

The Terrible Swift Sword: US Nuclear Posture and Foreign Policy

by

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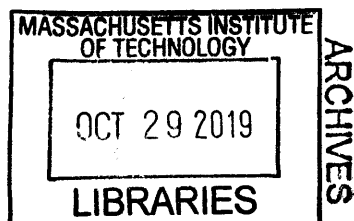
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Abstract:

This dissertation explains how and why US nuclear posture has changed from the late 1940s to the present. It argues that presidents reliably pursue aggressive nuclear postures to advance their ambitious foreign and security policy goals. In the course of advancing this main argument, it makes five additional contributions.

First, it overturns the conventional or folk wisdom that Mutual Assured Destruction (or MAD) characterized US Cold War nuclear posture. In fact, the desire to escape MAD—not maintain it—was a major driver of aggressive US posture.

Second, it upends the standard political science argument that US nuclear posture became aggressive as a result of military service rivalries or bureaucratic pathologies within the Pentagon. When it comes to nuclear posture, presidents carry far more weight than bureaucrats.

Third, it fills an important gap in the existing literature. Barrels of ink have been spilled on US nuclear weapons policy and related topics. However, surprisingly, this is the first attempt at a full-length history of US nuclear posture.

Fourth, it illuminates the character of the United States' post-World War II grand strategy. For over seventy years that grand strategy has encompassed three core objectives: defending the US homeland, especially against nuclear attack; protecting distant allies in Europe and Asia from their stronger nuclear-armed neighbors; and denying the security benefits of nuclear weapons to adversaries and allies alike. The costs and risks that US presidents have consistently accepted to pursue these far-reaching goals challenges America's self-image as a benevolent steward of international order.

Fifth, this project explains our nuclear posture history with a view towards facilitating wise decisions in the present. Today the US faces decades of great power competition. We are also undertaking a major nuclear modernization effort. By showing how thirteen presidents have set goals, made trade-offs, and balanced costs and risks in the past, I intend to facilitate the kind of informed debates on foreign policy and nuclear posture that American democracy deserves and demands.

Thesis Supervisor: Vipin Narang

Title: Associate Professor of Political Science

Acknowledgments:

Completing this dissertation is an opportunity to reflect on how fortunate I am and to thank the many people who have helped me along the way. The seed for this project was planted years ago when I stumbled across a short 1974 video clip.¹ A Minuteman I ICBM is loaded into a giant C-5 Galaxy cargo plane and dropped out the back mid-flight. Drag chutes deploy, rocket motors ignite, and in a fit of misplaced optimism the narrator closes, intoning that “although it was not to be adopted as a complete system, the air-launching of an ICBM was nevertheless a spectacular achievement.” Who, I wondered, approved this cocktail napkin experiment? What were they thinking!? These questions—about the air-launched ICBM test, and about US nuclear posture overall—were the genesis of this project.

At that time I was working for the Wilson Center. There I was surrounded by a community of people who thought that odd nuclear history questions like these were worth answering. Without their support and encouragement I never would have started down this path. I thank you all.

I am especially grateful to my committee for backing me throughout my time at MIT. As my chair, Vipin Narang’s enthusiasm for the project and solid, practical advice gave me the freedom to explore decades worth of historical material without ever feeling hopelessly lost in the weeds. Years ago, Frank Gavin was the first person to tell me that I should consider pursuing a PhD. He has not only shaped my dissertation as my first chair and as a member of my committee, but he opened the doors that allowed me to write it. Steve Van Evera, the very model of a scholar and a mensch, encouraged me to tackle a big, tough question, and gave generously of his time and probing questions to help me do it.

I cannot imagine writing this dissertation without such wonderful friends in MIT’s Security Studies Program. Mayumi Fukushima, Phil Martin, Andrew Miller, Cullen Nutt, and Reid Pauly formed the best SSP cohort anyone could ask for. Ahead of me in the program, I’ll always look up to Lena Andrews, Fiona Cunningham, Marika Landau-Wells, Amanda Rothschild and Ketian Zhang. Joining SSP a year or two behind me, Andy Halterman, Aidan Miliff, Kacie Miura, Sara Plana, Erik Sand, Rachel Tecott, and Tim Wright all became valued and respected friends. I’ll miss our days struggling, sweating, laughing, learning and bending elbows together.

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Finally, I owe everything to Jess Schor, my wife. Without her love, support, patience and good humor, this dissertation could never have been done, and would not have been worth doing. I dedicate it to her.

1 “Minuteman 1 ICBM Air Launch.” *YouTube*, September 19, 2009. <https://www.youtube.com/watch?v=It7SQ546xRk>.

2 Van Evera, Steven. *Guide to Methods for Students of Political Science*. Cornell University Press 1997, p. 112.

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Chapter 1) Introduction¹

1) Prologue

This is a history of US nuclear posture. It deals with our nuclear forces and the war plans that have animated them, explaining how and why they have changed over time. The basic argument is simple: US nuclear posture has been consistently aggressive because presidents and their senior advisors have chosen to make it that way to advance their ambitious foreign and security policy goals.

The basic argument is simple, but the story that follows of how presidents have tried to use powerful weapons to advance sweeping goals is both complex and immensely revealing. In addition to prosecuting the main argument, this study makes the following five contributions.

First, it overturns the conventional wisdom that Mutual Assured Destruction (or MAD) characterized US Cold War nuclear posture. When most Americans think of US nuclear policy, they mostly think of MAD. In fact, the desire to escape MAD—not maintain it—was a major contributor to aggressive US posture.

Second, it upends a common argument in political science that US nuclear posture became aggressive as a result of military service rivalries or bureaucratic pathologies within the Pentagon. These forces played some role, but their importance pales in comparison with the power of ambitious presidents.

¹ My thanks to Owen Cote, Fiona S. Cunningham, Michael Doyle, Frank Gavin, Charles Glaser, Alexander T.J. Lennon, Vipin Narang, Janne Nolan, Reid B.C. Pauly, Steve Van Evera, Tristan Volpe, members of MIT's International Relations Work-In-Progress working group and the George Washington University Institute for Security and Conflict Studies Research In Progress group for comments that have improved this chapter. I am grateful to MIT's Center for International Studies for a summer research grant that funded part of this research. Errors are mine.

Third, this project fills an important gap in the existing literature. Barrels of ink have been spilled on US nuclear weapons policy and related topics. However, surprisingly, this is the first attempt at a full-length history of US nuclear posture. The first two thirds of this dissertation deal with the Cold War. The 1990s could have been a time for academics and citizens alike to take stock of the Cold War conflict and the nuclear posture decisions that were part of it. The sudden ending of that conflict as well as shifting intellectual fashions in the academy prevented this sort of reflection from taking place. The last third deals with US nuclear posture since the Cold War. The post-Cold War evaporation of interest in nuclear weapons caused nearly thirty years of important developments and innovations in US nuclear posture to be overlooked by all but a small handful of specialists. The recent return of great power competition has lent these developments new significance. For the past generation—to paraphrase Leon Trotsky—you may not have been interested in nuclear weapons, but nuclear weapons were interested in you. Therefore, I hope that this dissertation will be a useful reference for students, citizens and policy-makers.

Fourth, it illuminates the character of the United States' post-World War II grand strategy. For over seventy years that grand strategy has encompassed three core objectives that are directly connected to nuclear posture: defending the US homeland, especially against nuclear attack; protecting distant allies in Europe and Asia from their stronger nuclear-armed neighbors; and denying the security benefits of nuclear weapons to adversaries and allies alike. No other state has so persistently pursued such ambitious goals. The aggressive nuclear postures that presidents have adopted to advance these goals belies Americans' benevolent self-image.

Fifth, this project tries to explain our nuclear past with a view towards facilitating wise decisions in the present and future. Today the US is looking ahead to decades of great power competition. We are also undertaking a thirty-plus year nuclear modernization program. The timing is no coincidence. Beliefs about whether and how to compete in international politics directly drive presidential decisions about nuclear posture and vice versa. Near-term decisions on these topics will have profound long-term implications. By showing how presidents have set goals, made tradeoffs, and balanced costs and risks over seventy years, I intend to facilitate the kind of informed debates on nuclear posture that American democracy deserves and demands.

Section two of this introduction provides a brief overview of US nuclear posture. What is posture? How do its constituent missions advance or hinder the United States' basic, durable foreign and security policy goals? In other words, what is the relationship between nuclear weapons and foreign policy?

Section three presents a brief history of US nuclear posture to acquaint the reader with the pattern of continuity and change that this dissertation seeks to explain

Section four presents the argument in brief: Presidents are the main drivers of US nuclear posture. They consistently and knowingly support aggressive postures to advance their ambitious foreign and security policy goals.

Section five concludes with a road map for the rest of the dissertation.

2) Introduction to US Nuclear Posture: Missions and Goals

Nuclear posture is the combination of nuclear weapons, associated delivery systems and employment plans that the US has available at a given time. Together, weapons and plans bound

the kinds of politico-military tasks that the US can attempt with its nuclear forces. For example, simple deterrence by punishment requires only rudimentary weapons that can devastate soft targets, such as cities. Destruction of enemy nuclear forces through counterforce generally requires sophisticated, accurate nuclear weapons that can destroy hardened targets like missile silos and leadership bunkers, coupled with first strike plans. Likewise, nuclear ground defense requires forward deployed theater weapons and plans for using them. Thus, nuclear posture is an operational concept with political implications. Changes in posture are changes in the politico-military tasks that the US can plausibly undertake with its nuclear forces.²

2.1) *Why Study Posture?*

This focus on weapons and war plans is narrow and some of the details of posture may seem hopelessly arcane. Why does it matter how quiet a submarine is, how accurate certain missiles are, or how quickly they can be re-targeted? Because the collection of weapons and plans that comprise a state's posture reveal a great deal about how that state interacts with the world. Therefore, it's something important that deserves careful study.

An example illustrates the point: imagine yourself a guest arriving for a dinner party. You might enter to find your host using a chef's knife in the kitchen. The obvious skill with which he wields it suggests that he is a terrific cook. You anticipate a delicious meal and a pleasant

² This definition of nuclear posture aligns with Narang, Vipin. *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict*. Princeton: Princeton University Press, 2014. Narang's book dealt with regional nuclear powers whose posture options were far more financially and technologically constrained than the United States.' Because of the complexity of the US case, my operationalization of nuclear posture, described below, differs from Narang's. Note that posture is more concrete than and distinct from 'nuclear strategy' or 'strategic thought' as discussed in Freedman, Lawrence. *The Evolution of Nuclear Strategy*. Basingstoke, Hampshire [England]; New York : Palgrave Macmillan, 2003. Posture is a national-level concept, making it conceptually broader than and distinct from military services' doctrines. See Posen, Barry. *The Sources of Military Doctrine : France, Britain, and Germany between the World Wars*. Cornell Studies in Security Affairs. Ithaca : Cornell University Press, 1984.

evening. But what if your host was holding a dagger instead? You would probably be alarmed. Of course, a dagger and a chef's knife are similar in size—chef's knives are often longer. And a chef's knife could certainly be used as a weapon—just like a dagger. However, as a dinner party guest you would surely notice the shape of the handle, the curve of the edge and the taper at the tip. You would not dismiss the differences between these two tools as subtle, unimportant, or hopelessly arcane. 'Why does he own such a frightful knife, and what does he plan to do with it!?' you would probably wonder as you made for the door. Like an observant dinner party guest, you can learn something about a state by scrutinizing exactly what kinds of nuclear weapons it buys and its plans for using them.

The United States' impressive record of weapons acquisition and war planning is therefore a great aid to research. Since 1945, the US has fielded an estimated 66,500 nuclear warheads of roughly eighty types associated with 120 different delivery systems ranging from backpacks to bombers to Intercontinental Ballistic Missiles (ICBMs). After peaking at 31,255 warheads in 1967, the stockpile shrank to roughly 1,800 deployed weapons today.³ Through these years, US plans for waging nuclear war have undergone at least four fundamental revisions and countless smaller updates. These kinds of details are at the heart of this project.

At the same time, if this dissertation did not step back to abstract some of this dizzying detail, it would be long, unwieldy, and inaccessible. To address this challenge I deal with the history of

³ For variation in stockpile size, see Kristensen, Hans, and Robert S. Norris, "Global Nuclear Weapons Inventories, 1945-2013," *Bulletin of the Atomic Scientists*, Vol. 69, No. 5, (September/October 2013), pp. 75-81 and Kristensen and Norris "US Nuclear Forces, 2018." *Bulletin of the Atomic Scientists*, Vol. 74 No. 2 (March 2018) pp. 120-131. Kristensen and Norris count 75 warhead models. A powerpoint slide from the Pantex plant depicts silhouettes for 84 warhead models. See Kristensen, Hans, and Robert S. Norris, "The U.S. Nuclear Stockpile, Today and Tomorrow" *Bulletin of the Atomic Scientists*, Vol. 63, No. 5, (September/October 2007) pp. 60-62, as well as Consolidated Nuclear Security, "Pantex History," <http://www.pantex.com/about/Documents/Pantex%20History.pdf>, slide 14. For delivery system count, see Kristensen, Hans, and Robert S. Norris, "The U.S. Nuclear Stockpile, Today and Tomorrow" *Bulletin of the Atomic Scientists*, Vol. 63, No. 5, (September/October 2007) pp. 60-62.

US posture at two levels. At the macro level I discuss Posture with a capital P. To date the US has adopted five distinct nuclear Postures. These are the Monopoly, Maximal, Offensive Missile, Adaptable and Strategic Combined Arms Postures. Below, I explain how each of these Postures can be differentiated from the others by observing the mix of nuclear missions each one includes (or omits). For example, the US shifted from the Maximal Posture to the Offensive Missile Posture in 1963 when it gave up the defense mission—an important milestone in US nuclear history. This dissertation’s macro level discussion of the five Postures the US has adopted and why it has shifted from one to the next provides a handy big picture overview of the how presidents try to use nuclear weapons to advance their ambitious foreign policy goals.

Yet a dissertation that only addressed these four top-level Posture transitions would be austere and unsatisfying. To ensure that it remains reasonably comprehensive, I cover many other important posture-related developments and decisions that have occurred since 1945, even if they did not involve a macro-level shift from one Posture to another. For example, it is vital to understand how and why Presidents Eisenhower and Kennedy thought so differently about the question of ‘spring loading’ theater nuclear war in Europe with loose nuclear weapons controls. Likewise, President Carter’s initial opposition to, and eventual support for the counterforce mission-oriented MX missile; and President George H.W. Bush’s decision to initiate “unilateral but reciprocal” nuclear force cuts in parallel with the Soviet Union are of central importance. They reveal how presidents use nuclear means to pursue their political ends.

This two-level approach to Posture and posture strikes a balance between explanation and description, and between simplicity and complexity.

2.2) Postures, Nuclear Missions and International Politics

The dizzying cavalcade of ever-changing nuclear weapons and associated war plans that comprise Posture become easier to track once fitted into a clear, simple organizing framework. Nuclear missions provide this framework.

I define a nuclear mission as a discrete politico-military task that US nuclear forces are organized and equipped to accomplish. (Recently, some advanced conventional and cyber capabilities have been integrated into existing nuclear missions as well.) Each mission integrates weapons and war plans to threaten or cause specific, desired military effects. These military effects—or hopefully just the threat of them—influence the behavior of US adversaries and allies. Thus, nuclear missions are integrated combinations of weapons and plans that shape international politics.

Building on this, Posture (with a capital P) is the combination of nuclear missions that the US is pursuing at any given time. Changes in Posture—the addition or subtraction of a nuclear mission—mark macro-level changes in the United States’ efforts to shape the world around it. To-date, the US has pursued five different nuclear missions in various combinations. Each combination is a different Posture. These missions are: 1) urban/industrial attack, 2) counterforce, 3) defense, 4) theater use and 5) hedging. Missions include plans to employ weapons with different capabilities to achieve different politico-military objectives. For example, the theater use mission involves plans to use specially designed theater nuclear weapons to achieve the politico-military objectives of defending allied territory in Europe and Asia and—by extension—inhibiting proliferation. Therefore, changes in the characteristics of weapons in the US nuclear arsenal and associated war plans yield change in the missions the US can undertake

with its nuclear forces. Adding or subtracting one or more nuclear missions marks a shift from one Posture to another.

What are these five nuclear missions like? What kinds of weapons and war plans do we look for to establish the presence or absence of a mission at a given point in time? And what politico-military goals does each advance or hinder, and how? The following five sub-sections address these questions.

2.2.1) The Urban/Industrial Attack Mission

The politico-military goal of the urban/industrial attack mission is to deter or prevail in conflict by threatening or destroying⁴ the enemy's ability and/or will to wage war. Urban/industrial targets include militarily-usable industry, fuel depots and refineries, government buildings, military facilities, and resources usable for post-nuclear war recovery. Moreover, because they are often located in cities, destroying them would inevitably kill or maim hundreds of thousands, and probably millions. This threatened collateral damage adds to the deterrent effects of the urban/industrial mission even if, officially speaking, the US only aims weapons at militarily-relevant targets.

To accomplish the urban/industrial attack mission, the US requires only inaccurate nuclear weapons that can be delivered by bomber or missile, as well as war plans geared towards destroying soft targets like buildings. This mission alone bought the US significant leverage over its allies and adversaries while it retained its post-War nuclear monopoly. However, this

⁴ For brevity and style, I use terms like 'hold at risk,' 'threaten,' and 'destroy' interchangeably. The ability to threaten a target comes from the ability to destroy it. Having the capability to destroy a certain category of targets can have important political and military effects, even if the capability goes unused.

advantage evaporated quickly in the early 1950s as the USSR developed its own nuclear forces that could reciprocally threaten the US and its allies.

2.2.2) The Counterforce Mission

The existence of the Soviet nuclear arsenal led the US to adopt the counterforce mission. The politico-military goal of the counterforce mission is to destroy enemy nuclear forces and associated command and control infrastructure and leadership facilities before they can be used against the US or its allies. The counterforce mission requires accurate weapons capable of destroying enemy nuclear forces and command infrastructure at airfields and in hardened silos and bunkers, along with war plans geared towards finding enemy nuclear forces and destroying them preemptively.⁵

On one hand, counterforce is a logical response to adversary proliferation. Adversaries with nuclear weapons can do far more to threaten the US or harm its interests than those without. Therefore, it is in Washington's interest to be able to rapidly disarm those adversaries. On the other hand, counterforce is also aggressive, destabilizing in crises, and risky. It is aggressive because carrying out a counterforce attack generally means striking first. There is no use in attacking enemy nuclear forces that have already been fired. It is destabilizing because its existence provides the enemy with a reciprocal incentive to strike first in a crisis. Two nervous states with counterforce capabilities facing one another are like old west gunslingers at high

⁵ To be clear, I use the term counterforce to encompass 'strict counterforce' targeting of enemy nuclear forces, as well as counter-leadership targeting, aimed at killing enemy leaders, and decapitation targeting, aimed at severing communications links between those leaders and their nuclear forces. These three targeting strategies are conceptually distinct, but each relies on the same basic nuclear capabilities. I batch them together in one mission because their observable similarities make them difficult to separate.

noon. He who draws and shoots fastest wins—or perhaps loses second. And of course when their six shooters are nuclear, this kind of dynamic carries massive risks.⁶

Debates about the risks and benefits of counterforce usually take place amidst significant uncertainty about its efficacy. Perfectly effective or decisive counterforce would let the US confidently and reliably destroy all of an adversary's (or adversaries') nuclear forces in a first strike with little risk that any could be used against the US. At the extreme the US could destructively reacquire a nuclear monopoly. This would be a very desirable capability.

Yet decisive counterforce is very difficult to achieve and maintain against intelligent, motivated adversaries. First, nuclear weapons are small and easily concealed. Even tiny countries have countless places to hide them. Second, states can store their nuclear arsenals in caves, hardened silos or bunkers that can be difficult to destroy even when their locations are known. Finally, they can attempt to deceive the US about the number, locations and characteristics of their nuclear weapons. Using all three of these techniques—concealment, protection and deception—even a weak state can undermine US confidence in its counterforce capability. A powerful state with a large nuclear arsenal can use these same techniques with even greater efficacy. Thus it is possible for nuclear-armed states to degrade US counterforce capabilities—or cast doubt on their efficacy—at relatively low cost.⁷

Despite the challenges of decisive, or perfect counterforce, the US has consistently pursued this mission—even when it stood no realistic chance of successfully preventing catastrophic

⁶ See e.g., Schelling, Thomas C. *Arms and Influence*. New Haven : Yale University Press, 2008, chapter 6 “The Dynamics of Mutual Alarm;” as well as Jervis, Robert *Perception and Misperception in International Politics*. Princeton University Press, 1976, chapter 3 “Deterrence, the Spiral Model and the Intentions of the Adversary.”

⁷ Even ‘counterforce optimists’ agree that US proficiency in counterforce has been costly, hard-won, and may be countered by adversaries. See e.g., Long, Austin, and Brendan Rittenhouse Green. “Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy.” *Journal of Strategic Studies* 38, no. 1–2 (January 2, 2015): 38–73; and Lieber, Keir A., and Daryl G. Press. “The End of MAD?” *International Security* 30, no. 4 (Spring 2006): 7–44.

retaliation. Under these circumstances, the counterforce mission has limited military utility. It is difficult to imagine a president ordering a counterforce first strike knowing that it would result in enemy retaliation against multiple US cities.⁸ Regardless, many presidents have believed that even imperfect counterforce yielded certain political or diplomatic benefits. What these benefits may be, how concrete they are, and whether they are worth the cost and risk that come with the aggressive counterforce mission is hotly contested.⁹

2.2.3) *The Defense Mission*

The defense mission is a natural complement to counterforce. Its politico-military goal—like the counterforce mission—is to limit damage to the US in the event of war. Defense involves using nuclear or conventional weapons like ballistic missile interceptors or air-to-air rockets to destroy enemy nuclear weapons after they have been launched towards the US or its allies, but before they can detonate and cause damage.

8 For a vivid illustration of Americans policy-makers' sensitivity to losing their own cities see McGeorge Bundy's statement that "even one hydrogen bomb on one city of one's own country would be recognized in advance as a catastrophic blunder; ten bombs on ten cities would be a disaster beyond history; and a hundred bombs on a hundred cities are unthinkable." Bundy, McGeorge, "To Cap the Volcano." *Foreign Affairs* 48 no. 1, (October 1969) pp. 9-10. Cited in Van Evera, Stephen, Michael Salman and Kevin Sullivan, "Analysis or Propaganda: Measuring American Strategic Nuclear Capabilities, 1969 – 1984, in Eden, Lynn, and Steven E. Miller, eds., *Nuclear Arguments : Understanding the Strategic Nuclear Arms and Arms Control Debates*, Cornell University Press, 1989, p. 210.

9 Contemporary literature related to this question relies on ill thought out proxy measurements of 'nuclear superiority.' Moreover, they do not involve interactive military analysis. They should be treated with considerable skepticism. See especially Kroenig, Matthew. *The Logic of American Nuclear Strategy: Why Strategic Superiority Matters*. Oxford University Press Bridging the Gap Series, 2018; and Kroenig, Matthew. "Nuclear Superiority and the Balance of Resolve: Explaining Nuclear Crisis Outcomes." *International Organization* 67, no. 41 (January 2013): 141-171, as well as Sechser, Todd S., and Matthew Fuhrmann. "Crisis Bargaining and Nuclear Blackmail." *International Organization* 67, no. 41 (January 2013): 173-195. For a thoughtful discussion of superiority see H-Diplo/ISSF Forum on "What We Talk About When We Talk About Nuclear Weapons." No. 2 (June 15, 2014). <http://issforum.org/ISSF/PDF/ISSF-Forum-2.pdf>. For the importance of interactive military analysis see Van Evera, Stephen, Michael Salman and Kevin Sullivan, "Analysis or Propaganda: Measuring American Strategic Nuclear Capabilities, 1969 – 1984, in Eden, Lynn, and Steven E. Miller, eds., *Nuclear Arguments : Understanding the Strategic Nuclear Arms and Arms Control Debates*, Cornell University Press, 1989, pp. 172 – 263.

At first glance, defense appears benign—especially if contrasted with counterforce. What is the harm in stopping incoming bombers or missiles? However, the combination of defense and counterforce—even imperfect counterforce—might appreciably limit the damage that the US might sustain in a war, and correspondingly decrease the perceived cost and risk of a counterforce first strike. First, preemptive counterforce can seriously degrade an adversary’s nuclear force. The sudden destruction of weapons and command and control systems could leave even a large nuclear power’s retaliatory efforts small and uncoordinated. Next, it would then be the role of the defensive forces to ‘mop up’ whatever retaliatory attack the adversary managed to launch before they could harm the US. In this fashion, the defense and counterforce missions are complementary. On its own a counterforce first strike could be too risky to contemplate. Backed by defenses it could be a realistic option. This is why adversaries frequently view US defenses as threatening.

As a result of these operational and conceptual connections, the defense mission generates many of the same costs and risks as counterforce. Yet despite synergy between the two missions, the US has not pursued defense with anything like the consistency or vigor that it has pursued the offensive counterforce mission. This is not for lack of ambition. Rather, it is a function of the fact that the ICBMs that became the USSR’s principal nuclear weapons by the early 1960s were all-but impossible to shoot down with Cold War era technology. Thus for most of the nuclear age after the early 1960s, the offense-defense balance and the dynamics of long term US-Soviet competition made it cost prohibitive for the US to seriously pursue defenses. The technological advances that fed into the United States’ presently developing ballistic missile defense

architecture may have shifted this balance, providing the US with limited but growing defensive capability since roughly 2008.

2.2.4) The Theater Use Mission

The theater use mission involves using nuclear-capable versions of typical battlefield weapons like artillery, landmines, surface-to-surface missiles and aircraft-delivered gravity bombs alongside conventional forces to achieve victory in ground combat. It advances two of the United States' core foreign policy goals: protecting distant US allies from their stronger nuclear armed neighbors; and simultaneously preventing those allies from developing independent nuclear forces.

It advances these goals in three basic ways. First, theater nuclear weapons deployed near the prospective front lines in Europe and Asia deter aggression. Their proximity to the front increases the chances that they will be used in case of invasion because they are handy, and because the cost of not using them could be a bloody defeat. This means that even conventional aggression might lead to a nuclear response. This logic increases the cost of aggression, reduces the enemy's prospects for victory, and thereby bolsters deterrence.

Second, and related, the theater mission enhances the credibility of the United States' commitment to defend its allies. One of the defining questions of the nuclear age is 'would the US risk New York to defend Bonn or Paris?' In other words, would it fight hard to defend Europe knowing the cost of a stiff defense might be a Soviet attack on the US homeland? Forward deployed theater forces signal that the answer to this question is yes, or in nuclear strategy jargon, that the US 'commitment is credible.'

They do this by providing an escalatory link between the security of the US and its allies. War has fire-like properties: it grows and spreads.¹⁰ Crossing the conventional/nuclear threshold with forward-deployed theater weapons is thought to increase the likelihood that if fighting continues ‘strategic’ nuclear forces—inter-continental-range missiles and bombers—could be used next, transforming a theater nuclear war into a global one. The transition from theater to global or ‘strategic’ nuclear war is an example of escalation. Escalatory linkage means that US conventional and theater nuclear forces abroad are backstopped by far more powerful long-range strategic nuclear forces—especially counterforce weapons.¹¹ A theater nuclear war would not stay isolated to Europe for long, the thinking goes. Rather, it would spread to include the US and Soviet homelands as well.

Paradoxically, this fear of uncontrollable nuclear warfare strengthens the United States’ ability to deter attacks on allies. If even a small war could quickly grow so large and terrible, why start one at all? Again, in nuclear strategy jargon, it is a ‘threat that leaves something to chance.’ However, the cost of this benefit to allies is high: increased risk that war in Europe could result in widespread destruction in the US homeland.¹²

Third, by stiffening allies’ forward defenses and tying those defenses in with US strategic nuclear forces, the theater mission helps to inhibit allied proliferation. The combined might of US conventional, theater nuclear and strategic forces provides smaller, weaker, vulnerable allies with far more deterrent power than they could generate themselves. Moreover, because US

10 My thanks to Steve Van Evera for this observation.

11 Ravenal, Earl C. “Counterforce and Alliance: The Ultimate Connection.” *International Security* 6, no. 4 (1982): pp. 29–31.

12 On credible commitment see Schelling, Thomas C. *Arms and Influence*. New Haven : Yale University Press, 2008, chapter 2, “The Art of Commitment.” On escalation see Kahn, Herman, *On Escalation: Metaphors and Scenarios*, Penguin, 1965. On the ‘threat that leaves something to chance see Schelling, *ibid* p. 121n, and Powell, Robert. “The Theoretical Foundations of Strategic Nuclear Deterrence.” *Political Science Quarterly*, v. 100 No. 1(Spring 1985) pp. 75-96.

policy is to inhibit proliferation, provision of that deterrent power is conditioned on its allies willingness to forswear nuclear weapons. Thus, the US can use the theater mission to provide robust defenses and to cultivate fear of abandonment as punishment for attempted proliferation.¹³

In practice the escalatory pressures generated by theater forces have declined since the early 1960s as use controls —technical and procedural protections against unauthorized nuclear use— became stricter and more centralized.¹⁴ By the 1990s their role had become more political than military—a symbol or signal of resolve. Today US forces are trained and equipped to carry out the theater mission, but the escalatory risks associated with this mission are not what they were in the early Cold War. Regardless, for decades, the theater mission has helped to defend US allies, while powerfully suppressing their appetites for nuclear weapons of their own.

2.2.5) *The Hedging Mission*

The hedging mission is designed to decrease adversaries' incentives for nuclear competition by signaling that 1) US intentions are benign but 2) that if the adversary reaches for a nuclear advantage, the US could respond by rapidly reconstituting recessed nuclear capabilities. Its politico-military objective is to shape potential adversaries' decision-making about the benefits and costs of peacetime competition with the US.

The hedging mission involves de-alerting nuclear forces and/or reducing the size or capabilities of deployed forces while maintaining the ability to quickly reverse these moves in the future. One example of hedging is reducing the number of warheads per ICBM to a fraction of the maximum load out, while retaining excess warheads in a non-deployed stockpile so that if

¹³ Gerzhoy, Gene. "Alliance Coercion and Nuclear Restraint." *International Security* 39, no. 4 (Spring 2015): 91–129; Gavin, Francis J. "Strategies of Inhibition." *International Security* 40, no. 1 (Summer 2015): 9–46.

¹⁴ See Rose, John P., *The Evolution of US Army Nuclear Doctrine, 1945-1980*. Westview Press, 1980.

needed, they can be re-uploaded in months. Another is reducing the day-to-day alert status of nuclear forces, with the understanding that they can be re-alerted quickly. The hedging mission can facilitate confidence building and nuclear arms reductions while reducing the United States' exposure to risk in the event that its partner defects or cheats, or a new rival emerges.¹⁵

3) A Brief History of US Nuclear Posture

The previous section introduced nuclear missions, explaining how they can be identified and what they are for. This section employs this framework to provide a brief history of US posture. It does this by tracing key developments—subtle and arcane details—in the history of US nuclear weapons and war planning, connecting those developments with the five nuclear missions and showing how the addition or subtraction of missions causes change in Posture.

The US has pursued five different nuclear Postures since 1945. These are the 1) Monopoly, 2) Maximal, 3) Offensive Missile, 4) Adaptable, and 5) Strategic Combined Arms Postures. Each Posture to date has encompassed a unique combination of nuclear missions—though in principle an older posture could be repeated. Understanding the differences between these Postures and explaining transitions is therefore important. At the same time, there are also important elements of continuity in US nuclear posture history that deserve attention and explanation as well.

¹⁵ The name of this mission is borrowed from the vocabulary that policy-makers used to describe it when it debuted in 1994. Thus the hedging mission is conceptually distinct from the concept of hedging as it relates to nuclear proliferation. See e.g., Narang, Vipin, “Strategies of Proliferation: How States Pursue the Bomb” *International Security*, vol. 41 No. 3 (Winter 2016/17) pp. 110-150; Volpe, Tristan A. “Atomic Leverage: Compellence with Nuclear Latency” *Security Studies* Vol. 26 no. 3 (2017) pp. 517-544; and Bowen, Wyn and Matthew Moran, “Living with Nuclear Hedging: The Implications of Iran’s Nuclear Strategy,” *International Affairs* vol. 91, no. 4 (July 2015) pp. 687–707.

3.1) *The Monopoly Posture: 1945-1952/56*

Between 1946 and 1952, the US pursued the Monopoly Posture. Invulnerable to nuclear attack, it pursued only the simplest nuclear mission: urban/industrial attack. The requirements for this mission are rudimentary. War plans must be geared towards the destruction of soft targets like factories in or near cities. Because these targets are not designed to withstand nuclear attack, weapons for the urban/industrial mission do not have to be especially accurate or sophisticated.

The central weapon of the Monopoly Posture was the nuclear-armed bomber. The bombs they carried resembled the large, unwieldy, (relatively) low-yield weapons dropped on Hiroshima and Nagasaki. Moreover, these bombs were few in number. In 1946 the US nuclear arsenal numbered eleven bombs. By 1952 this figure had grown to 1,005. While this latter figure was non-trivial, it was still less than one thirtieth the size of the late 1960s arsenal.¹⁶

Early US nuclear war plans like BROILER, (1947) HALFMOON (1948) and OFFTACKLE (1949) made the most of this small arsenal. They built on the strategic bombing concepts employed against Germany and Japan during WWII. Following a Soviet attack on Western Europe, US war plans envisioned using both conventional and atomic bombs to pummel war supporting industry in Soviet cities during a months-long mobilization period, leading up to a Normandy-style re-invasion of Europe.¹⁷ The Soviet urban-industrial base remained the highest priority target category in US nuclear war plans until 1952, when the US took on the

¹⁶ Norris, Robert S., and Hans M. Kristensen, "Global Nuclear Stockpiles, 1945-2002." *The Bulletin of the Atomic Scientists*, 58 No. 6: 103-104.

