: why? And, by understanding the potential reasons why, how might the United States better tailor its deterrence messaging to influence those factors that could promote adversary restraint from nuclear first use? This section approaches these questions first by examining the scenario in which a nuclear-armed state may choose not to employ nuclear weapons against a non-nuclear state. A better understanding of the potential factors

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<sup>33</sup> Carl von Clausewitz, author, Michael Howard and Peter Paret, editors and translators, *On War* (New York: Alfred A. Knopf, 1993), p. 706.

<sup>34</sup> For a helpful summary of the evidence that nuclear deterrence works, in at least some cases, see Keith B. Payne, *Chasing a Grand Illusion: Replacing Deterrence With Disarmament* (Fairfax, VA: National Institute Press, 2023), pp. 32-34.

promoting restraint in this scenario would quite obviously help U.S. officials consider the potential risks of escalation in the ongoing Russian conflict against Ukraine, or a potential Chinese conflict against Taiwan. This section also examines the scenario in which a nuclear-armed state contemplates nuclear first use against another nuclear-armed state, and the factors that may promote restraint in that situation. Both scenarios share some potential factors that may promote restraint in common, but examining each scenario separately can help distinguish what factors may be most relevant to each.

The following factors, to be clear, are neither mutually exclusive nor prioritized in any order of likelihood since that is unknowable. Additionally, to restate the point made in Chapter 1, the factors described below that may promote restraint in some situations will almost certainly be competing with factors that may promote escalation—the study of the former in no way precludes the latter. In short, this is not a net assessment of the likelihood of restraint versus escalation, but rather a study seeking a better understanding of the potential reasons for restraint—all in the service of facilitating a net assessment and improved tailoring of deterrence threats.

Political and military leaders always grapple with multiple competing priorities. Indeed, the perceived incentives for escalation may win the day in some cases. As Richard Smoke details in his pioneering study on escalation, there are a number of reasons why: the competitive nature of war that incentivizes finding and exploiting advantages over the adversary; the “desire not to lose;” a rise in the perceived stakes of the conflict; personal motives and psychologies of individual leaders; tactical military benefits of transgressing escalation barriers; and, the “action-reaction” dynamic.<sup>35</sup> Nevertheless, this study is focused on

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<sup>35</sup> Smoke, *War: Controlling Escalation*, op. cit., pp. 23-30.

those factors that might promote restraint among nuclear-armed states, beginning with the scenario in which a nuclear-armed state is fighting a conventional (i.e., non-nuclear) conflict against a state that does not possess nuclear weapons.

### **Factors Potentially Promoting Restraint: A Nuclear-Armed State Against a Non-Nuclear Opponent**

It is tempting to think of this scenario as the “least stressing” for a nuclear-armed state since the opponent cannot respond in kind to nuclear employment—making a decision to “go nuclear” seemingly easier to contemplate. Yet, historically, leaders of nuclear-armed states have overwhelmingly (with one exception) chosen not to employ nuclear weapons against non-nuclear opponents, even when the stakes of the conflict appeared high. The reasons for nuclear non-use vary widely, as seen below, providing an interesting point of comparison to the reasons for why a state may choose to employ nuclear weapons. While obviously not definitive, the sheer diversity of factors that political and military leaders may consider when ultimately choosing restraint against a non-nuclear state indicates such a decision involves factors far broader than simply military necessity. As an important note, the following factors assume that the nuclear-armed state has not suffered a strategic level non-nuclear attack, such as widespread chemical or biological weapons use. In such circumstances, the factors that may promote restraint could be less applicable.

*Nuclear employment may provoke other states to enter a conflict.*

An adversary may choose not to escalate a conventional conflict via nuclear employment because it could, in the words of Richard Smoke, activate “a latent vital interest” in another state, causing it to enter the conflict on the side of the adversary’s opponent.<sup>36</sup> This factor may help explain Russia’s decision (so far) not to employ nuclear weapons against Ukraine. The Biden Administration has reportedly signaled through multiple venues and intermediaries that Russian nuclear employment against Ukraine would be unacceptable to the United States.<sup>37</sup> It is unknown whether Russian leaders have interpreted these signals as a potential threat that the United States would become a co-belligerent with Ukraine against Russia, but such a development does not appear incompatible, or implausible, given U.S. signals.

To the extent that other states see an adversary’s nuclear first use as a threat to their vital interests, either short or long term, it may motivate them to enter a conflict they previously believed was not worth engaging in. In short, an adversary may inadvertently change the perceived stakes for other states watching a conflict from the outside. For some states, their leaders may wish to deter future adversary nuclear employment by inflicting massive costs on the state that broke the “nuclear taboo” – in part as punishment for the act, and in part to deter others in the

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<sup>36</sup> Smoke, *War: Controlling Escalation*, op. cit., pp. 245-248.

<sup>37</sup> Kevin Liptak, “Biden Warns Russia Not to Use a Tactical Nuclear Weapon,” *CNN*, October 25, 2022, available at <https://www.cnn.com/2022/10/25/politics/biden-russia-dirty-bomb;> and, Sam Fossum, Kaitlin Collins, and Paul LeBlanc, “Biden Offers Stark ‘Armageddon’ Warning on the Dangers of Putin’s Nuclear Threats,” *CNN*, October 7, 2022, available at [https://www.cnn.com/2022/10/06/politics/armageddon-biden-putin-russia-nuclear-threats.](https://www.cnn.com/2022/10/06/politics/armageddon-biden-putin-russia-nuclear-threats)

future from considering nuclear employment.<sup>38</sup> Other states may wish to enter the conflict because they sense a chance to join in the punishment of an adversary, thus weakening a major threat to their security for the foreseeable future. As an additional secondary effect, a state's nuclear first use against a non-nuclear opponent, and subsequent punishment, may embolden other states to exploit the event to improve their standing in the eyes of others by breaking ties with the first to employ nuclear weapons and perhaps gaining new and more powerful partners.

In fact, U.S. extended deterrence commitments may be one of the most powerful factors in promoting adversary nuclear restraint against non-nuclear U.S. allies during a crisis or conflict. As the 2018 U.S. *Nuclear Posture Review* made clear, the United States does not have to be directly harmed by the effects of an adversary's nuclear first use for it to respond on behalf of an ally or partner:

Effective U.S. deterrence of Russian nuclear attack and non-nuclear strategic attack now requires ensuring that the Russian leadership does not miscalculate regarding the consequences of limited nuclear first use, either regionally or against the United States itself. Russia must instead understand that nuclear first-use, however limited, will fail to achieve its objectives, fundamentally alter the nature of a conflict, and trigger incalculable and intolerable costs for Moscow. Our strategy will ensure Russia

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<sup>38</sup> For more on the "nuclear taboo" of first use, see, Nina Tannenwald, "The Nuclear Taboo: The United States and the Normative Basis of Nuclear Non-Use," *International Organization*, Vol. 53, No. 3 (Summer 1999), pp. 433-468.

understands that any use of nuclear weapons, however limited, is unacceptable.<sup>39</sup>

Of course, the U.S. deterrence strategy is aimed at, first and foremost, deterring any attack on an ally or partner in the first place – but, deterring nuclear attack would quickly become one of the top priorities should conventional conflict nevertheless occur.

In summary then, a nuclear-armed state that employs nuclear weapons against a non-nuclear armed opponent risks raising the stakes of the conflict by potentially threatening the vital interests of non-combatant states. These vital national interests may take the form of a formal alliance under threat that requires imposing costs on the adversary, or it may take the form of opportunistically joining the conflict to obtain the potential benefits of significantly reducing a current and future security threat. In any case, nuclear employment for some temporary gain might risk a long-term net loss.

***Nuclear employment may damage relations with vital allies or partners.***

Just as a nuclear-armed state may restrain itself from employing nuclear weapons against a non-nuclear state for fear of the non-nuclear state's allies joining the conflict, so too might the nuclear-armed state refrain from nuclear employment so that it might not damage relations with its allies and partners. Even early on in the atomic age, U.S. leaders were keenly aware of allied views, which were mostly negative, toward the prospect of U.S. nuclear employment against a non-nuclear state. In the Korean War and the Taiwan Strait Crises, U.S. Presidents Harry Truman and Dwight Eisenhower, respectively, were acutely aware that nuclear employment might severely damage alliances

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<sup>39</sup> U.S. Department of Defense, *Nuclear Posture Review*, 2018, op. cit., p. 30.

that were very much in the U.S. interest.<sup>40</sup> Even after these events, U.S. policymakers were concerned about allied views should the United States seek to employ nuclear weapons in Asia again, with the Foster Panel writing, “Finally, while our Asian allies seek the general protection of the U.S. nuclear umbrella, they might strongly object to the actual use of nuclear weapons by non-Asians against Asians, particularly if their own territory is not directly threatened.”<sup>41</sup>

For a current example, senior officials from China and India have reportedly warned their counterparts in Russia that nuclear employment against Ukraine would be detrimental to their diplomatic relations.<sup>42</sup> It is unclear from the public reporting whether Russian President Vladimir Putin takes China’s and India’s warnings into account when potentially deciding to employ nuclear weapons or not, but given Russia’s well-documented search for additional military equipment abroad, those states may be influential in such a decision. Logically, the more important the ally or partner, the more likely a nuclear-armed state will heed its warnings – especially if there is a significant prospect that

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<sup>40</sup> See, for example, S. David Broscious, “Longing for International Control, Banking on American Superiority: Harry S. Truman’s Approach to Nuclear Weapons,” chapter in, John Lewis Gaddis, Philip H. Gordon, Ernest R. May, and Jonathan Rosenberg, eds., *Cold War Statesmen Confront the Bomb: Nuclear Diplomacy since 1945* (New York: Oxford University Press, 1999), p. 34.; and, Neal Rosendorf, “John Foster Dulles’ Nuclear Schizophrenia,” chapter in, *Ibid.*, p. 75.

<sup>41</sup> Inter-Agency Working Group on NSSM 169, *NSSM 169 Summary Report*, op. cit., p. 22.

<sup>42</sup> See, for example, Stuart Lau, “China’s Xi warns Putin not to use nuclear arms in Ukraine,” *Politico.EU*, November 4, 2022, available at <https://www.politico.eu/article/china-xi-jinping-warns-vladimir-putin-not-to-use-nuclear-arms-in-ukraine-olaf-scholz-germany-peace-talks/>; and, Shivam Patel, “India’s Defence Minister Warns against Nuclear Weapons in Call with Russian Counterpart,” *Reuters*, October 26, 2022, available at <https://www.reuters.com/world/indias-defence-minister-warns-against-nuclear-weapons-call-with-russian-2022-10-26/>.



the ally or partner could reduce or cut off military aid in response to nuclear first use.

***Resorting to nuclear employment against a non-nuclear state might be seen as a sign of weakness.***

The historian Thucydides, in his work *The History of the Peloponnesian War*, stated (through the mouths of Athenians) that there were three main factors at work in relations among states: “fear, honor, and interest.”<sup>43</sup> Factors relating to an adversary’s “fear” or “interest” are common subjects for commentary on nuclear war, but analysts rarely focus on “honor” as a potential factor in whether a war escalates or not. Recent scholarship, in fact, points to “honor” being an important factor in potentially prolonging war.<sup>44</sup> Might “honor” play a role in promoting restraint from nuclear first use against a non-nuclear opponent?<sup>45</sup>

Vladimir Putin’s regime certainly features “honor” prominently with one of his core stated goals for ruling Russia being the need for other states to show their respect to Moscow. As he stated in a 2012 article, respect derives from the barrel of a gun: “Our country faces the task of sufficiently developing its military potential as part of a deterrence strategy. This is an indispensable condition for Russia to feel secure and for our partners to listen to our country’s arguments.”<sup>46</sup> Putin also regularly opines on the

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<sup>43</sup> Note that in other translations it reads, “security, honor, and self-interest.” Thucydides, author, Rex Warner, translator, *The History of the Peloponnesian War* (New York: Penguin Books, 1972 edition), p. 80.

<sup>44</sup> Alexander Lanoszka and Michael A. Hunzeker, “Rage of Honor: Entente Indignation and the Lost Chance for Peace in the First World War,” *Security Studies*, Vol. 24, No. 4 (2015), pp. 662-695.

<sup>45</sup> For more on the role of honor as factor in warfare, see, John G. Stoessinger, *Why Nations go to War*, 10<sup>th</sup> edition (Belmont, CA: Thomson Wadsworth, 2008), pp. 390-395.

<sup>46</sup> Vladimir Putin, “Being Strong,” *Foreign Policy*, February 21, 2012, available at <https://foreignpolicy.com/2012/02/21/being-strong/>.

honor of Soviet soldiers in World War II, who “glorified and immortalized their names by defending our Fatherland. They saved the humankind [sic] from Nazism through immeasurable courage and immense sacrifice.”<sup>47</sup>

Might Vladimir Putin’s sense of national pride and historical connection promote a modicum of restraint by viewing having to resort to nuclear employment against Ukraine as an admission of weakness? By employing nuclear weapons against a state that cannot respond in kind, especially to stave off defeat on the conventional battlefield, might Putin worry the Russian history books portray his nuclear first use not as a glorious victory, but as an act of desperation? Of course, this thought must be tempered by the fact that Putin can quite literally decide how the history books are written in Russia—but, the overall point remains the same as it relates to Putin’s personal psychology and self-perception. Could a personalist dictator with a deep sense of Russian history be swayed, even slightly, by the prospect of national embarrassment for having to resort to nuclear employment against a non-nuclear opponent? The Albanian Prime Minister, Edi Rama, recently sought to send that message, telling *Kyodo News* in an interview that Russia’s threat of nuclear weapons use against Ukraine was “cowardly.”<sup>48</sup>

Honor, prestige, national pride, or perceived legacy may all play a part in a decision on whether or not a state decides to employ a nuclear weapon against a non-nuclear opponent. Analysts in the West typically overlook these factors since they play less of a role in their cultures, but such an assumption should not cloud assessments of

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<sup>47</sup> Vladimir Putin, “Victory Parade on Red Square,” *Kremlin.ru*, May 9, 2023, available at <http://en.kremlin.ru/events/president/news/71104>.

<sup>48</sup> “Russia’s Threat of Nuclear Weapons Use ‘Cowardly’: Albanian PM,” *Kyodo News*, April 1, 2023, available at <https://english.kyodonews.net/news/2023/04/ec1df990d1e5-russias-threat-of-nuclear-weapons-use-cowardly-albania-pm.html>.

important decision-making factors within other cultures. This is not to say that “honor,” or some other related reason, will always be a significant or even relevant factor in such decisions, but analysts in the United States should at least be aware of the possibility when developing their assessments.