¹⁷ For the chronology of these exemplary early war plans, see Sandia National Laboratory. "A Primer on U.S. Strategic Nuclear Policy," January 2001, p.17. <http://docplayer.net/4875894-A-primer-on-u-s-strategic-nuclear-policy.html>. For a description of the contents of these war plans, see Wampler, Robert A., "Ambiguous Legacy: The United States, Great Britain, and the Foundations of NATO Strategy, 1948-1957." Ph.D. Dissertation, Harvard University, 1991, pp. 2-3, 4-7, 19-21; as well as Kaplan, Edward. *To Kill Nations: American Strategy in the Air-Atomic Age and the Rise of Mutually Assured Destruction*. Ithaca: Cornell University Press, 2015, p. 21.

counterforce mission.¹⁸ This marked the beginning of the transition from the Monopoly to the Maximal Posture.

3.2) *The Maximal Posture: 1952/56-1963*

Between 1952 and 1956 the US transitioned to the Maximal Posture by adding three nuclear missions in quick succession: counterforce, theater use, and defense. In just four years the most relaxed nuclear posture that the US has ever pursued became the most ferocious.

President Truman's January 1950 decision to develop the hydrogen, or thermonuclear bomb catalyzed this transformation. First, it opened the door to weapons three or more orders of magnitude more powerful than those used against Hiroshima and Nagasaki.¹⁹ Second, it facilitated rapid arsenal growth by permitting more efficient use limited fissile material stocks.²⁰ As a result, the US could do more with its nuclear forces.

Counterforce was the first mission that the United States added during the 1952 – 1956 transition period. In 1952 the US changed its nuclear war plans by according counterforce targets such as bomber bases top priority in its war plans.²¹ Urban-industrial and other military targets would be struck also, but less urgently.²² Faced with a nuclear-armed Soviet adversary, the US

¹⁸ For discussion of the relative priority accorded to DELTA (Disrupt enemy industrial base) ROMEO (Retard enemy troop advances) and BRAVO (Blunt enemy atomic forces) as of December 1949, see Kaplan, Edward. *To Kill Nations: American Strategy in the Air-Atomic Age and the Rise of Mutually Assured Destruction*. Ithaca: Cornell University Press, 2015, p. 23. For discussion of the same rank ordered sequence of priorities in 1951, see Ibid pp. 89-90.

¹⁹ The bomb used at Hiroshima had a yield of roughly 15kt, while the March 1, 1954 Castle Bravo hydrogen bomb test had a yield of roughly 15Mt—three orders of magnitude larger.

²⁰ For example, between 1950 and 1960 the US arsenal expanded over fifty-fold, from 369 to 20,434 nuclear weapons. See Norris, Robert S., and Hans M. Kristensen, "Global Nuclear Stockpiles, 1945-2002." *The Bulletin of the Atomic Scientists*, 58 No. 6: 103-104.

²¹ Kaplan, Edward. *To Kill Nations: American Strategy in the Air-Atomic Age and the Rise of Mutually Assured Destruction*. Ithaca: Cornell University Press, 2015, p. 89.

²² For 1950s war planning see e.g., Burr, William. "US Cold War Nuclear Target Lists Declassified for First Time." National Security Archive Electronic Briefing Book No. 538. December 22, 2015.

<https://nsarchive.gwu.edu/nukevault/ebb538-Cold-War-Nuclear-Target-List-Declassified-First-Ever/>.

was no longer content with bombing city-based targets and mobilizing slowly. The new strategy called for striking first to destroy Moscow's nuclear arsenal before it could be used against America and its allies. Now victory, if it was to come, necessitated striking first and fast.

Next, the US added the theater nuclear mission. The first battlefield weapons arrived in Europe in October 1953.²³ This deployment marked a watershed change in how the US and its allies approached the problem of defending Europe against the Soviets. Early US nuclear war plans, like OFFTACKLE, envisaged initially ceding most of Europe to the Soviets, while the US bombed enemy cities, and girded itself for a Normandy-type re-invasion of the continent. Now battlefield weapons gave the US and NATO a credible means of defending against Soviet attack at reasonable dollar cost, permanently ending the era when the US considered even temporarily ceding Europe to the Soviets.²⁴ Yet the dollar cost savings and political benefits of this nuclear-armed forward defense came at the price of significant escalatory risk. Very loose use controls at this time meant that any significant Soviet aggression would have caused a nuclear response.

The final stage in the transition to the Maximal Posture came in December 1956, when the US began fielding defenses against nuclear attack. Within weeks of assuming office in January 1953, President Eisenhower received a report commissioned by President Truman recommending a major effort to develop a way of defending the US against Soviet bombers. An initially skeptical Eisenhower was eventually convinced that defenses were necessary—in large measure thanks to research led by MIT President James Killian. The Genie nuclear air-to-air

23 Legge, J. Michael. "Theater Nuclear Weapons and the NATO Strategy of Flexible Response." 1983, p. 4. <http://www.rand.org/pubs/reports/R2964.html>.

24 For the perceived impossibility of mounting a conventional defense of Western Europe in the early 1950s at acceptable cost, see Wampler, Robert A., "Ambiguous Legacy: The United States, Great Britain, and the Foundations of NATO Strategy, 1948-1957." Ph.D. Dissertation, Harvard University, 1991, pp. 144-145, 172-182, 214-215.

rocket became operational on December 7, 1956, marking the beginning of the defense mission and the last stage of the Maximal Posture transition.²⁵

This newly completed Maximal Posture was aggressive. The seriousness of purpose with which the US prepared for nuclear war was reflected in the rapid development of increasingly capable weapons and delivery systems in ever-larger numbers. By 1963 the US nuclear arsenal had grown to include nearly 30,000 weapons.²⁶ Many were fielded on then-new long-range ballistic missiles. Missiles were cheaper to operate than bombers and could more reliably penetrate enemy air defenses. As a result, the US began a massive effort to develop and field this new category of weapons as quickly as possible. In summer 1955 President Eisenhower declared that developing an intercontinental ballistic missile (ICBM) was a program of the “highest priority.”²⁷ Within four years the US had its first ICBM—the Atlas D. By 1963, it had deployed six discrete ICBM models of three basic types as well as two discrete models of the Polaris submarine launched ballistic missile (SLBM).²⁸ On average, the US fielded one new missile model per year between 1955 and 1963. Innovation was proceeding at a feverish pace.

This was true in the theater and defense missions as well. The era of nuclear plenty allowed for weapons in all shapes and sizes. For example, following the Air Force’s deployment of Genie

25 Bright, Christopher J. *Continental Defense in the Eisenhower Era : Nuclear Antiaircraft Arms and the Cold War*. Palgrave Studies in the History of Science and Technology. Basingstoke : Palgrave Macmillan, 2012, pp. 5-6, 12, 31, 34-35, 53. This date may have been coincidental. However, given that it was the 15th anniversary of the Pearl Harbor attack, it may have been selected to communicate the message that the US was now able to defend itself against the threat of an atomic Pearl Harbor.

26 Norris, Robert S., and Hans M. Kristensen, “Global Nuclear Stockpiles, 1945-2002.” *The Bulletin of the Atomic Scientists*, 58 No. 6: 103-104.

27 Memorandum From the Director of the Policy Planning Staff (Bowie) to the Acting Secretary of State, September 7, 1955, *Foreign Relations of the United States* (herein *FRUS*), 1955-1957, Vol. XIX, National Security Policy, Doc. 33.

28 The ICBMs in question are the Atlas D, E, and F, the Minuteman I, and the Titan I and II. The SLBMs in question are the Polaris A1, and Polaris A2. MacKenzie, Donald A. *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance*. Cambridge, Mass: MIT Press, 1993, pp. 428-429.

rocket in 1956, the Army deployed 123 Nike-Hercules nuclear defense missile batteries by the end of 1961. These were emplaced near American cities to defend the United States' population against bomber attack.²⁹ While some of these weapons remained in place into the early 1980s, by the mid-1960s they were already vestigial organs which provided no capability to defend against Moscow's large long-range missile force.

In NATO Europe, the W45 warhead in the backpack-carried Medium Atomic Demolition Munition (MADM) had relatively low yield options ranging between .5kt and 15kt, while the Sergeant missile's W52 warhead had a yield of 200kt—roughly ten times greater than both the MADM and the Hiroshima bomb.

All of these new weapons were animated by updated war plans that prioritized striking first and hard. For example, alongside his decisions to deploy theater and defense nuclear weapons, President Eisenhower predelegated authority to use these weapons to lower-level commanders. In case war broke out, this would permit them to release their nuclear weapons on their own initiative, without presidential intervention.³⁰

His thinking about the counterforce and urban/industrial attack missions was somewhat different, but still evinced a preference for nuclear first use. Late in his second term Eisenhower initiated the development of the first Single Integrated Operational Plan (SIOP) for strategic war. The SIOP's basic goal was to refine existing procedures for unleashing as much destruction on the enemy as rapidly as possible. This was especially important given the damage limiting

29 Bright, Christopher J. *Continental Defense in the Eisenhower Era : Nuclear Antiaircraft Arms and the Cold War*. Palgrave Studies in the History of Science and Technology. Basingstoke : Palgrave Macmillan, 2012, p. 107.

30 Statement of Policy by the National Security Council (NSC-162/2) October 30, 1953. FRUS 1952-1954 v.2 p.1 :101. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d101>; Bright, Christopher J. *Continental Defense in the Eisenhower Era : Nuclear Antiaircraft Arms and the Cold War*. Palgrave Studies in the History of Science and Technology. Basingstoke : Palgrave Macmillan, 2012, p. 52.

advantages of a counterforce first strike backed by capable defenses. In principle Eisenhower preferred to maintain centralized control over initiation of the SIOP and its strategic war plan predecessors. But in practice he predelegated authority to initiate global nuclear war under certain conditions to senior military leaders as well.³¹

The net effect of all of these posture decisions—the proliferation of nuclear missions, growth in the arsenal, ‘spring-loaded’ war plans geared towards prompt nuclear use, and the related predelegation of release authority—was to create a Maximal Posture that was truly ferocious. Its basic logic was that the US was prepared to ‘shoot first’ with the counterforce mission if it believed war was imminent, or alternatively, if war came as a surprise, Western defenses in Europe would ‘fail deadly’ as early theater nuclear use led to rapid escalation.

The demise of the defense mission in 1963 marked the demise of the Maximal Posture. By that year the US had given up on defending itself in any serious way against enemy nuclear attack. Two related factors caused this. First, the Soviet ICBM force grew considerably in the early 1960s. By 1963 the Soviets could deliver nearly 1000Mt to the US using long-range ballistic missiles.³² Second, effective defense against these missiles was impossible with then-current technology. Defense against nuclear attack had become unaffordable at best and impossible at worst.³³

31 For a thorough treatment see Burr, William. “First Declassification of Eisenhower’s Instructions to Commanders Predelegating Nuclear Weapons Use, 1959-1960. National Security Archive Electronic Briefing Book No. 45. <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB45/>.

32 Norris, Robert S., and Hans Kristensen. “Nuclear Notebook: US and Soviet/Russian Intercontinental Ballistic Missiles, 1959-2008.” *Bulletin of the Atomic Scientists*, January/February 2009. 62-69.

33 For example, in January 1965 Robert McNamara concluded that “There is no defense program within this [\$20 billion 1965 dollars; \$156 billion 2016 dollars] general range of expenditures which would reduce fatalities to a level much below 80 million unless the enemy delayed his attack on our cities long enough for our missile forces to play a major Damage Limiting role.” See Kaufmann, William. “The Strategic Nuclear Forces,” 1969, p. 21. Author’s personal collection. My thanks to Jennifer Greenleaf for sharing this document.

3.3) *The Offensive Missile Posture*

From 1963 to 1994 the US pursued the Offensive Missile Posture. It encompassed three nuclear missions: counterforce, urban/industrial attack, and theater use. Within this overall Posture, counterforce became increasingly important from the early- to mid-1970s.

Under President Johnson, early Offensive Missile Posture weapons acquisition was relatively limited. The arsenal continued to grow but at a slower pace, peaking in 1967. The pace of new delivery system development went from frenetic in the early 1960s to subdued for the rest of the decade.³⁴ And after the development of the first Single Integrated Operational Plan in 1961, US nuclear war plans changed little through the mid-1970s.³⁵ US nuclear posture in the 1960s was evolving, albeit slowly.

This pattern did not endure. Beginning in the early 1970s the Offensive Missile Posture took on a harder edge as the US undertook significant improvements in its counterforce capabilities. Three developments were important: Continuous improvements in the ability to destroy counterforce targets like hardened silos and command bunkers; increased flexibility in nuclear war plans; and the deployment of highly accurate counter-force capable intermediate-range theater nuclear weapons in the mid-1980s. At the same time, the abandonment of the defense mission after 1963 coupled with the sheer size of the Soviet arsenal underscores the fact that the decisive nuclear superiority that the US enjoyed earlier in the nuclear age was clearly out of reach.

34 Norris, Robert S., and Hans M. Kristensen, "Global Nuclear Stockpiles, 1945-2002." *The Bulletin of the Atomic Scientists*, 58 No. 6: 103-104.

35 Ball, Desmond, "The Development of the SIOP, 1960-1983." in Ball, Desmond, and Jeffrey Richelson, eds. *Strategic Nuclear Targeting*. Cornell Studies in Security Affairs. Ithaca, N.Y. : Cornell University Press, 1986.

Regardless, the drive towards improved offensive counterforce was a hallmark of the post-1960s Offensive Missile Posture. Washington's ability to destroy hardened counterforce targets grew as a result of two main technological developments—both pursued at great cost. First were accurate Multiple Independently Targetable Re-entry Vehicles, or MIRVs. Each individual MIRVed missile could carry several warheads. These could be directed at separate targets. By themselves, MIRVed missiles were an important, if ambiguous step towards the development of good counterforce. On one hand, MIRVs can bolster a state's ability to retaliate following an attack. Even aggressors with good counterforce capabilities may be deterred by the knowledge that failing to destroy a single enemy missile could mean absorbing not just one warhead, but several.³⁶ On the other hand, MIRVs can improve first strike counterforce capabilities by giving each missile more warheads—more chances—to destroy targets that may be defended, hardened, or both. MIRVs by themselves do not improve counterforce capability, but accurate MIRVs absolutely do.³⁷

Second, and related, the accuracy of US ICBMs and SLBMs improved on an ongoing basis. High accuracy is a defining characteristic of an effective counterforce weapon.³⁸ In 1963, the

³⁶ Pavel Podvig argues that this logic was a key driver of the Soviet Union's decision to deploy MIRVed missiles in 1975. See Podvig, Pavel. "The Window of Vulnerability That Wasn't: Soviet Military Buildup in the 1970s: A Research Note." *International Security* 33, no. 1 (2008): 118–38. In the US, this was the employment concept behind the Navy's Polaris A3 SLBM. Polaris A3 was designed to destroy cities by delivering its 3 warheads in a triangle or 'claw' spread roughly 1 mile to a side. See MacKenzie, Donald A. *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance*. Cambridge, Mass: MIT Press, 1993, pp. 258-259.

³⁷ Here I bracket important issues related to reconnaissance, surveillance, target acquisition, and command and control.

³⁸ Accuracy is an important characteristic in long-range ballistic missiles intended for counterforce, but is far less important for soft, city-type countervalue targets. A DOD report on technological requirements for new proliferators asserts that a (relatively low yield) 20kt warhead delivered to with low accuracy to within 3km of its target would suffice for the destruction of soft targets. See Department of Defense, "The Military Critical Technologies List, Part II: Weapons of Mass Destruction Capabilities." February 1998, p. II-1-3. Destroying hardened, buried targets such as missile silos and command bunkers requires much higher accuracy. They can be rendered useless in three basic ways: by high atmospheric overpressures, severe ground vibration, and/or cratering of the earth. All three of these effects are highly localized to the area immediately surrounding a nuclear explosion. For an air burst, overpressure decreases proportionally to the cube root of the distance from ground zero. For a ground burst in dry soil, the size of

United States' most accurate long-range missile was the single warhead Titan II, with a Circular Error Probable (CEP) of .65 nautical miles, or 3,950 feet.³⁹ Throughout the 1970s, the US worked to improve its newly MIRVed but still relatively inaccurate ICBM and SLBM force. By 1986 the US had deployed the MX, or Peacekeeper missile, which could deliver as many as twelve warheads to within .06nm, or roughly 260 feet of their targets. This ten-fold accuracy improvement over more than twenty years was the result of a massive and costly technological development effort geared towards offensive counterforce.⁴⁰

As the US improved its counterforce capabilities by fielding increasingly accurate MIRVs, in 1974 the SIOP became modestly more flexible. The SIOP of the early 1970s, like its predecessors, was a rigid plan for the wholesale use whatever nuclear forces were available 'when the balloon went up.' The so-called 'Schlesinger doctrine,' announced in January 1974, changed this somewhat. The Nuclear Weapons Employment Policy (NUWEP) guidance that flowed from it, NUWEP-74, sought to give the president at least 15 different nuclear weapons use options in four discrete categories: 4 Major Attack Options (MAOs), 11 Selective Attack Options (SAOs), and an unspecified number of limited and regional nuclear options. Though these plans were still rigid by contemporary standards, for the first time in the nuclear age they provided the president with the opportunity to exercise some limited flexibility in the conduct of nuclear war.⁴¹

the crater is similarly proportional to the cube root of the warhead yield. Thus the destructive effects of a nuclear weapon on a hardened target are highly sensitive to the accuracy of the delivery system. For airburst overpressure scaling as a function of accuracy, see Glasstone, Samuel, and Philip J. Dolan. *The Effects of Nuclear Weapons*. Washington, U.S. Government Printing Office, 1977, pp. 100-101. For crater dimensions, see Ibid pp. 253-254.

39 Circular Error Probable, or CEP, is the standard measurement of ballistic missile accuracy in the US. CEP is defined as the radius of the circle within which 50% of warheads would fall if launched towards the same target.

40 See MacKenzie, Donald A. *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance*. Cambridge, Mass: MIT Press, 1993. For individual missile CEPs see Ibid pp. 428-429.

41 The doctrine is derived from policy guidance found in NSDM-242. It was translated into operational targeting guidance in NUWEP (short for Nuclear Weapons Employment Policy)-74. It is named for Schlesinger despite, or

In addition to improving the flexible counterforce capability of its intercontinental nuclear forces, the US improved the counterforce capabilities of its theater forces as well. US theater nuclear force modernization began in March 1973 when 1950s-vintage Honest John and Sergeant surface-to-surface missiles were phased out in favor of more accurate Lance missiles. This was the first phase of a significant modernization program would continue into the 1980s, culminating in the deployment of Ground-Launched Cruise Missiles (GLCMs, pronounced ‘glickums’) and Pershing II missiles beginning in 1983.⁴² Both were intermediate-range weapons designed to strike targets inside the Soviet Union from launchers in Europe. These targets could include enemy nuclear forces and command bunkers, or conventional military formations and infrastructure that supported frontline Soviet forces. Thus theater nuclear forces modernization throughout the 1970s and 1980s simultaneously bolstered the United States’ ability to carry out both the counterforce and theater missions—albeit briefly.

As a result of the 1987 Intermediate-range Nuclear Forces (INF) treaty with the Soviet Union, the US eliminated its stockpile of perfectly good Pershing IIs and GLCMs. This major step was followed in late 1991 by an even more significant set of withdrawals occasioned by the collapse of the USSR that presaged the post-Cold War Adaptable Posture.

perhaps because, he bungled the public introduction of the changes envisaged in NSDM-242. The details of this incident, and the challenges that it posed for US relations with NATO, are discussed in Terriff, Terry. *The Nixon Administration and the Making of U.S. Nuclear Strategy*. Cornell University Press, 1995, pp. 191-203. Ironically, Schlesinger probably had little to do with the formulation of the doctrine with which he is so closely associated. See Nolan, Janne E. *Guardians of the Arsenal : The Politics of Nuclear Strategy*. New York : Basic Books, 1989, p. 118. NUWEP 74 is described in Long, Austin. “Deterrence: From Cold War to Long War.” 2008, pp. 36-37. <http://www.rand.org/pubs/monographs/MG636.html>.

⁴² Auten, Brian J. *Carter’s Conversion : The Hardening of American Defense Policy*. Columbia : University of Missouri Press, 2008, pp. 72-73.

3.4) *The Adaptable Posture: 1994-2008*

Between 1994 and 2008 the US pursued the Adaptable Posture. It was characterized by the pursuit of four nuclear missions: the counterforce, urban/industrial attack and theater missions, as well as the new hedging mission.

The collapse of the Soviet Union between 1989 and 1991 and the aftermath of the 1991 Gulf War presented the US with new opportunities and challenges. What sort of nuclear posture would the post-Cold War US need? That question drove the first ever Nuclear Posture Review (NPR) in 1994. Its basic conclusion was that the US faced an uncertain future. Therefore, it would need an adaptable nuclear posture. Two factors were especially important.

First was uncertainty about Russia's future. Nuclear force reductions could help the US save money and build a newly stable relationship with its former adversary. However, a sudden reduction in US nuclear capabilities could leave America vulnerable if Russia became suddenly belligerent once again. This led to the development of the new hedging mission. Undertaken in 1994, hedging involved reducing the size of the United States' deployed nuclear forces in ways that would permit the deployed arsenal to be regenerated quickly if necessary. As Deputy Secretary of Defense John Deutch explained then "an important part of our force structure recommendations recognizes that we have to hedge."⁴³

Consequently, the hedging mission informed specific posture changes outlined in the NPR: many Minuteman III missiles were de-MIRVed to carry only one warhead, instead of three; the number of SLBMs was decreased, as was the number of warheads each carried; and the nuclear capable bomber force was reduced. Many newly-excess warheads were moved to a non-

⁴³ Deutch, John M., "Briefing on the Results of the Nuclear Posture Review." Testimony before the Senate Armed Services Committee, September 22, 1994, p. 12.

deployed reserve. As a result, the US was able to shrink the overall size of its nuclear force while retaining the capability to regrow it rapidly if necessary.⁴⁴

The second factor driving NPR's conclusions—and shaping the Adaptable Posture—was the perception of an emerging rogue state threat. The post-Gulf War revelation that Iraqi dictator Saddam Hussein's nuclear program was surprisingly advanced helped give life to the notion that rogue weapon of mass destruction (WMD) armed dictators could become a major post-Cold War threat. To meet this threat, the US continued its counterforce improvement efforts and accelerated the development of increasingly flexible war planning capabilities. For example, a key result of the NPR was the decision to fully replace older Trident I C4 SLBMs with more accurate Trident II D5s—despite the collapse of the adversary they had been designed to attack.⁴⁵

Simultaneously, the US worked continuously to make its remaining nuclear forces more flexible. By the mid-1990s the new US Strategic Command (STRATCOM) had the ability to develop new nuclear attack options for the president in a matter of hours.⁴⁶ Improved adaptive war planning methods were matched by better retargeting capabilities. 1996 upgrades to the Minuteman ICBM force allowed these weapons to be retargeted in just twelve minutes. A 2006

44 For NPR recommendations see Ritchie, Nick. *US Nuclear Weapons Policy after the Cold War: Russians, "Rogues" and Domestic Division*. Routledge Global Security Studies 7. London ; New York: Routledge, 2009. For capability to 'regrow' the arsenal see redacted table 'Warhead Upload Hedge, in Deutsch, John M., "Briefing on the Results of the Nuclear Posture Review." Testimony before the Senate Armed Services Committee, September 22, 1994, p. 14.

45 See Woolf, Amy. "US Strategic Nuclear Forces: Background, Developments and Issues." Congressional Research Service, March 10, 2016. Pp. 19-20 <http://fas.org/sgp/crs/nuke/RL33640.pdf>. The Trident I C4 replacement program was not completed until October 2004, when the USS Alabama offloaded its C4 missiles. This suggests that the US pursuit of improved counterforce after the Cold War was very persistent, if not urgent. The US Navy lists the 2009 unit cost of the Trident II D5 at \$30.9m. 24 missiles each for four boats would therefore cost nearly \$3b. "Trident Fleet Ballistic Missile." United States Navy Fact File. http://www.navy.mil/navydata/fact_display.asp?cid=2200&tid=1400&ct=2.

46 Butler, George Lee. *Uncommon Cause : A Life at Odds with Convention*. Denver, Colorado : Outskirts Press, 2016, v2, pp. 140, 161. Long and Green also note the late Cold War origins of this effort. See Long, Austin, and Brendan Rittenhouse Green. "Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy." *Journal of Strategic Studies* 38, no. 1–2 (January 2, 2015): 55. doi:10.1080/01402390.2014.95815.

upgrade presumably shrank this time further.⁴⁷ Because a retargetable missile backed by adaptive war planning can hold any number of targets at risk, the US could extract more coercive or deterrent benefits from a smaller nuclear force. Thus, Throughout the 1994 – 2008 Adaptable Posture the US nuclear arsenal decreased in size, but grew in flexibility and counterforce efficacy. The US maintained the Adaptable Posture until it reconstituted the defense mission—this time using conventional interceptors—by roughly 2008.

47 The two systems that comprised these upgrades were called DIRECT, or Defense Improved Emergency Message Automatic Transmission System Replacement Command and Control Terminal System, and REACT or Rapid Execution And Combat Targeting. For DIRECT see Schloser, Eric. *Command and Control: Nuclear Weapons, the Damascus Accident and the Illusion of Safety*. Penguin Books, 2013 pp. 474-475. For REACT see Long, Austin, and Brendan Rittenhouse Green. “Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy.” *Journal of Strategic Studies* 38, no. 1–2 (January 2, 2015): 55. Woolf, Amy. “US Strategic Nuclear Forces: Background, Developments and Issues.” Congressional Research Service, March 10, 2016, p. 14. <http://fas.org/sgp/crs/nuke/RL33640.pdf>.

Table 1: Overview of US Nuclear Postures

Posture	Years	Missions					Description of Weapons and Plans
		Urban/Ind Attack	CF	Theater	Defense	Hedging	
Monopoly	1945-52	✓					<ul style="list-style-type: none"> Small arsenal of inaccurate bomber-delivered gravity bombs targeted at urban/industrial targets as available, alongside conventional bombs.
Maximal	1952/56-63	✓	✓	✓	✓		<ul style="list-style-type: none"> Growing arsenal of inaccurate but high-yield ballistic missiles, cruise missiles, and bomber-delivered gravity bombs targeted at both urban/industrial areas and enemy nuclear forces. Nuclear versions of typical battlefield weapons, e.g., artillery, land mines, fighter-bomber delivered gravity bombs, etc. Loose use controls 'spring-load' nuclear release. Nuclear-tipped surface-to-air or air-to-air missiles based in the US and Canada capable of defending against incoming bombers. Loose use controls permit local commanders to employ nuclear weapons defensively as necessary.
Offensive Missile	1963-94	✓	✓	✓			<ul style="list-style-type: none"> Large arsenal of bombers, ballistic missiles and cruise missiles targeted at urban industrial areas and enemy nuclear forces. Increasing accuracy—especially after the early 1970s—improves US counterforce capabilities. Rigid Single Integrated Operational Plan (SIOP) slowly becomes more flexible as withholds and options are added. Nuclear versions of typical battlefield weapons, e.g., artillery, land mines, fighter-bomber delivered gravity bombs, etc. Longer-range and more accurate surface to surface missiles augment strategic counterforce capabilities in mid-1980s. Stricter use controls reduce but do not eliminate risk of nuclear escalation. Vestigial anti-bomber defenses provide no capability against Soviet ICBM threat.
Adaptable	1994-2008	✓	✓	✓		✓	<ul style="list-style-type: none"> Reduced arsenal of accurate MIRVed ballistic missiles, cruise missiles, and bombers with upload capacity. Principally targeted at enemy nuclear forces, but adaptive planning lends considerable flexibility. Non-deployed arsenal available for rapid upload. Dual-capable fighter-bomber aircraft and few nuclear gravity bombs provide limited theater use capability. Use controls tight.
Strat Cmbn'd Arms	2008-Prsnt.	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> Reduced arsenal of accurate MIRVed ballistic missiles, cruise missiles, and bombers with upload capacity. Principally targeted at enemy nuclear forces, but adaptive planning lends considerable flexibility. Non-deployed arsenal available for rapid upload. Dual-capable fighter-bomber aircraft and few nuclear gravity bombs provide limited theater use capability. Use controls tight. Conventional hit-to-kill interceptors provide limited defense against incoming missiles. Offensive nuclear forces, defenses, space, cyber, conv capabilities integrated in STRATCOM.

Grey check indicates recessed capability.

3.5) *The Strategic Combined Arms Posture: 2008-Present*

By 2008 the defense mission had returned to the portfolio of US nuclear capabilities for the first time since 1963. This marked the transition from the Adaptable Posture to the Strategic Combined Arms Posture. This Posture includes four nuclear missions: counterforce, defense, hedging and theater use. While the US unavoidably retains an urban/industrial attack capability, this fifth mission does not appear to be reflected in existing war plans. To a certain extent, the outlines of this posture remain unclear. Important trends are still developing. Lacking the benefit of hindsight, this description remains somewhat impressionistic.

The existence of a credible but limited national missile defense capability after roughly 2008 is the Strategic Combined Arms Posture's clearest distinguishing characteristic. At President George W. Bush's direction, the US began to deploy conventional long-range ballistic missile defense interceptors in Alaska and California in 2004. These US-based interceptors are augmented by a global network of forward deployed interceptors and radars based on land and at sea, including the Patriot, THAAD and AEGIS systems. Thus, the US is pursuing the mission of defending itself (and its allies) against nuclear missile attack using a layered network of non-nuclear hit-to-kill interceptors. While expert debate about the effectiveness of these interceptors persists, a steady stream of confident assessments from informed senior officials working on missile defenses suggests that US defense capability may be limited, but it is extant.⁴⁸ In extreme unctio— and especially in a war with a weak rogue state with a small nuclear arsenal—an offensive counterforce first strike followed backed by defenses that could 'mop up' a limited

⁴⁸ See e.g., Sankaran, Jaganath. "Updated List of Claims about GMD Effectiveness (May 31, 2018)" *MostlyMissileDefense*. <https://mostlymissiledefense.com/2018/05/31/updated-list-of-claims-about-gmd-effectiveness-may-31-2018/>.

retaliatory effort might provide the US with a credible damage limiting capability for the first time in decades.

The Strategic Combined Arms Posture has another feature that may prove salient in the future. This is the increasing integration of nuclear, conventional space and cyber capabilities. The future of US nuclear posture may be characterized by a blurring of the lines between nuclear weapons themselves and non-nuclear weapons with nuclear-relevant capabilities.

Two examples illustrate this trend, even if its end point remains unclear. First, the US has developed significant offensive cyber warfare capabilities. Adversary nuclear forces are probably among the most important targets of these efforts. When coupled with other nuclear and conventional capabilities, including conventional hit-to-kill defenses, cyber weapons could improve the United States' ability to do counterforce.⁴⁹

Second, since at least 2001, the US has been interested in 'conventional prompt global strike' weapons capable of destroying targets anywhere in the world at extremely short notice. Like nuclear-tipped ICBMs, CPGS weapons could reach important targets globally within roughly 30 minutes of receiving a launch order. However, their conventional nature could minimize the political consequences of their use, ultimately making them more employable in conflict. R&D efforts to-date have yet to result in a fieldable weapon, but the current fascination with CPGS-usable hypersonic weapons could spur progress..It remains to be seen how far this technology,

⁴⁹ For a discussion of the potential efficacy of an early US computer network attack effort see Fischer, Benjamin B. "CANOPY WING: The U.S. War Plan That Gave the East Germans Goose Bumps." *International Journal of Intelligence & Counterintelligence* 27, no. 3 (Fall 2014): 431–64. doi:10.1080/08850607.2014.900290. For more recent allegations that the US has used cyber weapons to interfere with North Korean ballistic missile launches, see Sanger, David and William J. Broad. "US Strategy to Hobble North Korea was Hidden in Plain Sight." *The New York Times*, March 4, 2017. <https://www.nytimes.com/2017/03/04/world/asia/left-of-launch-missile-defense.html>.

and other nuclear-relevant non-nuclear capabilities which could help to define the Strategic Combined Arms Posture, will develop.

3.6) Same Song Different Tune

That was a brisk march through seventy years of Posture change. Explaining the source of this change is the central focus of this project. However, the history of US nuclear posture that follows contains important elements of continuity as well. Two are especially important for what they reveal about the connection between presidents' foreign and security policy ambitions and their decisions to support aggressive postures.⁵⁰

First is the United States' dogged, persistent pursuit counterforce and opportunistic pursuit of defenses. Both missions support damage limitation—the ability to limit the destruction that the US would absorb in nuclear war. The US has pursued the counterforce mission consistently for over 65 years. Crucially, since the early 1970s technological investments geared towards improving counterforce have been a central point of emphasis in the development of US nuclear forces. Likewise, the US pursued homeland defense against bombers during the Maximal Posture, only abandoning it when the growing Soviet ICBM threat rendered effective defense unachievable. Had missile defenses been feasible then, or later in the Cold War, they surely would have been fielded. And when—or arguably before—advances in radars, signal processing, command and control and infra-red sensors made continental-scale missile defenses feasible in the mid-2000s the US pressed them into service.

⁵⁰ A third area of continuity is the United States' persistent maintenance of the urban/industrial attack mission. I do not emphasize its importance here because 1) the US appears to have ceased planning for this mission by about 2008, if not earlier, and 2) by maintaining a large, capable, and even modestly flexible nuclear force a state cannot help but have at least some urban/industrial attack capability. Thus, in contrast to the counterforce, defense and theater missions, urban/industrial attack has been a low-effort mission for the US.

The second persistent thread in US posture history is the long-term pursuit of the theater nuclear mission. This mission began in 1953, and was a staple of US efforts to keep its allies safe from attack and non-nuclear. Increasingly strict and centralized use controls from the early 1960s onward reduced risk of uncoordinated escalation, but escalatory risk remained. This remained true even after the end of the Cold War, as the US continued to maintain a small number of nuclear gravity bombs and dual-capable aircraft (DCA) in Europe. This escalatory linkage lends credibility to the United States' alliance commitments. More than just the military capability inherent in the weapons themselves, that credibility is the active ingredient that deters adversaries, assures allies, and inhibits proliferation.

The combined implications of these two durable threads in US nuclear posture history are incredibly revealing. Since the early 1950s the US has consistently postured its nuclear forces to minimize damage to the US homeland in case of war—especially through offensive counterforce, but also through defenses. The US aggressively sought to limit its own vulnerability by raising adversaries' vulnerability to a nuclear first strike. At the same time, it has accepted increased the risk of a cataclysmic war—increasing its own vulnerability—by using theater nuclear forces to defend distant allies who it has forbidden from developing nuclear weapons of their own. How should we explain these two aspects of US nuclear posture that have run at cross-purposes with one another for decades?

4) The Argument in Brief

This dissertation makes a simple argument. Presidents and their executive teams make aggressive posture decisions to advance their ambitious foreign and security policy goals.

However, the history that I present to support that argument is complex and sometimes contingent. There is no such thing as a Grand Unified Theory of US nuclear posture.

My argument begins with US foreign policy. Since the end of World War II, the US has pursued three core goals with remarkable consistency. First, it has sought to defend the US homeland. Second it has defended its many treaty allies in both Europe and Asia against their stronger, nuclear-armed neighbors. Third, it has sought to inhibit nuclear proliferation to adversaries and allies alike. Of course the US has pursued other goals as well—for example, economic openness and the spread of democracy. But for the past seventy years, these three goals have been especially consistent, and vitally important to US nuclear posture.⁵¹

Two characteristics of this goal set bear on our understanding of US posture history. First, these goals are individually ambitious and collectively in tension with one another. Defending distant allies against nuclear armed foes is challenging. The very commitment to do so raises the risk of nuclear attack on the US. That risk could be mitigated by allowing allies to proliferate. But that is not something that the US has been prepared to tolerate. Second, and related, most countries do not pursue ambitious and contradictory goals like these. As compared with every other country in the world, US foreign policy for the past seventy years has been audacious.

In broad strokes, ambitious goals explain consistently aggressive US nuclear posture. Theater forces support allied defense and inhibition. Counterforce and defenses backstop forward deployed forces and may be able to limit damage to the US in the event of war, but only if used first. In this way the most aggressive aspects of US posture are mutually supporting, and deeply connected to durable foreign and security policy goals.

⁵¹ These are an elaboration of the durable grand strategy goals outlined by Gavin. See Gavin, Francis J. “Strategies of Inhibition.” *International Security* 40, no. 1 (Summer 2015): 9–46.

However, this does not explain change in US nuclear posture—either the major transitions from one Posture to the next, or the more granular decisions about weapons and war plans detailed in the history that follows. To understand these dynamics we must turn to presidents and their senior advisors. How do they try to use nuclear weapons to get what they want in the world?

Core US foreign and security policy goals are consistent. But in pursuing them, presidents exercise enormous creativity and flexibility. First, each president comes to office with a different perspective on the threats and opportunities that the country faces, and different corresponding priorities. Second, presidents also have different causal beliefs about nuclear weapons. What are they good for, exactly? Against this background presidents and their executive teams figure out how best to advance their goals with the available resources.

This is the framework in which presidents make their posture decisions. They identify threats and opportunities and figure out how to meet them. All of the instruments of national influence—diplomatic, informational, military and economic—are at their disposal. And within the presidential tool kit, nuclear weapons stand out as uniquely powerful.

Yet the connection between nuclear means and political ends is often uncertain. Even once a president has laid out their priorities, there is often no clear, linear connection between a given posture decision and its result. For example, will a massive nuclear build-up cause an adversary to respond in kind, or submit to American will? Is it important to develop the ability to use nuclear weapons on a selective or limited basis to handle crises, or would an adversary ignore such an unlikely threat? These are the kinds of choices presidents face. The consequences of their decisions are enormous—perhaps existential—but they lack reliable guides.

To cope, they turn to heuristics, which I call Nuclear Security Theories. An NST is a specific heuristic that presidents use to link foreign policy threats and opportunities, causal beliefs about nuclear weapons, and posture decisions. Each president has one or more NSTs that guide their efforts to connect nuclear means and political ends. These NSTs have varied widely in content, clarity, and logical and empirical rigor. Moreover, they are typically implicit heuristics—they must be discerned by observing presidential speech and especially behavior. Faced with tough choices and massive uncertainty, presidents turn to heuristics to make the best nuclear posture decisions they can.

Thus, our understanding of US nuclear posture has two aspects. On one hand, variation in the content of presidents' NSTs helps to explain much of the change that we observe in the history of US nuclear posture. On the other hand, because post-War presidents have operated within the same consistently ambitious foreign policy framework, presidential NSTs have almost uniformly pointed in the direction of aggressive postures. In detail, US posture decisions have been contingent on the identity of the president. At the broadest level, given our ambitious foreign policy goals, it has been practically overdetermined.

5) Plan for the Dissertation

The next chapter lays out three different ways of understanding the history of US nuclear posture. Two are widely held but ultimately explain little. The third is the basic argument of this dissertation. I lay out the logic of each, and explain what kind of evidence the historical record should contain if each is correct. The following eleven empirical chapters present this historical record for the reader to evaluate.

Chapter three on President Truman, “Growing Teeth,” explains how Truman’s support for the development of the hydrogen bomb and other advanced nuclear capabilities in the early Cold War opened the door to the counterforce mission and the development of theater nuclear weapons and nuclear air defenses in subsequent years.

Next, chapter four on President Eisenhower, “Shoot First or Fail Deadly,” underscores how the general turned president supported the development of first strike counterforce capabilities, theater nuclear forces deployed in Europe as a tripwire, as well as nuclear air defenses for the continental US. His goals were ambitious: defend Western Europe at low cost, while using counterforce and defense to limit damage to the US should war break out there. Together, these three nuclear missions coalesced into the ferocious Maximal Posture designed—if necessary—to start, fight and win a nuclear war. This aggressive posture enjoyed the President’s active support.

Chapter five covers the Kennedy administration. By 1963 US intelligence advised Kennedy that the homeland was inescapably vulnerable to Soviet nuclear retaliation following an American first strike. The US would never again enjoy the decisive superiority of the early nuclear age. At the same time, the burgeoning European Settlement solidified the status quo borders in Europe, diffused tensions over Berlin, and ensured Germany’s continued non-nuclear status. In response to these developments, Kennedy halted the defense mission, and ordered the installation of special use control locks on US nuclear weapons in Europe. Both steps packed into his tragically short time in office pushed the US away from the aggressive Maximal Posture.

Chapter six deals with the Johnson administration, exploring the effects of improving Soviet nuclear capabilities—especially their development of intercontinental ballistic missiles (ICBMs)—on US posture. Johnson’s efforts to curtail US arsenal growth and pursue US-Soviet arms

control talks were a rare presidential effort to relax US posture in response to America's new vulnerability and improved US-Soviet relations. If, as Johnson believed, nuclear competition was wasteful and dangerous, cooperative arms control was the logical alternative.

Chapter seven presents President Nixon's opposite response to improving Soviet nuclear capabilities. According to his Nuclear Security Theory, numerical parity was a threat to US interests. Nixon therefore used arms control not for cooperation, but for competition. He struck a deal that limited the size of Moscow's rapidly growing arsenal, while preserving the United States advantages in counterforce-enabling accurate multiple warhead technologies. His assertion that these capabilities contributed to America's "diplomatic wallop" lends the chapter its name.

President Carter's abortive attempt to reverse Nixon's policies in favor of warmer, more cooperative US-Soviet relations is the subject of chapter eight. While Carter entered office enamored of the sort of minimum deterrent force that academics like Waltz, Glaser and Jervis would soon advocate in the political science literature, ongoing Soviet nuclear modernization caused him to abandon his initial NST in favor of continued nuclear competition. Carter came to support many of the same aggressive counterforce and theater mission enabling nuclear modernization programs that Nixon had initiated.

Chapter nine on posture decisions under Reagan shows how his ability to simultaneously pursue three nuclear policies that appeared to be in tension with one another—improved offensive nuclear capabilities, strategic defenses and eventual nuclear disarmament—contributed to the negotiation of the landmark Intermediate-range Nuclear Forces (INF) Treaty and set the stage for the peaceful end of the Cold War.

In view of this massive re-ordering of geopolitics, Reagan's successor, President George H.W. Bush, initiated sweeping changes in US nuclear posture. Chapter ten on his administration shows how, as a result of an abortive coup in Moscow and the demonstration of America's overwhelming conventional superiority in the Persian Gulf War, Bush came to believe that the best way to protect America from nuclear threats was to rapidly and dramatically shrink both US and Soviet nuclear forces. Large arsenals no longer seemed like a viable path to security. Indeed, they were a liability as they increased the risk of lost or stolen 'loose nukes.' As a result of this evolution in his Nuclear Security Theory, Bush shrank the US nuclear arsenal by over 40%, withdrew most theater nuclear weapons from Europe, canceled several ongoing nuclear weapons development programs, and signed two strategic arms reduction treaties with the Soviet Union and Russia, while preserving the counterforce core of US nuclear capabilities.

The end of chapter ten concludes discussion of US nuclear posture during the Cold War. This was a watershed historical transition. For purposes of this book, two big picture changes are especially salient. First, the volume and quality of available evidence is reduced. Whereas declassified archival documents capturing Cold War administrations' internal deliberations and nuclear posture decisions are comparatively abundant, the documentary record on more recent administrations' nuclear policy making is thinner. I therefore rely more heavily than in earlier chapters on secondary sources, interviews and journalistic accounts. Even so, the picture remains incomplete. Therefore, the final chapters of this book should be considered an early draft of this history. While I am confident in my findings, I also challenge and encourage future political scientists and historians to improve my work as more source material becomes available.

Second, the end of the Cold War caused a significant change in the relationship between nuclear weapons and US foreign policy. For over forty years US nuclear posture had been central to the US-Soviet competition, and the US-Soviet competition was what really drove US foreign policy. Presidents used US nuclear forces to advance their most important goals. That changed somewhat with the demise of the Soviet Union. Nuclear weapons remained important. They could support such goals as hedging against Russian revanchism, inhibiting proliferation and deterring rogue regimes. But they could not spread democracy, stop genocide, deter terrorists or defeat insurgents. Thus the connection between nuclear posture and core foreign policy goals—what might be called grand strategy—attenuated somewhat in the post-Cold War era as US foreign policy evolved.

Chapter eleven begins to illustrate how these changes manifested themselves. It outlines how President Clinton's nuclear posture decisions continued on the same basic trajectory laid out by Bush. The 1993/1994 Nuclear Posture Review (NPR) generated an arms control treaty-compliant force structure that, in many ways, led to the mix of offensive nuclear forces that the US operates today. Crucially, it also introduced the hedging mission, which was one of the hallmarks of the Adaptable Posture. Meanwhile little-noticed improvements in US nuclear war planning and targeting capabilities made the now smaller US nuclear arsenal more flexible and therefore better at offensive counterforce than ever before. While these posture changes were all important, the available evidence suggests that they were unimportant to Clinton himself, and not closely tied to his core foreign policy objectives.

Chapter twelve explains the George W. Bush administration's decision to abrogate the anti-ballistic missile (ABM) treaty and to begin fielding systems that could attempt to defend the

homeland against nuclear attack. The net effect was to provide the US with the combination of offensive counterforce and defenses—strategic combined arms—that would give it some credible damage limiting capability against the small rogue states that Bush believed posed the greatest threat to US security.

Chapter thirteen presents President Obama’s skepticism of the value of nuclear weapons, and his belief that by strengthening international institutions, fostering cooperation and leading by example, he could move towards a future without nuclear weapons. Tragically, the return of great power competition, coupled with domestic factors, kept his progress towards this goal quite limited.

A brief afterword touches on posture developments in the Trump administrations. While nuclear weapons have clearly taken on renewed salience under the current administration, much about the administration’s policies and decision-making processes remain unclear.

A final chapter provides conclusions and implications.

Chapter 2) Understanding US Nuclear Posture¹

1) Introduction

How should we understand the history of US nuclear posture outlined in chapter one? This chapter presents three alternatives. First is the conventional or folk wisdom about US nuclear posture. This is the belief that maintaining Mutually Assured Destruction (MAD) with the Soviet Union was the central goal of US nuclear policy during the Cold War. I call this ‘MAD pursuit theory.’ Second is the explanation for US nuclear posture that dominates the political science literature. Briefly, this literature suggests that military service rivalries and bureaucratic politics caused aggressive postures. I call this ‘bureaucratic pathology theory’ or BPT. Third is the basic argument of this dissertation: Presidents and their senior advisors drove aggressive postures to advance their ambitious foreign and security policy goals.

In the next three sections I develop these alternatives. I unpack their assumptions and implications to explain what kind of evidence the historical record would contain if each was correct. To preview the dissertation’s findings, the evidence that follows offers little support for either MAD pursuit theory or BPT. While no argument—and certainly no argument covering over seventy years of complex history—can claim a perfect track record, the overwhelming mass of evidence contained in the following eleven empirical chapters suggests that my argument has more explanatory power than either of the alternatives. It provides a better way of understanding the history of US nuclear posture.

¹ My thanks to Owen Cote, Fiona S. Cunningham, Michael Doyle, Frank Gavin, Charles Glaser, Vipin Narang, Janne Nolan, Reid B.C. Pauly, Steve Van Evera, Tristan Volpe, members of MIT’s International Relations Work-In-Progress working group and the George Washington University Institute for Security and Conflict Studies Research In Progress group for comments that have improved this chapter.

2) MAD Pursuit Theory

For nearly thirty years Americans have had the luxury of not having to concern themselves with nuclear weapons. However, on those occasions when Americans do think about posture, they usually think about Mutually Assured Destruction.

MAD is a simple concept: When two competing states—like the US and USSR—both have nuclear arsenals large and sophisticated enough that each could reliably and massively retaliate against the other’s cities *even following a counterforce first strike*, the competitors have achieved MAD. Victory in nuclear war becomes impossible. Any nuclear war would result in the destruction of both combatants. The net effect is stable mutual security. Cold peace prevails. To many, this seems attractive and desirable. However, MAD has never in fact been US nuclear policy.

To be clear, this fact is well-understood among nuclear weapons experts in the academic and policy communities.² However, the belief that MAD was the organizing principle for US nuclear posture during the Cold War is sufficiently common and influential in the public sphere that it deserves to be taken seriously, if only to set the record straight. MAD pursuit theory is rooted in a significant misunderstanding of the character of US nuclear posture.

What accounts for the false but widespread belief that the goal of pursuing or maintaining MAD has shaped US posture? As influential political scientist Robert Jervis has observed, the confusion is entirely understandable. “Throughout much of the Cold War, US declaratory policy

² There are exceptions however. See e.g., Center for Arms Control and Non-Proliferation. “Fact Sheet: The Nuclear Triad,” July 18, 2017, <https://armscontrolcenter.org/factsheet-the-nuclear-triad/>, which misleadingly ignores the United States’ long-cultivated counterforce first strike capability by asserting that “US nuclear weapons policy is generally in line with the policy of deterrence – the credible threat of retaliation if it or an ally is attacked.”

(i.e., what policymakers said in public) closely approximated MAD.”³ The historical record abounds with examples: In a 1956 speech accepting the Republican nomination for president, Dwight Eisenhower—architect of the ferocious Maximal Posture—asserted that “We are in the era of the thermo-nuclear bomb that can obliterate cities and can be delivered across continents. With such weapons, war has become, not just tragic, but preposterous. With such weapons, there can be no victory for anyone. Plainly, the objective now must be to see that such a war does not occur at all.”⁴

Seven years later at American University, John F. Kennedy made a stronger claim: “Total war makes no sense in an age when great powers can maintain large and relatively invulnerable nuclear forces and refuse to surrender without resort to those forces.” Eliding the fist strike thinking on which the counterforce mission was based, he went on to state that “The United States, as the world knows, will never start a war.”⁵

In early 1971 President Nixon—whose decisions ushered in the new era of counterforce—seemingly gave MAD his nodding approval, stating that “Today neither the United States nor the Soviet Union has a clear-cut nuclear advantage; the time is therefore ripe to come to an agreement on the control of arms.”⁶

3 Jervis, Robert. “The Dustbin of History: Mutual Assured Destruction.” *Foreign Policy*. November 9 2009.

<https://foreignpolicy.com/2009/11/09/the-dustbin-of-history-mutual-assured-destruction/>. Parentheses in original.

4 Eisenhower, Dwight D. “Republican National Convention,” August 23, 1956. Available from University of Virginia Miller Center. <https://millercenter.org/the-presidency/presidential-speeches/august-23-1956-republican-national-convention>.

5 Kennedy, John F. “American University Commencement,” June 10, 1963. Available from University of Virginia Miller Center. <https://millercenter.org/the-presidency/presidential-speeches/june-10-1963-american-university-commencement>.

6 Nixon, Richard M. “Radio Address about Second Annual Foreign Policy Report to the Congress,” February 25, 1971. Available from the University of Virginia Miller Center. <https://millercenter.org/the-presidency/presidential-speeches/february-25-1971-radio-address-about-second-annual-foreign>.

Over a decade later reputed Cold War hawk Ronald Reagan famously declared that “A nuclear war cannot be won and must never be fought. The only value in our two nations [the US and USSR] possessing nuclear weapons is to make sure they will never be used.”⁷ All of these statements—and many similar ones from presidents and other senior officials over a period of decades—certainly make it sound like MAD was national policy.

Yet the gap between these pro-MAD presidential statements and the observed facts of US posture is massive. US nuclear posture has consistently included the first-strike counterforce mission as well as the escalatory theater mission. That makes it aggressive. How should we explain this gap?

Several hypotheses present themselves. One is cognitive dissonance. Presidents may simultaneously hold the conflicting beliefs that 1) MAD is sensible and that 2) that they must succeed in nuclear competition against rivals by pursuing aggressive postures. A related possibility is that presidents aspire to the kinds of policies they outline in their public speeches, but when faced in private with a concrete choice between a pro-MAD option and a pro-counterforce or damage limitation option, feel impelled to select the latter. A third, cynical alternative is that presidents simply lie about their nuclear policies because doing so is easier and more politically expedient than selling the American public on the messy reality.⁸ Regardless of underlying cause, presidents have consistently failed to communicate the facts of US nuclear

7 Reagan, Ronald. “State of the Union Address.” January 25, 1984. Available from the University of Virginia Miller Center. <https://millercenter.org/the-presidency/presidential-speeches/january-25-1984-state-union-address> .

8 Explaining the gap between presidential rhetoric and decisions on nuclear posture is a challenging dissertation-scale project by itself. The chapters that follow touch on this important topic at times, but it still deserves significantly more attention in follow-on work. For reference, my suspicion is that the second hypothesis—disconnect between aspiration and necessity—has the greatest explanatory power.

posture to the American people. In this light, widespread belief in ‘MAD Pursuit Theory’ is understandable, but this dissertation aims to set the record straight.

2.1) If MAD Pursuit Theory Was True...

Skeptical readers may doubt my assertion that US nuclear posture during and after the Cold War has been centered on rejecting rather than embracing MAD. What would strengthen their case? Readers looking to contest my argument should be alert for the following two kinds of evidence in the chapters that follow.

1) War plans built around the assumption that the US would strike second, not first in a nuclear war. The core idea of MAD is that the threat of *retaliation* is what deters attack and preserves peace and stability. Therefore, if MAD was US policy, US nuclear war plans would not be designed to strike first. Rather, they would be geared towards retaliation after absorbing a first strike. Attacking *quickly* would be far less important than attacking *massively*.

2) Acquisition and maintenance of weapons geared towards retaliation against enemy cities. This evidence would come in two forms. First, the US would want to have an arsenal of weapons that could survive an enemy first strike and subsequently retaliate. In practice this means that ballistic missile submarines and bombers that can use concealment and mobility to survive would be more attractive than ICBMs whose fixed location makes them vulnerable. Second those weapons would be tailored for the destruction of cities. They would not need to be especially accurate—as counterforce weapons are—because cities are large and easy to hit. If MAD was US policy, the US would have primarily pursued very survivable weapons, but would not have wasted resources to give them the accuracy necessary for first strike counterforce.

How much of this pro-MAD pursuit theory evidence is there in what follows? Some, but not enough to warrant the conclusion that MAD was ever the goal of US nuclear posture. For example, President Johnson and his executive team—especially Robert McNamara did curtail US weapons acquisition and laid groundwork for arms control while the Soviets grew their arsenal. They seem to have desired a MAD relationship with Russia and did not pursue advanced counterforce capabilities. However, they did not give up existing counterforce capabilities or otherwise alter posture either. Regardless, Johnson’s successor, Richard Nixon wasted no time rejoining the pursuit of counterforce.

Likewise President Carter briefly flirted with radical posture changes that would have supported MAD as policy. However he ultimately rejected these options as unworkable in the face of continued Soviet arms racing. Like Nixon, he became a counterforce supporter, choosing to move ahead with the counterforce-capable MX missile and B-2 stealth bomber programs.

More recently, President George W. Bush’s nuclear posture decisions were guided in part by his firm belief that Russia was no longer a threat to the US. The source of this conviction is not entirely clear, but may have been at least partially attributable to a belief that a state of mutually assured destruction existed between the US and Russia, and that this condition was acceptable. However, even if this was true, Bush’s efforts to pursue highly effective counterforce capabilities and defenses against potential rogue states were clear and strong.

Thus, on balance, it is hard to argue that the US ever had a MAD posture. The concept did matter for US nuclear posture, but the goal was to escape MAD through counterforce and defenses, rather than accept it.

3) Bureaucratic Pathology Theory

The second major alternative to my argument is what I call bureaucratic pathology theory. More than just a conventional wisdom, BPT stems from a substantial body of political science literature. It is based on two related propositions. First, that US nuclear posture has been inappropriately or unnecessarily aggressive. According to this perspective a MAD-acceptant posture based on the urban/industrial attack mission would be more rational. Second, that the gap between actual aggressive posture and a more desirable relaxed posture is explained by bureaucratic politics.

To summarize, Bureaucratic Pathology Theory improves on MAD Pursuit Theory by recognizing that US nuclear posture has centered on escaping, rather than maintaining MAD. However, it provides an incorrect explanation for the sources of aggressive US postures by overlooking presidential power and the connection between nuclear posture and foreign policy.

The 'Theory of the Nuclear Revolution' (TNR) is the foundation of bureaucratic pathology theory. It provides the standard against which US nuclear posture has been judged inappropriately aggressive. TNR's fundamental assumption is that nuclear weapons are too terrible to use. As a result, they have revolutionized international politics. Nuclear-armed states avoid conflict with one another, especially over trivial matters; crises, not wars, are the main mechanism for resolving serious disputes; territorial conquest is impossible; and the status quo between nuclear-armed states is incredibly difficult to revise.⁹ In other words, reason dictates that MAD should prevail between nuclear-armed competitors. If nuclear weapons are too terrible to

⁹Jervis, Robert. *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon*. Cornell Studies in Security Affairs. Ithaca: Cornell University Press, 1989; Waltz, Kenneth N. *Theory of International Politics*. New York : McGraw-Hill, 1979, Glaser, Charles L. *Analyzing Strategic Nuclear Policy*. Princeton, N.J. : Princeton University Press, 1990.

use, TNR posits, the US should not need very many of them, and it should have no need for the aggressive counterforce or escalation-inducing theater forces that it has consistently fielded.

Yet the US has fielded thousands of these counterforce and theater weapons, regularly modernizing them over a period of decades. According to bureaucratic pathology theory, these are prime examples of ‘the illogic of American nuclear strategy’.¹⁰ What explains this persistent gap between the standard set by TNR for what is supposedly a reasonable posture—a relaxed MAD acceptant one—and actual US posture?

According to BPT, the answer is bureaucratic politics. Bureaucracies—such as military services—typically seek to acquire more resources and influence for themselves, while preserving their ‘organizational essence.’¹¹ For military forces, that ‘organizational essence’ often includes a preference for offensive doctrine.¹² Together, bureaucratic pathology theorists posit that these bureaucratic tendencies contributed to malignant aggression US nuclear posture.

Several examples from the literature illustrate this perspective: David A. Rosenberg posits that the ‘overkill’ that characterized US nuclear war plans for much of the Cold War was caused by the Air Force’s victory in a bureaucratic battle against the Navy for control over nuclear targeting.¹³ Lynn Eden extends this argument by positing that organizational incentives within the Air Force to discount destruction caused by post-nuclear explosion firestorms artificially

10 Jervis, Robert. *The Illogic of American Nuclear Strategy*. Cornell Studies in Security Affairs. Ithaca: Cornell University Press, 1984.

11 Wilson, James Q. *Bureaucracy: what government agencies do and why they do it*. New York : Basic Books, 1989; Halperin, Morton H., *Bureaucratic Politics and Foreign Policy*, The Brookings Institution, 1974, pp. 26-62.

12 Posen, Barry. *The Sources of Military Doctrine : France, Britain, and Germany between the World Wars*. Cornell Studies in Security Affairs. Ithaca : Cornell University Press, 1984.

13 Rosenberg, David Alan. “The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960.” *International Security*, no. 4 (1983): 3.

increased the size of the US nuclear arsenal.¹⁴ A landmark study of the US-Soviet strategic arms competition posited in part that bureaucratic groundwork laid soon after the end of WWII, including the establishment of the Strategic Air Command, catalyzed the hardening of US nuclear posture following the outbreak of the Korean War.¹⁵

Bureaucratic Pathology Theory improves on what I have called MAD Pursuit Theory because it departs from the correct observation that US nuclear posture has typically been very aggressive.¹⁶ It then seeks to explain aggressive elements of posture by pointing to the bureaucratic dynamics of military services and their rivalries, rather than to presidents and national interests.

3.1) If Bureaucratic Pathology Theory Was True...

Bureaucratic pathology is one plausible explanation for aggressive US posture decisions. It probably helps to explain at least some outcomes we observe in the history of US posture. What should skeptical readers look for to decide whether BPT provides more or less explanatory power than my argument? Two categories of evidence are salient.

1) Macro-level changes from one Posture to the next should follow large changes in or among the military bureaucracies responsible for US nuclear posture. Reciprocally, if

¹⁴Eden, Lynn. *Whole World on Fire : Organizations, Knowledge, and Nuclear Weapons Devastation*. Cornell Studies in Security Affairs. Ithaca, N.Y. : Cornell University Press, 2004.

¹⁵May, Earnest, John Steinbrunner, and Thomas Wolfe. *History of the Strategic Arms Competition 1945-1972 Part I*. <http://archive.org/details/HistoryoftheStrategicArmsCompetition19451972PartI>.

¹⁶It is worth noting that while this observation is rooted in fact, for many contributors to the BPT literature it was normatively problematic. Therefore, their work blurred the lines between explanation, description, diagnosis and prescription. For example, at a May 2018 workshop Robert Jervis stated that “Although I stand behind the arguments I made in *The Illogic of American Nuclear Strategy* and *The Meaning of the Nuclear Revolution*, and believe that they represent a significant scholarly contribution, they were also interventions in a fierce political debate. ... I was trying to persuade as well as analyze.” Quoted in Gavin, Francis J. “Rethinking the Bomb: Nuclear Weapons and American Grand Strategy,” *Texas National Security Review* v.2. no. 1. January 2019. <https://tnsr.org/2019/01/rethinking-the-bomb-nuclear-weapons-and-american-grand-strategy/>.

bureaucratic politics drive Posture shifts, these shifts should only, or mainly, occur after significant bureaucratic upheaval. Did all four of the Posture shifts I have described follow major changes in the internal characteristics of the military services with nuclear responsibilities, or in the balance of power or influence among those services? This is a weak test because it can only establish correlation, not causation. However, it provides a fast, easy way to make a first-cut evaluation of BPT's strength. If it fails this test, we should doubt BPT's explanatory power.

A far stronger test requires detailed historical evidence of the sort contained in the next eleven chapters. 2) *If BPT explains US nuclear posture, the historical record should contain many examples of military officers and Pentagon officials successfully stymieing, deceiving, or manipulating presidents and their senior advisors in order to get their way.* These efforts might involve a wide range of tactics, including logrolling, threat inflation, and stone-walling or slow-rolling the White House. Alternatively, during nuclear weapons friendly administrations, they might involve initiating or accelerating certain programs so as to get while the getting is good. The overall pattern of historical evidence would reveal a strong connection between powerful military services' preferences and posture outcomes like weapons acquisition and war planning, and a weak connection between presidential directives or preferences and these same outcomes.

How much of these two kinds of evidence is there in the empirical chapters that follow? Some, but not enough to warrant the conclusion that bureaucratic pathologies have been the main driver of US nuclear posture over time.

First, there is very weak correlation between major shifts from one Posture to the next and significant changes in the internal characteristics of the military services with nuclear responsibilities, or in the balance of power or influence among those services. The US Air Force

became an independent branch of service in 1947, and was then the only service responsible for nuclear employment. The transition from the relaxed Monopoly Posture to the ferocious Maximal Posture only began five years later in 1952, and was not complete until 1956. These two events may be connected, but with so many years separating them that connection seems tenuous. Similarly the transition from the Offensive Missile Posture to the Adaptable Posture in 1994 followed the establishment of US Strategic Command—successor to the old Strategic Air Command—in 1992. This was a major change in the US nuclear operations bureaucracy. Moreover, these two events are connected, but not because one caused the other. Rather, both were results of the same cause: the collapse of the Soviet Union and the end of the Cold War. The other two major Posture shifts—from the Maximal Posture to the Offensive Missile Posture; and later from the Adaptable Posture to the Strategic Combined Arms Posture—do not appear correlated in time with major upheaval in or among the relevant military bureaucracies. Therefore it is difficult to conclude that bureaucratic pathologies were responsible for the macro-level pattern of continuity and change in Postures that we observe in history.

Second, what about the possibility that military services and Pentagon bureaucrats exerted subtle but persistent influence on individual posture-related decisions—whether to buy weapon X or not—which collectively over decades bent US posture towards aggression? There are a few examples of this dynamic in the history that follows. The most significant is the decision-making process leading up to the United States' first MIRV test in August 1968. By all appearances it was designed to bypass President Johnson, depriving him of an opportunity to halt or delay a weapons test that undermined his own arms control agenda and perpetuated the arms race. This incident is detailed in the chapter 'The Johnson Exception.' Another possible example is the

whole of the Clinton Administration. President Clinton was largely un-interested in nuclear posture and did not drive the Offensive Missile-Adaptable Posture transition that occurred on his watch. Instead, as the chapter ‘The Tomorrow Guy’ shows, this transition was largely the product of decisions initiated by his predecessor, George H.W. Bush and carried forward in the Clinton Pentagon. These are just two examples of instances in which I provide relevant evidence even when it weakens my main argument.

Yet despite rare exceptions like these, the history that follows shows that presidents generally make well-informed decisions about US posture to try to advance their ambitious goals. And they usually get their way. Likewise, in the six decades since Eisenhower gave his informed approval to the counterforce mission and the theater nuclear mission, only President Carter made a serious—albeit brief and quickly reversed—effort to eliminate these provocative missions. These basic elements of US posture which helped to define it as persistently aggressive received consistent and informed presidential support. Thus, the great mass of the historical evidence I present in the following chapters makes the much more convincing—not to mention intuitive—case that when it comes to America’s most powerful weapons, presidents carry more weight than bureaucrats.

4) My argument

In contrast to both MAD Pursuit Theory and BPT, this dissertation shows that presidents and their executive teams pursue aggressive postures to advance their ambitious foreign policy goals. These goals are therefore the point of departure for the argument.

Since the end of World War II, the US has consistently pursued three core goals. First, it has sought to defend the US homeland—especially against nuclear attack. Second it has defended distant allies in Europe and Asia against their stronger nuclear-armed neighbors. Third, it has sought to inhibit—slow, halt or roll-back—nuclear proliferation to adversaries and allies alike. Of course the US has pursued other goals as well—for example, economic openness and the spread of democracy. But for over seventy years, these three goals have been the key drivers of US nuclear posture.¹⁷

These goals are important in two ways. First, they are individually ambitious and collectively in tension with one another. Limiting the risk of nuclear attack on the homeland is clearly the top priority. But focusing solely on this mission is incompatible with the goals of both defending distant allies and keeping them non-nuclear. These latter goals require the theater mission, which raises the risk that a war in Europe could escalate to involve the US homeland. The counterforce and defense missions may mitigate this risk by reducing the United States' exposure to retaliation, but effective damage limitation requires preparedness to strike first. Thus, there is simply no way for the US to pursue all of its goals in a benign way, and without accepting significant risks and tradeoffs.

Second, and related, most countries do not pursue such ambitious and contradictory goals. As compared with every other country in the world, US foreign policy for the past seventy years has been incredibly audacious. In broad strokes, I argue that these ambitious goals explain consistently aggressive US nuclear posture.

¹⁷ These are an elaboration of the durable grand strategy goals outlined by Gavin. See Gavin, Francis J. "Strategies of Inhibition." *International Security* 40, no. 1 (Summer 2015): 9–46.

They also account for the complexity of presidential decision-making about nuclear posture. Because US goals are so expansive and contradictory, presidents have wide discretion to identify and define threats, to balance among competing priorities, and to advance those priorities using all of the means of national power at their disposal—of which nuclear weapons are arguably the most powerful and the most blunt. Presidential freedom to set the foreign and security policy agenda implies that connecting nuclear means and political ends is not a predictable, mechanical process. Rather, it is challenging, creative work.

To aid in this work, presidents lean on what I call Nuclear Security Theories. NSTs are heuristics or intellectual short-cuts that presidents use to help them make decisions about nuclear weapons and foreign policy. They provide a lens through which leaders view threats and opportunities, and evaluate how, if at all, nuclear posture may affect them. Presidents do not typically present these decision-making heuristics in explicit terms. Rather, using declassified memoranda of conversations, private correspondence, meeting notes and the like, presidents' Nuclear Security Theory, (or Theories) can be distilled from their behavior and decisions.

How do presidents develop and update these special heuristics? Where do they come from? Three factors are important. First, is the president's gross perception of adversaries' capabilities and intentions. These are typically established before presidents take office, but may be updated. Second is how the president sets priorities among the United States' expansive and contradictory goals. Again, these are ideas that presidents bring to the Oval Office about what is important and what is not, and they rarely change substantially. Third, the combination of posture, commitments, diplomatic initiatives and ongoing weapons development programs that constitute each president's 'nuclear inheritance' from his predecessors. This inheritance enables and

constrains presidents as they harness posture to advance their priorities. In combination, these three factors coalesce into Nuclear Security Theories that link presidents' goals and priorities with their posture decisions via causal beliefs about what nuclear weapons can do.