***Nuclear employment would be out of proportion to the political goals of the conflict.***

The Prussian strategist Carl von Clausewitz states early on in his work *On War* that there is an inherent linkage between the political goals of a conflict and the means used for achieving those goals: “The political object—the original motive for the war—will thus determine both the military objective to be reached and the amount of effort it requires.”<sup>49</sup> The basic idea being, if the costs required are larger than the importance of the political goal itself, then there is no point to continuing the conflict. In short, the greater the political goal, the greater the willingness to endure costs.

In the nuclear age, the classic question of which political goals are worth going to war over is of even greater, and more certain, consequence. Nuclear employment against a non-nuclear state, from an aggressor’s viewpoint, may quite quickly and completely end resistance during a conventional conflict—yet would those nearly unlimited means comport with limited political objectives?

Russia, for example, may be fighting an enormously costly conflict with a non-nuclear state, Ukraine, and yet those costs may not (yet?) reach the threshold for employing nuclear weapons because the future costs may be greater still. Unless a nuclear aggressor has a plausible theory, at least to him, for how nuclear employment will lead ultimately to lower costs, then nuclear employment even

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<sup>49</sup> Clausewitz, *On War*, op. cit., p. 91.

against a non-nuclear state may still appear to exceed the limit set by the political objectives.

As Herman Kahn stated in his classic work, *On Escalation*, "Resolve is often measured by a willingness to pay costs in pursuit of certain objectives. One side or the other might decide to de-escalate simply because it felt it had suffered enough."<sup>50</sup> Perhaps, as Russia may be discovering currently, the conventional losses suffered during the conflict may make even a nuclear "victory" at the tactical level appear hollow in relation to the prospects for ultimate success, and the potential for additional costs as the result of nuclear escalation.

Or, in the case of the United States, its leaders viewed multiple conflicts in the Cold War era as critically important, but not so important as to require nuclear weapons employment. For example, in the U.S. conflict in Vietnam, President Nixon in particular perceived utility in threatening nuclear weapons employment, but never appeared to seriously consider following through on the threats.<sup>51</sup> Additionally, there is clear evidence that senior U.S. officials saw the 1991 Gulf War with Iraq as a scenario in which employing nuclear weapons would have been out of proportion with their limited political goals. As General Colin Powell told then-Secretary of Defense Cheney, "Let's not even think about nukes, you know we're not going to let that genie loose."<sup>52</sup> Thus, proportionality and relation to political goals appear to be particularly important factors in why a nuclear-armed state may choose to refrain from employing nuclear weapons against a non-nuclear state.

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<sup>50</sup> Kahn, *On Escalation: Metaphors and Scenarios*, op. cit., p. 233.

<sup>51</sup> For a comprehensive examination of this strategy, see, William Burr and Jeffrey P. Kimball, *Nixon's Nuclear Specter: The Secret Alert of 1969, Madman Diplomacy, and the Vietnam War* (Lawrence, KS: University of Kansas Press, 2015).

<sup>52</sup> As quoted in Keith B. Payne, *Deterrence in the Second Nuclear Age* (Lexington, KY: University of Kentucky Press, 1996), p. 139.

***Nuclear employment may incentivize nuclear proliferation among hostile states, thus damaging long term security.***

A nuclear-armed state may choose not to employ nuclear weapons against a non-nuclear state because nuclear first use might cause long-term proliferation concerns. As Herman Kahn noted in his work *On Escalation*, a nuclear-armed state may well gain a tactical “victory” by employing nuclear weapons on the battlefield but, over time, this event may set off an arms race with other nuclear-armed states or lead to nuclear proliferation among non-nuclear states.<sup>53</sup> Additionally, nuclear-armed states could view such an act as an indication that they are threatened by a far more risk-tolerant adversary than they had previously estimated, thus requiring an arms buildup to reinforce deterrence. Non-nuclear states, meanwhile, may perceive that not having nuclear weapons leaves them unacceptably vulnerable to states with nuclear weapons—a condition that can be remedied by pursuing their own nuclear arsenals. As a contemporary example, China appears to be facing such a prospect should it employ nuclear weapons during a conflict against Taiwan. South Korea, Japan, and potentially other non-nuclear states could react to a Chinese nuclear first use by pursuing their own nuclear arsenals as a hedge against Chinese aggression, while the United States and perhaps Russia increase their nuclear arsenal sizes to meet updated deterrence requirements.<sup>54</sup> Thus, some state leaders may calculate ultimately that the future risks of horizontal and vertical nuclear proliferation are worth the prospect of current gains; but, in other cases, it may be

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<sup>53</sup> Kahn, *On Escalation: Metaphors and Scenarios*, op. cit., p. 105.

<sup>54</sup> For more on these scenarios, see Chapter 6 of, Keith B. Payne, Matthew R. Costlow, Christopher Ford, David Trachtenberg, and Alexander Vaughn, “Special Issue: Deterring China in the Taiwan Strait,” *Journal of Policy & Strategy*, Vol. 2, No. 2 (2022), pp. 105-114.

plausible that state leaders view the prospect of arms races and additional nuclear-armed opponents as too high a cost to risk by employing nuclear weapons against a non-nuclear opponent.

*Escalation of a conventional conflict to nuclear employment may affect domestic support at home or abroad.*

Dictatorships and democracies, to one extent or another, must account for their publics' reactions to major decisions – and nuclear employment during a conventional war would likely qualify. For a dictatorship, like Vladimir Putin's or Xi Jinping's, a nuclear first use against a non-nuclear state may fracture domestic support for the conflict by raising the prospect that another nuclear-armed power might enter the conflict and impose severe costs on the aggressor's homeland. For a democracy, political leaders must consider how their populace might react to the perceived wisdom and necessity of nuclear first use against a non-nuclear power – with the attendant consequences for re-election prospects. There is some evidence that President Dwight Eisenhower took this sentiment into account during the second Taiwan Straits Crisis in 1958, when he stated, "since we do not wish to outrage world opinion, the administration perhaps had better reserve the use of nuclear weapons."<sup>55</sup>

Additionally, the nuclear aggressor may also take into account the reaction of the other state's domestic populace that might be affected. As the Allies in World War II discovered, aerial bombing in populated areas can have an effect on civilian morale and support for the war – but in the short term, a populace's will to resist can remain high in the

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<sup>55</sup> Dwight Eisenhower, as quoted in, Shu Guang Zhang, *Deterrence and Strategic Culture: Chinese-American Confrontations, 1949-1958* (Ithaca, NY: Cornell University Press, 1992), p. 249.

face of major and sustained destruction.<sup>56</sup> Thus, a nuclear-armed state cannot count on the first use of nuclear weapons in a conflict dealing a devastating blow to his opponent's domestic populace's resolve – it may even have the opposite effect of convincing many in the populace that the conflict is existential and therefore worth supporting.

*Nuclear employment in a scenario short of national survival may be perceived as immoral.*

A nuclear-armed state leader, or the populace, may believe that it would be immoral to employ nuclear weapons against a non-nuclear state in a conflict absent vital or existential stakes, and thus refrain from doing so. It is obviously difficult envision this factor applying to potential scenarios involving amoral dictators like Vladimir Putin and Xi Jinping, but from a U.S. or Western standpoint, the factor may be more salient. Political leaders such as Harry Truman wrestled with the ethical implications of nuclear employment, while Henry Kissinger famously stated, "To have the only option of killing 80 million people is the height of immorality."<sup>57</sup> Indeed, even if a U.S. political leader believes it is morally defensible to employ nuclear weapons against a non-nuclear adversary in a given situation, the U.S. populace may not have the same view – thus potentially restraining nuclear first use.

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<sup>56</sup> See especially the Survey's notes on "morale." United States Strategic Bombing Survey, *Summary Reports* (Maxwell AFB, AL: Air University Press, 1987, originally published 1945), available at [https://www.airuniversity.af.edu/Portals/10/AUPress/Books/B\\_0020\\_SPANGRUD\\_STRATEGIC\\_BOMBING\\_SURVEYS.pdf](https://www.airuniversity.af.edu/Portals/10/AUPress/Books/B_0020_SPANGRUD_STRATEGIC_BOMBING_SURVEYS.pdf).

<sup>57</sup> Henry Kissinger, as quoted in, *Memorandum for Mr. Kissinger: Minutes of the Verification Panel Meeting Held August 9, 1973, Subject: Nuclear Policy (NSSM 169)* (Washington, D.C.: National Security Council, August 9, 1973), available at <https://history.state.gov/historicaldocuments/frus1969-76v35/d22>.

There are, in fact, many religious authorities today that condemn the use of, or even possession of, nuclear weapons. Pope Francis, for instance, stated, “the use of nuclear weapons, as well as their mere possession, is immoral.”<sup>58</sup> Other religious groups often make joint statements in support of global nuclear disarmament campaigns, such as the Treaty on the Prohibition of Nuclear Weapons—lending their moral authority to the cause.<sup>59</sup> These examples, again, are not indicative of how states necessarily will act during a nuclear crisis or conflict—most especially Russia and China—but they do exemplify some of the moral factors facing Western political leaders and their populations, whom they depend on for political support.

### **Factors Potentially Promoting Restraint: Nuclear-Armed States in a Conventional Conflict**

If nuclear-armed states engaged in direct conflict with each other at the conventional level, what might be the reasons they refrain from nuclear first use? Or, stated differently, why might nuclear employment appear to be a worse option compared to the alternatives? To reiterate, the reasons listed below are not mutually exclusive and reasons

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<sup>58</sup> Christopher Wells, “Pope Francis: A World Free of Nuclear Weapons is Necessary and Possible,” *Vatican News*, June 21, 2022, available at <https://www.vaticannews.va/en/pope/news/2022-06/pope-francis-a-world-free-of-nuclear-weapons-is-necessary.html>.

<sup>59</sup> See, for example, “Joint Interfaith Statement to the Tenth Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT),” *FCNL*, August 2022, available at <https://www.fcnl.org/sites/default/files/2022-08/Interfaith-Statement-to-the-2022-NPT-RevCon.pdf>. For a more in-depth examination of the history and implications of religious groups’ interactions with nuclear policy, see, Payne, *Chasing a Grand Illusion*, op. cit.



listed previously may apply in some form to this scenario of two nuclear-armed states engaged in a conventional conflict. The goal here is to identify the potentially most important reasons why a nuclear-armed state's leadership might be tempted to employ its nuclear weapons but ultimately chooses not to.

***Nuclear employment could lead to uncontrolled escalation.***

War always involves an element of chance, unknown and uncontrolled by its participants. Carl von Clausewitz famously declared, "No other human activity is so continuously or universally bound up with chance. And through the element of chance, guesswork and luck come to play a great part in war."<sup>60</sup> Building on this insight, the scholar Thomas Schelling described "the threat that leaves something to chance" – which, in the nuclear age, posits that even if no participant in the conflict desires widespread nuclear employment, it might still occur.<sup>61</sup>

A state leader may, therefore, view the increased risk of uncontrollable escalation as too great a cost for the uncertain benefits that nuclear employment may bring. As Bernard Brodie stated, the possibility of uncontrolled escalation is useful as a deterrent to excessive risk-taking, but it gains more power as a decisive force when paired with the conventional forces necessary to make such escalation unlikely to succeed: "The possibility of further escalation will, to be sure, be unavoidable but also usefully present. It will tend to induce caution on both sides, but it will more especially tend to dissuade the aggressor from

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<sup>60</sup> Clausewitz, *On War*, op. cit., p. 96.

<sup>61</sup> See Chapter 8 in Thomas C. Schelling, *The Strategy of Conflict* (London: Oxford University Press, 1960).

testing very far the efficacy of a *resolute* local defense.”<sup>62</sup> Indeed, as Keith Payne has pointed out, the 1974 version of the *NATO Handbook* stated that the Alliance’s intention behind its nuclear posture was for “leaving the enemy in doubt” about the “escalation process.”<sup>63</sup>

The possibility of uncontrolled escalation might result from a number of factors, sometimes out of each participants’ direct control, such as an incident or accident that grows in intensity and scope. Chairman of the Joint Chiefs of Staff Gen. Mark Milley recently lent some limited credence to this possibility, stating, “... it is possible that you could have an incident or some other trigger event that could lead to uncontrolled escalation. So, it’s not impossible.”<sup>64</sup> Another potential vector for uncontrolled escalation is the perception that the opponent is unlikely to act in a controlled manner – perhaps because of perceived irrationality or ideological rigidity – thus reducing the possibility of a victory at acceptable cost. Or, even if the opponent is rational and agreeable to negotiated settlement, escalation may still occur because the opponent misperceives the aggressor’s limited intentions.

There is very clear evidence that Soviet military and civilian officials believed through much of the Cold War that nuclear war, once begun, could not be stopped before

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<sup>62</sup> Emphasis in original. Bernard Brodie, *Escalation and the Nuclear Option* (Santa Monica, CA: The RAND Corporation, June 1965), Memorandum RM-4544-PR, p. 4, available at [https://www.rand.org/content/dam/rand/pubs/research\\_memoranda/2006/RM4544.pdf](https://www.rand.org/content/dam/rand/pubs/research_memoranda/2006/RM4544.pdf).

<sup>63</sup> As quoted in, Keith B. Payne, *Tailored Deterrence and the China Question* (Fairfax, VA: National Institute Press, January 2022), pp. 10-11, available at <https://nipp.org/wp-content/uploads/2022/01/Payne-OP-Vol-2-No-1-final.pdf>.

<sup>64</sup> Mark Milley, as quoted in, Kevin Baron, “‘Lower the Rhetoric’ on China, Says Milley,” *Defense One*, March 31, 2023, available at <https://www.defenseone.com/threats/2023/03/lower-rhetoric-china-says-milley/384693/>.

it turned into a conflagration of each side using up its nuclear forces. Various Soviet authors, including the highest ranking members of the General Staff, regularly wrote in military journals and publications about how it was “impossible” to limit nuclear war, especially within “predetermined bounds.”<sup>65</sup> Indeed, beginning in the early- to mid-1980s, some Soviet strategists began to theorize that war between the Soviet Union and NATO in Europe could remain non-nuclear since both sides would recognize the dangers of nuclear employment—citing as evidence for their belief in the restraining power of certain weapons: Hitler refrained from chemical weapons use even during a massive conventional campaign because he feared a chemical attack in response.<sup>66</sup>

While acknowledging that there is considerable evidence Soviet officials, despite their publicly-stated views about the impossibility of limiting nuclear war, nevertheless conducted planning for just such a contingency, it is demonstrable that Western and non-Western leaders have considered the uncontrollable nature of escalation as one factor promoting restraint.<sup>67</sup> Whatever the deciding factor for a state’s leadership, a conventional conflict between two nuclear-armed states carries inherent risks of escalation—

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<sup>65</sup> See the survey of Soviet literature in, Andrei A. Kokoshin, *Soviet Strategic Thought, 1917-91* (Cambridge, MA: The MIT Press, 1999), pp. 132-146.