These ingredients seem straight-forward enough. However, because of the unpredictable ways that they can coalesce within presidents' minds, there is no simple or mechanistic connection between threats, opportunities, inheritance, and specific posture outcomes. The vagaries of perception, misperception, causal beliefs about nuclear weapons, contingency and executive team advice also influence NSTs and posture outcomes in important but non-generalizable ways. As a result, US nuclear posture has been reliably presidentially-driven and purposive, even if it has not been predictable or formulaic.¹⁸

An example illustrates the point: How should the US respond to a massive adversary nuclear build-up? This question faced both President Johnson and his successor, President Nixon during the late 1960s and early 1970s when the Soviet nuclear arsenal—especially its ICBM force—was catching up with the United States'. Johnson thought that nuclear arms racing was dangerous and to be avoided. Reciprocally, he believed that if the US refrained from arms racing, the Soviets would also. This causal belief about how US posture influenced adversary behavior was intrinsic to his NST. Consequently, he and Defense Secretary Robert McNamara (who

¹⁸ My argument has a complicated relationship with the work of Robert Jervis that is worth noting. First, it refutes Jervis's arguments that nuclear weapons 'revolutionized' international politics and that, consequently, US nuclear posture has been fundamentally pathological. See Jervis, Robert. *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon*. Cornell Studies in Security Affairs. Ithaca: Cornell University Press, 1989; Jervis, Robert. *The Illogic of American Nuclear Strategy*. Cornell Studies in Security Affairs. Ithaca: Cornell University Press, 1984. Second, in so doing, it borrows from Jervis's work on perception and misperception in international politics, as well as his belief that in complex environments characterized by uncertainty it is sometimes impossible to draw neat straight lines between causes and effects. See Jervis, Robert. *Perception and Misperception in International Politics* Princeton: Princeton University Press, 1976; and Jervis, Robert. *System Effects: Complexity in Political and Social Life* Princeton: Princeton University Press, 1997. For this insight I am indebted to Marc Trachtenberg, "Robert Jervis and the Nuclear Question." December 22, 2011. [www.sscnet.ucla.edu/polisci/faculty/trachtenberg/cv/Jervis\(34a\).doc](http://www.sscnet.ucla.edu/polisci/faculty/trachtenberg/cv/Jervis(34a).doc).

played a key role in his executive team) limited US arsenal growth and pursued arms control that they believed would stabilize both countries' nuclear forces.

Nixon's response to the same basic situation was wildly different. He had a causal belief that nuclear advantage—however measured—was a key contributor to American 'diplomatic wallop.' Therefore, he pursued an arms control agreement that would limit Soviet areas of strength, while permitting US counterforce capabilities to improve. Despite facing the same basic strategic environment, Johnson and Nixon perceived threats and prioritized opportunities differently because their NSTs included divergent causal beliefs about nuclear weapons.¹⁹

The 1960s Soviet arms build-up was just one of many important nuclear posture-related challenges that presidents have faced. Given the same basic security situation, Johnson and Nixon pursued opposite policies because their NSTs centered on divergent causal beliefs. Nixon's proved more durable—given ambitious US goals—but Johnson's was certainly defensible. Lacking clear guides for balancing competing priorities and establishing tight linkages between nuclear means and political ends, presidents rely on NSTs as heuristics, and do the best they can.

4.1) Antecedents of the Argument

This dissertation presents an inductive explanation for US nuclear posture derived from in-depth historical research using declassified US government documents and interviews with

¹⁹ My conception of Nuclear Security Theories their origins and effects is similar to Elizabeth Saunders' conceptions of the role of presidential beliefs in driving intervention decisions. For Saunders, presidential threat perceptions, causal beliefs and analogical reasoning all influence policy outcomes. See Saunders, Elizabeth, "Transformative Choices: Leaders and the Origins of Intervention Strategy." *International Security*, Vol. 34 No. 2 (Fall 2009) pp. 119-161. For a similar argument focused on presidential decision-making on counterproliferation see Whitlark, Rachel, "All Options on the Table? Nuclear Proliferation, Preventive War, and a Leader's Decision to Intervene. PhD Dissertation, the George Washington University, 2014.

former officials. To my knowledge it is the first attempt at a reasonably comprehensive history of US nuclear posture. However, it does not stand alone. Rather, it is a small contribution to a growing literature rooted in the idea that US posture has been broadly rational and national interest driven.

The best example of this existing literature is in Marc Trachtenberg's *A Constructed Peace*. Embedded within his magisterial description of the early 1960s European Settlement is a proto-theory of early US nuclear posture. According to Trachtenberg, the US had several overriding foreign policy goals that intersected in Europe: Defending Western Europe from the Soviets, preventing West Germany from acquiring nuclear weapons, and limiting defense spending. US nuclear posture changed in the early and mid-1950s in part to advance these goals. Unfortunately, Trachtenberg's account ends in 1963—just as the US lost its decisive first strike advantage over Moscow. This was precisely when the costs, risks and tradeoffs across the United States' expansive goals became especially sharp. Consequently, there remains a great deal more to be said about the sources of US nuclear posture between 1945 and 1963, and after.²⁰

New research on 'inhibition,' or non-proliferation efforts also connect US nuclear posture decisions with its ambitious national goals. According to this body of work, Washington has consistently worked to prevent proliferation, and failing that, to exert leverage over emerging regional nuclear powers—adversaries and allies alike—to limit their nuclear capabilities. My project builds upon this logic. For example, US nuclear postures that seemingly exceeded the simple requirements of homeland defense may have been driven by the desire to inhibit proliferation by obviating allies' need for nuclear weapons and intimidating would-be adversary

²⁰ Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton Studies in International History and Politics. Princeton, N.J: Princeton University Press, 1999.

proliferators. If US non-proliferation policy consistently sought to limit or control the nuclear ambitions of allies and adversaries, then US nuclear posture surely supported this same goal.²¹

This provides a partial explanation for the United States' consistently aggressive posture.

Finally, scholars Austin Long and Brendan Green, and Keir Lieber and Daryl Press argue that it is reasonable for the US to pursue aggressive nuclear postures because, they posit, decisive counterforce advantage is far easier to acquire than is commonly understood. For example, Long and Green argue that US intelligence, surveillance, reconnaissance and targeting (ISRT) capabilities are good enough to permit targeting of truck-mounted mobile missiles and ballistic missile submarines. This in turn allows the US to threaten enemy nuclear forces that are assumed to be invulnerable with counterforce attacks.²² Lieber and Press go further, arguing that these ISRT and anti-submarine warfare (ASW) capabilities, coupled with advanced signal processing computers, exceptionally reliable ICBMs and SLBMs, accurate warheads, and conventional and cyber capabilities are ushering in a 'new era of counterforce.'²³ As a result, they posit that continued efforts to improve US counterforce capabilities are more effective, and therefore more sensible, than most scholars realize.

21 Gavin, Francis J. "Strategies of Inhibition." *International Security* 40, no. 1 (Summer 2015): 9–46; Miller, Nicholas L. *Hegemony and Nuclear Proliferation*, PhD. Dissertation, MIT, 2014; Rabinowitz, Or. *Bargaining on Nuclear Tests: Washington and Its Cold War Deals*. First Edition. Oxford, United Kingdom: Oxford University Press, 2014; Gerzhoy, Gene. "Alliance Coercion and Nuclear Restraint." *International Security* 39, no. 4 (Spring 2015): 91–129; Rabinowitz, Or, and Nicholas L. Miller. "Keeping the Bombs in the Basement." *International Security* 40, no. 1 (Summer 2015): 47–86.

22 Long, Austin, and Brendan Rittenhouse Green. "Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy." *Journal of Strategic Studies* 38, no. 1–2 (January 2, 2015): 38–73.

23 Lieber, Keir and Daryl Press. "The New Era of Counterforce: Technological Change and the Future of Nuclear Deterrence." *International Security* Vol. 41 no. 4 (Spring 2017): 9-49.

4.2) *If My Argument is Correct...*

This dissertation argues that presidents pursue aggressive postures to advance their ambitious foreign policy goals. What would convince a skeptical reader that this argument is correct? There are five categories of evidence to be alert for. Absence or paucity of this evidence weakens my argument, while its abundance in the following chapters strengthens it.

1) *When a president makes a specific decision about some aspect of US nuclear posture, that decision is carried out.* This first test gets at the heart of the question of presidential versus bureaucratic control over US posture. For example, presidential decisions to continue or halt ongoing weapons development programs should lead to observed outcomes consonant with the president's wishes. Similarly, presidential directives to alter at least the gross morphology of US war plans should lead to the desired changes. The inherent rigidity of the Cold War SIOP, long weapons development timelines and persistent service support for canceled programs may muddy the evidentiary waters somewhat. However, as a rule, there should be a clear connection between presidential directives and subsequent posture outcomes. If I am right, in nuclear posture, the president should get his way. Reciprocally, evidence that presidents regularly failed to get their way because they were circumvented, hoodwinked, side-stepped or overruled by their underlings would disconfirm my argument, and lend support to Bureaucratic Pathology Theory.

The second kind of evidence that would support my argument builds on the first and centers on my contention that presidents and their close advisors drive aggressive postures. 2) *When confronted with decisions related to weapons and plans related to the aggressive counterforce and escalation-inducing theater missions, presidents and their advisors should generally support improving or at least maintaining these capabilities.* If I am correct, presidential decisions to

curtail these missions or let them atrophy should be very rare. Absence of such a pattern of presidential decision-making would lend support to either MAD Pursuit Theory, if the reader is not convinced US posture has been aggressive, or else to Bureaucratic Pathology Theory.

The third category of important evidence has to do with the drivers of presidential posture decisions. 3) *Conversations and debates among presidents and their executive team members about these posture decisions should evince the three core goals that I argue have pervaded post-War US foreign and security policy.* Memoranda, meeting notes, studies and correspondence among presidents and advisors should reflect their importance. These goals—and especially the desire to manage tradeoffs and tensions across them—should be central to debates about weapons and war plans, and about Posture writ-large. If these goals are not deeply embedded in White House discussions of posture then we must infer that they are not, as I have argued, important drivers of presidential posture decisions.

The fourth and fifth kinds of evidence relates to the way presidents and their advisors connect nuclear means with political ends. 4) *A simple heuristic or Nuclear Security Theory should guide presidents and their advisors as they make decisions about posture.* Moreover 5) *there should be wide variation in the content of different presidents' NSTs, even despite broad similarities in the international environment and US objectives across administrations.* If, as I have argued, setting foreign policy priorities and figuring out how to advance them with nuclear weapons is challenging, creative work, then we should observe significant diversity in the NSTs use to accomplish that work. If presidents do not have readily identifiable NSTs, then my argument that these heuristics are important for our understanding of US posture cannot be correct.

Alternatively, if presidents do appear to rely on NSTs, but these vary little from administration to

administration, then perhaps making decisions about posture is more rote, and therefore far simpler and more predictable than I have suggested.

5) Conclusion

This chapter has presented three different ways of understanding the history of US nuclear posture. What I have called MAD Pursuit Theory and Bureaucratic Pathology Theory are already common and well known among engaged Americans and political scientists respectively. My own argument that presidents and their senior advisors pursue aggressive postures to advance their ambitious foreign policy goals is part of a small but growing body of literature suggesting that US posture has been driven by core national interests.

In three substantive sections I have laid out all three arguments. In an effort to avoid obtrusive, pedantic excursions in the empirical chapters that follow, I have also carefully outlined what kinds of evidence readers should be alert for as they work to evaluate my argument against competing claims, even drawing readers' attention in advance to key facts that weaken my case.

Given these and the other exceptions to the rule that inevitably spring up through seventy years of nuclear history—how will my argument hold up? Quite well. The history that follows shows clearly that presidents and their executive teams, not Pentagon bureaucrats direct US nuclear posture. They have knowingly accepted the costs and risks of aggressive postures in order to pursue a set of core foreign policy goals that are clearly incredibly ambitious. Yet because of the challenge of connecting nuclear means and political ends amidst tremendous uncertainty about the likely effects of any given posture decision, heuristics that I call Nuclear Security Theories are important in guiding those decisions. In detail, US posture decisions have

been highly contingent on the identity of the president. But at the broadest possible level, given our ambitious foreign policy goals, it has been practically overdetermined.

Chapter 3) Growing Teeth: US Nuclear Posture Under President Truman¹

1) Introduction

The dawn of the nuclear age coincided with the beginning of the Cold War—America’s introduction to great power competition. Under President Harry S. Truman the US confronted a post-War world in which Europe was weak, the Soviets appeared strong, and the most powerful weapons were atomic. Decisions taken by Truman and his advisors during these formative years would profoundly inform—even determine—the overall shape of US nuclear posture for decades to come.

Two stand out as particularly influential. First was Truman’s decision to take a leading role in European security. Early economic support for war torn Europe evolved into the NATO military alliance which has cemented US troops and nuclear weapons in Europe ever since. Second was Truman’s decision to pursue hydrogen or thermonuclear bombs and related technologies. Soon, this would allow the US to produce nuclear weapons in quantities, sizes, shapes and yields unimaginable in 1945. Crucially, both decisions have roots that predate the first Soviet atomic test in August 1949. Washington’s foreign and nuclear policy ambitions were growing faster than the Soviet threat. Save for Roosevelt’s decision to initiate the Manhattan Project, nothing has had a greater long-term impact in both realms than these two early decisions by Truman. This was how it all started.

¹ My thanks to Fiona S. Cunningham, Frank Gavin, Vipin Narang, Reid B.C. Pauly, Erik Sand, Martin J. Sherwin, Steve Van Evera and the MIT International Relations Work in Progress group for insights and comments that have improved this chapter. Errors are mine.

1.1) Presidential Goals

As the dust settled after World War II, two things became reasonably clear. First that America would be the dominant global power. The US alone among the major combatants had escaped a destructive invasion, and the US alone possessed the new atomic bomb. Second, Moscow was destined to become Washington's main rival.

From the start, Europe was the main object of this rivalry. Truman—like his successors—desired US influence over Western Europe for related economic and geopolitical reasons. First, the US would need trading partners if its large economy was to remain vibrant and avoid a new Great Depression. Though post-War Europe was devastated economically and otherwise, the US looked forward to a time when its recovery would enable the resumption of deep, mutually beneficial trade relations. However, if Moscow came to dominate Europe, its closed economic model would halt trade with Europe, isolating and crippling the US economy.

Second, and related, Truman sought to prevent war from breaking out in Europe, as it had already done twice in a generation. War would undermine the economic intercourse the US desired, and moreover was sure to draw the US in once again at great cost in blood and treasure.

Thus, reconstitution and maintenance of a free, peaceful, open society in Europe, safe from Soviet domination was at the core of Truman's vision for the American-led post War order. His commitment through the new North Atlantic Treaty Organization (NATO) to protect distant allies against a stronger neighbor during peacetime was novel and ambitious. The challenge of keeping this commitment has been a key driver of US nuclear posture ever since.

1.2) Threat Perception

Plainly, the Soviet Union was the only possible threat to Truman's vision of a US-led liberal world order. Moscow shared Eurasia with Washington's West European allies, while the US would have to exert its influence from across the Atlantic. Power is difficult to project from a distance. Thus Truman saw the Soviets as the main threat to US interests in Europe. However, his understanding of the nature of that threat evolved over time. This evolving threat perception informed his nuclear policy decisions.

Until roughly 1948 Truman's concerns were more economic than military. Post-War Europe was poor. Truman therefore feared that communism could prove more attractive to Europeans than democratic capitalism. Correspondingly, his primary worry was that Moscow might exploit the inherent vulnerabilities of open societies by using propaganda and subversion to control European nations. He feared conquest through skulduggery rather than force of arms.

This began to change in 1948. By then US efforts to strengthen European economies and societies with programs like the Marshall Plan were underway. Yet the Soviet army remained large, and European states were still unwilling or unable to muster an adequate collective defense. When the Korean War broke out in June 1950, Truman's latent fear of Soviet military expansionism became concrete. Truman believed, incorrectly, that the North Korean invasion of the South had been planned and directed (rather than simply approved) by Stalin. He also feared, unnecessarily, that the war in Korea was merely a feint before a wider Soviet attack on Europe. Washington's growing rivalry with Moscow had become militarized.

Thus, throughout his time in office, Truman's gaze remained fixed on the Soviet threat. Yet his initial belief that this threat was chiefly economic and ideological transformed by roughly

1949 or 1950 into a powerful fear that Europe might be conquered and/or the US attacked unless he took vigorous protective action.

1.3) Truman's Nuclear Inheritance

The defining characteristic of Truman's nuclear inheritance was its capacity for growth. From President Roosevelt, Truman inherited the Manhattan Project—a massive, costly, continent-spanning nuclear weapons design and production infrastructure. Months after he assumed office it made him the leader of the world's first nuclear weapons state. Truman continued to build upon this foundation, chiefly by supporting development of the hydrogen bomb, and other nuclear weapons design improvements. The resulting advances laid the groundwork for massive growth in the size and capability of US nuclear forces under President Eisenhower. In the late 1940s the US Air Force had a nuclear capability. By the mid-1950s the whole US military had been built around nuclear arms.

1.4) Truman's Nuclear Security Theory

These three ingredients combined to inform President Truman's Nuclear Security Theory—his conception of how to use nuclear means to pursue political ends. First, his overarching goal at the end of WWII was to establish a US-led liberal world order. Maintaining the freedom and independence of Western Europe was central to this vision. Second, Western Europe faced a significant Soviet threat. Initially, Truman understood this threat to be economic and ideological. Later, he came to perceive a military threat to Europe as well as a prospective threat of atomic attack on the US homeland. Third, Truman had inherited a very small nuclear arsenal that had

been potent enough to help win World War II. Moreover, this arsenal was poised for growth in size, diversity and capability.

Against this background, Truman's Nuclear Security Theory was both obvious and straightforward: Use US nuclear (and conventional) military might to deter or defeat Soviet aggression. Washington initially enjoyed a nuclear monopoly, and even after the 1949 Soviet atomic test maintained nuclear superiority over its main adversary. The apparent causal relationship between the atomic bombing of Hiroshima and Nagasaki; and subsequent Japanese surrender encouraged the belief that atomic bombs could cause decisive outcomes. Correspondingly, Truman relied on straightforward nuclear advantage to deal with Moscow.

This description suggests certain constituent elements of Truman's nuclear posture decision-making. First, by necessity Truman relied upon a mix of conventional and nuclear threats to preserve US interests in Europe. The US nuclear arsenal was not yet large or powerful enough to defeat Moscow by itself. Second, Truman feared the loss of the nuclear monopoly (later superiority) that he leaned on so heavily. As a result, he directed massive investments in nuclear technology development. The US had a comparative advantage in this field, and Truman sought to leverage it for maximum benefit. Third, news of Moscow's first nuclear test in September 1949 foreshadowed a future Soviet atomic threat not only to Europe, but also to the US homeland. This frightening reality catalyzed to the genesis of the aggressive first-strike counterforce nuclear mission, and with it, the beginning of the transition from the Monopoly Posture to the Maximal Posture.

2) The Hardening of US Foreign Policy and the H-Bomb Decision

Cold War US foreign policy was animated by the fear that Moscow would take over Western Europe. This fear was especially vivid during the Cold War's first fifteen years. Homeland protection and non-proliferation were important too. However, because of the perceived weakness of war-torn Europe and the proximity of the Soviet threat, maintaining Europe's freedom and independence was the United States' *most pressing* goal until the early 1960s. As one National Security Council study concluded, failure to maintain a presence in Eurasia was tantamount to "eventual national suicide."²

While the American preoccupation with Europe was consistent, the nature and magnitude of the Soviet threat varied. Regardless, Moscow's malign intent was practically a given. Against this background, two concrete steps marked the beginning of the Monopoly-Maximal Posture transition. First, in April 1949 and over four months before the first Soviet atomic test, the US signed the North Atlantic Treaty establishing the NATO alliance which committed it to defend Western Europe. Second, in January 1950, Truman approved development of hydrogen (or thermonuclear) weapons that would dwarf 'ordinary' atomic bombs' destructive power and open the door to nuclear plenty.

Neither decision was specifically intended to initiate the Monopoly-Maximal Posture transition. Rather, both decisions were part of a broader US effort to bolster Western defenses in

² For 'national suicide' quote, see NSC 7: Report by the NSC on the Position of the United States with Respect to Soviet Dominated World Communism. March 30 or 31, 1948, Foreign Relations of the United States (herein FRUS) 1948 v.1 p.2:12. <https://history.state.gov/historicaldocuments/frus1948v01p2/d12>. For sources of US interest in Western Europe, see Leffler, Melvyn. "The American Conception of National Security and the Beginnings of the Cold War, 1945-1948." *American Historical Review* 89, no. 2 (April 1984): 356-360, esp. fn 30; Gaddis, John Lewis. *Strategies of Containment: A Critical Appraisal of American National Security Policy during the Cold War*. Rev. and expanded ed. New York: Oxford University Press, 2005, pp. 29-30, 56-57; Brands, Hal. *What Good Is Grand Strategy?: Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush*. Cornell University Press, 2014, pp. 29-30.

the face of growing Soviet strength. These efforts took root as early as 1948. Together they were first steps toward what would become the Maximal Posture.

2.1) It's the Economy, Stupid!

Through 1948, US concerns centered on Europe's economic weakness. Moscow seemed unlikely to invade Europe, but would certainly use subversion to foment unrest or revolution in poor European nations. Correspondingly, the US could afford a relaxed nuclear posture. The threat contained in the US nuclear monopoly and conventional military power could be mostly relied upon to deter a Soviet attempt to conquer Europe. If deterrence failed, a months-long atomic and conventional strategic bombing campaign against Soviet cities, US re-mobilization, and an eventual ground offensive would result in costly but certain Western victory. Nuclear monopoly bought the US a great deal of security with a small, rudimentary atomic arsenal.

Because the source of Europe's vulnerability was fundamentally economic, foreign aid was the early Cold War weapon of choice. As President Truman argued in his December 19, 1947 speech to Congress on the Marshall plan, the United States' willingness and ability to foster Europe's economic recovery would "determine in large part whether the free nations of the world can look forward with hope to a peaceful and prosperous future as independent states, or whether they must live in poverty and in fear of selfish totalitarian aggression."³ By 1948, the "definitive statement of US foreign policy" argued that "had the United States not taken vigorous measures during the past two years to stiffen the resistance of western European and Mediterranean countries to communist pressures, most of western Europe would today have been politically

³ President Truman's Special Message to Congress on the Marshall Plan, December 19, 1947. <http://www.presidency.ucsb.edu/ws/?pid=12805>.

captured by the communist movement.”⁴ This was the line of thinking under-girded US foreign aid provided through the Truman Doctrine and the Marshall Plan.⁵

Yet as these flagship economic assistance programs got under way in 1947 and 1948, Truman believed that they were not by themselves sufficient to protect Western Europe. The large Soviet Army, he feared, could attack almost without warning. Defense against this threat required not just the restoration of Europe’s economies, but also the urgent development of ready conventional and nuclear military might. The ambitious new post-War foreign policy goal of defending Europe necessitated maintaining a large, ready peacetime military force for the first time in American history. And increasingly, that ready force would be nuclear armed.

2.2) Truman, NATO and the Hardening of European Security

The first concrete step in this direction came when the US signed the North Atlantic Treaty (NATO) in April 1949, after over a year of negotiations.⁶ This new treaty pledged the United States and its Western European allies to treat an attack against one as an attack on all. If Moscow attacked Western Europe, the US would be treaty-bound to respond as though its own

4 For NSC-20/4 as definitive see Leffler, Melvyn. “The American Conception of National Security and the Beginnings of the Cold War, 1945-1948.” *American Historical Review* 89, no. 2 (April 1984): 377. Excerpt from NSC-20/4 draft in Report to the President by the NSC on NSC 20/3. FRUS 1948 v.1 p.2: 61. <https://history.state.gov/historicaldocuments/frus1948v01p2/d61>.

5 President Truman's address to Joint Session of Congress on the Truman Doctrine. March 12, 1947. <https://history.state.gov/milestones/1945-1952/truman-doctrine>. The much broader program of economic aid to Europe encompassed in the Marshall Plan was announced just over one year later, on St. Patrick’s Day 1948. Editorial Note. FRUS 1948 v.1 p.1:7.

6 Top-level discussion of an Atlantic alliance began in March 1948 as the Marshall plan was being finalized. See Memorandum from Secretary of State (Marshall) to President Truman on French and British Requests for Consultation on Measures to Check Extension of Communism. March 12, 1948. FRUS 1948 v.3: 40. <https://history.state.gov/historicaldocuments/frus1948v03/d40>; Minutes of the First Meeting of the US, UK, Canada Security Conversations. March 22, 1948. FRUS 1948 v.3: 54 <https://history.state.gov/historicaldocuments/frus1948v03/d54>; and Sayle, Timothy. *Enduring Alliance: A History of NATO and the Postwar Global Order*. Ithaca, Cornell University Press 2019, pp. 11-17. Lower level discussions date back to at least late 1947. See Brands, Hal. *What Good Is Grand Strategy?: Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush*. Cornell University Press, 2014, pp. 34-35

territory had been attacked. For the United States, this was unprecedented. First, it had never before joined a peacetime alliance. Second, until 1949 the Monroe Doctrine was arguably the foundation of US foreign policy. While the US would vigorously defend its prerogatives in the Western Hemisphere, it saw no reason to permanently entangle itself in Europe's affairs.⁷ Third, NATO commitments would soon necessitate the maintenance of a large peacetime military force for the first time in the history of the Republic. Thus deciding to lead NATO marked a massive expansion of the scope and depth of US commitments abroad, as well as a departure from over 170 years of isolationist foreign policy.

Why take this radical step? Because Truman believed that the US had an interest in defending Europe, and he saw no other practical way to do so. NATO countries were willing to unite under US leadership for common defense. However, absent US involvement, France and Britain would never coordinate their military plans, for example, and neither would permit occupied Germany to re-arm itself. Thus Truman had to choose between leading NATO or taking the risk that divided Europe would fall under Soviet control. Truman's belief that the choices were this stark led him to take radical action.

Yet even as NATO was being negotiated, it was by no means clear that the US could meet its new commitments. This implied the need for a more powerful standing military with more and better nuclear weapons.

⁷ Interestingly, some conceptual foundations of US post-War foreign policy were derived from this older Western Hemisphere-centric perspective. For the primary role of the United States' expansive overseas base network in Western Hemisphere defense, see Leffler, Melvyn. "The American Conception of National Security and the Beginnings of the Cold War, 1945-1948." *American Historical Review* 89, no. 2 (April 1984): 350. For intentional similarities between the US-led Rio Pact for the collective defense of the Western Hemisphere and the North Atlantic Treaty, see Minutes of the Sixth Meeting of the US, UK, Canada Security Conversations. April 1, 1948. FRUS 1948 v.3: 63. <https://history.state.gov/historicaldocuments/frus1948v03/d63>.

Five months before the treaty signing, on November 17, 1948, the Joint Chiefs of Staff (JCS) sent a memo to Secretary of Defense James Forrestal and the National Security Council (NSC) comparing US military obligations abroad with its ability to meet them. With some exasperation, the Chiefs argued that “as [we] have previously stated, the great importance to our national security of keeping our military capabilities abreast of our foreign commitments and their implications cannot be over-emphasized. [...] current United States commitments involving the use or distinctly possible use of armed forces are very greatly in excess of our present ability to fulfill them either promptly or effectively.”⁸ Even as the US contemplated unprecedented new overseas commitments, its top military officers doubted their ability to keep America’s promises.

This concern was shared by the top members of Truman’s executive team. Prodding Truman on December 1, 1948 Secretary of Defense James Forrestal wrote “as I have previously informed you orally, the Joint Chiefs of Staff do not believe that our national security can be adequately safeguarded with the forces which can be maintained under this 14.4 billion dollar budget.” Moreover, “the Secretary of State [George Marshall] has authorized me to state that the forces provided by the budget I am recommending would provide a military posture and state of readiness better calculated [...] to instill the necessary confidence in democratic nations everywhere than would the reduced forces in a more limited budget.”⁹ The message was clear: defending Europe required more money and combat power.

Truman came around to this view by the time the his new Secretary of State, Dean Acheson, signed NATO in April 1949—four months before the first Soviet atomic test, and over a year

8 Report to the NSC by the Secretary of Defense (Forrestal) on Existing International Commitments Involving the Possible Use of Armed Forces. Nov. 17, 1948. FRUS 1948 v.1 p.2: 60.

<https://history.state.gov/historicaldocuments/frus1948v01p2/d60>.

9 The Secretary of Defense (Forrestal) to the President. Dec. 1, 1948. FRUS 1948 v.1 p.2:62.

<https://history.state.gov/historicaldocuments/frus1948v01p2/d62>.

before the Korean War began. Earlier in April he observed that “we have the atomic bomb, but we must recognize the present limitations of our strategic methods for delivering it, and the vast problem of subduing a sprawling empire stretching from Kamchatka to the Skagerrak with this weapon, to say nothing of the problem of using it against our occupied Western European allies.”¹⁰ Like Forrestal, Marshall, and the Joint Chiefs, Truman now recognized that the Soviet Union’s size and growing strength meant that even atomic monopoly no longer provided the military power the US needed to meet its defense commitments abroad. This was the Monopoly Posture’s death knell.

One month later, a new study validated Truman’s concern. A group led by General H.R. Harmon had assessed likely politico-military effects of the United States’ then-current plan for general war. War plan TROJAN called for the US to drop 133 atomic bombs on 70 cities in the Soviet Union, Eastern Europe and China, killing 2.7 million people, and injuring 4 million more within a few short days. Yet despite the scale and rapidity of this destruction, the Harmon report concluded that TROJAN would not by itself “bring about capitulation, destroy the roots of Communism, or critically weaken the power of Soviet leadership to dominate the people.”¹¹ Even after expending most of its atomic arsenal, Washington could not prevent Moscow from advancing through Europe as the US began a ponderous mobilization. As historian Hal Brands observes, “as long as it retained a nuclear monopoly, the United States would probably win a war

10 Truman quoted in Memcon, April 3, 1949, box 12, Lot 53D444, RG 59, NARA. Cited in Brands, Hal. *What Good Is Grand Strategy?: Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush*. Cornell University Press, 2014, p. 42 fn 80.

11 Rosenberg, David Alan. “The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960.” *International Security* 7, no. 4 (1983) p. 16; Rearden, Steven L. *Council of War: A History of the Joint Chiefs of Staff: 1942-1991*. National Defense University Press, 2012. pp. 83-84. http://www.jcs.mil/Portals/36/Documents/History/Institutional/Council_of_War.pdf; Trachtenberg, Marc. *History and Strategy*. Princeton Studies in International History and Politics. Princeton, N.J: Princeton University Press, 1991, p. 119.

with Moscow in the end, but it would be a drawn-out affair that would devastate many of the areas Washington meant to defend.”¹²

This growing sense of Europe’s vulnerability was the beginning of the end for the Monopoly Posture. Even before Moscow’s first nuclear test, Truman, Forrestal and Acheson had grave doubts about the United States’ ability to fulfill its new commitment to defend Europe.

To address the growing Soviet challenge without spending America into bankruptcy, Truman directed the US towards atomic innovation. Rightly or wrongly, Truman believed atomic innovation had already helped end WWII; it might help address post-War challenges also. To that end, Truman put his National Security Council (NSC) to work. First, he requested NSC advice on managing the growing cost of defense. Writing to NSC Executive Secretary Sidney Souers, Truman explained that existing federal expenditures present “such a serious fiscal and economic problem that a complete re-evaluation of current and proposed programs is required. [...] the levels contemplated for military and international aid programs in fiscal year 1950 are substantially above the levels which we can hope to maintain consistent with a sound fiscal and economic program.” Truman wanted to make defense spending sustainable throughout what promised to be a long Cold War.

Second, and related, he asked an NSC special committee to assess US progress on atomic weapons research, and suggest avenues for improvement. Even before learning in late August 1949 that Moscow had joined the nuclear club, Truman hoped to leverage Washington’s lead in atomic technology to solve the European defense problem at an affordable price.¹³

12 Brands, Hal. *What Good Is Grand Strategy?: Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush*. Cornell University Press, 2014, p. 42.

13 Truman, Harry S. *Memoirs*. Garden City, N.Y., Doubleday, 1955. pp. 304-305.

2.3) A Thermonuclear Solution to an Economic Problem

Truman's idea seemed promising. When the NSC special committee reported back to Truman on October 10, 1949, it argued that accelerating atomic development would be militarily useful, technically feasible, and economically beneficial. From a military perspective, the JCS believed that "this accelerated program will constitute a net improvement in our military posture both as a deterrent to war, and as preparation for war should it prove unavoidable." Internationally, the committee argued that "in the light of the North Atlantic Pact [...] it appears likely that Western Europe would consider an expansion of our program not only a desirable development but also positive evidence of our intent to increase our military strength for the security of all." From a technical perspective, the Atomic Energy Commission (AEC) concluded that "it is feasible to meet the requirements of the proposed program." Finally, preliminary estimates indicated that "it is probable that atomic bombs may be employed economically in lieu of conventional bombs against relatively small targets." Thus, by late 1949, all signs pointed towards increasing reliance on nuclear weapons for US and European security. This was both a natural implication of Truman's Nuclear Security Theory, and an early step towards the Maximal Posture.¹⁴

The October 1949 report illustrates the Truman Administration's evolving thinking about atomic weapons and foreign policy. Yet it was not a knee-jerk response to Moscow's August atomic test. First, Truman requested this study in July 1949—over a month before learning of the first Soviet test. Moreover, the report itself noted that "the recent atomic explosion in the USSR increases the urgency with which this proposed program should be undertaken and executed, but

¹⁴ Report to the President by the Special Committee of the National Security Council on the Proposed Acceleration of the Atomic Energy Program. Oct. 10, 1949. DNSA doc. NP00058.

this acceleration should be clearly understood to be a projection of previous plans based on our own capabilities, rather than as a counter-development to the Soviet explosion.”¹⁵

Irrespective of the Soviet test, it was the considered opinion of Truman’s top advisors that improved nuclear capabilities could bolster NATO defense at reasonable cost. In view of this, Truman’s January 31, 1950 decision to approve development of thermonuclear weapons that would become both more powerful, smaller in size, cheaper, and more plentiful than earlier atomic munitions was momentous but unsurprising. Truman was merely taking another step on the path towards increasing reliance on military power—including atomic weapons—to advance the United States’ ambitious goals of defending distant allies and, prospectively, protecting the US homeland from nuclear attack.¹⁶ Crucially, at no point did he contemplate simply accepting US-Soviet mutual vulnerability; that would have undermined the US commitment to defend Europe.