<sup>66</sup> *Ibid.*, p. 138.; See also the discussion of this topic in, John G. Hines, Ellis M. Mishulovich, and John F. Shull, *Soviet Intentions 1965-1985, Vol. 1: An Analytical Comparison of U.S.-Soviet Assessment During the Cold War* (McLean, VA: BDM Federal Inc., September 22, 1995), pp. 44-45, available at [https://nsarchive2.gwu.edu/nukevault/ebb285/doc02\\_I\\_ch3.pdf](https://nsarchive2.gwu.edu/nukevault/ebb285/doc02_I_ch3.pdf).

<sup>67</sup> In the words of Kokoshin, summarizing the views of Soviet military planners, “At the same time, the Soviet military leadership maintained that although the concept of ‘limited’ nuclear warfare could not be accepted by the Soviet side, they still had to address the actions of the other side.” Kokoshin, *Soviet Strategic Thought, 1917-91*, op. cit., p. 135.

the consequences of which are unpredictable, and in some instances, potentially uncontrollable. If this factor weighs heavily in a state leadership's mind, then it could promote restraint from nuclear employment in some scenarios.

*Nuclear employment could reduce the chance for a favorable political settlement.*

A state leader may refrain from employing nuclear weapons against a nuclear-armed opponent because nuclear use might—as previously discussed—cause the opponent to expand its war aims and efforts, ultimately reducing the chance for a favorable political settlement. As the late scholar Colin S. Gray stated, "... it is important that war should not be conducted in such a manner as to subvert the prospects for lasting peace."<sup>68</sup> Nuclear first use may be one of the key catalysts for subverting the prospects for lasting peace since it could help change the political calculus of other states that then seek, as the Allies did in World War II, a policy of "unconditional surrender."

During the Cold War, scholars considered these dynamics and thought through some of the implications of the two major conventional and nuclear superpowers going to war. U.K. scholar John C. Garnett, for instance, wrote in the 1980s that:

... there is at least one more disincentive to [NATO] going nuclear. The popular assumption that NATO can compensate for a lack of conventional fire power by substituting nuclear fire power may be a very dubious assumption in a situation where the Warsaw Pact also has nuclear weapons available to it. After a tactical nuclear exchange the advantage may very well lie with the side which, because of its manpower advantage,

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<sup>68</sup> Colin S. Gray, *Defining and Achieving Decisive Victory* (Carlisle, PA: U.S. Army War College, April 2002), p. 12.

can replace units lost in the field most quickly, i.e. the Warsaw Pact. If this is the case there are good military as well as political reasons for not crossing the nuclear threshold, and for prolonging the conventional phase of a European war.<sup>69</sup>

In other words, conventional imbalances that were a problem before a nuclear exchange could well remain a problem after a nuclear exchange—plus all the attendant destruction that came from escalating a conventional war to the nuclear level. If after a “tactical nuclear exchange” the Soviet Union had retained its conventional advantage, then it would seem likely to seek an even harsher political settlement to extract a severe price from NATO for striking it with nuclear weapons. Thus, a nuclear-armed state’s leadership may refrain from employing nuclear weapons because it holds out hope for conventional victory or stalemate consistent with its political goals—especially since nuclear employment may in fact result in an unacceptable (enforced) peace, much worse than if the conflict had remained non-nuclear.

A nuclear-armed state may have a further disincentive against employing nuclear weapons in a conventional conflict because it may wish to keep hostilities relatively confined geographically. That is, nuclear first use could prompt the opponent to expand its war aims to other regions globally, either as a punishment for nuclear employment or as part of a broader attempt to gain a better bargaining position for a negotiated settlement. Henry Kissinger recognized this latter possibility early on in the nuclear age, stating: “This does not mean that military operations cannot go beyond the territory or the objective in dispute; indeed, one way of increasing the enemy’s willingness to settle is to deprive him of something he can

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<sup>69</sup> John C. Garnett, “Limited ‘Conventional’ War in the Nuclear Age,” chapter in, Howard, *Restraints on War*, op. cit., p. 96.

regain only by making peace.”<sup>70</sup> In short, a nuclear-armed state may choose not to escalate to nuclear employment for fear of losing (even temporarily in a best case scenario) access to or possession of important territories outside the current zone of conflict. For example, Russia could fear entering into a nuclear war with the United States because it is one of the few powers that could conceivably (in the Russian mind) deprive Moscow of its access to its port of Tartus in Syria, or the exclave of Kaliningrad in Europe. To be clear, this prospect would not likely be the only reason Russia would choose to refrain from nuclear employment, but it may be one reason among many and another potential avenue for deterrence messaging.

*A state's leadership may perceive weaknesses in its military capabilities that were unknown when the conventional conflict began—sowing doubt about a nuclear attack's efficacy and likelihood of success.*

Another potential factor that may inspire restraint against nuclear employment is if a state's leadership believes its military has performed far worse than expected in a conventional conflict—such that there are serious questions as to whether a nuclear strike, or multiple strikes if necessary, would be successful. A military's poor performance at the conventional level may be the result of a number of factors that might also affect the performance at the nuclear level, namely: inadequate supplies, poorly maintained weapons, failures of planning, poor intelligence, inability to operate jointly, etc. A military that suffers operational or strategic failures at the conventional level may still be able to maintain the survival of the state, but failures at the nuclear level may imperil the state itself—potentially incentivizing restraint against nuclear first use.

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<sup>70</sup> Henry A. Kissinger, *Nuclear Weapons and Foreign Policy* (New York: Harper & Brothers, 1957), p. 145.

Alternatively, even if a nuclear-armed state's conventional military performs at the level generally expected, its opponent may be far more successful—such that it causes the state's leadership to pause before escalating to nuclear employment, where the opponent's unexpected success might continue and could be fatal to the state. This dynamic, of course, presupposes that a state's leadership is receiving accurate reports from its military commanders about the true state of the war, the prospects for success, and other factors relevant to a nuclear employment decision. Yet, given that military leaders may be those most acutely aware of what they could lose operationally in a potential nuclear strike against their state (including on military targets), there is a significant chance that they will be more forthcoming about their true assessments when they know that nuclear war is a real possibility.

To illustrate with a historical example, Soviet military commanders appeared to have expected nuclear war to be devastating operationally to the point that they believed they may not have been able to achieve their battlefield objectives. It is worth noting, however, that the Central Committee of the Soviet Union reportedly dismissed the General Staff's concerns about tactical nuclear weapon employment and ordered the modernization of the tactical nuclear forces anyway.<sup>71</sup> Or, to use a contemporary example in the Russia-Ukraine war, Russia's military has, so far, greatly underperformed most predictions while Ukraine's military has vastly overperformed most predictions—although not to the point where the survival of the Russian state is in question. Still, given the Russian leadership's reported expectation of perhaps only a four-day war against Ukraine, it certainly seems plausible that their past failures

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<sup>71</sup> Hines, Mishulovich, and Shull, *Soviet Intentions 1965-1985*, Vol. 1, op. cit., p. 43.

in forecasting could temper any optimistic predictions that nuclear employment will solve their many problems.<sup>72</sup>

Finally, a state's leadership may choose not to escalate a conflict any further because the opponent's conventional attacks might have so damaged key military capabilities that were fundamental to the military's theory of victory that the leadership no longer believes the war can be won at an acceptable cost.<sup>73</sup> As Herman Kahn stated, "It is also likely that some of the literature overestimates the losing side's possible interest in escalations; in many cases, the losing side may simply judge that it does not have much to gain, and will increase its losses if it increases its stakes in a losing game."<sup>74</sup> In short, it is one thing to gamble on a massively destructive conventional war, it is quite another to gamble on a nuclear war.

Thus, even if a state's leadership believes that a nuclear strike may result in its opponent ceasing its attacks, the damage already done and the prospect of further nuclear escalation that would exacerbate the already considerable damage may combine to promote restraint.

*A nuclear attack might fail because of the opponent's active defenses.*

Given the growth and sophistication of integrated air and missile defense (IAMD) systems in Russia, China, and potentially the United States, there is the potential that a state's leadership may believe that initiating nuclear first use is risky enough, but attempting nuclear first use and having the attack be reduced and even negated by the

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<sup>72</sup> Anna Commander, "Russian State Media Urges Putin Didn't 'Want to' Take Kyiv in Three Days," *Newsweek*, February 25, 2023, available at <https://www.newsweek.com/russian-state-media-urges-putin-didnt-want-take-kyiv-three-days-1783834>.

<sup>73</sup> Kahn, *On Escalation: Metaphors and Scenarios*, op. cit., p. 49.

<sup>74</sup> *Ibid.*, p. 110.



opponent's defenses is unacceptably risky.<sup>75</sup> That is, a nuclear strike against the opponent's vulnerable targets risks a significant response, but at least retains the prospect of some benefits. The presence of significant IAMD capabilities, however, raises the prospect of those same benefits being denied in whole or in part, while also risking an unacceptable response – the worst of both worlds.

Given the stakes involved in a potential nuclear first use, especially one that is limited in scale, it is reasonable to assume a state's leadership will likely seek the greatest assurances from their military leaders that the attack will work as planned and have the desired effect, a calculation that IAMD greatly complicates, and which could have a significant deterrent effect against coercive nuclear strikes.<sup>76</sup> Indeed, as Fred Hoffman, director of a key U.S. missile defense policy study immediately following President Reagan's announcement of the Strategic Defense Initiative, stated, "... a realistic consideration of the role of defense in deterrence recognizes that an attacker will want high confidence of achieving decisive results before deciding on so dangerous a course as the use of nuclear weapons against a nuclear-armed opponent... Because of an attacker's desire for high confidence in a successful outcome, he must bear the burden of uncertainty about defensive effectiveness and

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<sup>75</sup> For more on Chinese and Russian missile defenses, see, U.S. Department of Defense, "Chinese and Russian Missile Defense: Strategies and Capabilities," *Defense.gov*, July 28, 2020, available at [https://media.defense.gov/2020/Jul/28/2002466237/-1/-1/1/CHINESE\\_RUSSIAN\\_MISSILE\\_DEFENSE\\_FACT\\_SHEET.PDF](https://media.defense.gov/2020/Jul/28/2002466237/-1/-1/1/CHINESE_RUSSIAN_MISSILE_DEFENSE_FACT_SHEET.PDF).

<sup>76</sup> For more on the strategic value of missile defenses against coercive missile attacks, see Matthew R. Costlow, *Vulnerability is No Virtue and Defense is No Vice: The Strategic Benefits of Expanded U.S. Homeland Missile Defense* (Fairfax, VA: National Institute for Public Policy, September 2022), *Occasional Paper*, Vol. 2, No. 9, available at <https://nipp.org/papers/vulnerability-is-no-virtue-and-defense-is-no-vice-the-strategic-benefits-of-expanded-u-s-homeland-missile-defense/>.

is likely to bias his assumptions toward overestimating it.”<sup>77</sup> Thus active defenses could, in combination with other deterrence threats, raise the risk of attack failure to unacceptable levels in the mind of the opponent, ultimately promoting restraint from nuclear employment.

***If the opponent responds with a comparable strike, the relative damage will be disadvantageous.***

A tit-for-tat exchange, especially on similar targets between two nuclear-armed powers, will not always inflict the same relative damage. That is, certain potential targets may be relatively plentiful in one state while scarce in the other – so while both states might suffer the same physical destruction of a naval port, for example, the relative importance of the destroyed target may be vastly different. Imagine two nuclear-armed opponents: one has 10 warm water naval ports and the other has two. If each state lost one warm water naval port, even though they both suffered equal levels of physical damage, one clearly suffered a relatively greater loss of capability. Thus, a state leader may refrain from nuclear employment because his theory of military victory may be more susceptible to failure during a nuclear war than the opponent’s, even if they were to both suffer similar levels of damage.

This concept can also potentially be scaled up to the national level in a conflict between two states of unequal size, such as North Korea and the United States.<sup>78</sup> For instance, the maximum damage North Korea could conceivably cause against the United States with its nuclear weapons pales in comparison to the maximum damage the United States could do to North Korea. Even if North Korea

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<sup>77</sup> Fred S. Hoffman, “The SDI in U.S. Nuclear Strategy: Senate Testimony,” *International Security*, Vol. 10, No. 1 (Summer 1985), pp. 19-20.

<sup>78</sup> I thank Keith Payne for noting this possibility.

could successfully launch against the United States all 12 of the purported ICBMs it recently displayed in a military parade, the United States, with its far larger arsenal, could inflict far more damage relative to North Korea's capability.<sup>79</sup> In fact, the last two U.S. *Nuclear Posture Reviews* have repeated the policy of ending the Kim regime if it employs nuclear weapons against the United States or its allies.<sup>80</sup> Thus, in some cases, the potential for unequal relative damage during a nuclear conflict may be a compelling reason for restraint for states contemplating nuclear employment.

*The opponent's nuclear signaling, short of employment, may demonstrate more resolve than expected.*

Misperceptions are common in any area of human interaction, but are especially present in war. A conventional war between two nuclear-armed powers would very likely feature leadership misperceptions on both sides, and disabusing some of those misperceptions may be a critical element in keeping nuclear weapons out of the conflict.<sup>81</sup> One of those misperceptions may be that one side firmly believes the other side would not risk employing nuclear weapons in the conflict. A state's leadership may come to believe this because it sees the other side as being highly risk averse, not having as great a stake in the

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<sup>79</sup> "North Korea: What Missiles Does it Have?," *BBC*, March 20, 2023, available at <https://www.bbc.com/news/world-asia-41174689>.

<sup>80</sup> U.S. Department of Defense, *Nuclear Posture Review*, 2018, op. cit., p. 33.; and, U.S. Department of Defense, *2022 Nuclear Posture Review* (Washington, D.C.: October 2022), p. 12, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

<sup>81</sup> For one of the classic texts on misperceptions and their impact, see, Robert Jervis, *Perception and Misperception in International Politics* (Princeton, NJ: Princeton University Press, 1976).

outcome of the conflict, or perhaps believes the other side is on the brink of calling for a negotiated settlement.

Whatever the case, the opponent may seek to signal its willingness to employ nuclear weapons as a deterrent against the other state believing it can be successful in nuclear coercion. Signaling with nuclear weapons for the purposes of deterrence can take many forms, including: public statements, messages through intermediaries, raising the alert level of nuclear forces, unscheduled military exercises, a full-scale underground test, or even a “demonstration shot.” One or some combination of these or other actions may cause the other state leadership to reconsider their previous assumptions about the conflict staying non-nuclear and their opponent’s apparent level of resolve. Granted, it seems unlikely that a nuclear-armed power will so casually dismiss the possibility of nuclear employment when engaged in a conflict with another nuclear-armed power, but state leaders throughout history have been similarly (over)confident in their predictive abilities and proven catastrophically wrong.<sup>82</sup> Thus, nuclear signaling short of employment may, in combination with other factors, promote restraint – although some leadership misperceptions may simply be too foundational to affect in this manner.

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<sup>82</sup> For instance, note Joseph Stalin’s disbelief that Nazi Germany would undertake Operation Barbarossa, or Saddam Hussein believing that the United States would not invade in 2003. On the example of Stalin, see, Gabriel Gorodetsky, *Grand Delusion: Stalin and the German Invasion of Russia* (New Haven, CT: Yale University Press, 1999), pp. 294-315. And, on the case of Saddam Hussein, see, “Interrogator: Saddam Surprised by U.S. Attack,” *NBC News*, January 25, 2008, available at <https://www.nbcnews.com/id/wbna22847771>.



## Chapter 3

# Can Nuclear War Stay Limited?

*On the one hand, we want the Soviets to think that the situation might get out of hand, while on the other hand we want to persuade them to not let it get out of hand. The Soviets might stop without a major nuclear exchange. I don't believe they have an unlimited urge to escalate. I think they will be looking for excuses not to escalate.<sup>83</sup>*

~ Henry A. Kissinger

## Introduction

Before examining the factors that could potentially promote some types of restraint during a limited nuclear war (i.e., before it progresses to full-scale general nuclear war), it is useful to first address the theoretical question of whether limited nuclear war can indeed stay limited at all. Assuming political leaders have the operational means (e.g., survivable command and control, plans that accurately reflect political intent, etc.), can the “dynamics of mutual alarm,” as Thomas Schelling described them, be contained by the decisions of state leaders in the nuclear age?<sup>84</sup> Some have answered this (happily) theoretical question by saying that limited nuclear war is nearly impossible since there will be immense pressure on leaders to conduct a first strike against the adversary before the adversary does the same. Others say that limited nuclear war will likely escalate eventually to general nuclear war as state leaders are drawn into an ever-shrinking set of available options. Still others say that we do not, and cannot with any certainty, know

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<sup>83</sup> Emphasis in original. Kissinger, as quoted in, *Memorandum for Mr. Kissinger*, op. cit.

<sup>84</sup> Schelling, *Arms and Influence*, op. cit., Chapter 6.; See also, Jervis, *The Meaning of the Nuclear Revolution*, op. cit., pp. 87-98.

whether nuclear war can remain limited – but not making the attempt only ensures that the conflict ends in one of two ways: surrender or suicide.

The question remains, however, why take this detour in the analysis to examine the potential limits of a phenomena that has not been observed? Why ask whether nuclear war can remain limited when one can just examine the factors that might promote restraint with the caveat that “none of this may be possible” stated at the end? I believe it is important for two main reasons. First, there is a tendency among many Western analysts, and perhaps humans generally, to categorize unlikely and horrible possibilities as simply “impossible” – a type of coping mechanism. As Herman Kahn stated, “I suspect that many in the West are guilty of the worst kind of wishful thinking when, in discussing deterrence, they identify the unpleasant with the impossible.”<sup>85</sup> Yet, allowing this mindset to dominate would leave the United States in the worst possible position should the worst possible day arrive – when cool-headed analysis of how to keep nuclear war limited is most needed, it will be in the shortest supply.

The second reason for undertaking this important task is that there is a great risk if the belief takes hold in leaders and analysts that nuclear war cannot remain limited, then that will drive a self-fulfilling prophecy. If political and military leaders believed firmly that limited nuclear war inevitably leads to general nuclear war, then that would motivate them to build first strike nuclear postures and employ them as early as possible, not just in a conflict, but even in a crisis. Therefore, far from the caricature that many critics paint of nuclear “warfighters,” recognizing the possibility that nuclear war could potentially remain limited appears to be the more measured approach that

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<sup>85</sup> Kahn, *On Thermonuclear War*, op. cit., p. 286.

seeks to avoid the extremes of forcing a President to choose between surrender or suicide.

This chapter proceeds in three parts. First, it examines how nuclear scholars through the decades have approached the topic of whether nuclear war could remain limited. Second, it briefly surveys how political and military leaders, both in the United States and in China and Russia, have perceived the possibility of limiting nuclear war. Finally, this chapter examines some of the logical assumptions of those who believe limiting nuclear war is unlikely to be possible and thus not worth investing much time or capability in pursuing as an objective.

## **Nuclear Scholars and the Question of Limited Nuclear War**

For all the differences among most of the major nuclear scholars that have influenced U.S. nuclear policy over the decades, they appear to agree generally on the question of whether nuclear war between two major powers can remain limited at some level. Note that this is distinct from the *likelihood* that nuclear war could remain limited – the former denotes whether it is *possible*, the latter whether it is *likely*.

Among the most confident that nuclear war could, and probably would, stay limited, Herman Kahn wrote consistently about how state leaders would likely seek any chance they could to achieve war termination during a nuclear conflict. He stated, “There is a paradox that occurs in estimates of escalation and the effects of the fear of escalation. It is the fear of eruption that makes it likely that there will be little or no escalation after the first use of nuclear weapons. Both sides are likely to be so frightened – both the attacker and the defender – that they are very likely to agree to some kind of compromise and cease-fire almost



immediately after such a use."<sup>86</sup> Similarly, Henry Kissinger stated in 1957, "It is often argued that since limited wars offer no inherent guarantee against their expansion, they may gradually merge into all-out war. On purely logical grounds, the argument is unassailable. But it assumes that the major protagonists will be looking for an excuse to expand the war whereas in reality both sides will probably grasp at every excuse, however illogical, to keep a thermonuclear holocaust from occurring."<sup>87</sup>

Bernard Brodie also believed that state leaders might be able to control the scope and scale of nuclear war. He stated, for instance, "Controlling escalation is really an exercise in deterrence, which means providing effective disincentives to unwanted enemy actions. Contrary to widely endorsed opinion, the use or threat of nuclear weapons in tactical operations seems at least as likely to check as to promote the expansion of hostilities."<sup>88</sup> Another nuclear scholar, Albert Wohlstetter, wrote on similar points and stated that there were inherent reasons why political and military planners would look to avoid unnecessary damage during attempts to limit war, for the purposes of both controlling escalation and accomplishing objectives. Wohlstetter wrote in favor of U.S. limited nuclear options, in part because the Soviet Union appeared to be preparing for just such a contingency; thus, as Wohlstetter pointed out, the Soviet leadership could decide for very rational reasons to attempt to limit nuclear warfare:

Letting things get out of their political control, however, control that could decide the life or death of the party and their political order, is quite another matter. It has nothing whatsoever to recommend it in the Bolshevik canon... The

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<sup>86</sup> Kahn, *On Escalation: Metaphors and Scenarios*, op. cit., pp. 110-111.

<sup>87</sup> Kissinger, *Nuclear Weapons and Foreign Policy*, op. cit., pp. 143-144.

<sup>88</sup> Brodie, *Escalation and the Nuclear Option*, op. cit., p. vi.

Politburo does not encourage spontaneity in the use of nuclear weapons. Nor is there any evidence that, after a few nuclear weapons were used, the Politburo would allow everyone in physical possession of them to fire at will. The Soviets will, of course, use *threats* of uncontrollability. We have seen some outstanding examples. But the threats were quickly followed by a demonstration that the Soviet political leaders had no intention of letting things get out of control.<sup>89</sup>

These examples of Kahn, Kissinger, Brodie, and Wohlstetter—all staunch defenders of sizable U.S. nuclear arsenals to meet their calculation of basic deterrence requirements—demonstrate a common belief that a state's leadership could rationally pursue attempts to limit nuclear war. But what of the nuclear scholars who viewed U.S. nuclear deterrence requirements as less stringent, thus requiring fewer nuclear forces?

Perhaps the preeminent nuclear scholar from this school of thought, Thomas Schelling, answered the question directly from an interviewer in 1986 about whether a nuclear war must inevitably escalate, and stated:

Will any nuclear war, no matter how it starts, or where it starts or on what scale it starts inevitably escalate to a huge intercontinental war? Certainly not inevitably. I really think it's doubtful whether even a nuclear war that began in some theatre would escalate to a large-scale intercontinental nuclear exchange... But, you see, if you just ask the question, would anybody initiate the use of nuclear weapons on a small scale, if he expected it to escalate, the answer must be 'no.' If you expect

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<sup>89</sup> Emphasis in original. Albert Wohlstetter, "Between an Unfree World and None: Increasing our Choices," *Foreign Affairs*, Vol. 63, No. 5 (Summer 1985), p. 986.

it to escalate, you're wasting the opportunity to start the big war on your own terms. You're simply giving the enemy the chance to reciprocate in a manner of his choosing. Therefore the mere use of nuclear weapons, whether by us or by the Soviets, ought to be a pretty convincing demonstration that the war is not expected and not intended to get a whole lot larger. And that should put both sides on notice that we've now got a nuclear war that we're going to have to get stopped.<sup>90</sup>

Schelling made a similar point in one of his earlier writings: "If, though, the force can be made capable of surviving (and, if not, it can probably not seriously threaten retaliation but only threaten to make the enemy take the initiative), then the one-shot retaliatory strike that spends all weapons, and all bargaining power, in a futile act of heroic vengeance—an act so lacking in purpose as to make even the threat a dubious one—can be abandoned for a more serviceable strategy."<sup>91</sup>

Finally, Robert Jervis was arguably the least confident that nuclear war could ultimately be controlled; but, even he thought that such a strategy could be rational for a state leader to adopt. For instance, he stated, "A state unwilling to wage all-out war in responding to a major provocation could rationally decide to take actions which it believed entailed, say, a 10 percent chance of leading to such a war... Risk, of course, puts pressure on both sides. But a given level of risk may be acceptable to the defender of the status

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<sup>90</sup> Thomas C. Schelling, as quoted in, "Interview with Thomas Schelling, 1986," *GBH Archives*, March 04, 1986, available at [https://openvault.wgbh.org/catalog/V\\_5293F77426B84C68A360BD6283ACF4FC](https://openvault.wgbh.org/catalog/V_5293F77426B84C68A360BD6283ACF4FC).

<sup>91</sup> Thomas C. Schelling, *Controlled Response and Strategic Warfare*, Adelphi Paper #19 (London: Institute for Strategic Studies, June 1965), p. 11.

quo and intolerable to an aggressor; the threat to raise the risk to a given level may be credible when made by the former and not credible when made by the latter.”<sup>92</sup> Or, as he stated in his classic work *The Meaning of the Nuclear Revolution*, “On the one hand, decision makers do not see a clear line that, once crossed, would definitely produce total war. Thus, the threat to use limited violence has at least some credibility; implementing it is not tantamount to committing national suicide. On the other hand, decision makers could not be sure that escalation would not occur.”<sup>93</sup>

This brief survey of some of the leading nuclear scholars indicates that, despite many other differences on matters of deterrence, there is general agreement that it is not inevitable that nuclear war at a lower level must escalate to an all-out unrestrained conflict. Rather, a broad array of respected nuclear scholars agree that there are a number of rational, even existential, reasons why state leaders would seek early on in a nuclear conflict to end it very quickly – again, assuming they have the operational means to do so.

### **Survey of Key U.S. Leaders and Chinese and Russian Nuclear Doctrine**

If nuclear war is controllable to some significant degree, then key political and military leaders on both sides likely will need to believe as much for the process of “bargaining” to work. Or, to be more precise, leaders on both sides either need to believe *or act as if they believe* nuclear war can be controlled. Some leaders like U.S. Secretary of Defense Harold Brown, as seen below, may have serious doubts that nuclear war can be controlled, but who believe nevertheless that the United States should still endeavor to do so. For the

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<sup>92</sup> Robert Jervis, *The Illlogic of American Nuclear Strategy* (Ithaca, NY: Cornell University Press, 1984), p. 134.

<sup>93</sup> Jervis, *The Meaning of the Nuclear Revolution*, op. cit., p. 81.

purposes of promoting restraint during war then, the key is that leaders act, and are seen as acting, in a way that demonstrates they *want* to control the scope of conflict. If both parties believe that control is possible, more desirable than the potential consequences of unrestrained nuclear war, and each party senses its opponent holds the same belief, then there is a chance that nuclear war could remain limited.

U.S. Secretary of Defense James Schlesinger was one of the primary proponents of NSDM 242, which highlighted the need to develop additional limited nuclear options for the President to respond more credibly in a greater number of scenarios, including limited nuclear employment. This effort became public and sparked accusations of “nuclear warfighting” and lowering the threshold for nuclear attack, to which Schlesinger responded in his *Annual Report* to Congress:

Certainly it would be foolhardy to preclude the possibility that a nuclear conflict could escalate to cover a wide range of targets, which is one more reason why limited response options are unlikely to lower the nuclear threshold. But I doubt that any responsible policymaker would deliberately want to ensure escalation, and forego the chance for an early end to a conflict, by refusing to consider and plan for responses other than immediate, large-scale attacks on cities. Surely, even if there is only a small probability that limited response options would deter an attack or bring a nuclear war to a rapid conclusion, without large-scale damage to cities, it is a probability which, for the sake of our citizens, we should not foreclose.<sup>94</sup>

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<sup>94</sup> James R. Schlesinger, *Annual Defense Department Report, FY 1976 and FY 1977* (Washington, D.C.: Department of Defense, February 5, 1975),

Here, Secretary Schlesinger emphasizes the idea that even if, as some critics believed, the likelihood of escalation restraint is low, the benefits of either deterring attack or ending a nuclear war quickly are so high that making the attempt to control escalation is both prudent and an obligation.