Even if the outline of what would become the Maximal Posture was not yet clear, by early 1950 Truman was moving towards it.

15 Report to the President by the Special Committee of the National Security Council on the Proposed Acceleration of the Atomic Energy Program. Oct. 10, 1949. DNSA doc. NP00058. While it would be wrong to take this assertion at face value, it is supported by the fact that the report’s analysis is based on the belief that the US “would [prospectively] lose its monopoly in the nuclear field.” and that “by 1956 [...] it was estimated that the USSR would have achieved a significant stockpile of atomic weapons.” If it was reasonable to invest in improved nuclear capabilities to prepare for the future end of nuclear monopoly, then the fact that it had ended earlier than expected would only reinforce this conclusion.

16 For additional evidence on this trend, see Memorandum by the Executive Secretary of the NSC (Souers) to the Council on 'Assessment and Appraisal of US Objectives, Commitments and Risks in relation to Military Power. FRUS 1949 v.1:157. <https://history.state.gov/historicaldocuments/frus1949v01/d157>; The President to the Secretary of State. Jan. 31, 1950. FRUS 1950 v. 1:56, <https://history.state.gov/historicaldocuments/frus1950v01/d56>; Gaddis, John Lewis. *Strategies of Containment: A Critical Appraisal of American National Security Policy during the Cold War*. Rev. and expanded ed. New York: Oxford University Press, 2005, pp.81-82; and Brands, Hal. *What Good Is Grand Strategy?: Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush*. Cornell University Press, 2014, pp. 30-34.

3) The Origins of Counterforce

Truman's moves to increase Washington's reliance on its nuclear advantage was soon followed by the first operational step towards a more aggressive nuclear posture. Between 1951 and 1952 the US Air Force took on the counterforce nuclear mission. Because the new and growing Soviet nuclear arsenal threatened Europe—including important US bomber bases—and would eventually threaten the US homeland, it was reasonable to target it for early destruction in war. The ability to destroy enemy nuclear forces preemptively is the essence of counterforce. At the same time, counterforce created dilemmas surrounding nuclear first use that remain salient today.

The early 1950s felt like dark, dangerous days for the West. As early as 1949 senior US officials—including Truman—feared that the US could not prevent the USSR from overrunning Europe. These fears only grew as the Soviets tested their first atomic weapon, green lit the North Korean invasion of South Korea, and continued to grow in military strength. A December 1950 National Intelligence Estimate (NIE) opened by stating that “USSR-Satellite treatment of Korean developments indicates that they assess their current military and political position as one of great strength in comparison with that of the West, and that they propose to exploit the apparent conviction of the West of its own present weakness.”¹⁷ Later that same month President Truman declared a state of national emergency to deal with the world situation in Korea and elsewhere.¹⁸ Was Korea was the communists' main effort, or a prelude to an attack on Europe? There was no telling what Moscow might do next.

17 NIE-15: Probable Soviet Moves To Exploit the Present Situation. Dec. 11, 1950. FRUS 1951 v.1: 3. <https://history.state.gov/historicaldocuments/frus1951v01/d3>.

18 Proclamation 2914—Proclaiming the Existence of a National Emergency. Dec. 16, 1950. Univ. California Santa Barbara American Presidency Project. <http://www.presidency.ucsb.edu/ws/index.php?pid=13684>.

The perceived Soviet threat catalyzed the already rapid hardening of US foreign policy. In early April 1950—two months before the Korean War began—NSC-68 famously called for a massive US military build-up.¹⁹ Beginning in December 1950, “Military spending more than tripled, and only a small fraction was directly related to the Korean War.” The balance was directed towards building a military establishment in-being that could defend Western Europe as far east as possible. However, these investments would not pay dividends until roughly 1954. Until then, the US and its NATO allies expected to remain profoundly vulnerable.²⁰

Alongside these broad-based efforts to develop standing military power the US also began to transform its nuclear posture. At JCS direction, the US Air Force’s Strategic Air Command (SAC) altered then-current war plans between 1951 and 1952 to include counterforce targets. Before fall 1949 US war planners had not yet reckoned with the possibility that the Soviet Union might possess a nuclear force worth targeting. By September 1951 counterforce had become the Air Force’s top priority. By 1952 US war plans had been changed to reflect this fact²¹ A central characteristic of this aggressive new nuclear mission was that it provided substantial damage limiting advantages to whichever side struck first.

3.1) The JCS, SAC and Counterforce

The military’s role in initiating the counterforce mission poses two challenges for my argument that presidents direct nuclear posture. First, the fact that the Joint Chiefs, rather than

¹⁹ NSC-68: A Report to the President Pursuant to the President’s Directive of January 31, 1950. April 7, 1950. FRUS 1950 v.1:85. <https://history.state.gov/historicaldocuments/frus1950v01/d85>.

²⁰ Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton University Press, Princeton, N.J.: 1999, pp. 98-100.

²¹ Scott Sagan posits that SAC began to target Soviet nuclear stocks very rapidly after the August 1949 test. Evidence presented here suggests that this development did not occur until roughly two years later. See Sagan, Scott Douglas. *Moving Targets : Nuclear Strategy and National Security*. Princeton, N.J. : Princeton University Press, 1989, pp. 18-19.

Truman and his advisors ordered the addition of counterforce lends some support to the idea that US nuclear posture has been the product of military bureaucracies run amok. Second, the absence of presidential-level discussions of the pros and cons of counterforce makes it difficult to prove that the desire to defend the US and Europe with nuclear arms captured in Truman's Nuclear Security Theory drove the decision for counterforce.²²

These facts challenge my overall argument, but not seriously. First, counterforce was fully consonant with the United States' pressing foreign policy goals. Indeed, it was Truman's disinterest in war planning, rather than bureaucratic malfeasance that limited Truman's involvement.²³ Second, even if the initiative for counterforce came from the military in 1951-52, it is clear that by 1953 President Eisenhower both understood the mission and supported it because it advanced US interests. The Air Force may have initiated counterforce, but soon thereafter Eisenhower embraced it.

3.2) "DELTA" Targets

For nearly a decade after the end of World War II the American vision of the next global war was very different from the apocalyptic vision of World War III that is familiar today. World War III was not yet synonymous with Armageddon. In fact, it resembled WWII. The addition of counterforce between 1951-52 began to alter this vision. The imperatives of counterforce

22 High level attention to questions of nuclear employment did not begin until late 1952 or 1953. David Rosenberg posits that NSC-162/2 dated September 30, 1953 was the first national-level policy document to deal with these issues. See Rosenberg, David Alan. "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960." *International Security* 7, no. 4 (1983) p. 31. My research largely confirms this assertion. A possible exception is an August 1952 annex to an NSC report which discusses the possible role(s) of nuclear weapons in future war. See Annex to a Report to the National Security Council (NSC-135/1) by the Executive Secretary (Lay). Aug. 22, 1952. FRUS 1952-54 v.2 p.1: 18. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d18>.

23 See Nolan, Janne E. *Guardians of the Arsenal: The Politics of Nuclear Strategy*. New York: Basic Books, 1989, pp. 54-55.

transformed the image of future global war from a months-long campaign to defend territory into a days- or hours-long race to obliterate the Soviet Union before it could occupy Europe or attack the US.

Beginning in 1945 the US adopted a series of national war plans which the JCS updated annually. These centered on the related problems of defending Europe and the US against Soviet aggression.²⁴ Until the early 1950s they were based on the same basic strategy that had won World War II. Atomic weapons augmented, rather than altered this strategic concept, which focused on destroying the Soviet urban-industrial base—‘DELTA’ targets in the jargon of the day.

The 1948 version of the US national war plan, code-named HALFMOON, exemplifies this strategy. For roughly the first twelve days of the war “United States armed forces would immediately mobilize and [...] defend the Western Hemisphere.” In Europe, “it is contemplated that the initial withdrawal of allied forces will be to the Rhine.” If holding the Rhine proved impossible, the US might be forced from the Continent. In this case, “withdrawal of US forces from Germany will be in accordance with plans now under preparation by Commander in Chief, European Command (CINCEUR) [...] Those unable to join forces in Germany may withdraw through Italy, the Belfort Gap, or may enter Switzerland.” The basic assumption was that the mighty Soviet army would force a US retreat. Meanwhile the Air Force would “initiate as soon as practicable an air offensive against vital elements of Soviet war making capacity.” Because atomic bombs remained scarce, this campaign would utilize “available atomic bombs against selected targets,” augmented by conventional weapons.²⁵

24 For a useful table of US war plans and national policy guidance, see Sandia National Laboratory. “A Primer on U.S. Strategic Nuclear Policy,” January 2001. <http://docplayer.net/4875894-A-primer-on-u-s-strategic-nuclear-policy.html>.

25 Memorandum from General R.C. Lindsay to the Secretary to the Joint Chiefs of Staff on War Plan HALFMOON. August 11, 1948. Declassified Documents Reference System (Herein DDRS). Document No. CK2349376710.

This war plan bore a strong resemblance to the strategic concept that guided the US to victory in World War II. According to this worldview, industrial capacity—resident in cities—was key to victory. Thus for the US, protecting our own industrial base in the Western Hemisphere was the top priority, while destroying the Soviet urban-industrial base was a close second. During a months-long atomic and conventional air campaign the US planned to *destroy* the Soviet war-making potential—DELTA targets. As in World War II, US anti-submarine warfare efforts—now one of the Navy’s top priorities—would protect American supply ships crossing the Atlantic from lurking Soviet subs.²⁶ This combination of atomic power, industrial might and control of the seas would ease the way for an eventual Normandy-style re-invasion of Europe months or years in the future.

3.3) “BRAVO” Targets

The belief that the US could win its next war as it had won its last began to erode around the time Truman received the April 1949 Harmon Report. This analysis, coupled with the end of the US nuclear monopoly in August that year, led to a significant revision in US plans for future

tinyurl.galegroup.com/tinyurl/4R8HD4. It is worth noting that after his briefing on HALFMOON, Truman ordered the development of an alternative version that would have relied solely on conventional bombs. This non-nuclear HALFMOON type campaign that Truman requested would have been functionally identical to WWII strategic bombing. See Sagan, Scott Douglas. *Moving Targets : Nuclear Strategy and National Security*. Princeton, N.J. : Princeton University Press, 1989 pp. 14-15.

26 As early as 1946-1947 the Navy was concerned by the ‘fast snorkel threat.’ Late in WWII the German Navy began to field Type XXI submarines equipped with large capacity batteries and snorkels. This permitted them to operate at relatively high speed under water for long periods of time, and made them difficult to locate. The assumption, therefore, was that the Soviets would field their own fleet of Type XXI copies and mimic German supply interdiction tactics during a future war. Consequently, Chief of Naval Operations Chester Nimitz decreed that ASW was “equal in importance to the threat of atomic attack.” See Cote, Owen. *The Third Battle: Innovation in the US Navy’s Silent Cold War Struggle with Soviet Submarines*. Naval War College Newport Papers v. 16. 2003. p. 13-14. It is worth noting that US fears in this regard were vastly inflated. Indeed, despite the United States’ deep interest in the use of submarines for sea control, the US only began fitting its own submarines with Type XXI-type modifications in 1949. See Sontag, Sherry, Christopher Drew, and Annette Drew. *Blind Man’s Bluf: The Untold Story of American Submarine Espionage*. Public Affairs Press, 1998. p. 2; as well as Friedman, Norman. *U.S. submarines since 1945: an illustrated design history*. Naval Institute Press, 1994. p. 43.

nuclear warfare. For the first time, the US began targeting enemy nuclear forces. Because this targeting scheme would be worthless if the Soviet Union had already expended its nuclear stockpile, striking first was key to the counterforce mission.

The first steps towards this new counterforce mission came on the heels of the Soviet test. In April 1950 former SAC commander General George Kenney submitted a blistering critique of war plan OFFTACKLE to Air Force Chief of Staff General Hoyt Vandenberg. Kenney's letter did not by itself alter US war plans, but it does illustrate early Air Force thinking about counterforce.

OFFTACKLE was the 1949 US general war plan. It was divided into four phases—the first centered chiefly on strategic bombing of DELTA targets—and was anticipated to last for at least two years. OFFTACKLE “defined national war objectives, and the overall strategic concept of the operation, in classic Clausewitzian terms.”²⁷ Given the Soviet Union's growing strength and the end of the United States' atomic monopoly, Kenney argued that this approach to warfare was dangerously outdated. “It was quite evident [...]” he wrote “that plan OFFTACKLE was decidedly unrealistic. The one conclusion that almost everyone seemed to reach was that if we waited until Russia hit us, Europe, very probably including the United Kingdom, would be lost to us. To repeat the Normandy Beach operation is something that is almost inconceivable.”²⁸ General Kenney was arguing that a forced withdrawal from Europe would likely permanently undermine a core foreign policy goal. Therefore, in case of war the US had to fight tenaciously to hold the line against the Soviet Army as far east as possible.

27 Kaplan, Edward. *To Kill Nations: American Strategy in the Air-Atomic Age and the Rise of Mutually Assured Destruction*. Ithaca: Cornell University Press, 2015 p. 21; Wampler, Robert Allen. “Ambiguous Legacy: The United States, Great Britain, and the Foundations of NATO Strategy 1948-1957, pp. 4-7.

28 Letter from General George Kenney to General Hoyt Vandenberg on US Air Force Commander's Conference. April 29, 1950. DDRS Document No. CK2349592714. [tinyurl.galegroup.com/tinyurl/4R7FY8](https://tinyurl.com/tinyurl/4R7FY8).

More immediately, Kenney highlighted the importance of counterforce—then termed ‘BRAVO,’ because the goal was to *blunt* atomic attacks by destroying Soviet nuclear forces. “If we waited until Russia hit us” Kenney feared that Europe would be lost. Therefore, he argued “we have got to do something about the conception that we must wait until Russia hits us before we can start shooting.” Stretching reality somewhat, Kenney went on to posit that “by all previous definitions we are now in a state of war with Russia. [...] It seems to me that almost any analysis of the situation shows that the only way we can be certain of winning is to take the offensive as soon as possible and hit Russia hard enough to at least prevent her from taking over Europe. [...] It would not be a preventive war, because we are already at war.”²⁹ This was the kind of thinking that led the US to take on the counterforce mission.

Four months after General Kenney argued to Vandenberg that the Air Force had to strike first if the US was to win the next war, the Joint Chiefs decreed that atomic targets in the Soviet Union were the Strategic Air Command’s top priority.³⁰ In a series of Pentagon discussions in January 1951 SAC commander Curtis LeMay “agreed with priority on petroleum and atomic weapons” yet the Joint Chiefs’ war plan continued to focus on war industry targets.³¹

Finally in 1952 the Air Force’s Emergency War Plan altered the priority order of target categories, placing “destruction of known targets affecting the Soviet capability to deliver atomic bombs,” followed by “destruction of vital segments of Soviet industry and retardation of Soviet

29 Letter from General George Kenney to General Hoyt Vandenberg on US Air Force Commander’s Conference. April 29, 1950. DDRS Document No. CK2349592714. tinyurl.galegroup.com/tinyurl/4R7FY8.

30 Rosenberg, David Alan. “The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960.” *International Security* 7, no. 4 (1983) p. 17.

31 Excerpt from General LeMay’s Diary, Jan. 21-23, 1951. DNSA NH00185. The coexistence of these two different nuclear targeting priorities highlights the way that counter-city attack and counter-force were commingled.

advances.”³² The US had taken on the counterforce mission in earnest, and had taken its first operational step towards what would become the Maximal Posture.

3.4) Shoot First: The Promise and Dilemmas of Counterforce

As a first step towards the Maximal Posture, the counterforce mission was simple in two senses. First, because the US feared Soviet nuclear forces, it made sense to target them. In 1950 and 1951 the Soviet arsenal threatened Western European cities, as well as the bomber bases in Europe and the UK that the US would need to prosecute its war effort. Within a few years it seemed likely that Soviet bombers could reach the continental United States as well. Not only would US cities be vulnerable to attack, but this fact could deter the US from acting forcibly to protect its Western European allies. It would be difficult for any president to risk New York to defend Bonn. Therefore the ability to destroy Soviet atomic forces before they could be used against the US or its allies was desirable. Counterforce was an aggressive way of addressing this ‘New York vs. Bonn’ dilemma.

Second, in this early part of the nuclear age the military hardware requirements of the counterforce mission were basically interchangeable with those of the counter-city mission. ‘Ordinary’ bomber-delivered atomic or thermonuclear weapons could destroy Soviet bomber bases as readily as cities. Adding the counterforce mission required targeting adjustments, not fancy new weapons and delivery systems. This single mission, it seemed, could help protect the US and Western Europe with the same weapons it was already acquiring in great number. From

³² Kaplan, Edward. *To Kill Nations: American Strategy in the Air-Atomic Age and the Rise of Mutually Assured Destruction*. Ithaca: Cornell University Press, 2015 p. 89. Kaplan cites Air Force Emergency War Plan 1-52, vol. 1, ‘OPD 381 (2 May 1950) Section 3,’ Air Force Plans Cdecimal File 1942-54, App. A, Ann. E, 1, RG 341, US National Archives and Records Administration.

this perspective the counterforce mission was a not only a logical response to well-founded US fears about the Soviet threat to core US interests—it also seemed simple and cheap.

Yet counterforce was no panacea. In fact, this new mission posed tremendous challenges. First, from an operational perspective the urban/industrial attack ‘DELTA’ mission that by itself characterized the Monopoly Posture became functionally commingled with the new counterforce mission. At least initially, this may have allowed war planners to hedge against uncertainty surrounding the number and location of counterforce targets. While early-1950s US atomic forces could destroy Soviet airbases, locating them before the development of high-altitude reconnaissance aircraft and satellites was difficult.³³ In the event of war, if bomber crews could not locate their top priority counterforce target, a nearby city might be the alternate target. Likewise, previously unknown and intact bomber bases would surely have been high-priority targets of opportunity. Consequently, the conceptually distinct counterforce and urban/industrial attack missions—only one of which necessitated striking first—were designed to be implemented in tandem with one another. In a crisis, this meant that there was no way for the President to order an attack only against Soviet counterforce targets while sparing counter-city targets. The fact that these two fundamentally different missions were ‘joined at birth’ was part of the reason that they remained operationally commingled within US war plans until at least the beginning of the new era of counterforce in the mid-1970s.³⁴

33 For an excellent discussion of the evolution of US intelligence collection efforts against the Soviet nuclear arsenal, see Prados, John. *The Soviet Estimate: U.S. Intelligence Analysis & Soviet Strategic Forces*. Princeton, N.J.: Princeton University Press, 1986 pp. 24-37. Prados observes that fielding the U-2 reconnaissance aircraft in 1955 substantially diminished these challenges with respect to Soviet airfields. For discussion of the effects of poor intelligence on counterforce, see Rosenberg, David Alan. “The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960.” *International Security* 7, no. 4 (1983) p. 17. For an overview of intelligence and counterforce in subsequent decades see Long, Austin, and Brendan Rittenhouse Green. “Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy.” *Journal of Strategic Studies* 38, no. 1–2 (January 2, 2015): 38–73.

34 For example Robert McNamara’s abortive ‘no-cities’ policy had no operational impact on target planning in part because of the complexity and intricacy of the Single Integrated Operational Plan (SIOP) designed to choreograph

The second problem with counterforce was more fundamental. Effective counterforce meant ‘shooting first’ and starting a nuclear war. For this new mission to be useful, the president had to be (or appear to be) prepared to attack before his adversary could use the nuclear forces that the counterforce mission was built to destroy.

This line of thinking leads to a host of impossible questions: Under what circumstances, if any, would the US be morally justified in striking first with nuclear weapons? Is the concept of launching an atomic Pearl Harbor compatible with American values? How should presidents balance these concerns against their responsibility to defend US interests? How much confidence must the president have in the effectiveness of a counterforce attack before he would consider launching one? Were there imaginable circumstances under which the failure to destroy ‘only’ ten bombs—and the corresponding loss of ten American cities—might be acceptable? At some level these questions of morality, responsibility, evidentiary standards and risk may seem academic. However, for nuclear age presidents they are anything but.³⁵

Moreover, these policy questions have profound operational implications. As General Kenney argued, in the early 1950s if the US had struck first and eliminated the Soviet atomic threat, victory would be all-but assured. But if the Soviet Union was allowed to strike first then Europe

US nuclear employment. See Statement made on Saturday May 5, 1962 by Secretary McNamara at the NATO Ministerial meeting in Athens. Reproduced in Burr, William, “New Evidence on the Origins of Overkill,” *National Security Archive Electronic Briefing Book* No. 236. <http://nsarchive.gwu.edu/nukevault/ebb236/>. The next effort to disentangle the counterforce and counter-city missions took place in 1974, and was more successful. See Long, Austin. “Deterrence From Cold War to Long War.” RAND, 2008, pp. 37-38. <http://www.rand.org/pubs/monographs/MG636.html>.

³⁵ Former Kennedy National Security Advisor McGeorge Bundy vividly illustrated this dilemma in a famous 1969 *Foreign Affairs* article, writing that “even one hydrogen bomb on one city of one’s own country would be recognized in advance as a catastrophic blunder; ten bombs on ten cities would be a disaster beyond history; and a hundred bombs on a hundred cities are unthinkable.” Bundy, McGeorge, “To Cap the Volcano.” *Foreign Affairs* 48 no. 1, (October 1969) pp. 9-10. Cited in Van Evera, Stephen, Michael Salzman and Kevin Sullivan, “Analysis or Propaganda: Measuring American Strategic Nuclear Capabilities, 1969 – 1984, in Eden, Lynn, and Steven E. Miller, eds., *Nuclear Arguments: Understanding the Strategic Nuclear Arms and Arms Control Debates*, Cornell University Press, 1989, p. 210. My thanks to Reid B.C. Pauly for help tracking down this reference.

might fall, leaving the United States and the rest of the Western Hemisphere economically isolated and vulnerable. According to this logic the difference between victory and defeat was no longer measured in armies or industrial capacity. It was measured in each side's readiness to destroy its adversary as rapidly as possible. In the next war, there would be no time for mobilization. Increasingly throughout the early 1950s, US planners emphasized the need to be perpetually ready to undertake atomic attack almost instantaneously if it was to stand any chance of striking first, or at least protecting its bomber force against surprise attack. Not only that, but it would increasingly need to win rapidly as well. Failing to destroy even a small number of Soviet bombers in the first set of attacks could leave several US cities vulnerable to retaliatory destruction. The incentive was not only to attack first, but to attack massively because the war's whole outcome—and with it, America's national survival—seemed to hinge upon the way it began.³⁶

Thus, even as counterforce was in some ways reasonable way to accomplish the core US goal of protecting the US and Europe despite growing Soviet power in 1951-1952, over the next several decades achieving these benefits would prove immensely troublesome and risky.

4) The Origins of the Theater Mission

The counterforce mission was Washington's first step towards the Maximal Posture. Undertaking the theater nuclear mission in 1953 was its second. Why? Because the kind of combined counterforce/counter-city pummeling that dominated late Truman Administration war

³⁶ This reasoning and its operational implications are discussed at length in Kaplan, Edward. *To Kill Nations: American Strategy in the Air-Atomic Age and the Rise of Mutually Assured Destruction*. Ithaca: Cornell University Press, 2015, especially ch.4; as well as in Rosenberg, David Alan. "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960." *International Security* 7, no. 4 (1983).

plans was not a permanent solution to the problem of European security. The United States' nuclear advantage over the Soviet Union was a wasting asset. Once the Soviets developed an 'assured second strike capability'—the ability to retaliate against the US even after absorbing a first strike—the Soviet Union might hazard an invasion, gambling that the US would not risk New York to save Bonn. It was not clear when Moscow would field assured second strike—most contemporaneous estimates ranged between 1951 and 1954—but it was bound to happen eventually.

To meet this looming challenge, the US undertook the theater mission in 1953. Like counterforce, at one level the theater mission was a reasonable response to a growing Soviet challenge. At the same time, it generated tremendous risk by all-but guaranteeing that any war in Europe would become nuclear, and would involve the US homeland. Together the theater and counterforce missions comprised what was effectively an aggressive, risky 'shoot first or fail deadly' strategy. Crucially, this strategy was not the product of bureaucratic pathologies. It enjoyed active support from Truman and his executive team, and later from Eisenhower.

The technical roots of the theater mission can be traced to President Truman's January 1950 H-bomb decision. H-bomb research facilitated rapid progress towards the production of compact, mobile, battlefield usable nuclear weapons such as land mines, gravity bombs, artillery shells and ballistic missiles. Because this R&D program was novel and expensive, Truman remained engaged with its progress at every stage.

4.1) *The Problems of Conventional Defense*

The basic driver of the theater mission was the fact that, Truman was committed to the defense of Europe. However, for economic and political reasons, the US and Europe could not field conventional forces strong enough to reliably deter or defeat a Soviet invasion. Therefore, theater nuclear weapons were the best available remedy.

First, throughout the early 1950s Europe's economies were still weak, and the US national security budget was already stretched thin. Despite billions in US direct defense spending, as well as years of defense and military aid for Europe, by late 1951 a major international study of alliance defense had concluded NATO's conventional rearmament goals were unaffordable. This became a tremendous source of tension between the US and its NATO allies. NATO members faced a stark choice between two bad outcomes. On one hand, if the NATO allies chose to buy the modern military forces that they would need, they would spend themselves into bankruptcy. On the other, if they chose not to buy these defenses, they risked conquest.³⁷

Second, there was the German proliferation problem. The front line in Cold War Europe ran through divided Germany. Therefore, Germany had to play some role in the defense of Western Europe. Not only was it impossible for cash-strapped NATO to ignore West Germany's industrial and natural resources—militarily, it was unrealistic to expect the US, Britain and France to defend Germany indefinitely. Germany needed an army of its own to help NATO hold the front,

37 For high cost of conventional forces, see e.g. Memorandum by the Director of the Policy Planning Staff (Nitze) to the Secretary of State on NSC-68/1. Nov. 22, 1950. FRUS 1950 v.1:138. <https://history.state.gov/historicaldocuments/frus1950v01/d138>. For details of the Temporary Council Committee (TCC) study, also called 'Operation Wisemen' see Wampler, Robert Allen. "Ambiguous Legacy: The United States, Great Britain, and the Foundations of NATO Strategy 1948-1957, pp. 172-182; 214-215; as well as Briefing Memorandum Prepared for the Secretary of State on Summary of the Temporary Council Committee Report. Dec. 17, 1951. FRUS 1951 v.3 p.1: 211. <https://history.state.gov/historicaldocuments/frus1951v03p1/d211>. This argument is substantiated in Yaffe, Michael D., *Origins of the Tactical Nuclear Weapons Modernization Program, 1969-1979*, PhD Dissertation, University of Pennsylvania, 1991. pp. 656-658.

and it needed to be equipped with the same quality weapons—including nuclear weapons—that the Soviets would field. However, the possibility of German rearmament provoked fear throughout Europe and Russia. The prospect of nuclear proliferation to Germany was even more terrifying. Germany had initiated two world wars within living memory. How could NATO not only permit, but support German re-armament given its recent history? Thus the political choice that faced Europe was just as stark, and just as wrenching as the economic one: Which threat was more fearsome: The Soviet Union, or nuclear-armed Germany?³⁸

4.2) An “Unconventional” Alternative

In 1951 and 1952, these challenges seemed intractable. The military build-up promised by NSC-68 had not yet produced substantial results, and the Soviet threat was increasing rapidly. An August 8, 1951 report to President Truman argued that “the danger to our security is greater now than it was in April 1950. It is greater now than it was then thought it would now be. Fifteen months ago 1954 was regarded as the time of maximum danger. It now appears that we are already in a period of acute danger which will continue until the United States and its allies achieve an adequate position of strength.”³⁹ Truman’s perception of the Soviet threat had increased dramatically. The early 1950s really were dark days. The US had to act urgently to rectify the dangerous imbalance between Moscow’s growing power and NATO’s weak defenses in Europe.

38 Trachtenberg, Marc. *History and Strategy*. Princeton, N.J.: Princeton University Press, 1991, pp. 95-145.

39 For Truman’s personal doubts about the speed of the United States’ military build-up see Memorandum for the National Security Council by the Executive Secretary (Lay) on Directive by the President to the National Security Council. July 12, 1951. FRUS 1951 v.1:28. <https://history.state.gov/historicaldocuments/frus1951v01/d28>. Quoted report is NSC-114/1: Status and Timing of Current U.S. Programs for National Security. FRUS 1951 v.1:38 <https://history.state.gov/historicaldocuments/frus1951v01/d38>.

Theater nuclear weapons seemed like an ideal solution. These new kinds of weapons—nuclear artillery, small atomic bombs delivered by fighter/attack aircraft, land mines and short-range missiles—would be deployed to Europe at or near the front lines, where they could augment conventional forces, and support a serious defense of NATO as far east as possible. Moreover, once developed, they were relatively cheap to build. Thus, theater weapons could ameliorate NATO's woes by providing potent, affordable defenses.

Theater nuclear weapons could also help overcome the German problem. In the early 1950s the US was one of only two atomic powers in the world. Therefore any scheme for the atomic defense of NATO had to involve the US. And so long as the US was intimately involved in defending NATO, its neighbors could afford to be reasonably relaxed about the danger of German re-armament. Surely Germany would not threaten France or Britain while it still had American troops within its borders. US-provided theater nuclear weapons became the political glue of the alliance. Relying on them promised to keep 'the Americans in, the Soviets out and the Germans down.' Like counterforce, the new theater nuclear mission promised to help Truman pursue his ambitious foreign policy goals.

4.3) Early Research and Development

Serious work on theater nuclear weapons began with Truman's January 1950 decision to develop the hydrogen bomb. In announcing his decision, Truman directed the Atomic Energy Commission (AEC) to "continue its work on all forms of atomic weapons, including the so-called hydrogen or superbomb." Hydrogen bombs depend upon 'standard' Hiroshima-type atomic fission explosions to initiate thermonuclear fusion. Therefore, work on the hydrogen

bomb all-but necessitated parallel improvements in ‘ordinary’ atomic weapons to make them smaller, lighter and more efficient. Even if Truman was not yet seeking theater nuclear weapons specifically, he was certainly open to learning more about them, and exploring their feasibility.⁴⁰

In April 1951 he was briefed on the early-stage development theater weapons. In a joint update for Truman, AEC Chairman Gordon Dean and Defense Secretary George Marshall explain that, “while work has been greatly intensified on the thermonuclear program, much effort has also been devoted to improving fission weapons. One new design will enable yields comparable to those from existing weapons to be obtained from nuclear cores containing considerably less fissionable material, so that the total number of weapons which can be made from a given quantity of fissionable material can be increased significantly.” According to Dean and Marshall, the US about to enter an era of atomic plenty in which Washington could afford both the large ‘strategic’ bombs that had comprised the arsenal since 1945, as well as other kinds of weapons. These included “weapons of smaller size and weight.” Nor were these developments for the distant future. “One design will be tested at Enewetak [Atoll nuclear testing range] this spring and other designs intended particularly for tactical employment are being developed,” Dean and Marshall explained.⁴¹

As early as Spring 1951 the United States’ defense secretary, AEC chairman and president were already looking forward to a near future in which the US could field theater nuclear weapons. Given his Nuclear Security Theory centered on leveraging the US lead in nuclear weapons to defend Europe and advance US interests, Truman was predictably supportive.

40 Statement by the President on the Hydrogen Bomb. January 31, 1950. Public Papers of the Presidents, Harry S. Truman, 1945-1953. <https://www.trumanlibrary.org/publicpapers/index.php?pid=642&st=&st1=>

41 AEC Chairm and Gordon Dean and Secretary of Defense George Marshall report to Truman on the feasibility of thermonuclear weapons. Atomic Energy Commission, 4 Apr. 1951. U.S. Declassified Documents Online, tinyurl.galegroup.com/tinyurl/4QiEd5.

4.4) *“Grand Strategy is at Stake Here”*

As work on theater nuclear weapons continued, American strategic thinkers began to evaluate how they might advance US foreign policy goals. An August 1951 memorandum for Chairman of the Joint Congressional Committee on Atomic Energy Brien McMahon and shared with Truman illustrates the point. “Tactical atomic weapons hold forth the promise of a revolution in land war” it argued. Highlighting what would come to embody a decades-long NATO strategy for European defense, it observed that “atomic weapons used tactically are the natural armaments of numerically inferior but technologically superior nations. They are the natural answer to the armed hordes of the Soviet Union and its satellites.” Moreover, they promised to be cheap: “atomic energy used tactically may be 300 times more economical than conventional high explosives [...] An educated guess suggests that tactical A-weapons—even if made of \$40-per-pound raw materials in contrast to the \$8 price now prevailing—will still be by far the cheapest military buy.”

Yet despite their potential utility, the memo argued that “the actual development of tactical atomic weapons themselves has been more rapid than the development of our thinking on how to use them.” How might the US allocate these new weapons among the services? Would strategic bombs be more useful than atomic artillery, or the opposite? These were not trivial issues. Rather, “the allocation problem is uniquely political rather than military, and it must be squarely met by our civilian leaders. Grand strategy is at stake here and strategy should determine tactics rather than vice versa. Will we use the bulk of our fissionable material to pulverize Soviet industry at the possible cost of Russian occupation of Western Europe? Will we use the major portion of our atomic stuffs to help hold the Red army at the Elbe at the cost of neglecting vital

Soviet production centers? Or will we have a program bold enough to accomplish both the defeat of the Red armies and the neutralization of Soviet industry?”⁴²

Despite its hyperbolic tone, this memo posed important questions about the future of US defense policy. The available historical evidence includes no record of how Truman reacted to it, but it is clear that concern about these issues was widespread throughout the government. In fact, these exact kinds of questions were at the center of the 1951/52 study ‘Project Vista.’

Project Vista was a joint Army/Air Force undertaking aimed at understanding how new weapons technologies might bolster the United States’ ability to fight at the tactical level. Despite this broad mandate, Vista focused chiefly on the potential contributions of theater nuclear weapons. This ‘editorial’ decision by the Project’s civilian academic leaders is in itself evidence that in the early 1950s, shaping what would become the theater nuclear mission was both important and urgent.