Other senior U.S. defense leaders, such as Secretary of Defense Harold Brown, were more explicit in their beliefs about the unlikelihood of controlling escalation—but they still believed the goal should remain the same. As Secretary Brown stated before Congress, “... I remain highly skeptical that escalation of a limited nuclear exchange can be controlled, or that it can be stopped short of an all-out, massive exchange. Second, even given that belief, I am convinced that we must do everything we can to make such escalation control possible, that opting out of this effort and consciously resigning ourselves to the inevitability of such escalation is a serious abdication of the awesome responsibilities nuclear weapons, and the unbelievable damage their uncontrolled use would create, thrust upon us.”<sup>95</sup>

Or, as Secretary of Defense Caspar Weinberger stated in his *Annual Report* to Congress:

In order to ensure deterrence, we need to think about and plan against possible failures of deterrence. While we cannot predict how a conflict would escalate should deterrence fail, the credibility of our deterrent forces increases as we

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pp. II-6-II-7, available at [https://history.defense.gov/Portals/70/Documents/annual\\_reports/1976-77\\_DoD\\_AR.pdf?ver=5Yhnn5giX2RjfQtSjD-Vw%3d%3d](https://history.defense.gov/Portals/70/Documents/annual_reports/1976-77_DoD_AR.pdf?ver=5Yhnn5giX2RjfQtSjD-Vw%3d%3d).

<sup>95</sup> Harold Brown, *Department of Defense Annual Report, Fiscal Year 1982* (Washington, D.C.: Department of Defense, January 19, 1981), p. 40, available at

[https://history.defense.gov/Portals/70/Documents/annual\\_reports/1982\\_DoD\\_AR.pdf?ver=2014-06-24-150904-113](https://history.defense.gov/Portals/70/Documents/annual_reports/1982_DoD_AR.pdf?ver=2014-06-24-150904-113).

demonstrate flexibility in our response options and in our forces. That flexibility offers the possibility of terminating a conflict and reestablishing deterrence at the lowest level of violence possible, avoiding further destruction. Although there is no guarantee that we would be successful in creating such limits, there is every guarantee such limitations would not be achievable if we do not attempt to create them.<sup>96</sup>

In each of these examples, senior U.S. defense leaders express varying levels of confidence that nuclear war would stay limited, but all expressed a desire, and even an obligation, to try.

It is notable that these thoughts are not restricted to Cold War era U.S. officials. As the 2020 U.S. *Nuclear Employment Strategy* states, “Elements of U.S. nuclear forces, currently in the field or under development, provide flexible, credible, limited, and graduated response options so U.S. leadership has choices beyond inaction or large-scale responses... Limited and graduated U.S. response options provide a more credible deterrent to limited attack against the United States and our allies and partners than relying primarily on the threat of large-scale nuclear responses.”<sup>97</sup>

As stated before, and assuming political and military leaders on both sides have the required command and control capabilities to retain positive control, the three necessary components for nuclear war staying limited are that both sides believe nuclear war can be limited, that they prefer limited nuclear war to unlimited nuclear war, and

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<sup>96</sup> Caspar W. Weinberger, *Report of the Secretary of Defense Caspar W. Weinberger to the Congress* (Washington, D.C.: Department of Defense, February 4, 1985), p. 46, available at [https://history.defense.gov/Portals/70/Documents/annual\\_reports/1986\\_DOD\\_AR.pdf?ver=2016-02-25-102404-647](https://history.defense.gov/Portals/70/Documents/annual_reports/1986_DOD_AR.pdf?ver=2016-02-25-102404-647).

<sup>97</sup> U.S. Department of Defense, *Report on the Nuclear Employment Strategy of the United States – 2020*, op. cit., p. 4.

that they sense the opponent (through his rhetoric or action) may believe the same.

It is worth examining this last point a little further – that the opponent must demonstrate some desire to also limit nuclear war. Russian nuclear doctrine and military journals indicate that officials have considered the possibility of limited nuclear war and would likely find it far more desirable than unlimited nuclear war. As a historical matter, this was not always the case. The Soviet Union, for instance, resolutely stood by its official position that limited nuclear war was impossible and that even the smallest U.S. nuclear strike would cause a massive Soviet response. After the Cold War, Soviet officials admitted that this rhetoric was simply meant to strengthen deterrence and, in general, they did not know how Soviet political leaders would react to a U.S. limited nuclear strike, other than to convene and discuss options.<sup>98</sup>

Currently though, the authors of perhaps one of the most authoritative reviews of Russian military doctrine and literature on limiting escalation conclude that the documents include discussions of, “...demonstrative measures intended to manage escalation during the crisis phase, and various approaches to inflicting damage that Russian military thinkers believe will manage an escalating conflict, or result in de-escalation.”<sup>99</sup> Russia’s latest official explanation of its nuclear policy, outlined in its 2020 *Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence*, states that, “In the event of a military conflict, this Policy provides for the prevention of an escalation of

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<sup>98</sup> Hines, Mishulovich, and Shull, *Soviet Intentions 1965-1985*, Vol. 1, op. cit., pp. 37-38.

<sup>99</sup> Kofman, Fink, and Edmonds, *Russian Strategy for Escalation Management*, op. cit., p. i.



military actions and their termination on conditions that are acceptable for the Russian Federation and/or its allies.”<sup>100</sup>

China’s nuclear doctrine is less explicit than Russia’s, yet even here there is some evidence in its military writings and force posture changes that Chinese officials are considering limited nuclear war to be a real possibility. Christopher Twomey, for instance, cites a passage in the 2004 authoritative Chinese text *Science of Second Artillery Campaigns* that discusses holding nuclear forces in “reserve” for future operations—indicating that Chinese officials may believe limited nuclear war could be possible.<sup>101</sup> Noted commentators of Chinese nuclear strategy, Fiona S. Cunningham and M. Taylor Fravel, disagree with this particular interpretation, but interestingly note that, “A tactical nuclear weapons capability would provide strong evidence that China’s nuclear posture had been influenced by the view that nuclear escalation could be controlled.”<sup>102</sup> This, indeed, appears to be the course China is pursuing. Then-Commander of U.S. Strategic Command, ADM Charles Richard, testified “The PLA is developing and fielding precision strike nuclear delivery systems such as the dual use DF-26 intermediate-range ballistic missile (IRBM) and... the redesigned H-6N is capable of carrying a nuclear capable air-launched ballistic missile (ALBM) and conducting air-to-air refueling for greater range and

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<sup>100</sup> Vladimir Putin, “Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence,” *MID.ru*, June 2, 2020, available at [https://www.mid.ru/en/foreign\\_policy/international\\_safety/1434131/](https://www.mid.ru/en/foreign_policy/international_safety/1434131/).

<sup>101</sup> Christopher P. Twomey, “China’s Nuclear Doctrine and Deterrence Concept,” chapter in, James M. Smith and Paul J. Bolt, eds., *China’s Strategic Arsenal: Worldview, Doctrine, and Systems* (Washington, D.C.: Georgetown University Press, 2021), p. 55.

<sup>102</sup> Fiona S. Cunningham and M. Taylor Fravel, “Dangerous Confidence? Chinese Views on Nuclear Escalation,” *International Security*, Vol. 44, No. 2 (Fall 2019), p. 88.

flexibility.”<sup>103</sup> These new capabilities, plus the Department of Defense’s view that Chinese strategists are increasingly discussing the utility of limited nuclear options, indicates that Chinese officials are at least open to the possibility that nuclear war could stay limited.<sup>104</sup>

## **Examining the Logic Behind Nuclear War Being Uncontainable**

There is a certain logic, at least on the surface, behind the belief that nuclear war is, or is likely to be, uncontrollable in the end. Once state leaders begin employing the “ultimate weapon,” the logic goes, the perceived pressures for other state leaders to limit their nuclear response in an attempt to signal a willingness to end the conflict will inevitably be lost in the fog of war, leading to a final desperate act of vengeance or vainglory. Among some of the more notable critiques, Herbert Scoville Jr., wrote:

The procurement of new counterforce weapons generates pressures for escalation since both sides will know that unless they preempt a major element of their force could be wiped out. While it may be possible to limit a conflict if nuclear weapons were only used in the battlefield situation, it would seem very unlikely, if not impossible, for it to be controlled once even a few

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<sup>103</sup> Charles A. Richard, *Statement of Charles A. Richard, Commander, United States Strategic Command* (Washington, D.C.: Senate Armed Services Committee, April 20, 2021), p. 7, available at <https://www.armed-services.senate.gov/imo/media/doc/Richard04.20.2021.pdf>.

<sup>104</sup> U.S. Department of Defense, *Military and Security Developments Involving the People’s Republic of China* (Washington, D.C.: Department of Defense, November 29, 2022), pp. 98-99, available at <https://media.defense.gov/2022/Nov/29/2003122279/-1/-1/1/2022-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF>.

strategic weapons were exploded on the homeland of either the U.S. or the Soviet Union. Even a limited nuclear strike would result in millions of casualties and the pressure to retaliate would be tremendous. A flexible strategic capability only makes it easier to pull the nuclear trigger.<sup>105</sup>

Such strikes, according to Scoville, would likely result in unexpected damage and lead to mixed signals to the adversary leadership.

Desmond Ball, for his part, identified the unlikelihood of controlled escalation as attributable to a number of areas, both technical (specifically the vulnerability of command and control) and political:

The notion of controlled nuclear war-fighting is essentially astrategic in that it tends to ignore a number of the realities that would necessarily attend any nuclear exchange. The more significant of these include the particular origins of the given conflict and the nature of its progress to the point where the strategic nuclear exchange is initiated; the disparate objectives for which a limited nuclear exchange would be fought; the nature of the decision-making processes within the adversary governments; the political pressures that would be generated by a nuclear exchange; and the problems of terminating the exchange at some less than all-out level. Some of these considerations are so fundamental and so intemperate in their implications as to suggest that

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<sup>105</sup> Herbert Scoville Jr., "'First Use' of Nuclear Weapons," *Arms Control Today*, Vol. 5, No. 7/8 (July/August 1975), p. 2.

there can really be no possibility of controlling a nuclear war.<sup>106</sup>

Bruce Blair made similar points, stating, "... the unrealistic assumptions made about the cool logic of decision-making, the accuracy of intelligence on the nuclear strikes and their consequences, and the ability of both side [sic] to maintain command and control under conditions of nuclear attack... both the United States and the Soviet Union would quickly lose control over their nuclear arsenals in wartime, rendering all the notions of exploitable intra-war blackmail totally academic."<sup>107</sup> Such thinking is not confined to the scholarly realm; Senator Dianne Feinstein summarized her position, "Let me be crystal clear: There is no such thing as 'limited use' nuclear weapons..."<sup>108</sup>

Yet, using some of the same assumptions that critics of limited nuclear options hold, there appear to be a number of logical gaps in their arguments. Specifically, there is the issue of their relative certainty that nuclear war will not come about because of the mutual fear of escalation—and yet, should a limited nuclear conflict occur nevertheless, that same overriding fear of escalation no longer appears to have the expected effect on leaders. It is unclear why, according to critics' logic, the failure of deterrence must result in the overwhelming pressure to escalate and not

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<sup>106</sup> Ball, *Can Nuclear War Be Controlled?*, op. cit., p. 36.

<sup>107</sup> Bruce G. Blair, "The Folly of Nuclear War-Gaming for Korea and South Asia," *Global Zero*, April 30, 2003, available at [https://www.globalzero.org/wp-content/uploads/2019/03/BB\\_The-Folly-of-Nuclear-War-Gaming-for-Korea-and-South-Asia\\_04.30.2003.pdf](https://www.globalzero.org/wp-content/uploads/2019/03/BB_The-Folly-of-Nuclear-War-Gaming-for-Korea-and-South-Asia_04.30.2003.pdf).

<sup>108</sup> Dianne Feinstein, "There's No Such Thing as 'Limited' Nuclear War," *Washington Post*, March 3, 2017, available at [https://www.washingtonpost.com/opinions/theres-no-such-thing-as-limited-nuclear-war/2017/03/03/faef0de2-fd1c-11e6-8f41-ea6ed597e4ca\\_story.html](https://www.washingtonpost.com/opinions/theres-no-such-thing-as-limited-nuclear-war/2017/03/03/faef0de2-fd1c-11e6-8f41-ea6ed597e4ca_story.html).

have the opposite effect, i.e., seeing the prospect of uncontrolled nuclear escalation more clearly after limited nuclear use may potentially dispel any expectations leaders had of victory at a tolerable cost, thus promoting restraint. As explained in a paper by the Joint Chiefs of Staff in 1977, “Enemy realization of the enormous destructive power available to be used after a limited exchange should serve to convince political leaders to stop and negotiate. These concepts were promulgated as Presidential guidance in NSDM 242.”<sup>109</sup> In short, if the prospect of uncontrollable escalation is what deters escalation prior to conflict, the fact that conflict has broken out should not negate the possibility of deterrence serving to constrain further escalation.

For instance, Desmond Ball wrote, “Given the impossibility of developing capabilities for controlling a nuclear exchange through to favourable termination, or of removing the residual uncertainties relating to controlling the large-scale use of nuclear weapons, *it is likely that decisionmakers would be deterred from initiating nuclear strikes no matter how limited or selective the options available to them.*”<sup>110</sup> This may be true in some cases, but if Ball is right that the deterrence effect of unlimited escalation works before nuclear employment, then he should not so quickly dismiss the deterrence effect after, for example, limited nuclear employment. Those same fears that affected state leaders before conflict would likely not disappear once a limited conflict breaks out—far from diminishing, in fact,

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<sup>109</sup> U.S. Joint Chiefs of Staff, *Nuclear Weapons Employment Doctrine (U)* (Washington, D.C.: Joint Chiefs of Staff, May 9, 1977), p. 4, available at [https://www.esd.whs.mil/Portals/54/Documents/FOID/Reading%20Room/Joint\\_Staff/99-A-0177\\_Nuclear\\_Weapons\\_Employment\\_Doctrine\\_9-May-1997.pdf](https://www.esd.whs.mil/Portals/54/Documents/FOID/Reading%20Room/Joint_Staff/99-A-0177_Nuclear_Weapons_Employment_Doctrine_9-May-1997.pdf).

<sup>110</sup> Emphasis in original. Ball, *Can Nuclear War Be Controlled?*, op. cit., p. 37.

they may increase in effect the more real the possibility of uncontrolled escalation becomes.

There is another apparent gap in the logic of believing that nuclear war likely would be uncontrollable: the survival instinct. True, as critics point out, the basic human instinct to survive may cause some state leaders to employ military options against their adversaries in a desperate attempt to escape destruction; but, that same instinct that underlies the “fight or flight” response may also prompt them to accept, however reluctantly, being deterred. As Herman Kahn pointed out, even those leaders seemingly most willing to take risks may find themselves on the precipice of destruction and change their minds: “Many have a feeling that thermonuclear war must be all-out and uncontrolled. This is a naïve point of view for two distinct reasons: first, it is not sensible, and second, it may not be true. Even if one tries to be uncontrolled, he may find himself being threatened so persuasively by an enemy that he will control himself at the last moment.”<sup>111</sup>

Indeed, Kahn notes repeatedly in his works that political leaders are likely to understand the point that if they have any ambitions or goals, they must, at the most basic level, survive: “The first and most important of the attacker’s objectives is *to limit damage to himself*... In all likelihood, the highest priority objective of the attacker will be to survive in some acceptable fashion. He might even be willing to choose damage-limiting tactics at the cost of seriously compromising his chances of victory.”<sup>112</sup> This latter point is very important in studying the possibility of nuclear war remaining limited; except for the leader who is simply beyond deterrence, most political leaders have

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<sup>111</sup> Herman Kahn, *Thinking About the Unthinkable* (New York: Horizon Press, 1962), p. 72.

<sup>112</sup> Emphasis in original. Kahn, *On Thermonuclear War*, op. cit., p. 165.

ambitions beyond those of the battlefield, not to mention the self-preservation instinct.<sup>113</sup>

Kahn, in his book *Thinking About the Unthinkable* further explains this point, writing, “But it is irrational for an attacker to ignore his own priority of interests in order to hurt the defender. The attacker is usually not nearly so interested in hurting the defender as he is in the dual objects of achieving his military objective and escaping destruction himself.”<sup>114</sup> The survival instinct, in other words, can cut both ways in a nuclear conflict. It can, according to some critics, place pressure on political leaders to believe their best chance for survival is through intra-war coercive bargaining with nuclear strikes on the adversary (with the possibility of uncontrolled escalation); or, the survival instinct can influence political leaders to reconsider their goals in light of new circumstances and choose to be deterred. Analysts can differ on which impulse will likely be stronger in a given situation, but by their own logic, critics of limited nuclear options should acknowledge the latter as a real possibility.

## Conclusion

The question of whether nuclear war can remain limited is, thankfully, theoretical at this point—but informed speculation on the answers is certainly better than none at all. Some may be reluctant to discuss the factors that go into the planning process for nuclear escalation, perhaps for fear of sounding too provocative, but failing to do so in fact make nuclear escalation more likely—whether by accident,

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<sup>113</sup> Some political leaders in history could not be deterred, even with the most seemingly credible and destructive threats. For a few examples that span ancient to modern history, one need only look at the Melian dialogue, Adolf Hitler in his final months, and Fidel Castro and Che Guevarra during the Cuban Missile Crisis.

<sup>114</sup> Kahn, *Thinking About the Unthinkable*, op. cit., p. 61.

misperception, or inadequate preparation. In effect, failing to prepare for limitation may facilitate the worst possible outcome. The stakes of escalation control are so high that even if informed speculation can only slightly increase the chances for success, then it is worth the effort.

A diverse range of nuclear scholars spanning the Cold War to today have written on their belief that nuclear war need not be uncontrolled and that there are rational reasons why political leaders will seek to limit the size and scope of their attacks in attempts to signal their limited political goals. There is no guarantee, each scholar acknowledges, that such signaling will work as intended, but there are at least reasons why each side would prefer a constrained war over an unconstrained war. Indeed, as stated by two noted scholars on the subject, "A progression of offers by each side is thus essential to ending the war short of the damage that would result if both sides refused to make any concessions and instead fought until one side could no longer continue. Both sides should prefer the outcome of this restrained war to that of an all-out war."<sup>115</sup>

There are three necessary components for nuclear war staying limited, assuming both sides have the requisite operational positive control capabilities over their forces: both sides must believe nuclear war can be limited, they must prefer limited nuclear war to unlimited nuclear war, and they must sense the opponent (through his rhetoric or action) may believe the same. These components may be necessary but not sufficient, given the fog and friction of war, and especially nuclear war, but they are important to note nonetheless. Senior U.S. defense leaders from the Cold War through today have agreed that limiting nuclear war is a possibility, even if there were differences in opinion over its likelihood. Russia's nuclear doctrine appears to assume

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<sup>115</sup> Andrew J. Coe and Victor A. Utgoff, *Restraining Nuclear War* (Alexandria, VA: Institute for Defense Analyses, 2011), p. 6, available at <https://apps.dtic.mil/sti/pdfs/ADA575230.pdf>.



nuclear war can be limited in some sense while China's nuclear doctrine (and forces) appear to be in a great state of flux—although, even here, there are indications limited nuclear war is not deemed impossible.

Those who are skeptical that nuclear war can stay limited often present wholly valid points about the potential frailties of command and control structures, the stress of political pressure and military necessity, and the impact of emotions and fear on decision-making. Yet, many of these factors—far from agitating for escalation in all cases—may indeed promote restraint, thus presenting a gap in critics' logic. Rational thought, plus emotions, need not inevitably lead to escalation pressures only, since the basic human instinct for self-preservation may overwhelm even the strongest political and military logic for escalation. There is no guarantee, of course, but recognizing the possibilities and preparing appropriately may increase the prospects for limitation and help lead to improved tailored deterrence threats.

Ultimately, if leaders of nuclear-armed states decide nuclear war can stay limited, should stay limited, and can credibly communicate that belief through word or action, and retain positive control over their nuclear forces, there may be a chance to stave off escalation. As in all matters of statecraft, there is no guarantee of success, but the possibility itself should motivate analysts and decisionmakers all the more to prepare accordingly.

## Chapter 4

# Potential Restraints During Limited Nuclear War

*It simply does not follow that because one side stands to lose from a limited war, it could gain from an all-out war. On the contrary, both sides face the same dilemma: that the power of modern weapons has made all-out war useless as an instrument of policy, except for acts of desperation.*<sup>116</sup>

~ Henry A. Kissinger

### Introduction

The question of whether nuclear war can remain limited might be usefully rephrased as: can nuclear deterrence fail to a degree? That is, can nuclear deterrence fail at one level of unprecedented violence, and yet hold at the highest level? The answers are theoretical mercifully, but if there are any potential reasons for restraint in such a scenario then it is best to study them now to help preclude learning from experience. This chapter is concerned with a scenario in which two nuclear-armed powers are already in a conventional conflict and one or both employ nuclear weapons against the other in a limited manner. “Limited” in this context means a strike or strikes that are restricted in size, target, or manner for the purpose of demonstrating “restraint” and “resolve” to the adversary.<sup>117</sup> Leaders may envision these strikes as having more military benefits

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<sup>116</sup> Kissinger, *Nuclear Weapons and Foreign Policy*, op. cit., p. 146.

<sup>117</sup> This definition borrows from the 2020 U.S. *Nuclear Employment Strategy*: “The U.S. flexible and graduated response strategy ensures there are a variety of credible options available, critical to demonstrating both U.S. resolve and restraint, and thereby deterring an adversary’s attack or escalation.” U.S. Department of Defense, *Report on the Nuclear Employment Strategy of the United States – 2020*, op. cit., p. 7.

(allowing military success at the conventional level) or political benefits (coercive bargaining for war termination), but in both cases the means are restricted in some fashion to accomplish an objective, while minimizing the chance that the opponent escalates in response. In short, this chapter seeks to propose some answers to the question: why might a state leader limit nuclear employment instead of initiating a massive response or a first strike?

Some of the earliest U.S. government thinking on this issue appeared in the previously mentioned Foster Panel report and is worth exploring briefly. First, NSSM-169 recognized that it is critical to gain insight into the factors uniquely relevant to deterring a specific actor if one wishes to limit nuclear war, but such information will not always be readily available or clear. Yet, one indication about the factors most relevant to deterring the adversary leadership may be gained from the manner of its attack: "Our understanding of enemy objectives and propensity for risks depends on whether the United States is faced with the decision (i) to respond to a limited nuclear attack or (ii) to initiate a U.S. limited nuclear attack. In the first case, the nature of the enemy attack will provide us with some relevant information. In the second case, there is much more uncertainty."<sup>118</sup>

The Foster Panel then noted that there may be some "natural" escalation boundaries in the sense that there is a chance that both sides might recognize that a set of actions is clearly and substantially different from another set of previous actions during a conflict:

From the perspective of the United States and the Soviet Union, there is a natural hierarchy of escalation boundaries on nuclear conflict:

- Battlefield or subtheater conflict;

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<sup>118</sup> Inter-Agency Working Group on NSSM 169, *NSSM 169 Summary Report*, op. cit., p. 43.

- Theater-wide conflict not involving attacks on U.S. or Soviet territory;
- Limited attack options on general purpose military targets in the United States or the Soviet Union;
- Limited attacks on U.S. or Soviet strategic forces;
- Major attacks on U.S. or Soviet territory.

At progressively higher levels on this scale, the vital interests of the superpowers are increasingly threatened. Consequently, the Working Group is more optimistic about prospects for control of escalation at the lower levels (e.g., battlefield or sub-theater nuclear conflict) than at higher levels.<sup>119</sup>

With this foundational history for U.S. nuclear policy in mind, this section now turns to examining the range of factors that may promote restraint during a limited nuclear war.

### **Factors Potentially Promoting Restraint: Fighting a Limited Nuclear War**

As with the other scenarios examined previously, the factors listed below are certainly not mutually exclusive, while factors listed previously may also be significant considerations. To avoid redundancy the latter are not listed here, but it is important to note that they may still apply. For example, the desire to avoid unintended escalation is a potential factor promoting restraint that was already examined, but obviously still applies in this scenario. Instead, this section focuses on those factors that may be unique, or most relevant to this scenario.

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<sup>119</sup> *Ibid.*, p. 44.

*A state leader seeks limited political aims through limited strikes but believes anything beyond limited nuclear war would unacceptably threaten any political gains.*

A state leader may believe there are some stakes so high that they are worth entering into limited nuclear war over, yet not so valuable that they warrant going beyond that. At some point, one side's major escalation of nuclear strikes, beyond limited ones, may begin to look like the start of an unrestricted all-out attack to the other side. Seeing little benefit and too many costs to that course of action, a state leader may then decide that all the coercive bargaining leverage that could be gained at an acceptable cost has been gained, and continuing the conflict only places perceived gains at risk. In short, engaging in limited nuclear war and surviving may be enough to convince a leader that he has reached the end of the acceptable options available to him. This could mean that the state leader believes he has "made his point," demonstrated his resolve, established his reputation, or any other number of justifications—but in any case, when confronted with the prospect of general nuclear war, he may simply declare that his objectives were met and seek to end the conflict. Note that this *does not* mean the state leader achieved all the objectives set *before* engaging in limited nuclear war. Staring into the abyss, as it were, of unrestrained nuclear war may cause the state leader to change his objectives from accomplishing some sort of political goal to, simply, survival.

Indeed, one of the reasons why past U.S. nuclear war plans retained "withhold" options was that U.S. leaders sought ways to demonstrate to the adversary that U.S. intentions and actions had specific limits.<sup>120</sup> By withholding

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<sup>120</sup> For some of the earliest discussion of "withholds" in U.S. nuclear targeting, see, U.S. Joint Chiefs of Staff, *Nuclear Weapons Employment Doctrine (U)*, op. cit.

strikes against potential targets such as leadership or vital industry, at least in the initial phases of a limited nuclear war, U.S. planners sought to retain communication with the adversary leadership in the hopes of ending the conflict, while also holding out the deterrent threat of further attacks against those targets the adversary leadership most valued—potentially including the leadership itself. For example, as stated in President Reagan’s NSDD 13, which superseded President Carter’s PD-59, “Options for attacking (1) the national-level political and military leadership and (2) the Soviet industrial/economic base (and that of their allies, as appropriate) will be designed to be withheld for a protracted period, to leave the Soviets with sufficient national control structure and industrial/economic resources at risk following counter-military attacks, so that they have a strong incentive to seek conflict termination short of an all-out attack on our cities and economic assets.”<sup>121</sup>

In addition to a withhold for adversary leadership, Reagan era officials recognized the need to withhold attacks against targets that the Soviet leadership valued so that there would be a great incentive for the Soviets to seriously consider war termination. For instance, one recently declassified memorandum from Defense Secretary Weinberger to the Chairman of the Joint Chiefs of Staff in 1985 indicates that he saw a clear distinction between targeting civilians as such, which the United States as a matter of policy did not (and does not) do, and targeting otherwise permissible urban areas. His explanation is worth quoting in full:

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<sup>121</sup> Ronald Reagan, *National Security Decision Directive 13: Nuclear Weapons Employment Policy* (Washington, D.C.: The White House, October 19, 1981), p. 2, available at <https://www.archives.gov/files/declassification/iscap/pdf/2013-104-doc01.pdf>.

The general proscription against targeting civilian populations per se, which results in guidance not to target deliberately residential areas, is intended primarily to cause our nuclear war plans to conform with Western morality. While we may hope that the Soviets would also refrain from targeting civilians, we are not holding Russians at risk of later destruction to gain Soviet reciprocity. Avoidance of unnecessary civilian casualties, where appropriate, is thus a U.S. goal. [redacted]... Directly targeting civilians is correctly interpreted as a targeting prohibition, [redacted].<sup>122</sup>

Yet, as Secretary Weinberger goes on to state, "With regard to the purpose for exercising restraint in targeting otherwise permissible urban areas, this is clearly for escalation control: the desire to reduce the probability that the Soviets would perceive specific attack options as city attacks in the hope that mutual restraint could be exercised... The urban restrict criteria, [redacted] must therefore leave the Soviet urban assets at risk, both to generate reciprocity and to provide incentive for war termination short of urban attacks."<sup>123</sup>

Secretary of Defense Schlesinger, although no longer in the Pentagon at that point, stated in a public interview only a few years later, "The Soviets understand that the United States can initiate under great provocation, the presumed provocation of an all-out assault against Western Europe, in such a way that avoids Soviet cities, avoids destroying

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<sup>122</sup> Caspar Weinberger, *Memorandum for the Joint Chiefs of Staff: Collateral Damage Restraint (U)* (Washington, D.C.: November 12, 1985), p. 1, available at [https://www.esd.whs.mil/Portals/54/Documents/FOID/Reading%20Room/MDR\\_Releases/FY18/FY18\\_Q2/Collateral\\_Damage\\_Restraint\\_12Nov1985.pdf](https://www.esd.whs.mil/Portals/54/Documents/FOID/Reading%20Room/MDR_Releases/FY18/FY18_Q2/Collateral_Damage_Restraint_12Nov1985.pdf).

<sup>123</sup> Loc cit.

Soviet population. And it places upon the Soviet leadership the burden of responding to that in a way that precludes the destruction of Soviet cities. So they must respond with restraint.”<sup>124</sup> Thus, U.S. policy and planning has sought to provide incentives, ones that might be rationally followed, to adversary leaderships that promote restraint and avoid further escalation beyond a limited nuclear war.