The study’s conclusions were far reaching: First, it argued that theater nuclear weapons could provide an important boost to US ground forces defending Europe. Moreover, it posited that these new weapons—including low yield gravity bombs delivered by fighter-bomber aircraft—might be more effective for European defense than the larger bomber-delivered ‘strategic’ bombs favored by the Air Force. Project Vista’s answer to ‘the allocation problem’ thus suggested a significant revision of US defense policy. While SAC had been at the technological and operational vanguard of US defense efforts, Project Vista’s authors argued that in the future—as

42 Memorandum by the Chief of Special Projects, Joint Congressional Committee on Atomic Energy (Mansfield), to the Chairman of the Committee (McMahon) with Some Comments on Tactical Atomic Weapons. August 15, 1951. FRUS 1951 v.1: 40. <https://history.state.gov/historicaldocuments/frus1951v01/d40>.

in the past—Army ground forces and supporting tactical aircraft (TACAIR) could be the key to victory.⁴³

Nor was Vista the only study with something to say about tactical nuclear weapons. On September 21, 1950 the Navy received the Hartwell report—a wide-ranging study on the future of US anti-submarine warfare. Improvements in submarine technology, it argued, made it far easier for Soviet submarines to hide than for US submarines, surface ships, and ASW aircraft to find and destroy them. This had two implications. First, in a war for Europe, Allied shipping would be even more vulnerable than it had been during WWII. Second, should the Soviets place nuclear weapons on their submarines in the future, they could potentially threaten the United States with a surprise attack. These were both massive problems with enormous implications for US national security. To address them, the Hartwell report concluded that the US should develop small nuclear weapons for carrier-based aircraft. These could strike Soviet submarines preemptively, while they were still in port, destroying them before they could be used against Allied shipping or the American homeland.⁴⁴ These threads—the power of stealthy submarines, the challenge of ASW, the potency of nuclear weapons and the temptations of preemption—would continue to play a durable role in US nuclear weapons policy for decades.

43 Description of Project Vista and quotes from Elliot, David C. “Project Vista and Nuclear Weapons in Europe.” *International Security* 11, no. 1 (1986): 163–83.

44 Cote, Owen. *The Third Battle: Innovation in the US Navy's Silent Cold War Struggle with Soviet Submarines*. Naval War College Newport Papers v. 16. 2003. p. 16.

4.5) *Increased Fissionable Material Production for Tactical Weapons*

Arguments like those presented in the McMahon memorandum, the Hartwell Report and Project Vista won over President Truman.⁴⁵ While the president did not directly engage with the question of how the US should resolve the ‘allocation problem’ he actively supported the development of theater nuclear weapons. To advance this effort he agreed to boost US fissile material production, at a cost of \$5 billion.

The question of fissile material production was the subject of a January 1952 meeting of the Special Committee of the NSC on Atomic Energy. At issue was a proposal to increase plutonium production by 50% and ‘Oralloy’ production by 150% at a total cost of \$5 billion.⁴⁶ Opening the meeting, Truman observed that “it seemed to him that the fundamental problem involved in consideration of the proposed program for the expansion of fissionable materials production was the impact of such a program on other vital programs in the rearmament effort on which we were presently engaged.” Before deciding to spend so much on fissionable material, Truman was determined to ensure that doing so would advance his ambitious foreign policy goals in a cost effective way.

To make the case, General Hoyt Vandenberg pointed to the growing importance of theater nuclear weapons in US and European security. “The time will come,” he argued, “when the

⁴⁵ I do not posit a direct cause-effect relationship between either the McMahon memo or Project Vista and Truman’s thinking. However, he was certainly exposed to these arguments as evidenced by his handwriting on the McMahon memo, and his subsequent decisions indicate that he found them generally persuasive. David Elliot makes a similar point. See. Elliot, David C. “Project Vista and Nuclear Weapons in Europe.” *International Security* 11, no. 1 (1986): 163–83. doi:10.2307/2538879.

⁴⁶ This is nearly \$46 billion in 2017 dollars. ‘Oralloy’ serves as both the code name and the brand name for the highly enriched uranium used in US nuclear weapons. As of 1957, Oralloy was 93.5% enriched uranium 235. Its composition may have changed in subsequent decades. The moniker is a reference to the fact that it is produced in Oak Ridge Tennessee. For Oralloy composition see ‘AEC seeks Eisenhower's approval for additional amount of oralloy to be used in conduct of tests in Operation PLUMBBOB.’ Atomic Energy Commission, 7 Aug. 1957. U.S. Declassified Documents Online, DDRS document number CK2349285688. [tinyurl.galegroup.com/tinyurl/4e4tQ2](https://tinyurl.com/tinyurl/4e4tQ2).

United States and the Soviet Union will have sufficient stocks of atomic bombs to deal one another the gravest kind of blow. [...] After that point has been reached, [...] all bombs would in a sense be surplus, and the crucial advantage would lie with the power that was in a position to make the best tactical use of atomic weapons.” Vandenberg feared that the utility of US counterforce and urban/industrial attack capabilities was eroding as Moscow edged towards an assured second strike capability. Looking ahead, the US would need to rely increasingly on tactical nuclear weapons.

Moreover, while the investment in theater nuclear weapons would be costly, it would also be cost effective. As Defense Secretary Robert Lovett argued to Truman, “one ton of TNT used in ordinary bombs now costs \$1700. The same explosive effect could be obtained from fissionable materials at a cost of only [redacted].” Further, to a certain extent, theater weapons could substitute for conventional weapons. Therefore, the cost of theater weapons might be balanced by a decrease in expenditures on conventional munitions. Satisfied with these arguments, “the president summed up the sense of the meeting” and agreed that “he had best go ahead with the proposed expansion program”⁴⁷

In one meeting Truman had signaled his strong support for the development of theater nuclear weapons, deciding that acquiring them in quantity was worth an enormous sum. He reasoned that it was an investment in the military tools that the US would need to meet its most urgent priority—the defense of Western Europe.

⁴⁷ Report on Meeting of National Security Council Special Committee on Atomic Energy. Jan. 17, 1952. DNSA document NH00046.

5) The Impulse Towards Defense

Like the theater nuclear mission, progress towards the defense mission began under President Truman, but did not pay dividends until Eisenhower took office. However, unlike the theater mission, both Truman and Eisenhower were initially skeptical of anti-nuclear defenses. Because of concerns about their likely cost and efficacy the US fielded its first nuclear air defense systems somewhat later than it otherwise might have had the national security bureaucracy had its way.

5.1) "The date when a surprise attack on the United States might yield decisive results is correspondingly advanced."

Within the Truman Administration, pressing concern about the United States' vulnerability to attack and the corresponding desirability of defenses dates to at least the summer of 1951. An August 8 assessment of US national security programs highlighted American fears. By launching the Korean War, it argued, Moscow had "demonstrated a willingness to take actions which involve grave risk of precipitating global war," and that "the Kremlin's willingness to accept such risk has been greater than was foreseen in NSC 68 [in April 1950]." Moreover, this increased propensity for aggression was especially frightening because "the USSR is militarily substantially stronger than it was in April, 1950." While much of its military build up was focused in Eastern Europe, and therefore threatened NATO, the US also looked ahead to a time when Moscow threatened the US as well: "The estimates of Soviet atomic capabilities contained in NSC 68 have been revised upwards. It is now estimated that the USSR will have in mid-1953

the atomic stockpile formerly estimated for mid-1954. The date when a surprise attack on the United States might yield decisive results is correspondingly advanced.”

In view of this looming threat to its homeland, the US had already established a nascent civil defense program “designed to serve to minimize casualties in the event of attack, to provide emergency relief immediately after attack, and to help preserve the productive core of the nation.” However, this program was principally focused on ‘passive’ defense measures, such as shelter-building and stockpiling.⁴⁸ It was not until roughly a year later, in September 1952 that senior US civilian officials began to explore the possibility of ‘active’ defenses which could destroy incoming Soviet bombers before they could deliver their weapons to US cities and airfields. By then the United States’ strength and confidence vis a vis the Soviet Union had grown somewhat, but it remained clear that within the context of long-term competition, the relative security afforded by this strength was probably fleeting.

The main driver of top-level interest in active defenses was Jack Gorrie. As Chairman of the National Security Resources Board, (NSRB) Gorrie was responsible for stockpiling the supplies and equipment that the US would need for industrial mobilization in case of war. Correspondingly, his work related to civil defense efforts aimed at protecting American workers and industry from attack. Highlighting research by civilian scientists, Gorrie circulated a paper to the NSC pushing for urgent investment in an early warning radar system that could provide advance notice of an incoming Soviet bomber attack. “An effective early warning system,” he argued, “is important to both the protective military and passive defense of the continental United States.” Such a system would give civilians time to seek shelter before Soviet A-bombs

⁴⁸ NSC-114/1: Status and Timing of Current U.S. Programs for National Security. FRUS 1951 v.1: 38. <https://history.state.gov/historicaldocuments/frus1951v01/d38>.

began falling, would allow for the dispersal or launch of the US bomber force, and would give US fighter-interceptors a chance to attrite the Soviet attackers.⁴⁹

Gorrie's suggestion received a lukewarm reception from Truman and the NSC. Following a presentation of Gorrie's plan for rapid establishment of four experimental early warning stations at an October 14, 1952 NSC meeting, it developed that "the Department of Defense did not favor the crash implementation of the scheme." Consequently, "the President closed the meeting by saying that he would like the Department of Defense and the NSRB to get together and make a recommendation to him."⁵⁰ However, these were the last months of the Truman Administration. Whatever recommendations Truman received would ultimately be subject to Eisenhower's review.

The job of pushing for active defenses was taken up by the State Department's Paul Nitze—then serving as chief of the Policy Planning Staff (PPS)—and PPS staffer Carlton Savage. In arguments presented to both the outgoing Truman and incoming Eisenhower Administrations, they highlighted the contributions that the defense mission could make towards the United States' overall power position. These were some of the earliest descriptions of what would become an integrated system of defenses involving not only the early warning radars proposed by Gorrie, but also "many other elements such as interceptors and guided missile defenses." Writing to Truman, Nitze and Savage posited that "an effective system of national defense would be a powerful deterrent to war; the enemy would be reluctant to strike if its blows would not be effective against us. Furthermore, an adequate defense would increase tremendously our security,

49 Memorandum by the Secretary of State on Paper Distributed by the Chairman of the National Security Resources Board (Gorrie) at the Meeting of the National Security Council, September 24, 1952. FRUS 1952-54 v.2 p.1: 28. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d28>.

50 Memorandum by the Under Secretary of State (Bruce) on Meeting of the National Security Council, Tuesday, October 14, 1952. FRUS 1952-53 v.2 p.1: 31. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d31>.

add to our power position with respect to the Soviet Union, and give us a sounder base for speaking with assurance in international affairs.”⁵¹ Fundamentally, Nitze and Savage argued that investing in defenses could enhance the advantages that the US received from other elements of its nuclear posture, and overall military power.

6) Truman and the Origins of the Maximal Posture

The picture that emerges from all of this is clear: Truman and his executive team—not bureaucracies or military organizations—started the US on its path towards the Maximal Posture. Each of Truman’s significant nuclear posture decisions was guided by his straightforward Nuclear Security Theory—not parochial organizational or military service interests. Defending Europe against what he saw as a strong and aggressive Soviet threat was the most urgent goal. This implied the necessity and desirability of counterforce, theater nuclear weapons, and perhaps defenses. Simply acquiescing to a future MAD relationship with the USSR was unthinkable. It does not seem to have been considered. Truman’s twin decisions to defend Europe and grow US nuclear capabilities started the US down a path that leads directly to the present.

⁵¹ Paper Drafted by Paul H. Nitze and Carlton Savage of the Policy Planning Staff on Early Warning System. Nov. 11, 1952. FRUS 1952-54 v.2 p.1: 34. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d34>.

Chapter 4) Shoot First or Fail Deadly: Transforming US Nuclear Posture Under Eisenhower¹

1) Introduction

President Eisenhower directed a transformation in US nuclear posture so rapid and significant that it has not yet been matched. He did this in part by building on Truman's nuclear legacy. When Truman left office in January 1953, US posture was centered on the co-mingled counter-city and counterforce missions. It was still relatively relaxed, but would not remain that way for long.

By 1956, the US had completed its transition to the ferocious Maximal Posture. Its novel characteristic was its 'shoot first or fail deadly' logic. That is, the counterforce mission—which Eisenhower inherited from Truman—was based upon the threat to 'shoot first' with nuclear weapons. Beginning in October 1953, the theater nuclear mission used forward-deployed battlefield nuclear weapons to deter Soviet aggression in Europe. However, if deterrence failed, it would 'fail deadly.' By design, there was nothing to stop local commanders from escalating a conventional war to the nuclear level. And by late 1956, US nuclear defenses came online to mitigate the US homeland from the risk of nuclear attack that unavoidably flowed from this aggressive escalatory posture.

What caused the US to adopt such a ferocious posture? Principally, it was Eisenhower's continued pursuit of the same ambitious post-War goals as Truman. Both saw the Soviets as a formidable threat, believed that it was imperative to defend Europe, and—especially Eisenhower—wanted to do so parsimoniously. They had similar Nuclear Security Theories. As a result,

¹ My thanks to Christopher Bright, Frank Gavin, Vipin Narang, Reid B.C. Pauly Martin J. Sherwin, Steve Van Evera and the MIT International Relations Work in Progress group for insights and comments that have improved this chapter. Errors are mine.

Eisenhower took maximum advantage of his substantial nuclear inheritance from Truman by embracing counterforce, linking it to a new, escalatory theater mission, and fielding nuclear air defenses to defend the US.

1.1) Eisenhower's Foreign and Security Policy Priorities

Eisenhower's foreign and security policy worldview was broadly consistent with Truman's. He also desired the US-led democratic/capitalist world order that his predecessor had championed. Likewise he saw a free and independent Western Europe as a centerpiece of this order. Therefore, Eisenhower's view was that the US ought to play a role in its defense—at least until it could defend itself.

Building on this perspective, and in contrast with other nuclear age presidents, Eisenhower's policies on allied proliferation and nuclear sharing were loose. A robust, low-cost defense of NATO was in the United States' interest. If allies needed access to nuclear weapons to accomplish this, why should the US hinder them?

The strong belief that Moscow was a looming threat—even in peacetime—and that the US should commit itself to the military defense of Europe had been new under Truman in the context of comparatively isolationist US foreign policy history. By the time Eisenhower left office they had become powerful and enduring drivers of US nuclear posture.

1.2) Threats, According to Ike

While Eisenhower largely shared Truman's foreign policy priorities, his threat perception was somewhat broader than his predecessor's. Militarily, Eisenhower shared Truman's concern about

the Soviet threat to NATO. Moreover, this concern was augmented by the growing Soviet nuclear threat to the US. When Truman left office the Soviets still lacked the ability to credibly threaten the US homeland. This would change during Eisenhower's time in office. Consequently, he was forced to balance the military and economic benefits of using nuclear threats to defend Europe against the increasing risk that any conflict in Europe could escalate to threaten cities in the US. In fact, he saw the defense mission as one way to mitigate this risk.

Yet Eisenhower's concerns were not solely military. He saw that Washington and Moscow had become locked into what would surely be a long-term struggle. While the US was strong and wealthy, Eisenhower nevertheless feared that massive defense spending, perhaps coupled with wartime-type domestic social and economic controls, could transform the US into a garrison state: capitalist and democratic in name only. To avoid this societal self-immolation Eisenhower thought that it was imperative that the US choose to meet the Soviet military threat in a way that could be sustained indefinitely by a free and open society. This implied a heavy reliance on inexpensive but powerful nuclear weapons.

The challenge of managing these military and non-military threats drove Eisenhower's nuclear posture decision-making.

1.3) Eisenhower's Nuclear Inheritance

When Eisenhower took office, the US had only the co-mingled counterforce and urban/industrial attack missions in its portfolio of nuclear capabilities. We had moved past the Monopoly Posture, but the Maximal Posture was still jelling. Yet Eisenhower inherited a vibrant nuclear weapons design and production complex from Truman that was primed to support a more

aggressive Posture. As a result of Truman's support for nuclear technology development, including the H-bomb program, the US was about to enter an era of nuclear plenty. Throughout Eisenhower's time in office the number and variety of US nuclear weapons grew enormously. Eisenhower built upon technical and doctrinal research and development pioneered under Truman to embrace counterforce; initiate the theater nuclear mission in October 1953; and undertake the defense nuclear mission in December 1956. While Eisenhower directed these changes, he was enabled in doing so by his generous nuclear inheritance from Truman.

1.4) Eisenhower's Nuclear Security Theory

Eisenhower and Truman had very similar Nuclear Security Theories. This explains the strong continuities in their nuclear posture decisions. For starters, the US sought to defend Western Europe and increasingly itself against a significant Soviet threat. It had a major nuclear advantage over this adversary. Crucially, both presidents believed that this advantage was necessary to deter or defeat Moscow.

Yet US nuclear posture under Eisenhower became substantially more aggressive than under Truman. For example, the US decision to undertake the counterforce mission under Truman was fully consistent with the president's NST. However, only under Eisenhower was the 'shoot first' logic of counterforce married to a theater nuclear mission designed to fail deadly, as well as a defense mission built to insulate the US from the devastating retaliation.

These important differences in posture may be partially explained by the fact that Eisenhower's parsimony and fear of becoming a garrison state led him to rely even more heavily

on relatively cheap nuclear weapons than Truman had. Thus, Eisenhower's views on this topic differed from Truman's in degree, not in kind.

More importantly, it was Eisenhower's nuclear inheritance from Truman that allowed him to make such significant and rapid changes to posture. It is not the case that Eisenhower was a massively more aggressive nuclear hawk than Truman. Rather, he had simply inherited technology development programs that would allow him to take more advantage of nuclear weapons as instruments of foreign policy than Truman could have.

2) Eisenhower and Counterforce

Counterforce provides the best introduction to Eisenhower's nuclear thought. First because Eisenhower inherited the counterforce mission from Truman. He immediately confronted it when he took office. Second because the connection between counterforce and nuclear first use implied the burden of weighing whether and how preemptive nuclear attack could advance US interests. The sharp dilemmas of counterforce laid bare how Eisenhower and his executive team thought about connecting nuclear means and political ends.

This is because the logic of counterforce is difficult to swallow. How did an ostensibly peace-loving nation with a recent history of near-isolationism embrace this aggressive mission? First, the notion that US security depends upon maintaining a large, capable nuclear force ready to launch on short notice appears to practically invite catastrophe.² Second, the idea of preventive or preemptive nuclear war leans on an argument for 'offensive defense' to justify starting a war that

² Sagan, Scott Douglas. *The Limits of Safety : Organizations, Accidents, and Nuclear Weapons*. Princeton, N.J. : Princeton University Press, 1993.

would inevitably kill millions of innocents.³ The entire argument has a *Dr. Strangelove* quality. In view of this, did President Eisenhower really want to use counterforce to advance US interests?

The short answer is yes. Consistently since the mid-1950s presidents and senior US government officials have pursued counterforce. Nor was this a fringe viewpoint held only by military hawks. While the counterforce mission was undertaken as a military initiative in 1951-52 under Truman, by 1953 it enjoyed the clear support of the senior-most civilian officials in the US government, including President Eisenhower. That has remained true to this day.

Eisenhower Administration officials drew on three basic logics to justify the counterforce mission. These were not mutually exclusive. Policy-makers could shift among them, modifying or hedging their positions as circumstances and varied audiences dictated. This makes it difficult to arrive at concrete judgments about which policy-makers truly believed what about counterforce and when. Regardless, the volume and variety of stated positions on counterforce shows that the ability to strike first was not a fringe issue. Whatever they would have done—or not—in extreme uncton, Eisenhower and his executive team pursued the ability to threaten a counterforce strike with vigor.⁴

3 In nuclear strategy jargon side A launches a 'preemptive' strike when it observes its enemy preparing its own attack, and decides to launch first. In contrast a 'preventive' strike is when side A launches an attack on its enemy regardless of whether that enemy is presently contemplating an attack of its own.

4 Eisenhower's private views on preemption and preventative war have been famously difficult to pin down. His recorded statements on these issues have been both ambiguous and contradictory. Consequently, it remains unclear what Eisenhower truly believed about the possibility of initiating war, or the necessity of pursuing counterforce vigorously. The best overview of Eisenhower's changing beliefs on nuclear use is Erdmann, Andrew P., "'War No Longer Has Any Logic Whatever': Dwight D. Eisenhower and the Thermonuclear Revolution," Gaddis, John Lewis. *Cold War Statesmen Confront the Bomb: Nuclear Diplomacy since 1945*. Oxford ; New York : Oxford University Press, 1999.

2.1) *Thermonuclear Chess*

The first pro-counterforce argument centered on the coercive advantages that the US enjoyed as a result of its decisive nuclear superiority. The ability to disarm Moscow with a surprise attack, the argument went, could give the US leverage at the negotiating table. Counterforce could intimidate the Soviet Union into making concessions that it would otherwise withhold. Moreover, counterforce might give the US leeway to engage in lower-level conventional military actions to advance its interests without fear that the Soviet Union would escalate the conflict to involve nuclear weapons. In nuclear strategy jargon, being able to start and win a nuclear war with effective counterforce would give the US escalation dominance—the clear ability to win at any level of violence.

This was how Secretary of State John Foster Dulles described the benefits of the counterforce mission in a 1957 NSC meeting. “In a chess game you wouldn’t normally ever go so far as to take your opponent’s king; you checkmate that king and don’t play out the rest.” The key idea in Dulles’s argument was that effective counterforce was a nuclear checkmate. Moscow would see that it was beaten even before its king was actually taken. Counterforce, Dulles argued before Eisenhower and the NSC, might permit the US to get its way diplomatically without firing a shot.⁵

2.2) *Better Safe than Sorry*

The second argument posited that Moscow was aggressive and unpredictable. Global war was a serious possibility. Consequently, it was prudent for the US to remain prepared to protect itself

⁵ This argument and the Dulles quote can be found in Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton, N.J.: Princeton University Press, 1999, p. 181.

against nuclear attack with counterforce. If intelligence indicated that Moscow was preparing to attack the US, was it not the president's responsibility to *blunt* this Soviet attack to save as many American lives as possible? While the risk of such a crisis may have been low, the cost of forswearing counterforce may have been national existence. Therefore, ultimate US security depended on preemptive counterforce capability, even if the idea was uncomfortable, and the capability was never likely to be used.

This logic came out in NSC debates surrounding NSC-162/2—Eisenhower's basic national security policy document that supplanted Truman's NSC-68. One point of contention had to do with the wording of a paragraph on the capabilities that the US needed to meet the Soviet threat. Though the difference between the draft and final texts is not consequential, the NSC discussion gave Eisenhower the opportunity to explain, in private, what kind of nuclear capability he thought the US needed. "We should certainly adopt the Planning Board version with its emphasis on retaliatory offensive striking power." Eisenhower argued. "In effect, we should state what we propose to do, namely, to keep the minimum respectable posture of defense while emphasizing this particular offensive capability. Nobody could possibly reduce from such a statement that we propose to abandon the defense of New York City."

Eisenhower's confusing statement needs to be parsed. What precisely is 'retaliatory offensive striking power?' A celebrated general, Eisenhower obviously understood that offense and retaliation are different. And what does 'retaliatory offensive striking power' have to do with the defense of New York City? In a confusing and ambiguous way, Eisenhower was saying that he wanted to have the option of using the US nuclear arsenal for retaliation, as well as for its preemptive or preventive offensive striking power. In the convoluted logic of nuclear strategy,

only offensive striking power—the ability to attack first and destroy Soviet missiles before they could ever be used—could reliably defend cities like New York from either a surprise Soviet nuclear attack or retaliation in response to a US urban/industrial only attack in a crisis or war.⁶

2.3) *“Mr. President, I’m Not Saying We Wouldn’t Get Our Hair Mussed...”*

Finally, the third argument for counterforce was based not on the need for reasonable precautions against a terrible crisis, but on the possibility of victory. Not only was possessing a counterforce ‘checkmate’ desirable, but some argued that the US ought to use this capability to attack the Soviet Union before the American lead in nuclear armaments permanently eroded.

According to this perspective, the US reaped enormous benefits from its nuclear monopoly. Moscow’s August 1949 atomic test ended that monopoly, and foreshadowed eventual US-Soviet mutual vulnerability—MAD. Under these circumstances the US might lose its ability to simultaneously defend Europe and itself at reasonable cost. In a crisis, how could the US credibly threaten nuclear use to defend Bonn, if carrying out the threat would all-but guarantee retaliation against New York? Therefore, the US had to choose between dealing a crippling blow to the Soviet Union first, while it still had the power to do so, or accepting the perils of MAD.

⁶ The quoted document is Memorandum of Discussion at the 168th Meeting of the National Security Council, Thursday, October 29, 1953. FRUS 1952-54 v.2 p.1:100. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d100>. The draft of NSC 162/1 paragraph 9-a that was under discussion can be found in *ibid*, document 93. The final version of NSC 162/2 is *ibid* document 101. The persistence of this kind of thinking by Eisenhower can be seen in Memorandum of Discussion at the 204th Meeting of the National Security Council, Thursday, June 24, 1954. FRUS 1952-54 v.2. p.1: 120. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d120>. Eisenhower states that “in destruction alone there was no victory, and that according to his idea of what we face, we should have the capability so far as possible of warding off destructive enemy attack and as quickly as possible ourselves to be able to destroy the war potential of the enemy.” The logic is similar to that used in the October 1953 meeting referenced above. For more on Eisenhower and preemptive/preventive war See also Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton, N.J: Princeton University Press, 1999, pp. 156-178.

General Kenney made this argument explicitly in his 1950 letter to Air Force Chief of Staff Hoyt Vandenberg. Among senior civilian officials, however, the idea was typically discussed more obliquely. In fact, persistent ambiguity and denials surrounding the question of preventive war suggest that it was considered seriously by senior civilian officials including Eisenhower throughout the early-mid 1950s.

Eisenhower's personal diary entry of January 22, 1952 illustrates the point. Commenting on the size of then President Truman's defense budget, Eisenhower wrote that "a democracy undertakes military preparedness only on a defensive, which means a long-term, basis. We do not attempt to build up to a D-day because, having no intention of our own to attack, we must devise and follow a system that we can carry as long as there appears to be a threat in the world capable of endangering our national safety." The main thrust of Eisenhower's argument was his desire to cut the defense budget to a sustainable level. However, he could have made this same point without reference to any "intention of our own to attack." Why would he have denied that the US ever intended to attack if the idea of preventive war had not been in the air? Eisenhower may have been firmly opposed to starting a nuclear war. However, the fact that he made this viewpoint explicit in his private diary suggests that arguments to the contrary were common in his milieu and serious enough to warrant mention.⁷

Preventive war thinking occurred in the NSC as well. The May 18, 1953 Edwards Committee report requested by the NSC evaluated "the Net Capability of the USSR to Inflict Direct Injury on the United States Up to July 1, 1955." The report found that Moscow could cause significant damage to the US in a surprise attack, but could not prevent the US from retaliating, or subsequently prosecuting a major war. "Optimum bomb placement on population targets could

7 Eisenhower, Dwight D., and Robert H. Ferrell. *The Eisenhower Diaries*. New York : Norton, 1981, p. 209.

produce a maximum of 9 million casualties in 1953, and 12.5 million in 1955, one-half of which might result in deaths” though actual casualties might be as low as half of these figures. By themselves, these findings were insightful. The belief that the US could successfully retaliate even after a surprise attack coupled with the relatively low anticipated casualty figures (as compared with similar estimates from subsequent years) points to the United States’ substantial lead over the Soviet Union in atomic forces.⁸

However, this study has two other qualities which are less obvious, but more important. First, the fact that the NSC requested this study shows that for senior US civilian officials, surprise nuclear attack was within the realm of the possible. If the US feared absorbing such an attack it certainly considered the possibility of delivering one. Second, and related, historian Edward Kaplan observes that “essentially, this attack was a mirror image of the blunting [BRAVO] offensive SAC planned to carry out. Three hundred air-delivered eighty kiloton (KT) weapons would strike, chiefly at bomber bases with its remaining strength directed on major population centers.”⁹ In a single study, the US not only evaluated its own vulnerability to surprise attack, but also got a sense of what its own nuclear forces might do to the Soviets if it carried out then-current plans.

Finally, a common way of presenting information on the changing US-Soviet nuclear balance illustrates the prevalence of preventive war thinking in government during the 1950s. Between roughly 1954 and 1958 the range of plausible future nuclear war outcomes were presented in a

⁸ Note by the Executive Secretary to the National Security Council on Summary Evaluation of the Net Capability of the USSR to Inflict Direct Injury on the United States up to July 1, 1955. FRUS 1952-54 v.2 p.1: 66. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d66>.

⁹ Kaplan, Edward. *To Kill Nations: American Strategy in the Air-Atomic Age and the Rise of Mutually Assured Destruction*. Ithaca: Cornell University Press, 2015, p. 111.

series of ‘time charts.’ One 1954 time chart, reproduced by Marc Trachtenberg in *A Constructed Peace* illustrates the point.

Entitled “Relative Gross Capabilities to Deliver a Decisive Nuclear Attack,” it defines ‘decisive’ as “the elimination of the ability of the nation attacked to recover sufficiently to undertake a major war effort, thus obviating the necessity of the attacker to conduct a long war to win a conclusive victory.” This table was evaluating the efficacy of the sort of combined counterforce/counter-city attack envisaged by SAC planners. Three columns present the expected outcome of “US vs. Russia” attacks and “Russia vs. US” attacks between 1954 and the early 1960s. Notations in each column indicate whether or not either attacker could win a ‘decisive’ victory, with or without the element of surprise. For instance, the 1954 table predicted that ‘about 1956’ a US vs. Russia attack would be decisive “(with surprise attack).”

Eisenhower’s handwritten note at the top of the table “worthwhile—excellent—for NSC” highlights the fact that this kind of thinking about nuclear war was important to the president and his advisors. It is not clear that Eisenhower ever seriously believed that preventive or preemptive war was either viable or desirable. However, it does show that he was at least interested in the range of possible outcomes that he might face if he struck first or second in a war.¹⁰

Ultimately, Eisenhower’s views on the questions of preemptive and preventive war are inscrutable. The same man who made nuclear weapons “available for use as other munitions” in NSC 162/2 and who marked a table predicting decisive US victory over Russia in a surprise attack ‘worthwhile’ also denied that the US had any hostile intentions towards Russia, and once

¹⁰ Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton, N.J: Princeton University Press, 1999, pp. 183-184.

joked darkly that “you just can't have this kind of war. There aren't enough bulldozers to scrape the bodies off the streets.”¹¹

Eisenhower himself may not have known what he would or would not have done with US nuclear forces in extreme uncton. However, the available evidence makes two things clear. First, Eisenhower understood the counterforce mission. His frequently contradictory or ambiguous diary entries, statements and policy positions show that as President he wrestled with the costs, risks and implications of what amounted to a ‘shoot first’ counterforce capability. Second, despite his apparent ambivalence, in the end this “retaliatory offensive striking power” was something he actively wanted. Counterforce, he believed, might help him advance his conception of US foreign policy goals—via thermonuclear chess, in an intense crisis, or perhaps in a preventive war.¹²

3) Ike, Atomic Annie and the ‘Fail Deadly’ Theater Mission

Eisenhower inherited the counterforce mission from Truman, and embraced it for its politico-military benefits soon after taking office. This was his first step towards what would become the Maximal Posture. Pursuing the theater mission was his second.

The theater nuclear mission highlighted significant continuity between Truman’s and Eisenhower’s Nuclear Security Theories. First, progress towards developing and fielding battlefield nuclear weapons proceeded seamlessly across the presidential transition. Second, this progress was motivated by both presidents’ shared goal of mounting a reliable, affordable

11 Quoted in Nichols, Thomas M. *No Use: Nuclear Weapons and US National Security*. University of Pennsylvania Press, 2014. p. 91.

12 For a concurring assessment see Nolan, Janne E. *Guardians of the Arsenal : The Politics of Nuclear Strategy*. New York : Basic Books, 1989, pp. 40-43.

defense of Europe. While Truman and Eisenhower shared this goal, Truman's conventional defense build up gave Eisenhower the leeway to bring about a significant change in the US approach to European defense.

For Eisenhower, the two related keys to victory in what promised to be a long Cold War struggle were maintaining a sustainable defense budget and relying on NATO allies to provide a forward defense of Europe. This division of labor and reliance on nuclear arms could ease costs and prevent the US from becoming a garrison state. Therefore, Eisenhower ordered the deployment of the first theater nuclear weapons to occupied West Germany in October 1953, and subsequently led NATO towards a military strategy for Europe built around nuclear defense. This marked the beginning of the theater nuclear mission.

Eisenhower's strategy would cause any serious Soviet attack on NATO to become a nuclear war almost automatically. The 'fail deadly' strategy did help to secure Europe at reasonable dollar cost. Yet it did so by increasing the risk of global nuclear war.

3.1) NSC-162 and the Necessity of Sustainable European Defense

Since at least mid-1949 Truman's defense policies had been driven by a pressing desire to build strength to meet the Soviet threat. Thanks in part to his predecessor's efforts Eisenhower had somewhat more leeway to take a longer-range view of US defense policy. Truman's conventional military build-up, establishment of NATO, and nuclear R&D work left the West much more capable of meeting the Soviet threat than it had been in the dark days of 1949-51. By late 1952, near the end of Truman's time in office, US intelligence analysts had begun to assess

that “for the time being the worldwide Communist expansion has apparently been checked.”¹³

Because Truman had temporarily eased the European security challenge, by 1953 Eisenhower had some space to balance this goal against his desire to control the defense budget.

Accomplishing this was one of Eisenhower’s most important foreign policy objectives. First, because the financial cost of defending Europe was so high. “You could get the American people steamed up to do whatever you told them was necessary for a certain length of time,” he argued, “if, however, this process was to go on indefinitely, it would be necessary to resort to compulsory controls” which would threaten America’s democratic society. “We could lick the whole world,” said the President, if we were willing to adopt the system of Adolph Hitler.”¹⁴ Eisenhower feared that “if we must live in a permanent state of mobilization our whole democratic way of life would be destroyed in the process.”¹⁵ Thus, if the US was going to out-compete the Soviet Union and remain free, it had to devise a military strategy that it could afford indefinitely.