*The military balance beyond a limited nuclear exchange does not appear favorable for gaining a better bargaining position by continuing the conflict.*

One of the key unknowns any opponent of a nuclear-armed power faces is the question of whether the opponent would in fact be willing to employ his nuclear weapons in a given scenario—a matter of resolve. If one state were to employ nuclear weapons and the opponent provides a nuclear reply, then the issue of resolve may not be settled completely but it certainly would be clarified. Once both nuclear powers know that the other is willing to employ nuclear weapons to accomplish their objectives, the two remaining primary questions will be which side has the most resolve to continue, and which side might the military balance favor during and after the conflict? Yet, as nuclear scholars throughout the Cold War recognized, these two factors may in some situations be related: the side with a perceived advantage in the military balance may have, and be seen as having, the advantage in resolve.

For example, Henry Kissinger wrote in 1957, “The key problem of present-day strategy is to devise a spectrum of capabilities with which to resist Soviet challenges. These capabilities should enable us to confront the opponent with

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<sup>124</sup> James Schlesinger, “Interview with James Schlesinger, 1987” *GBH Archives*, December 16, 1987, available at [https://openvault.wgbh.org/catalog/V\\_8E2E3EDD88504E6E9C957CC233FDC95D](https://openvault.wgbh.org/catalog/V_8E2E3EDD88504E6E9C957CC233FDC95D).



contingencies from which he can extricate himself only by all-out war, while deterring him from this step by a superior retaliatory capacity. Since the most difficult decision for a statesman is whether to risk the national substance by unleashing an all-out war, the psychological advantage will always be on the side of the power which can shift to its opponent the decision to initiate all-out war."<sup>125</sup> Or, as another analyst noted, the military balance at any given point in a conflict affects a state leader's calculation about the potential benefits of pursuing a political settlement: "It is unused [nuclear] weapons, and not destroyed [nuclear] weapons, that will provide the assurance necessary for the conclusion of an armistice."<sup>126</sup>

The 1978 *Nuclear Targeting Policy Review*, led by Leon Sloss, pointed out that, "It is sufficient for purposes of deterrence if the Soviets perceive that there be a reasonable likelihood that we could (and would) escalate or respond successfully; it is not necessary that we have *highest confidence* that escalation control will work, or, still less that we can win the war. However, to lend credibility to a U.S. threat to escalate, we need employment options and supporting capabilities which the Soviets might perceive to be advantageous to us. Such options require greater flexibility and endurance than we now have in our nuclear posture."<sup>127</sup> The key point in this context is that the adversary, ideally, should believe that the United States has military options available to it that, if employed, would result in U.S. advantages during or after the conflict.

Indeed, during an ongoing conflict, both sides may be simultaneously thinking of the future and whether the existing military balance is acceptable in the longer term,

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<sup>125</sup> Kissinger, *Nuclear Weapons and Foreign Policy*, op. cit., p. 144.

<sup>126</sup> Leon Wieseltier, "When Deterrence Fails," *Foreign Affairs*, Vol. 63, No. 4 (Spring 1985), p. 842.

<sup>127</sup> Emphasis in original. U.S. Department of Defense, *Nuclear Targeting Policy Review*, op. cit., p. ii.

assuming an end to the conflict. That is, there may be much to lose by continuing a limited nuclear war by depleting the weapons necessary to deter further aggression, or other potential aggressors when the ongoing conflict is eventually settled.

*A state leader may limit nuclear strikes because the more devastating the prospective defeat the opponent perceives, the more desperate or irrational the opponent may become.*

Nuclear scholars have long recognized that one of the main differences between nuclear war and conventional war is that in nuclear war, it is far riskier to seek the “unconditional surrender” of the adversary. That is, in conventional war, when one side has the decisive advantage, it can often dictate the terms of political settlement. In a nuclear war, however, the opponent may still have a sizable nuclear arsenal; and, in the absence of substantial homeland missile defenses, that arsenal can still potentially extract an unacceptable cost for overstepping in political settlement demands.

Early nuclear scholars quickly recognized that, unlike World War II, the limiting factor in a nuclear war is likely to be psychological and not some physical restraint like industrial production capacity. As Henry Kissinger wrote:

The restraint which keeps a war limited is a psychological one: the consequences of a limited victory or a limited defeat or a stalemate—the three possible outcomes of a limited war—must seem preferable to the consequences of an all-out war... Because the limitation of war is brought about by the fear of unleashing a thermonuclear holocaust, the psychological equation is, paradoxically, constantly shifting *against* the side which seems to be winning. The greater the

transformation it seeks, the more plausible will become the threat by its opponent of launching an all-out war. The closer defeat in the limited war brings the losing side to the consequences which it would suffer by defeat in an all-out war, the less it will feel restrained from resorting to extreme measures.<sup>128</sup>

This point, in fact, echoes one that the Prussian strategist Carl von Clausewitz made over a century earlier: "The danger of this method is that the greater the success we seek, the greater will be the damage if we fail."<sup>129</sup>

Indeed, just as Clausewitz recognized that the political aims of a conflict can change with the circumstances, so too did nuclear scholars such as Herman Kahn recognize that the prospect of an opponent's decisive defeat can affect the other state's decision calculus. As one side gains a decisive advantage in nuclear war, opposite to the nature of conventional war, the risk of suffering unacceptable costs may increase. As Kahn stated, "Escalation also is referred to as a 'competition in risk-taking.' One side or the other might decide that it no longer was willing to endure these risks. In the nuclear age, this is likely to be the greatest factor in de-escalation."<sup>130</sup>

U.S. nuclear strategy began to incorporate some of these thoughts with the implementation of the conclusions in NSSM-169, which noted:

While political measures and conventional military operations may in some cases dissuade the enemy from exploiting his advantage, military action by nuclear forces might be required in order to convince the enemy that his potential losses are

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<sup>128</sup> Emphasis in original. Kissinger, *Nuclear Weapons and Foreign Policy*, op. cit., p. 168.

<sup>129</sup> Clausewitz, *On War*, op. cit., p. 112.

<sup>130</sup> Kahn, *On Escalation: Metaphors and Scenarios*, op. cit., p. 233.

not worth his potential gains. However, extension of such attacks in area, destruction, and duration beyond what is necessary to accomplish the above could well increase the incentives of the enemy to prolong and enlarge the conflict, if only to establish a tolerable basis for negotiation from his viewpoint. Thus, restraint would be an important element if escalation is to be controlled.<sup>131</sup>

To restate this point then, a state leader may limit his initial nuclear strikes to minimize the risk of inadvertently promoting the adversary's belief that an unrestricted general nuclear strike is his only chance for survival.

***A state leader may limit nuclear strikes to achieve a decisive conventional victory or avoid decisive battlefield defeat.***

Finally, a state leader may see the tactical advantages of employing nuclear weapons in a limited fashion on the battlefield as outweighing the risks of additional costs. The purpose of limited nuclear strikes, in these scenarios, would be to gain some advantage at the tactical level or avoid a decisive defeat. That is, nuclear strikes are often thought to have strategic connotations, and U.S. officials often say as much—that any nuclear employment would change the nature of the conflict. But in some cases, particularly Russia's with its large stockpile of non-strategic nuclear weapons, nuclear employment on the battlefield may be primarily for achieving some tactical military benefit with only the secondary (but still important) benefit of sending a strategic deterrent signal to others.

U.S. officials seek commendably to signal to Russia and others that they believe nuclear weapons are unique in their effects and not simply another weapon for achieving

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<sup>131</sup> Inter-Agency Working Group on NSSM 169, *NSSM 169 Summary Report*, op. cit., p. 19.

objectives on the battlefield. Yet, despite these efforts, states like Russia may still believe that there are necessary battlefield objectives best suited for nuclear weapons—especially given their unique ability to signal resolve for deterrence purposes.

Indeed, President Nixon's NSDM-242, built on the foundation laid by NSSM-169, stated, "Plans should be developed for limited employment options which enable the United States to conduct selected nuclear operations, in concert with conventional forces, which protect vital U.S. interests and limit enemy capabilities to continue aggression. In addition, these options should enable the United States to communicate to the enemy a determination to resist aggression, coupled with a desire to exercise restraint."<sup>132</sup> Thus, a state leader may limit nuclear strikes, not because of some specific U.S. deterrence threat, but because nuclear weapons were necessary to achieve a tactical battlefield outcome that had potential strategic implications, according to the one who authorized the nuclear strikes.

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<sup>132</sup> Nixon, *National Security Decision Memorandum 242*, op. cit., p. 2.

# **Chapter 5**

## **Preliminary Application to China and Russia**

### **Introduction**

This *Occasional Paper* has, to this point, examined potential reasons for restraint in a state-agnostic manner – meaning it simply has listed possible factors that may be applied to real world states to determine if they are relevant. Since a goal of this paper is to provide U.S. decisionmakers with a set of relevant questions and considerations to discuss with regional and intelligence experts, it is worth conducting a “proof of concept” application to China and Russia. To be clear, subject matter experts on Chinese and Russian decision-making can, and certainly will, produce a much more detailed examination of which factors that could promote restraint might and might not apply—but this preliminary analysis is still useful for illustrating the concept. Finally, to add one last important caveat, the factors discussed below are all highly-context dependent; the following discussion is informed speculation and is not meant to be predictive.

### **Factors Promoting Restraint – China**

Choosing what appears to be the most likely scenario in which Chinese officials may consider nuclear employment, a conflict against Taiwan, and potentially the United States—there seems to be a number of factors that could promote Chinese restraint in such a case. If the United States had not yet formally entered an ongoing China-Taiwan conflict on Taiwan’s side, then China’s leaders may wish to keep the conflict non-nuclear for fear that it could raise the stakes of the outcome by employing nuclear weapons and

threatening U.S. vital interests. And, if the United States enters the conflict against China, other states in the region may also join a U.S.-led coalition. In that same vein, China may also wish to keep any conflict against Taiwan non-nuclear to minimize the chances that U.S. allies in the region pursue their own nuclear weapon programs. Or, if China's invasion of Taiwan stalls and is perhaps locked in a stalemate, China's leaders may refrain from nuclear employment for fear of endangering a favorable political settlement that might allow them to keep a foothold in the area and regroup for another attempt.

Among some of the other reasons why Chinese leaders may refrain from nuclear employment in a Taiwan contingency is the possibility that the conventional conflict exposed some undeniable deficiencies in Chinese military capabilities, especially against an advanced opponent like the United States. In that case, Chinese leaders may doubt that escalating to a nuclear conflict will improve their chances of victory on the battlefield. Finally, depending on how the conventional conflict is progressing, China's leaders may believe that employing nuclear weapons may place the economic gains they have secured for domestic stability at unacceptable risk. If the domestic populace perceives the conventional conflict is going poorly, they may not want their political leaders employing nuclear weapons in a situation that could lead to the worst of both worlds: a political and military defeat against Taiwan and the loss of economic gains for perhaps a decade or more.

Should China and the United States enter into a nuclear conflict with one another, there appear to be some plausible reasons why China's leaders may seek to limit their nuclear strikes. First, there is a long line of thinking in historical Chinese nuclear doctrine that asserts nuclear escalation is likely uncontrollable.<sup>133</sup> Recent developments in China's

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<sup>133</sup> Cunningham and Fravel, "Dangerous Confidence? Chinese Views on Nuclear Escalation," *op. cit.*, pp. 75-81.

nuclear posture and comments by senior leaders appear to challenge this long-held sentiment, but during a nuclear conflict the familiar logic may caution restraint. Second, after a limited nuclear exchange with the United States, Chinese officials may conclude that they underestimated U.S. resolve and thus may seek to further limit their strikes to avoid uncontrolled general nuclear war. Third, if a limited nuclear exchange took place sooner rather than later in a conflict, Chinese officials may conclude that the nuclear military balance between China and the United States favors the latter, making continued escalation imprudent. Finally, China's leaders may limit their employment of nuclear weapons to the battlefield for tactical purposes, whether to secure a conventional victory or stave off a conventional defeat. In this case, Beijing may place value in limited nuclear employment for tactical reasons, but in service of a broader strategic goal—a goal that might be imperiled if China were to employ nuclear weapons outside the immediate battlefield, such as against the U.S. homeland or the homelands of U.S. allies.

### **Factors Promoting Restraint – Russia**

Russia's war against Ukraine, a non-nuclear state, illustrates a number of the potential reasons that might be acting as restraints against Russian nuclear employment. For example, Russia may refrain from nuclear employment against Ukraine because that minimizes the chances that the United States and other military powers become direct combatants in the conflict on Ukraine's side. Russian nuclear employment, in other words, could raise the perceived U.S. stake in the conflict to the level of threatening vital U.S. interests, and those of its allies, ultimately making Russia's military problems worse. In this regard, U.S. officials up to and including President Biden have



reportedly warned Russian officials against employing nuclear weapons in Ukraine.<sup>134</sup>

Russian nuclear employment might also severely damage diplomatic relations with states like China, India, or Iran who may not want to be associated with a regime that could then become subject to unprecedented economic sanctions. Additionally, should Russia employ nuclear weapons and still fail in its ultimate military or political goals, Vladimir Putin may perceive such humiliation as unacceptably contributing to an erosion of domestic support for his continued hold on power—thus favoring restraint. Moreover, Russia’s leadership may believe that employing nuclear weapons against Ukraine may in fact make a favorable political settlement more difficult to achieve—if in fact, that is an acceptable solution.

In a scenario in which Russia and the United States were in direct conventional conflict, there is a chance that the conflict could stay non-nuclear. Moscow may choose not to employ nuclear weapons because the conventional conflict revealed severe deficiencies in its military forces that may extend up to its nuclear forces. Thus, a lack of confidence in the ability of the Russian military to successfully carry out a nuclear strike against the United States—the one mission that Russian leaders might require the highest level of assurances for success—may caution against nuclear employment. Additionally, Russian leaders may choose not to employ nuclear weapons because if they did, that would open up Russia to symmetrical strikes that could cripple their theory of military victory. While the United States or

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<sup>134</sup> See, for example, Ellie Kaufman, “Defense Secretary Condemns Nuclear ‘Saber-Rattling’ but says he doesn’t Believe Putin has Decided to use Nuclear Weapons,” *CNN*, September 30, 2022, available at <https://www.cnn.com/2022/09/30/politics/lloyd-austin-putin-nuclear-saber-rattling-cnntv/index.html>.; and Kevin Liptak, “Biden Warns Russia not to use a Tactical Nuclear Weapon,” *CNN*, October 25, 2022, available at <https://www.cnn.com/2022/10/25/politics/biden-russia-dirty-bomb/index.html>.