What might such a sustainable defense look like? For Eisenhower, it involved letting Europeans to defend Europe. In contrast to his successors, he felt that the post-War American presence there ought to be temporary. First due to the cost, but second because he felt certain that Western Europe, with its population of “about 350 million people, tremendous industrial capacity, and a highly skilled and educated population” could protect itself. As NATO’s newly-appointed Supreme Allied Commander in Europe, in January 1951 then General Eisenhower asked “Why, [...] since Europe has all of these resources, is there so great a fear of Russia? Why

13 Estimate Prepared by the Board of National Estimates on Estimate of the World Situation Through 1954. Nov. 21, 1952. FRUS 1952-54 v.2 p.1: 37. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d37>.

14 Memorandum of Discussion at the 165th Meeting of the National Security Council, Wednesday, October 7, 1953. FRUS 1952-54 v.2 p.1:94. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d94> .

15 Memorandum of Discussion at the 138th Meeting of the National Security Council, Wednesday, March 25, 1953. FRUS 1952-54 v.2 p.1: 52. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d52>.

should Europe be afraid of 190 million backward people?”¹⁶ Two years later, as president, Eisenhower hoped to steer towards a future in which Western Europe could stand largely on its own, with some nuclear backing from the US.

The starting gun for this effort was NSC-162/2—the October 1953 replacement for Truman’s NSC-68. Eisenhower was heavily involved in its drafting, carefully adjudicating among competing policy formulations. In a departure from Truman, NSC-162/2 identified not one, but two equally serious “basic problems of national security policy.”¹⁷ The first, of course, was “to meet the Soviet threat to US security.” While the second was “in doing so, to avoid seriously weakening the US economy or undermining our fundamental values and institutions.”¹⁸ By late 1953 Eisenhower’s increased confidence in Europe’s security—bolstered by Truman—allowed him to begin devising an economically sustainable European defense strategy based on the new theater nuclear mission.

3.2) *The ‘Division of Labor,’ Nuclear Sharing and the Sustainable Defense of Europe*

Eisenhower’s central foreign policy goals—protect the US, defend Europe, and do both within a sustainable defense budget—had profound follow-on implications for his whole approach to European defense and nuclear posture. First, Eisenhower’s goals implied a division

16 Notes on a Meeting at the White House. January 31, 1951. FRUS 1951 v.3: 248. <https://history.state.gov/historicaldocuments/frus1951v03p1/d248>. Also quoted in Trachtenberg *A Constructed Peace*, pp. 147-148. For additional evidence on the durability of this belief, see Memorandum by the Special Assistant to the President for National Security Affairs (Cutler) to the Secretary of State. Sept. 3, 1953. FRUS 1952-54 v.2 p.1: 87. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d87>.

17 For a useful contemporaneous review of Truman Administration national security policy documents, see Memorandum to the National Security Council by the Executive Secretary (Lay) on Review of Basic National Security Policies. Feb. 6, 1953. FRUS 1952-54 v.2 p.1: 43. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d43>.

18 Statement of Policy by the National Security Council (NSC-162/2) October 30, 1953. FRUS 1952-1954 v.2 p.1 :101. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d101>.

of labor between the US and the rest of NATO. As Eisenhower observed in January 1951, Europe had the latent economic and military potential to defend against a Soviet conventional invasion—especially if it integrated its national military forces. However, NATO Europe was by no means capable of defending itself against a nuclear attack. Consequently it would have to rely on US support to meet this special threat. In the case of a Soviet ground invasion supported by nuclear weapons, NATO allies would need access to nuclear weapons of their own, and they would get them from the US. Similarly, if the Soviets threatened strategic bombing of European cities, then the combined counterforce/counter-city attack capability resident in SAC could contribute to deterrence—or even protection if the US struck first.

These ideas were central to what was later called ‘extended deterrence’ because they involved a US commitment to extend its nuclear deterrent over allies. Thus Eisenhower’s envisaged US-NATO division of labor involved heavy reliance on the European allies to field a capable forward conventional defense. For its part, the US would back them up with the necessary nuclear forces—through nuclear sharing, extended deterrence, or even technology transfer.¹⁹

Second, Eisenhower’s concept of a US-NATO division of labor had operational implications as well. If he was going to demand that NATO Europe defend itself, he had to ensure that it had the tools to do so. In the early- and mid-1950s, nuclear weapons were considered the best tools available. Consequently, Eisenhower gave de-facto authority to use US-owned theater weapons

¹⁹ For an explication of this line of thinking, see Memorandum of Discussion at the 160th Meeting of the National Security Council, Thursday, August 27, 1953. FRUS 1952-54 v.2 p.1: 85. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d85>. Eisenhower was absent from this meeting, however his positive reaction to it can be found in: Memorandum by the Special Assistant to the President for National Security Affairs (Cutler) to the Secretary of State. Sept. 3, 1953. FRUS 1952-54 v.2 p.1: 87. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d87>. Marc Trachtenberg makes this same basic argument in Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton, N.J.: Princeton University Press, 1999, pp. 150-156.

to the Supreme Allied Commander in Europe in tandem with his decision to deploy them to occupied West Germany in October 1953.

The best-known evidence of this is NSC 162/2, which that same month pronounced nuclear weapons “available for use as other munitions.” Eisenhower was even more expansive in a December 2, 1953 discussion. According to a summary of the conversation, he explained that “(1) It is intended that the military make plans on the basis of full availability of the use of nuclear weapons. (2) A distinction should be made between tactical and strategic use, difficult as it is in many cases to make. He was concerned with the level of decision in the military between strategic and tactical use. The decision on tactical use might be left up to the commander in the field, but the decision on strategic use, particularly retaliatory, should be made here in Washington.”²⁰

As a former general officer, Eisenhower was comfortable delegating important responsibilities—like nuclear release authority—to local commanders. However, it was Eisenhower’s clear view that authority to unleash the strategic nuclear forces—whose employment could determine the fate of American society—should rest with the president or his successor.²¹

Third, Eisenhower was not only willing to delegate nuclear release authority to the American SACEUR; he was also open to sharing nuclear weapons or technology directly with West European allies.²² At minimum, Eisenhower allowed US forces in Europe to share American

20 Summary of meeting between President Eisenhower, National Security advisor Robert Cutler and NSC executive secretary James Lay, Jr. regarding tactical and strategic uses of nuclear weapons. White House, 2 Dec. 1953. U.S. Declassified Documents Online, tinyurl.galegroup.com/tinyurl/4QZWj6.

21 For more on SACEUR autonomy in the 1950s, see Legge, J. Michael. “Theater Nuclear Weapons and the NATO Strategy of Flexible Response.” Product Page, 1983 pp. 4-7. <http://www.rand.org/pubs/reports/R2964.html>.

22 It is worth noting that this assertion undermines the larger argument of this dissertation that the United States’ desire to inhibit nuclear proliferation has been an important driver of our nuclear posture. While this has been the case for most of US nuclear history, Eisenhower’s views were the exception. Subsequent chapters will illustrate the

battlefield nuclear weapons with NATO host countries on extremely permissive terms. Under these arrangements a handful of US military personnel might ‘maintain custody’ of US nuclear weapons even as they were loaded onto foreign fighter aircraft on runway alert, or atop missiles under joint US and allied control. While these Americans nominally controlled US nuclear weapons, in practice they could never have prevented them from being used. In war, these custodians would have either permitted host militaries to use the US-owned nuclear weapons based on their territory, or they would have been killed or subdued in a futile attempt to postpone the inevitable.²³

Moreover, there is evidence that Eisenhower’s nuclear sharing ambitions may have gone beyond permissive custodial arrangements. He seemed interested in providing Western European countries with nuclear weapons, and possibly nuclear technology of their own. This step would have removed any pretext of American control over Europe’s access to nuclear weapons. Crucially, from Eisenhower’s perspective, it might have been the final step towards his ultimate goal of reducing the United States’ costly responsibility for the defense of Europe.²⁴

importance of non-proliferation in nuclear posture—especially after Eisenhower. For a robust counterargument, see Gavin, Francis J. “Strategies of Inhibition.” *International Security* 40, no. 1 (Summer 2015): 9–46.

23 For an excellent discussion of the operational details of NATO nuclear sharing arrangements under Eisenhower, see Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton Studies in International History and Politics. Princeton, N.J: Princeton University Press, 1999, pp. 193-200.

24 Official US policy on nuclear technology sharing under Eisenhower was designed to “continue and if possible increase their [allies’] nuclear research and development and their contribution to free world development vis a vis the Soviet Bloc.” See NSC 151/2, ‘Disclosure of Atomic Information to Allied Countries,’ December 4, 1953. DNSA document number PD00334. For Eisenhower’s personal statements on this subject, see for example, Memorandum of Conference with President Eisenhower, July 3, 1958, 11:28 a.m. *FRUS* 1958-1960, v.7 p.2 pp. 50-53, as well as Memorandum from President Eisenhower to Foreign Operations Administration (FOA) director Harold Stassen, on the Mutual Special Weapons Development Program. 4 Feb. 1954. U.S. Declassified Documents Online, tinyurl.galegroup.com/tinyurl/4QdGG5. Marc Trachtenberg notes that Eisenhower was consistent and vociferous in speaking out against the McMahon Act, which prohibited US officials from sharing nuclear secrets with foreigners. He points out that Eisenhower complained about the act to both foreign and US officials, even saying that he felt ‘personally ashamed’ of the law. Eisenhower would have needed to be a skilled and motivated liar to maintain such a consistent façade. Therefore, it seems likely that Eisenhower’s desire to share nuclear technology with NATO allies was earnest and long-held. See Trachtenberg, Marc, *A Constructed Peace*, Princeton University Press, Princeton, NJ, p. 197.

These three components of Eisenhower's thinking on US military strategy and nuclear posture were connected to one another, and to his wider foreign policy goals. Thus in one sense the logic of the 'fail deadly' strategy that accompanied the theater mission added up in the context of Eisenhower's Nuclear Security Theory. Establishing a US-NATO division of labor would later permit the US to withdraw the bulk of its troops from Europe. This would go a long way towards reducing the US defense budget. Achieving this division of labor meant that NATO should be given as much responsibility for its own defense as possible—including some access to nuclear weapons. Under Eisenhower, SACEUR would have de facto authority to authorize nuclear use and NATO allies would have de-facto access to US nuclear weapons based on their territories. If the Soviets had attacked they would absolutely have used this power to defend themselves and their nations. This fact could help to deter Soviet aggression, or defeat it if deterrence failed. Thus the new theater nuclear mission advanced Eisenhower's core foreign policy goals by ensuring that the US could sustainably defend Europe with relatively cheap nuclear weapons for the indefinite future.

3.3) Ike and 'Atomic Annie': A Love Story

Eisenhower began work to operationalize his European defense approach as soon as he took office. He was aided in this effort by his substantial nuclear inheritance from Truman. As former SACEUR, Eisenhower understood the important role that battlefield nuclear weapons could play in defending Europe. In fact, he had even been briefed on the work of Project Vista in early 1952.²⁵ Consequently, work in this direction begun under Truman proceeded without

²⁵ Kaufmann, William "General Purpose Forces: The Nuclear Component" p.6. Author's personal collection—available upon request. My thanks to Jennifer Greenleaf for sharing this source.

interruption. By the end of Eisenhower's first year in office, the US had deployed its first battlefield nuclear weapons to Europe, marking the beginning of the theater nuclear mission.

Within weeks of his inauguration, on February 6, 1953, AEC Chairman Gordon Dean wrote to Eisenhower to request that he "authorize the armed forces to assume prime responsibility for the production of such non-nuclear components of gun-assembly type atomic weapons as may be mutually agreed upon" by the AEC and DOD. This request, Dean noted, was part of an ongoing effort to "increase the participation of the Department of Defense in the atomic weapons program in those areas where DOD has special competence and experience."²⁶

Dean's message to Eisenhower has two important features. First, it highlights the extent to which the president controlled of the atomic weapons program. In order for DOD to produce non-nuclear components for atomic munitions, the AEC needed to first secure presidential permission. Second, it indicates that by early 1953, the US battlefield nuclear weapons program had passed through the research and development phase, and was close to producing deliverable weapons. Subsequent developments suggest that Dean was probably asking Eisenhower to approve DOD production of casings for the United States' first atomic artillery shells.

A June 19, 1953 request from Secretary of Defense Charles Wilson to Eisenhower provides three helpful clues. Wilson wanted Eisenhower's permission to "effect deployment of nuclear components "in numbers equal to the non-nuclear [weapons component] deployments now approved to those storage sites afloat and ashore wherein the decision to so deploy rests solely

26 Program to increase participation of DOD in atomic weapons program outlined. Atomic Energy Commission, 6 Feb. 1953. U.S. Declassified Documents Online, tinyurl.galegroup.com/tinyurl/4Qe7e3. Evidence that Eisenhower approved Dean's request can be found in AEC program status report as of 6/30/54: Part III - Weapons. Atomic Energy Commission, 30 June 1954. U.S. Declassified Documents Online, p.8. tinyurl.galegroup.com/tinyurl/4QeXA7.

with the United States.”²⁷ First, Wilson’s question indicates that the US had already deployed non-nuclear components of nuclear weapons abroad. This was not a new development. Truman had personally authorized these deployments since at least November 1951.²⁸ However, Wilson’s request to deploy nuclear components alongside their casings was novel.

Second, Wilson specifies that he only wants permission to deploy these nuclear components to storage sites “wherein the decision to so deploy rests solely with the United States.” West Germany was the only place in the world where the US both had an urgent desire to deploy new nuclear weapons, and required no host government permission to do so. Occupied West Germany would not regain her sovereign rights until 1955. Wilson sought Eisenhower’s permission to move US nuclear weapons into Germany in a way that avoided singling out Germany for its subordinate status in Europe. Though his written reference to Germany was oblique, his meaning would have been crystal clear to Eisenhower.

Third, Wilson’s letter followed Dean’s earlier request to Eisenhower to authorize DOD production of non-nuclear components for gun-type weapons. The fact that Defense Secretary Wilson rather than AEC Chairman Dean was now writing to Eisenhower shows that the US was moving closer towards fielding theater nuclear weapons that would necessarily fall under DOD, rather than AEC control. The specific weapons Wilson had in mind were almost certainly the M65 cannon with its W-9 gun-type atomic shell.

Eisenhower granted both Dean’s and Wilson’s requests, and in October 1953 the US deployed the 280mm M65 ‘Atomic Annie’ cannon and W-9 shells to Europe. The M65 was a massive

²⁷ NSC and DOD seek Eisenhower's approval for transfer and deployment of atomic weapons to storage locations. National Security Council, 19 June 1953. U.S. Declassified Documents Online, tinyurl.galegroup.com/tinyurl/4QiSe3.

²⁸ Memorandum from NSC Executive Secretary Lay to President Truman, March 24, 1952. US Declassified Documents online CK2349414182. tinyurl.galegroup.com/tinyurl/4R4mn5.

artillery piece with a short, ~18 mile range. Given its great size and limited range, this weapon could only have been useful along the inter-German border. Stationed anywhere else it would have been too far removed from the front to be militarily or politically useful.²⁹ This was a watershed event: the first time the US had ever fielded a battlefield nuclear weapon.

The M65/W-9 deployment marked the beginning of the theater nuclear mission. Eisenhower had chosen to deploy these new weapons to Europe, and had made policy governing their use. There was no bureaucratic malfeasance here. Eisenhower had been intimately involved with drafting NSC-162/2, which described nuclear weapons as ‘available for use as other munitions.’ The new policy was finalized in October 1953—the same month that the US deployed Atomic Annie. In practical terms, Eisenhower had led the fielding of new theater weapons, and chosen to delegate responsibility for their operational control SACEUR who would presumably use them in case of a Soviet attack.

Thus, Truman and Eisenhower had taken action to bolster European security for an affordable price. Yet as the US and NATO developed policy and doctrine for battlefield weapons over the next year, it would become increasingly clear that, like counterforce, the theater mission was both consistent with Eisenhower’s Nuclear Security Theory, and also risky.

3.4) Towards the Fail Deadly Defense

The basic logic behind Eisenhower’s approach to the defense of Europe was reasonably simple. If the US was ever going to prevail in long-term competition with the Soviet Union, it had to manage its defense spending. One way to do this was to rely on comparatively cheap

²⁹ For timing of M65 deployment and association with gun-type warhead see Elliot, David C. “Project Vista and Nuclear Weapons in Europe.” *International Security* 11, no. 1 (1986): 173.

nuclear weapons. This was the taproot of a US military strategy for the defense of Europe that leaned so heavily on theater nuclear weapons, that it was practically designed to cause almost any conflict in Europe to escalate into at least a local nuclear war. The price of Eisenhower's sustainable defense of Europe was a risky strategy—and correspondingly, a ferocious Maximal Posture—designed to fail deadly.

Eisenhower continued moving towards this new US-NATO strategy for European security after the first M65 'Atomic Annie' cannons arrived there. A November 11, 1953 meeting with his secretaries of defense, treasury and state shows how Eisenhower planned to use a growing reliance on atomic weapons to decrease US reliance on costly conventional forces. "It was agreed" Eisenhower's meeting notes state "that the dependence that we are placing on new weapons would justify completely some reduction in conventional forces—that is, both ground troops and certain parts of the Navy."³⁰ Together with his top civilian advisors, Eisenhower was working towards a defense system that relied more on nuclear weapons than conventional forces for defense, and that would correspondingly permit the US to reduce its presence in Europe.

By early December 1953 Eisenhower had approved plans to begin bringing NATO allies along in these efforts. NSC 151/2 on 'Disclosure of Atomic Information to Allied Countries' authorized US officials to discuss "weapons effects," "tactical and strategic uses of atomic weapons," "Soviet atomic capabilities including stockpile and delivery," and other topics with selected allies as part of an ongoing program to "enable them to participate intelligently in military planning for their own defense, and in combined operations with the United States."

30 Memorandum for the Record by the President on "How to provide necessary security and still reduce the Defense budget for '55," Nov. 11, 1953. FRUS 1952-54 v.2. p.1: 102. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d102>.

While NSC 151/2 stayed within the boundaries of the McMahon Act's prohibitions on nuclear technology sharing with foreigners, it certainly hewed close to the lines.³¹

These efforts to foster US-NATO military discussions on nuclear planning were accompanied by parallel political-level efforts. In an April 1954 statement to the North Atlantic Council, Secretary of State John Foster Dulles worked to persuade NATO foreign ministers that because “current NATO force programs fall short of providing the conventional forces estimated to be required to defend the NATO area against a full-scale Soviet Bloc attack,” nuclear weapons “must now be treated as in fact having become ‘conventional.’” Therefore, he argued that “it should be our agreed policy, in case of [either general war or local] war, to use atomic weapons as conventional weapons against the military assets of the enemy whenever and wherever it would be of advantage to do so.”³² Dulles's statement was part of an ongoing—ultimately successful—US effort to build a NATO defense strategy that relied on relatively cheap battlefield weapons rather than on expensive conventional forces. This effort culminated in a December 1954 statement of NATO's basic defense strategy called MC 48.

3.5) The Meaning of MC 48

MC 48 was a NATO strategy, but it was never a stand-alone concept. Rather, the thinking behind MC 48 paralleled and reinforced other elements of US military strategy and nuclear

31 NSC 151/2 on Disclosure of Atomic Information to Allied Countries. December 3, 1953, DNSA PD00334. The fact that the document stated that disclosure of the atomic information described was “subject to appropriate revision of existing legislation” and that “appropriate legislation to carry this policy into effect should be sought,” indicates the tension between the Eisenhower Administration's objectives and Congressional restrictions on nuclear information sharing. As part of its efforts to implement NSC 151/2, the US established a four-day NATO senior officer's course on special weapons. For an interesting description of this course see Letter Describing NATO Senior Officers Course on Special Weapons. Mar. 29, 1954. DNSA NH00944.

32 Statement by the Secretary of State to the North Atlantic Council Closed Ministerial Session. April 23, 1954. FRUS 1952-54 v.5 p.1: 264. <https://history.state.gov/historicaldocuments/frus1952-54v05p1/d264>.

posture, including the counterforce mission discussed above, and the defense mission discussed below. Thus MC 48 can be understood as shared US and NATO doctrine for the employment of theater nuclear weapons that was integrated with an overall US concept for deterring or winning a global war against the Soviet Union.

First, MC 48 advanced Eisenhower's desire to pursue a sustainable defense strategy. Because succeeding in long-term Cold War competition without becoming a garrison state demanded efficient resource use, MC 48 explicitly aimed at presenting "the most effective pattern of military strength for the next few years within the resources it is anticipated will be made available." It was based on the premise that NATO's hopes for ensuring the forward defense of Europe on an economical basis rested on "our superiority in atomic weapons and in our ability to deliver them."³³

Second, it highlights similarities between the US/NATO approach to defending Europe using theater nuclear weapons and the US approach to defending itself using its counterforce nuclear weapons. Both nuclear missions were built to attrite enemy forces that threatened what the US wanted to defend by attacking them directly. Moreover, the US approach to both missions was based on the belief that victory or defeat could hinge on the rapid, decisive use of nuclear weapons—in strategic nuclear combat, and on European battlefields.

Projecting the NATO Military Commission's own thinking onto the Soviets, MC 48 argued that "in the face of NATO's great and growing power in the field of atomic weapons, the Soviets' only hope of winning such a war would rest upon their sudden destruction of NATO's ability to counter-attack immediately and decisively with atomic weapons." Extending this logic in the

³³ Report by the Military Committee to the North Atlantic Council on the Most Effective Pattern of NATO Military Strength for the Next Few Years: MC 48. DNSA NH00945.

direction of preemption, MC 48 goes on to state that “the Soviets must realize this [advantage of rapid, decisive attack]. There is little doubt therefore, that should they provoke a war involving NATO, it would be initiated by an atomic onslaught against which NATO would have to react in kind.” This argument betrays the same ‘mirror imaging’ present in the May 1953 Edwards report assessment of a Soviet preemptive attack on the US. In crisis or war, NATO leaders and local commanders would have faced enormous pressure to use their nuclear forces rapidly to throw back the enemy, or risk losing their best hope of maintaining an organized forward defense. The same ‘use ‘em or lose ‘em’ dilemma inherent in counterforce was reflected in the new theater mission as well.

Finally, and crucially, this tremendous pressure in the direction of nuclear escalation acted as a kind of rope binding the fates of the US and Europe. Any serious Soviet aggression in Europe was all-but certain to provoke nuclear use. Perhaps—as MC 48 posited—the Soviets would employ them first, and NATO would respond. However, despite the observation that “the initiation of a war by NATO would be contrary to the fundamental principles of the Alliance,” it was also possible that in extreme uncton, a US president, NATO leaders, SACEUR, or even local commanders could decide to initiate nuclear war to repel superior Soviet conventional forces. Indeed, given Eisenhower’s loose pre-delegation policy, this seemed likely. In that case—regardless of how it came about—nuclear use in Europe was all-but certain to start a much wider nuclear war. Why? Given the strength of its interests in Europe, the US would face strong incentives to unleash its long-range nuclear forces so that they could destroy Soviet nuclear and conventional war making potential before they could be used against Europe or the US.

In a June 1954 NSC meeting on defense priorities, Eisenhower argued this point forcibly, illustrating the extent of his personal support for both the counterforce and theater nuclear missions. Faced with NSC concern about MAD: that “a state of mutual deterrence, resulting from atomic plenty on both sides, might enable the Soviet Union to avoid atomic war and nibble the free world to death piece by piece.” “The President replied that he disagreed wholly with this point of view, which he regarded as completely erroneous. The more atomic weapons each side obtains, the more anxious it will be to use these weapons.”³⁴ Thus, in US war plans, the theater nuclear mission was connected to the counterforce and urban/industrial attack missions through a chain of escalatory and first-use incentives. This entire approach—politically geared towards sustaining military opposition to Moscow indefinitely—was a military strategy that Eisenhower built to be so ferocious and so dangerous that it could not help but deter Soviet aggression. But if it failed at this, it would fail deadly.³⁵

4) The Defense Mission and the Maximal Posture

As the descriptor suggests, the ‘shoot first or fail deadly’ logic that animated the Maximal Posture was aggressive and risky. At the same time, it helped defend the US and Europe at an acceptable dollar price by leaning on US nuclear superiority. Fundamentally, the US was taking

34 Memorandum of Discussion at the 204th Meeting of the National Security Council, Thursday, June 24, 1954. FRUS 1952-54 v.2. p.1: 120. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d120>.

35 Report by the Military Committee to the North Atlantic Council on the Most Effective Pattern of NATO Military Strength for the Next Few Years: MC 48. DNSA NH00945. It is worth noting that while the US succeeded in gaining acceptance of MC 48, this risky strategy and the associated promise of millions of deaths in the event of war meant that it would remain hotly contested among the allies. For discussion of long-standing and ultimately inconclusive efforts to resolve this tension see Legge, J. Michael. “Theater Nuclear Weapons and the NATO Strategy of Flexible Response.” RAND, 1983. <http://www.rand.org/pubs/reports/R2964.html>; as well as Daalder, Ivo H. *The Nature and Practice of Flexible Response : NATO Strategy and Theater Nuclear Forces since 1967*. New York : Columbia University Press, 1991.

big risks to achieve ambitious foreign policy goals on the cheap. To mitigate these risks, Eisenhower took on a new nuclear mission—defense—in late 1956.

The defense mission was the final component of the Maximal Posture. It centered on defending the US homeland against nuclear attacks—a task which, in the 1950s, necessitated nuclear-tipped interceptors that could shoot down bombers. Crucially, just as the theater mission was conceptually and operationally linked to the urban/industrial attack and counterforce missions despite its geographic focus on Europe, the defense mission backstopped the other components of the Maximal Posture. In a tense crisis or European war, capable US anti-bomber defenses could bolster the Western position in two basic ways.

First, at the extreme, the defense mission might embolden the president to launch a counterforce nuclear attack. The US could ‘shoot first’ then rely on defenses to mop up whatever small, uncoordinated retaliatory effort the Soviets might then muster. US cities—and perhaps European ones as well— could be largely insulated from retaliation. When employed together in this way, counterforce and defense were mutually reinforcing missions that could limit the damage caused by nuclear war. In the aftermath the Soviet Union would be devastated, Moscow would be defeated, Europe would be secure, and the US would have unrivaled power as the global nuclear hegemon.

More modestly—and realistically—defenses could help deter Soviet nuclear attack on the US. Even minimally effective defenses could sow doubt among Soviet leaders about the prospects of successfully striking the US first. Consequently they could bolster the ‘strategic’ or inter-continental level deterrence provided by the urban/industrial attack mission by protecting US retaliatory forces, and limiting the efficacy of a Soviet attack on US cities. Why would the Soviet

Union launch an attack whose effectiveness was uncertain, and which would surely provoke retaliation?

At the same time, alongside counterforce, defenses might help US and NATO forces press their advantage in theater nuclear weapons to hold the line in Europe against would-be Soviet invaders. If the US homeland was safe from attack, it could put up a much tougher fight to defend Europe. Thus, homeland anti-bomber defenses could bolster both US and European security simultaneously. As the final component of the Maximal Posture, the defense mission supported Eisenhower's Nuclear Security Theory by providing a way for the US to extract maximum politico-military leverage from its nuclear forces.

4.1) Eisenhower the Defense Mission Skeptic

Following Eisenhower's inauguration, State Department Policy Planning Staff member and Truman Administration holdover Carlton Savage rejoined the argument for defenses that he and Paul Nitze had failed to finish in the previous administration. Highlighting the looming threat of Soviet attack, he observed that "the urgency of the situation receives added emphasis when we look ahead to Soviet development of the hydrogen bomb and of inter-continental guided missiles." Moreover this growing threat, he feared, "has especial meaning in our foreign relations. As long as the continental United States is vulnerable to an atomic attack which could result in 25,000,000 or more civilian casualties and in crippling damage to our industrial plant, our choice of action in the conduct of foreign relations is drastically narrowed and our ability to act with vigor and decisiveness gravely reduced." Explicitly rejecting MAD, he observed that "This is the case even though we have the retaliatory capability of meting out terrible

punishment in the homeland of the attacker.” A handwritten notation on the document by an unknown author completes the argument, stating that “On the other hand, a decrease in the vulnerability of the American bastion, through continental defense, would have a deterrent effect on the Soviet Union.”³⁶ Thus there was an argument that the defense mission could advance Eisenhower’s foreign policy objectives. Not only was defending the US homeland a core national goal, but the ability to defend itself against attack would give the United States the ability to ‘act with vigor and decisiveness’ in pursuit of its other goals—like European defense—as well. For Eisenhower, the question was ‘can we afford it?’

Eisenhower’s first contact with the issue of nuclear defense as president occurred when he received the Truman Administration’s NSC 141 study, which called for the US to invest in continental defense on an urgent basis. This recommendation—which may not have passed muster with Truman either—failed to convince Eisenhower.³⁷ Some months later, Eisenhower commissioned his own follow-on study of continental defense. Completed in September 1953, NSC 159/4 reached substantially the same conclusions. However, it too failed to gain traction because of Eisenhower’s abiding interest in reining in defense spending.³⁸

Not until summer 1954 did Eisenhower begin to come around to the notion that air defenses might be useful and desirable. The key driver of the change in Eisenhower’s thinking seems to have been his new understanding that *nuclear* air defenses—that used nuclear weapons to

36 Memorandum by Carlton Savage of the Policy Planning Staff on Continental Defense. Feb. 10, 1953. FRUS 1952-54 v.2 p.1: 44. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d44>.

37 Bright, Christopher J. *Continental Defense in the Eisenhower Era : Nuclear Antiaircraft Arms and the Cold War*. Palgrave Studies in the History of Science and Technology. Basingstoke : Palgrave Macmillan, 2012, p. 12.

38 For NSC 159/4, see Report to the National Security Council by the Executive Secretary (Lay) on NSC 159/4. Continental Defense. FRUS 1952-54 v.2 p.1: 92.

<https://history.state.gov/historicaldocuments/frus1952-54v02p1/d92>; For Eisenhower’s skepticism, see Memorandum of Discussion at the 163d Meeting of the National Security Council, Thursday, September 24, 1953. FRUS 1952-54 v.2 p.1: 91. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d91>.

destroy incoming bombers—could be both effective and affordable. Whereas in a September 1953 discussion of NSC 159/4 he inquired skeptically about “what inferences were to be drawn from a recent test in Seattle in which one of our new B–52 bombers hopelessly outdistanced one of our F–86 interceptors,” by August 1954 Eisenhower was open to the possibility that the US ought to develop nuclear-armed missiles and interceptor aircraft. Referring to what would become the Genie nuclear-tipped air to air rocket, Eisenhower told the NSC that “if the air-to-air rocket program was of sufficient importance, a recommendation that it be given priority could be submitted to him in a separate memorandum.” Subsequently, he went on to say that “If we do need some new program for our national security, let’s not quarrel with the consequences. For instance, if we need an air-to-air rocket program, let’s not be afraid to say so and ask for the taxes to get it.” By August 1954, Eisenhower had not yet decided that the US needed nuclear air defenses, but he was willing to be convinced.³⁹

The argument that Eisenhower asked for was delivered and accepted roughly six months later. The Technological Capabilities Panel, (TCP) or Killian Committee report on “Meeting the Threat of Surprise Attack,” was finalized on February 14, 1955, and approved just over one month later on St. Patrick’s Day. This report—which touched on nearly the full-range of US defense issues, including the defense mission, had a strong influence on Eisenhower’s thinking.⁴⁰

Using the familiar time-chart approach to describe future trends in the United States’ and Moscow’s relative vulnerability to one another, it argued that sometime after roughly 1958-1960,

39 Memorandum of Discussion at the 209th Meeting of the National Security Council, Thursday, August 5, 1954. FRUS 1952-54 v.2 p.2: 123. <https://history.state.gov/historicaldocuments/frus1952-54v02p1/d123>. Christopher Bright notes that Eisenhower’s openness to nuclear air defenses began somewhat earlier, in June 1954. Author’s personal correspondence May 14, 2019.

40 See Memorandum of Discussion at the 241st Meeting of the National Security Council, Washington, March 17, 1955. FRUS 1955-57 v. 19:17. <https://history.state.gov/historicaldocuments/frus1955-57v19/d17>. This assessment Eisenhower’s reaction is shared by David Allen Rosenberg. See Rosenberg, David Alan. “The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960.” *International Security* 7, no. 4 (1983) pp. 38-39.

the “deterrent effect of US power dangerously lessened if Soviet production of multimegaton weapons and an adequate conventional delivery capability is achieved prior to the development of an adequate US warning and defense system and before we have achieved a reduction of the vulnerability of our strategic delivery systems,” and further that “if we permit our military position to worsen to this extent, we will be in a poor position to ward off Russian political and diplomatic moves or to make such moves of our own.” Ultimately, the Killian Committee’s predictions for 1958-1960 were at least 3-5 years premature. But timing aside, the message was clear: if the US was to avoid Soviet nuclear blackmail while retaining the ability to exert its own will in the world, one of the things that it had to do was field defenses.

Specifically, the TCP pointed to the desirability of nuclear air defenses. It suggested “that nuclear warheads be adopted as the major armament for our air defense forces and that this step be implemented by: Expeditious development, procurement, and deployment of sufficient weapons to provide a high kill capability at an early date; [and] use of the high-altitude shot at the next atomic test series as a springboard for a public information program with the dual objective of allaying possible civilian fears and informing our enemies and allies that we are using our atomic capabilities for defensive purposes.”⁴¹ The quality of the Killian Committee’s analysis, coupled with the apparent cost effectiveness of nuclear air defense weapons in the mid-1950s era of atomic plenty helped to focus Eisenhower’s attention upon both the problems and possibilities of atomic air defense. Nuclear defenses, it seemed, could help to mitigate the risk associated with the United States’ ambitious foreign policy goals.

41 Report by the Technological Capabilities Panel of the Science Advisory Committee. February 14, 1954. FRUS 1955-57 v.19:9. <https://history.state.gov/historicaldocuments/frus1955-57v19/d9>.

4.2) *Eisenhower Embraces the Defense Mission*

From this point on, progress on the defense mission was reasonably rapid. By December 1956—less than two years after the Killian Committee report—the US had fielded its first nuclear air defense weapon—the Genie air to air rocket. This deployment, was coupled with the establishment of rules of engagement for employing nuclear air defense weapons. In April 1956 Eisenhower signed an ‘authorization for the expenditure of atomic weapons in air defense’ which predelegated nuclear release authority for air defense weapons, pending the development of suitable rules of engagement (ROEs). When these ROEs were completed on December 7, 1956, it marked the beginning of the United States’ defense nuclear mission.⁴² This was also the end of the transition from the Monopoly to the Maximal Posture.