NATO might suffer a significant level of damage, the same level of damage in Russia might be relatively far more detrimental militarily.

Finally, if Russia and the United States engaged in a limited nuclear conflict, there appear to be a few reasons why Russian leaders may seek to keep their strikes limited in some manner. First, according to Russia's leaders' possible values, the issue in contention may be worth going to war over, even limited nuclear war, but it may not be worth putting the existence of the state at risk. In short, the risks of uncontrolled nuclear escalation and damage from a U.S. response to a Russian first strike outweigh the likelihood of successfully conducting a first strike at an acceptable cost. Alternatively, Russia may choose to employ some fraction of its large arsenal of non-strategic nuclear weapons for tactical benefits on the battlefield, either to secure a conventional victory or to stave off conventional defeat. Employing nuclear weapons in this manner would certainly have strategic effects, but in the Russian mindset, they may be limited nuclear strikes to achieve a certain territorial or military objective. In short, employing more nuclear weapons than is necessary to achieve that military objective might so damage the area as to negate any benefits or escalate the conflict in a way that – far from securing the objective – actually places it at greater risk.



## Chapter 6

# Findings and Conclusion

*On the other hand, there may be different paths to safety, each involving degrees of risk and varying outcomes. I believe there are. But I recognize that balancing the risks is difficult. It cannot be done rigorously, though analysis should help. In the end, the best of policies must involve judicious guesses, informed acts of faith, and careful steps in the dark. It is well to recognize these for what they are, to be conscious that some new and seemingly appealing path that avoids the familiar horrors may be riskier than the present perilous path.<sup>135</sup>*

~ Herman Kahn

## Findings

If U.S. decisionmakers are to take the “careful steps in the dark” Kahn mentions in the quotation above, they will necessarily require the best information available on the unique adversary attributes relevant to deterrence. Given the stakes involved in deterring or limiting nuclear employment, there is likely to be no shortage of information arriving on decisionmakers’ desks, but the key will be distilling the information into actionable intelligence. Thus, as Andrew Coe and Victor Utgoff once wrote, “If nuclear war is a contest in resolve, then the most valuable intelligence, both before and during a war, will be on the challenger’s settlement values and thresholds for making or accepting offers. Less uncertainty about these values means arriving more quickly and cheaply at a mutually acceptable settlement.”<sup>136</sup> One might amend the last sentence to read “*potentially arriving*” at a mutually acceptable settlement, as

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<sup>135</sup> Kahn, *Thinking About the Unthinkable*, op. cit., p. 26.

<sup>136</sup> Coe and Utgoff, *Restraining Nuclear War*, op. cit., p. 7.

even the best intelligence cannot guarantee the adversary's fickle human nature will not intervene. But, the point remains that the most valuable intelligence will likely be focused on adversary "red lines," values, decision-making process, centers of power, and a host of other factors. It is worth emphasizing here that those analysts studying these adversary attributes should ideally have broad exposure to the adversary's strategic culture—that set of norms, practices, beliefs, and history that shape how an adversary thinks. Without this necessary context, the mosaic of pieces of intelligence may be just as likely to mislead as to illuminate.

In short, the value of "tailoring" deterrence, while often applied as a label to U.S. nuclear strategy broadly speaking, shows through the examples in this study its value for the narrower focus of escalation control. Recognizing this broad-based applicability for tailoring deterrence threats to match the unique characteristics of an adversary demonstrates the enduring wisdom of some of the earliest foundational studies on the topic from the U.S. government with NSSM-169, NSDM-242, and PD-59; and outside of the government, with Jack Snyder's report *The Soviet Strategic Culture: Implications for Limited Nuclear Options* and Colin Gray's book, *Nuclear Strategy and National Style*.<sup>137</sup> Thus, while finding that tailoring deterrence threats, both pre-conflict and during a conflict, is not new to the field *per se*, it is a valuable confirmation that U.S. escalation control strategy is being built on a firm theoretical foundation.

Another major finding of this study begins by acknowledging U.S. officials potentially have two ways of influencing an adversary leadership. First, in the more

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<sup>137</sup> Jack L. Snyder, *The Soviet Strategic Culture: Implications for Limited Nuclear Options* (Santa Monica, CA: The RAND Corporation, September 1977), available at <https://www.rand.org/content/dam/rand/pubs/reports/2005/R2154.pdf>.; and, Gray, *Nuclear Strategy and National Style*, op. cit.

familiar case, the United States has a variety of deterrence tools that it can threaten to employ so that the adversary would bear a cost greater than the benefits it seeks. Second, in the less familiar case, the United States can gain a better understanding of the factors that are internal to an adversary's leadership, those most outside U.S. control, relevant to restraint. Whether it is the prospect of a major loss of prestige, domestic unrest, or the fear of losing the support of a major ally, there are many internal factors an adversary leadership may consider that could, in their minds, indicate restraint is the better course of action.

Even though the United States may have less direct influence over these adversary perceptions, it is self-evidently in the U.S. interest to know what those perceptions might be, their relevance for deterrence, and the potential avenues for influencing them to the extent it can. While this category of factors that might promote adversary restraint are the most difficult to identify and influence, they may be the most relevant factors to the end goal of refraining from escalation in some cases. In short, while U.S. deterrence efforts directed at an adversary leadership may be the most easily controllable, in some cases those efforts may not be the primary deciding factors promoting restraint in the adversary's mindset. An adversary's own independent decision calculus may place greater weight on factors not directly affected by the U.S. deterrence strategy; thus U.S. efforts should focus on identifying what those factors may be and whether they can be incorporated into U.S. deterrence efforts.

The knowledge that an adversary leadership may make a decision for or against restraint primarily based on internal factors that are beyond the direct reach of U.S. influence should be somewhat discomfiting. But, U.S. officials should view this possibility as another potential avenue for better understanding an adversary and shaping

its perceptions however indirectly in the service of tailoring deterrence.

This study of restraints also suggests another finding: that U.S. leaders will likely benefit from a range of military capabilities, non-nuclear and nuclear, whose diverse characteristics can be applied in a tailored manner. That is, weapons that leaders can employ selectively, both in number and physical effects, will be more likely to support deterrence signaling in crisis and limited conflict scenarios than weapons that are less discriminate. If the goal is to identify an adversary's potential reasons for restraint and send deterrence signals tailored to reinforce those reasons for restraint, then U.S. leaders will be better served by a more diverse set of weapon types and characteristics.

Of course, military capabilities alone (absent an informed policy and doctrine on how they should be employed) are unlikely to completely solve a deterrence problem; yet, the broader the range of capabilities, and the more diverse their characteristics, the better the chance there is that U.S. leaders can tailor their employment to promote deterrence based on what the adversary perceives are prudent reasons for restraint. Or, in the best-case scenario, the adversary will observe the broad range of U.S. capabilities as too great a set of threats to his military theory of victory before a crisis or conflict, and therefore will choose restraint. In short, since the reasons why an adversary may choose restraint are varied, an adaptable set of U.S. capabilities is more likely to reinforce, in the adversary's mind, the reasons for restraint. Thus, policy or procurement decisions that lower the numbers, types, or characteristics of weapons available may also lower the potential number of options that U.S. leaders have to signal resolve and restraint, or to promote adversary restraint during a crisis or conflict.

As a final finding, it is interesting to note the number of factors that might promote restraint (as listed in the

Appendix) which include states not directly involved in the conflict. That is, state leaders must not only contemplate the potential effects nuclear employment may have on the adversary, but also the effects it may have on that adversary's allies and partners, or the state leader's allies and partners—all of whom could in some combination change the nature and direction of the conflict. This finding thus confirms the prudence of the long-standing U.S. practice of forming alliances and partnerships around the world. These relationships not only benefit the United States militarily, but in a situation in which an adversary is contemplating nuclear employment, U.S. alliances and partnerships vastly complicate the adversary's planning and could even provide a decisive deterrent effect.

## **Conclusion**

Restraints at the nuclear brink are uncertain things. They are uncertain because the variables that a state leader may find most relevant for decision-making are numerous, changing, and shifting in priority as circumstances change. State leaders since 1945 have self-evidently been restrained from choosing to employ nuclear weapons in a conflict, even when potentially tempted to do so. The question is why, and can U.S. decisionmakers benefit from understanding the potential reasons for restraint beforehand so they can make more effective (i.e., tailored) deterrence threats when needed?

Despite being the scenario with seemingly the lowest stakes, there are a number of reasons why a nuclear-armed state may choose not to employ nuclear weapons against a non-nuclear state, even when not facing the prospect of a response in kind. A state leader, for instance, may believe that other states would enter the conflict on the side of his opponent if nuclear weapons were employed, making the act self-defeating militarily. Or, perhaps a state leader may



choose restraint so as to keep diplomatic, economic, and military relations on good terms with critical allies and partners. Or, thinking long term, a state leader may choose not to employ nuclear weapons because doing so (and being successful militarily) may spark a nuclear proliferation cascade among other states that are hostile in response—ultimately worsening the nuclear aggressor’s security.

If two nuclear-armed states found themselves in conventional conflict, there appear to be multiple plausible reasons why each may choose not to employ nuclear weapons, even if they are on the verge of defeat. First, there is the ever-present risk of uncontrolled escalation—that once a state turns a conventional war into a nuclear war, the ultimate end state is less certain and potentially far worse than a conventional defeat. Second, the conventional conflict may have exposed significant shortcomings in the military’s ability to conduct complex attacks, making the prospect of successfully carrying out the ultimate “no fail” mission of a nuclear strike appear unacceptably unlikely. Third, even if a state leader thought a limited nuclear strike might be successful against the opponent, the prospect of a symmetrical response might be unacceptably costly as it could damage the capabilities necessary for the military theory of victory to succeed.

Once a state has employed nuclear weapons against another nuclear-armed state, however, there is the unanswered question of whether nuclear war can remain limited. Nuclear scholars from the Cold War through today have studied this question extensively, and though they disagree on many other topics, there does appear to be some broad-based agreement that there are many reasons why state leaders would employ nuclear weapons in a limited fashion and seek to end the conflict short of unconstrained general nuclear war. Although these nuclear scholars, and even many U.S. senior defense officials, have offered varying levels of confidence in the *likelihood* that nuclear war

would stay limited, they do agree that it is necessary to *plan for its limitation so as not to preclude the possibility*. Assuming for the purposes of this discussion that political leaders have the operational capabilities necessary to retain positive control of their nuclear forces, there are three necessary components for nuclear war staying limited: both sides must believe nuclear war can be limited, they must prefer limited nuclear war to unlimited nuclear war, and they must sense the opponent (through his rhetoric or action) may believe the same. This, combined with each side's basic "survival instinct," may present the conditions necessary to keep nuclear war limited.

During such a conflict, each side may have good reason to limit its nuclear strikes in some way, whether that is the size of the attack, the intended targets, or some other factor that communicates both resolve and restraint. For instance, a state leader may limit nuclear strikes in order to gauge the resolve of the opponent and his willingness to end the conflict. Or, after a limited nuclear exchange, a state leader may decide that he underestimated the resolve of the opponent and thus escalating to more or larger nuclear strikes would be excessively risky—thus incentivizing a restrained approach to war termination.

The prospects for success in keeping war limited are, admittedly, uncertain at best. The cost of failure is potentially existential, yet so too is the cost of *not trying* to limit destruction. Leaving U.S. leaders with only two possible choices in the face of nuclear conflict, surrender or suicide, is an invitation for adversary coercion and even outright aggression. As long-standing U.S. policy has recognized, U.S. officials are obligated to find ways to deter aggression, and should deterrence fail, end the conflict with the lowest level of damage possible consistent with achieving U.S. objectives. No matter how difficult it may seem, the stakes are simply too high to ignore any

opportunity to influence an adversary toward restraint at the nuclear brink.

## **Appendix**

# **A Compilation of the Reasons for Restraint in Nuclear Employment**

1. Nuclear employment may provoke other states to enter a conflict.
2. Nuclear employment may damage relations with vital allies or partners.
3. Resorting to nuclear employment against a non-nuclear state might be seen as a sign of weakness.
4. Nuclear employment would be out of proportion to the political goals of the conflict.
5. Nuclear employment may incentivize nuclear proliferation among hostile states, thus damaging long term security.
6. Escalation of a conventional conflict to nuclear employment may affect domestic support at home or abroad.
7. Nuclear employment in a scenario short of national survival may be perceived as immoral.
8. Nuclear employment could lead to uncontrolled escalation.
9. Nuclear employment could reduce the chance for a favorable political settlement.
10. A state's leadership may perceive weaknesses in its military capabilities that were unknown when the conventional conflict began—sowing doubt about a nuclear attack's efficacy and likelihood of success.
11. A nuclear attack might fail because of the opponent's active defenses.
12. If the opponent responds with a comparable strike, the relative damage will be disadvantageous.

13. The opponent's nuclear signaling, short of employment, may demonstrate more resolve than expected.
14. A state leader seeks limited political aims through limited strikes but believes anything beyond limited nuclear war would unacceptably threaten any political gains.
15. The military balance beyond a limited nuclear exchange does not appear favorable for gaining a better bargaining position by continuing the conflict.
16. A state leader may limit nuclear strikes because the more devastating the prospective defeat the opponent perceives, the more desperate or irrational the opponent may become.
17. A state leader may limit nuclear strikes to achieve a decisive conventional victory or avoid decisive battlefield defeat.

## *About the Author*

Matthew R. Costlow is a Senior Analyst at the National Institute for Public Policy. His areas of expertise are in nuclear deterrence, missile defense policy, arms control, and Russia's and China's nuclear doctrine. His work has been published by *Comparative Strategy*, *Strategic Studies Quarterly*, and the *Bulletin of the Atomic Scientists*. He has also published numerous opinion pieces in the Institute's *Information Series* as well as the *Wall Street Journal*, *War on the Rocks*, *Defense News*, and *Defense One*.

While working for the National Institute, Mr. Costlow graduated in 2012 from Missouri State University with an M.S. in Defense and Strategic Studies. His thesis, "Gunboat Diplomacy in the South China Sea" was chosen for publication at the U.S. Air Force Institute for National Security Studies. He is currently a Ph.D. candidate in Political Science at George Mason University.

From 2012-2019, Mr. Costlow worked as an Analyst at National Institute, specializing in many of the same areas he currently writes on. In 2018, he assisted former Senator Jon Kyl in drafting nuclear and missile defense policy recommendations on the bipartisan National Defense Strategy Commission. Before 2012, he researched cybersecurity, emergency management, and foreign airpower acquisition at the Congressional Research Service. Prior to that, he worked at SAIC on federal and state emergency management best practices.

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