Genie would be the first of a family of nuclear air defense systems that would grow to include hundreds of Nike Hercules and BOMARC surface to air missiles as well. In July 1957, Operation Plumbbob shot John became the high altitude nuclear detonation turned public relations event envisaged by the Killian Committee. To demonstrate the ‘safety’ of high altitude nuclear explosions of the sort that would defend US cities against Soviet attack, five US military personnel—posed next to a hand-painted sign that read “Ground Zero Population: 5” were filmed standing directly underneath a detonating Genie rocket.⁴³ Eisenhower—initially skeptical

42 For Eisenhower’s predelegation decision and approval of Rules of Engagement see Bright, Christopher J. *Continental Defense in the Eisenhower Era : Nuclear Antiaircraft Arms and the Cold War*. Palgrave Studies in the History of Science and Technology. Basingstoke : Palgrave Macmillan, 2012, pp. 51-53.

43 Five Men at Atomic Ground Zero. <https://www.youtube.com/watch?v=BIE1BdOafVc>. For Eisenhower’s approval of the Plumbbob test series, see AEC describes plans for full scale nuclear test series at the Nevada test site beginning 5/57. Atomic Energy Commission, 21 Feb. 1957. U.S. Declassified Documents Online, DDRS document number CK2349168758. [tinyurl.galegroup.com/tinyurl/4e56p5](https://tinyurl.com/tinyurl/4e56p5). Christopher Bright observes that Plumbbob-John was not debated in the NSC, leading to two possible interpretations. Eisenhower may have been unaware of what he was approving, or alternatively the test may have been so uncontroversial as to warrant approval without debate. Author’s personal correspondence, May 14, 2019.

of the value of the defense mission—had come to embrace it once convinced of it met the threats and advanced the goals captured in his Nuclear Security Theory.

5) Coming to Grips with the Maximal Posture

The US transitioned from its Monopoly nuclear posture to the Maximal nuclear posture between 1952 and 1956. This transition was motivated by the ambitious foreign policy goals that Truman and Eisenhower shared. The most influential of these was the desire to defend Europe, but homeland defense and defense budget control were important as well. The connection between foreign policy goals, presidential decisions and Posture change was clear and direct.

This Posture change had three main components. First, under Truman, the US took on the counterforce mission between 1951 and 1952, by altering its nuclear war plans to prioritize the bombing of ‘BRAVO’ targets such as Soviet air bases and atomic weapons storage depots. Second, building upon groundwork laid by Truman, Eisenhower embraced the counterforce mission—despite the dilemmas that came with it—when he took office. Soon thereafter, he undertook the theater nuclear mission between 1953 and 1954 by fielding battlefield nuclear weapons and developing plans for the defense of Europe that relied on their early use in a war. Third, he finally embraced the defense mission in 1956 by fielding nuclear air defense weapons throughout the US and developing plans for their prompt use in case of Soviet attack. Thus, by 1956 US nuclear posture had been utterly transformed from relaxed, under Truman, to ferocious.

Chapter 5) The Limits of Superiority: Kennedy and the End of the Maximal Posture

1) Introduction

The US continued to pursue the Maximal Posture until 1963. With its 'shoot first or fail deadly' logic it was aggressive and risky. But so long as the US enjoyed decisive superiority, Washington's deterrent or war-winning capability seemed sufficient to manage those risks. That began to change around 1963 as the US entered a new and uncertain era. First, Soviet nuclear strength grew, eliminating the decisive superiority that the US had heretofore enjoyed. Second, the 1963 European Settlement substantially reduced US-Soviet tensions. Despite broad continuity in the United States' post-War foreign policy objectives, a changing security environment drove a change in Posture.

As a result, Kennedy transitioned the US away from the Maximal Posture before his November 22, 1963 assassination. He did so reluctantly. In his truncated presidency Kennedy steered the US through both the end of the Berlin crisis and the Cuban Missile Crisis. Both held the potential for nuclear war. Given that potential, and as a result of his support for non-proliferation, Kennedy believed that decisive superiority through counterforce and credible defenses, along with theater weapons bolstered American security. But superiority was a wasting asset. Therefore, after Kennedy was killed his successor, Lyndon B. Johnson inherited and attempted to shape the new Offensive Missile Posture.

The macro-level change in missions that marked this Posture shift was the demise of the defense mission. Soviet advances in ICBM technology, alongside arsenal growth contributed to Moscow's growing nuclear strength. Because fast missiles are harder to defend against than slow

bombers, missile defenses seemed both costly and ineffective. Therefore Kennedy (and later Johnson) repeatedly killed emerging missile defense programs. In so doing, Kennedy brought about the end of the Maximal Posture. After 1963 US Posture included counterforce, urban/industrial attack, and the theater mission, but not defense.

In addition, two subtle changes to the theater and counterforce missions were also important. Unlike Eisenhower, Kennedy feared uncontrolled nuclear escalation. To reduce the risk that deterrence in Europe would 'fail deadly,' Kennedy ordered all US-owned nuclear weapons in Europe fitted with special locks, or Permissive Action Links (PALs) that would prevent their use without presidential authorization. And to counter the threat posed by Soviet ballistic missile submarines, Kennedy's top aide and National Security Advisor threw his support behind Anti-Submarine Warfare (ASW) programs that, in later years, would allow the US to prosecute the counterforce mission under water.

1.1) Kennedy's Foreign Policy Priorities:

Despite the generational, political party and rhetorical differences between them, Kennedy's and Eisenhower's nuclear posture decisions were principally motivated by a shared goal: defend Europe. And when Kennedy took office, Berlin was the most vulnerable place in Europe. Divided between an Allied controlled western half and a Soviet controlled eastern half, and situated deep inside Soviet controlled East Germany, West Berlin was militarily indefensible. Between 1958 and 1961 it was the policy of Soviet leader Nikita Khrushchev to seek advantage and destabilize his NATO opponents by regularly threatening to cut off and strangle West Berlin.

His was a madman strategy. Therefore, for Kennedy, the problem of keeping Allied controlled West Berlin free—ideally without fighting World War III—was the most urgent priority.

While both presidents shared this European defense goal, they did differ somewhat in their approaches to achieving it. Eisenhower's fear that high defense spending could transform the US into a garrison state contributed to his permissive attitude on nuclear sharing. In contrast, Kennedy feared nuclear proliferation and opposed Eisenhower's permissive nuclear sharing arrangements. Why would the US make its NATO allies—especially Germany, recent instigator of two world wars—de facto nuclear powers through nuclear sharing? Thus, tightening US nuclear controls, inhibiting proliferation and bolstering conventional strength in Europe were core Kennedy foreign policy goals. The fewer fingers on the nuclear button, the better.

Only as the European Settlement began to jell in 1963 could he relax somewhat on both the proliferation and European defense fronts. According to this landmark tacit agreement between the superpowers, Washington and Moscow would no longer contest the borders dividing post-War Europe. The West would retain access to its West Berlin enclave inside East Germany. And crucially, West Germany would be prevented from acquiring nuclear weapons. This sweeping agreement resolved the main East-West disputes, and set the stage for a less tense US-Soviet relationship. With the status quo settled, there was less to quarrel over.

1.2) Kennedy's Perception of Threats

Nikita Khrushchev's persistent belligerence was a main driver of Kennedy's threat perception. Khrushchev's threats against Berlin during summer and fall 1961 led Kennedy and his team to undertake serious preparations for war in Europe. Likewise, even after the Berlin crisis receded,

Khrushchev's bombastic words and actions—for example his decision to instigate the Cuban Missile Crisis—were a constant danger.

Moreover, tensions were exacerbated by ongoing improvements in the Soviet nuclear arsenal. By fall 1963 the long-dreaded date when Moscow's nuclear arsenal could seriously and reliably threaten the US had arrived. While the Soviet nuclear arsenal remained smaller and simpler than that of the US, it had become large enough to survive and respond to even a determined US counterforce attack. The US was now inescapably vulnerable to the Soviet Union. Washington's decisive superiority that undergirded the Maximal Posture evaporated just as the European Settlement began to thaw superpower relations.

1.3) JFK's Nuclear Inheritance

Kennedy was the first president to inherit something resembling the nuclear forces the US continues to operate today. Four characteristics of this early modern arsenal are salient. First, it was increasingly thermonuclear. Following Truman's January 1951 H-bomb decision, higher-yield but more compact thermonuclear weapons entered the arsenal in growing numbers. They could be massively more destructive than standard fission-only atomic bombs like those used against Japan. Indeed, the thermonuclear revolution was arguably more significant than the atomic revolution.

Second, missiles were supplanting bombs as the most important delivery means for modern thermonuclear weapons. They were cheaper to operate and better at penetrating enemy defenses than bombers. Eisenhower's 1955 decision to make missile development a top national priority was paying off. When Kennedy took office in January 1961 the Atlas D and E ICBMs as well as

the Polaris SLBM were already in service. The Titan I and II and Minuteman I ICBMs would all follow by 1963.

Third, and related, Kennedy was the first president to inherit a strategic nuclear triad. Comprised of bombers, land-based ICBMs and SLBMs, each leg of the triad has inherent strengths and weaknesses. For example, submarines are more survivable than bombers, but because of their visibility, bombers can be used to make threats or signal resolve more readily than submarines. Thus, the strengths of one leg can compensate for the weaknesses of others. Since the Kennedy Administration, the Triad concept has been the foundation of US nuclear force structure.

Fourth, the forces that comprised this strategic nuclear triad were now animated by the Single Integrated Operational Plan (SIOP)—the new framework for American strategic nuclear war planning developed under President Eisenhower. As its name implies, the SIOP was a single plan for the coordinated wartime employment of all US ICBMs, SLBMs and bombers. It was designed to enable the prompt delivery of thousands of nuclear weapons to both counterforce and counter value targets throughout the Soviet Union, Eastern Europe and China in either a first or second strike. The complexity of this planning task was enormous. Each new iteration of the SIOP could take hundreds of people armed with pencils, paper and slide rules months to compile. Correspondingly, the plan was extremely rigid. There was no room for improvisation. Only in the mid- to late-1970s did the SIOP begin to allow for the limited or selective use of strategic nuclear weapons against discrete targets or target categories. In the interim, however, presidents Kennedy and Johnson saw the value in the fearsome deterrent power that the SIOP gave them. It was blunt, but it sufficed.

1.4) Kennedy's Nuclear Security Theor(ies?)

Kennedy's truncated administration straddled two eras. When he entered the White House in 1961 he could lean on US nuclear superiority, augmented by improving conventional forces, to handle Khrushchev's belligerence in places like Berlin and Cuba. Despite his desire for stronger conventional forces for 'flexible response,' he also believed in the efficacy of powerful nuclear threats.

By 1963, however, despite the fact that his European defense, homeland defense, and non-proliferation goals had remained unchanged, Kennedy had to adapt. With their growing ICBM force the Soviets had gained the ability to retaliate against the US homeland even if the US struck first and hard. Powerful nuclear threats were now less credible. And moreover, the burgeoning European Settlement left Washington and Moscow with less to argue over.

Consequently, Kennedy made important changes to US posture. To reduce the escalatory and non-proliferation risk generated by Eisenhower's loose sharing of theater nuclear weapons, he ordered the installation of Permissive Action Links. No longer would European powers be de facto nuclear weapons states thanks to American largess. Likewise, faced with Soviet ICBMs against which effective defense with 1960s technology was impossible, he abandoned the defense mission. This caused the end of the Maximal Posture.

His assassination prevented Kennedy from fully fleshing out his post-Maximal Posture Nuclear Security Theory. Given the European Settlement and inescapable mutual vulnerability with Moscow, what should be the role of nuclear weapons in US foreign policy. What shape should the new Offensive Missile Posture take? These were challenges that his successor, President Johnson, would have to address.

2) The European Settlement and the Changing Strategic Balance

The United States adopted the Maximal Posture when it had unrivaled nuclear strength—and abandoned it as its Soviet adversary began to acquire strength to match. As late as 1962 the US retained what Kennedy believed to be a decisive counterforce advantage over Moscow—if he struck first. Yet military and intelligence reporting showed that Washington’s nuclear advantage was eroding quickly. Moscow was fielding ICBMs that could reach the US and reliably penetrate the defenses that had been built to counter slow bombers—not fast missiles. By September 1963, improved Soviet capabilities rendered the aggressive logic of the Maximal Posture untenable.

At the same time, US-Soviet relations were warming somewhat as the European Settlement began to take root. As a result, President Kennedy had stepped back from the Maximal Posture by the time of his assassination. When Johnson took office he began working to shape the new Offensive Missile Posture that was somewhat less aggressive, but whose main characteristics had yet to be defined.

2.1) *The Growing Nuclear Stalemate and the European Settlement*

Following the last gasp of the 1958-61 Berlin Crisis and the Cuban Missile Crisis, US-Soviet relations thawed somewhat. Moscow saw that persistent bellicosity was a failed strategy. The US accepted the post-War division of Germany. The Soviets accepted the presence of the West Berlin enclave within communist East Germany. And both sides agreed prevent Germany—instigator of two world wars—from acquiring nuclear arms. Thus, “1963 was a watershed year,” when the Cold War “lost its apocalyptic edge.”¹

¹ Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton, N.J.: Princeton University Press, 1999, pp. 283-402. Quotations are on p. 352.

Against this background of improved relations, the strategic nuclear balance was shifting. Eisenhower era ‘time charts’ suggested wartime scenarios in which the US could expect ‘decisive’ victory over the Soviet Union—if it launched a counterforce first strike. The hope for potential victory in nuclear war evinced by these charts survived into 1962.² Yet even as President Kennedy pressed his nuclear advantage in Berlin and Cuba, he was aware that Moscow was bound to catch up. National Intelligence Estimates (NIEs) on Soviet capabilities had long predicted that Moscow would eventually field an ICBM force large enough to reliably retaliate against the US with devastating effect.³ Even before the European Settlement, it was becoming clear that the US would have to re-evaluate the Maximal Posture’s shoot first or fail deadly logic.

The specter of lost superiority became an inescapable reality in September 1963. Presenting the results of a Net Evaluation Sub-Committee (NESC) study, soon-to-be Chairman of the Joint Chiefs of Staff (JCS) Maxwell Taylor told Kennedy that “during the years 1964 through 1968

2 See e.g., the speech Kennedy directed Deputy Secretary of Defense Roswell Gilpatric to deliver in October 1961 and Kennedy’s January 1962 questions on nuclear employment. In October 1961 Gilpatric briskly declared that “This nation has nuclear retaliatory force of such lethal power that an enemy which brought it into play would be an act of self-destruction on his part” Gilpatric’s message was from Kennedy and directed at Moscow. See Gaddis, John L. *Strategies of Containment*. Oxford University Press, 2005. p. 205; Reeves, Richard. “Missile Gaps and Other Broken Promises,” *The New York Times*, February 10, 2009. <https://100days.blogs.nytimes.com/2009/02/10/missile-gaps-and-other-broken-promises/>. In January 1962 Kennedy requested answers to eight questions on nuclear employment. For example, “Assuming that information from a closely guarded source causes me to conclude that the US should launch an immediate nuclear strike against the Communist Bloc, does the JCS [Joint Chiefs of Staff] Emergency Actions File permit me to initiate such an attack without first consulting with the Secretary of Defense and/or the Joint Chiefs of Staff?” And “What would I say to the Joint War Room to launch an immediate nuclear strike?” Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton, N.J: Princeton University Press, 1999, pp. 293-295. These practical questions about the mechanics of starting WWII suggest a president who thinks his nuclear arsenal is capable enough that under extreme circumstances, it might be worth using. Both incidents illustrate Kennedy’s confidence in US nuclear superiority over Russia.

3 See e.g., Central Intelligence Agency. “Soviet Capabilities for Long Range Attack,” NIE 11-8-62. https://www.cia.gov/library/readingroom/docs/DOC_0000267776.pdf/. This is one of a series of NIEs on Soviet strategic capabilities encompassed within the NIE 11-8-[YY] series. For evidence of Kennedy’s personal awareness of the changing strategic balance, see e.g., “Memorandum for President Kennedy on Report on Implications for US Foreign and Defense Policy of Recent Intelligence Estimates.” FRUS 61-63 v. 8 d. 103. <https://history.state.gov/historicaldocuments/frus1961-63v08/d103>; and “Memorandum From the President's Military Representative (Taylor) to President Kennedy,” August 23, 1962. FRUS 61-63 v. 8 d. 104. <https://history.state.gov/historicaldocuments/frus1961-63v08/d104>.

neither the US nor the USSR can emerge from a full nuclear exchange without suffering very severe damage and high casualties, no matter which side initiates the war.” Further, “offensive and defensive weapons currently programmed will not reduce damage from a full nuclear exchange to an acceptable level.” Faced with this news, “The President asked whether then in fact we are in a period of nuclear stalemate. General Johnson replied that we are.” Crestfallen, Kennedy inquired about an Air Force Association recommendation that the US pursue nuclear superiority. General Johnson bluntly told Kennedy that “it would be impossible for us to achieve nuclear superiority.”⁴ Despite Kennedy’s desire to avoid MAD, the decisive advantage that Kennedy, Eisenhower and Truman had once possessed was now gone.

Thus, 1963 saw two profound changes in Washington’s geopolitical environment. On one hand, Kennedy learned he could no longer rely on counterforce to ensure US or allied security. On the other hand, the relaxation of US-Soviet tensions through the European Settlement seemed to make counterforce less essential than it had been earlier in the Cold War. As these developments were unfolding, President Kennedy ordered two significant changes to US nuclear posture. First he halted the defense mission. Second, he ordered the installation of Permissive Action Links (PALs) on US-owned nuclear weapons in Europe. In so doing, he undid the ‘fail deadly’ logic that had helped to define the Maximal Posture. However, as a result of his tragic assassination, he also left the question of what sort of posture should follow it unanswered.

⁴ Summary of the Record of the 517th Meeting of the National Security Council, September 12, 1963. FRUS 61-63 v. 8 d. 141.. <https://history.state.gov/historicaldocuments/frus1961-63v08/d141>. Because the full-text of the NESC study has not been found in the archives, quotations summarizing report conclusions are from a FRUS footnote, this document. For reference, in this meeting Defense Secretary Robert McNamara argued that 30 million casualties was the minimum the US could hope to sustain, and that this figure was unacceptable.

3) The End of Defense—and The Maximal Posture

Concern about defenses in the missile age did not emerge in 1963. Rather, it dates to at least 1959 when the President's Scientific Advisory Committee cast doubt on the ability of the Nike-Zeus system—the Anti-Ballistic Missile (ABM) oriented successor to the Nike-Hercules bomber defense system—to do its job effectively. Because Nike-Zeus was the only ABM program that the US had, the Committee's views on this one system informed the whole future of the defense mission.

Nike-Zeus, it posited, “is appallingly complex in concept and in required performance criteria. No system which can approach such performance requirements has yet been demonstrated in test or practice.” Therefore, “the tactics of dispersal, hardening, concealment through mobility, and quick reaction upon early warning are certainly more effective than active defenses for protection of the retaliatory force.”⁵ In subsequent years the underlying issues of ABM defense that the Committee surfaced—enemy countermeasures, technical complexity, and the merits of alternatives—would become permanent features of the US ABM policy debate. As early as 1959, the defense mission had an unpromising future.

This skepticism only grew with time, and was not confined to the President's Scientific Advisory Committee. It included the far-sighted and technologically ambitious Advanced Research Projects Agency (ARPA) as well. The day before Thanksgiving 1961, ARPA director and future MIT professor Jack Ruina, future defense secretary Harold Brown and Kennedy's

⁵ Report of the AICBM [Anti-Intercontinental Ballistic Missile] Panel. May 21, 1959. DNSA NH01357. It is fair to note that the panel reported having “a high regard for the competence of the technical staff developing the Nike-Zeus equipment” and that therefore “It appears that the presently-conceived Nike-Zeus system can be made to function satisfactorily, in a technical sense, against simple attacks involving no more than very elementary tactics of confusion by an enemy.” However, they expressed no confidence in the system's ability to thwart an actual nuclear attack by a motivated, competent enemy.

science advisor and future MIT president Jerome Weisner gathered at the White House to brief Kennedy on missile defenses. Throughout an hours-long meeting all three presented the Nike Zeus system as a failure in the making. When Kennedy's brother and Attorney General Bobby Kennedy interrupted the meeting to advise the President that they had to leave the White House via helicopter to travel to the family compound in Hyannis Port, Massachusetts, the President invited his gathered expert advisors to "come up to Hyannis after Thanksgiving so we can continue this discussion." Following the conclusion of that follow-on meeting convened over the Thanksgiving holiday, Kennedy concluded that he should not proceed with Nike Zeus. Speaking with his influential Defense Secretary and executive team member Robert McNamara, he ventured "I don't think we should go ahead with it, Mac, do you?" "No, let's not go ahead with it," McNamara replied.⁶

Nor was Kennedy's opposition to Nike Zeus confined to this one episode. He consistently opposed the ineffective Nike-Zeus system, even as he permitted research on a supposedly improved successor called Nike X, as well as other ABM systems.⁷ This tactic was supposed to placate ABM proponents. In a 1964 oral history interview, then Director of Defense Research and Engineering Harold Brown neatly summarized Kennedy's actions: "that decision [not to proceed with the Nike Zeus system] was made, as I say, a number of times. It was made in 1960. Then it was made again in the spring of 1961, and then again it was made in the fall of 1961, and

6 Weinberger, Sharon. *The Imagineers of War: The Untold Story of DARPA, the Pentagon's Agency that Changed the World*. Vintage Press, 2017 pp. 87-88.

7 One example: BAMBI—Ballistic Missile Boost Intercept. According to Weinberger, "The basic idea behind BAMBI was to look at ways to intercept missile sin their initial launch phase. As BAMBI matured, it grew from ambitious to lunatic. One proposal called for orbiting battle stations—large armed satellites—that would shoot out pellets enmeshed in a giant net meant to perforate enemy warheads. [...] In 1963 [ARPA Director Jack] Ruina told Congress that he had slain BAMBI. Not only was it impractical, he said, but the costs of operating such a system would run on the order of \$50 billion a year, about the same amont as the Pentagon's annual budget." Weinberger, Sharon. *The Imagineers of War: The Untold Story of DARPA, the Pentagon's Agency that Changed the World*. Vintage Press, 2017 p. 91.

then in the fall of 1962 the decision was made that Nike Zeus would never be deployed, and we would work on Nike X.”⁸ When asked whether President Kennedy had decided “the big fight” over whether to deploy Nike Zeus, Brown answered “Yes, based on the Secretary of Defense [McNamara’s] recommendation, the President made the decision not to procure long lead time items in 1961, and in effect indicated that Zeus would probably not be deployed.”⁹ Crucially, McNamara’s gambit aimed to appease ABM supporters on the JCS by feigning support for an ‘improved’ Nike system that he hoped would never be deployed.¹⁰ Thus, Kennedy and McNamara shared a deep skepticism of the nuclear defense mission’s viability in the missile age, and this skepticism caused them to end it.

Again, Kennedy’s sobering September 1963 briefing illustrates the point. Responding to the President’s question about the possibility of achieving nuclear superiority, Secretary of Defense McNamara “Indicated he had a study conducted examining the scale of fatalities after having added 80 billion dollars to the defense budget for blast shelters, increased weapons systems—both offensive and defensive. Under all of these conditions in the 1968 time period, the minimum number of fatalities was in excess of 30 million.”¹¹ The picture for Kennedy was clear: by 1963

8 Dr. Harold Brown gives an oral history in question and answer form regarding the anti ballistic missile program and budget considerations for same during the Kennedy administration. Brown answers questions about President John F. Kennedy’s views on the NIKE ZEUS system. White House, 9 May 1964. DDRS doc no. CK2349110499. tinyurl.galegroup.com/tinyurl/4mPfB0.

9 Dr. Harold Brown gives an oral history in question and answer form regarding the anti ballistic missile program and budget considerations for same during the Kennedy administration. Brown answers questions about President John F. Kennedy’s views on the NIKE ZEUS system. White House, 9 May 1964. DDRS doc no. CK2349110499. tinyurl.galegroup.com/tinyurl/4mPfB0.

10 This argument aligns with Nolan, Janne E. *Guardians of the Arsenal: The Politics of Nuclear Strategy*. New York: Basic Books, 1989, p 92. Nolan’s argument is supported by McNamara’s later opposition to ABM development under President Johnson. McGeorge Bundy presented McNamara’s argument to the president in Secretary McNamara’s Memorandum for the President Entitled “Ballistic Missile Defense,” Dated 20 November 1962. DNSA NH01400.

11 Summary of the Record of the 517th Meeting of the National Security Council. FRUS 61-63 v. 8 d. 141.. <https://history.state.gov/historicaldocuments/frus1961-63v08/d141>. Note that the 1963 defense budget was \$48 billion. Thus, McNamara’s thought exercise would have seen US defense spending multiplied 2.6 times. See Gaddis, John L., *Strategies of Containment: A Critical Appraisal of American National Security Policy During the Cold War*.

the defense mission was impossible, and no realistic amount of money or effort could change that.

4) Underwater Counterforce—Early Strategic ASW

The Soviet ICBM threat provided the background for most major decisions about US nuclear posture through the 1960s. However, by the late 1950s the underwater environment was becoming a new domain for US-Soviet nuclear competition. Spurred by the belief that the Soviet Union would quickly field advanced ‘fast snorkel’ submarines based on captured German type XXI boats, the US Navy spent the 1950s investing in anti-submarine warfare (ASW) capabilities. US goals were twofold. Maintain control of the sea lines of communication (SLOCs) between the US and Europe, and destroy enemy submarines carrying nuclear weapons before they could be used against the US. By the mid- to late-1960s, ASW directed at finding, trailing and if necessary destroying Soviet ballistic missile submarines would evolve into a kind of underwater conventional adjunct to the nuclear counterforce mission.

Three developments took place during the 1950s that set the pattern for US ASW efforts and US-Soviet underwater competition under Kennedy and Johnson, and for decades to come. First was the United States’ embrace of passive sonar for ASW. Throughout WWII and after, active sonar had been among the most important tools for finding enemy submarines. However, active sonars had two key disadvantages. They have a shorter detection range than passive sonars because their acoustic signals—the familiar ‘ping’—must travel to its target and back again. Also, by emitting ‘pings’ the hunter reveals its position to its prey, compromising one of the submarines’ main strengths—stealth. In contrast, passive sonar built around sensitive underwater

Oxford University Press 2005, p. 393.

microphones that can pick up low frequency sound from enemy vessels at great distances eliminated both disadvantages, providing greater range as well as stealth.

Nor were the benefits of passive sonar confined to submarines. Maritime patrol (VP) aircraft dropping passive-sonar sonobouys as well as active sonar emitters could hunt for enemy submarines over vast expanses of ocean. Likewise the US SOSUS array—a network of hydrophones placed on the ocean bottom—took advantage of the ‘deep sound channel’ to track enemy submarines from thousands of miles away. SOSUS equipment positioned in the span of ocean between Greenland, Iceland and the UK (the GIUK gap) proved especially important as a sensor barrier through which Soviet submarines had to pass as they traveled from their bases and into the North Atlantic.¹² Thus it was during the 1950s that passive sonar became the backbone of future US ASW efforts.

The second major US ASW innovation was the decision to develop nuclear powered submarines. Late in WWII, the German Type XXI diesel electric submarine was much feared because they could travel submerged for great distances. Only their snorkels had to pierce the surface of the water, making them difficult to locate visually or by radar. Nuclear power promised to obviate the even the need for periodic snorkeling, severing the submarine’s tether to the ocean surface, while adding to its ability to hide and hunt.

The third great leap in US ASW capabilities was a product of the first two. Having embraced both nuclear power and passive sonar, the Navy practically had to pursue *quiet* nuclear submarines. This became clear in early 1956, when the first US nuclear powered submarine, *USS Nautilus*, sailed near a SOSUS array. She was loud. From the coolant pumps in her reactor to the

¹² Cote, Owen. *The Third Battle: Innovation in the US Navy’s Silent Cold War Struggle with Soviet Submarines*. Naval War College Newport Papers v. 16. 2003. pp. 16, 25-26.

gears in her engine room, *Nautilus* was full of rotating machinery that created narrow band sounds, or tonals, that traveled great distances under water. These tonals stood out clearly against the ordinary background noise of the ocean. If the Soviets followed the US lead by investing in passive sonar, they too would be able to hear the comings and goings of the Navy's new nuclear submarines, negating their stealthy advantage. Likewise, loud submarines make poor platforms from which to listen for and stalk quiet prey. As a result, in April 1956 the Navy decided that it would emphasize silencing in all future nuclear submarine designs.¹³ This was the beginning of an effort to build ever quieter nuclear submarines that continues to this day.

Because the Navy spent the 1950s developing several new ASW technologies, when the long-anticipated threat of nuclear-armed Soviet submarines did emerge, it was prepared. The first Soviet nuclear-armed submarines were the cruise-missile carrying Echo class and the ballistic missile carrying Hotel class. Together with the closely-related November class attack submarine variant, these were collectively called the 'HENS' in the West. Like early US nuclear submarines, they were very loud, and were therefore "extremely vulnerable to the new passive acoustic approach already being adopted by the US Navy. [...] By the time the HENS actually began going to sea, [in 1958] all the elements of an effective ASW response to them had already been demonstrated and were being deployed by the US Navy."¹⁴

13 See Friedman, Norman. *US Submarines Since 1945*. Naval Institute Press, Annapolis, MD. 1994. p. 132. Note that the *Skipjack* class submarine design had just been finalized in April 1956. Thus, the silencing program effectively began with the subsequent *Thresher/Permit* and *Tullibee* classes. For details on submarine quieting, see *ibid* pp. 149-152. Key techniques include 'rafting' machinery by placing it on rubber mounts; reducing the need for rotating pumps that can create tonals by building natural circulation reactors; reducing the rate at which remaining machinery rotates; redesigning or eliminating props; and reducing 'hull flutter' by adopting a single cylindrical pressure hull, as opposed to a dual-hull design.

14 Cote, Owen. *The Third Battle: Innovation in the US Navy's Silent Cold War Struggle with Soviet Submarines*. Naval War College Newport Papers v. 16. 2003. pp. 38-40.

While much of this ASW development took place during the Eisenhower Administration, by the time John F. Kennedy took office, senior White House officials were grateful to have inherited such a vibrant anti-submarine warfare program. Writing to an aide ten days after Kennedy's inauguration, National Security Adviser McGeorge Bundy argued that "Until technology permits the deployment of an effective active defense against submarine-launched ballistic missiles, the principal measures of protection should be provided by the capability to attack prior to launch.... [Accordingly] the United States should strive to achieve and maintain an effective and integrated sea surveillance system [...] and should improve its related anti-submarine capability."¹⁵ The US may have abandoned efforts to defend against the emerging Soviet ICBM threat. However, it would certainly continue to invest in the ability to 'defend itself' against Soviet nuclear-armed submarines by using its ASW prowess as an underwater conventional extension of the nuclear counterforce mission.

5) PALs: Undoing the Fail Deadly Logic

In addition to halting the nuclear defense mission, Kennedy also exerted greater presidential control over US nuclear weapons in Europe. His goals were to undo the 'fail deadly' logic of the Maximal Posture and end de facto Allied control over nuclear weapons.

Under Eisenhower, US nuclear custody arrangements were weak by design. Practically any Soviet aggression could have led to nuclear war. This policy had a certain logic when the US enjoyed clear superiority over the Soviet Union. Nuclear use in Europe could escalate into general nuclear war. And in the days before ICBMs, preemptive counterforce, coupled with anti-

¹⁵ Quoted in Cote, Owen. *The Third Battle: Innovation in the US Navy's Silent Cold War Struggle with Soviet Submarines*. Naval War College Newport Papers v. 16. 2003. p. 20.

bomber defenses would have given the US a reasonable chance of emerging relatively unscathed. Crucially, Soviet leaders understood this logic and avoided provoking a thermonuclear war—even if they remained belligerent instigators of the Berlin and Cuban crises.¹⁶

But Kennedy was not as comfortable with this logic as Eisenhower was. First, he feared the possibility—however remote—that an ally, like West Germany, could seize control of US-owned nuclear weapons in a crisis and use them to start a war. Nuclear proliferation, especially to Germany, was something that Kennedy strongly opposed.¹⁷ Second, he would not be able to count on Soviet moderation after his decisive nuclear advantage eroded. Third, he may have believed that central presidential control over US-owned theater nuclear weapons could ensure that they would be used effectively, on coordinated basis.¹⁸ As a result, he sought to bring the theater nuclear mission and the escalatory and proliferation risks it entailed firmly under his control using Permissive Action Links. If decisive counterforce was the best way to defend Europe, control escalatory risk, and obviate allies' need for independent access to nuclear forces, PALs were a second or third best alternative.¹⁹

Kennedy began this effort in summer 1961, soon after his disastrous Vienna Summit with Soviet Premier Nikita Khrushchev. Tensions in the Berlin Crisis were nearing their peak, and the

16 According to Russian nuclear policy analyst Pavel Podvig, “By 1962 the number of nuclear weapons that the Soviet Union could deliver to the US territory still did not exceed 300, which was in sharp contrast with the capabilities of the US strategic forces. [...] The strategic superiority that the United States had in the beginning of the 1960s was clearly demonstrated during the Cuban missile crisis of October 1962. [...] the US superiority in capabilities and number of strategic nuclear weapons was one of the most decisive factors that shaped the evolution of the conflict and the positions taken by both countries during the crisis.” See Podvig, P. L., and Oleg Bukharin, eds. *Russian Strategic Nuclear Forces*. Cambridge, Mass: MIT Press, 2001, pp. 5-6.

17 See e.g., Gerzhoy, Gene. “Alliance Coercion and Nuclear Restraint.” *International Security* 39, no. 4 (Spring 2015): 91–129.

18 Jones, Matthew. “Prelude to the Skybolt Crisis: The Kennedy Administration’s Approach to British and French Strategic Nuclear Policies in 1962.” *Journal of Cold War Studies*, Vol. 21 No. 2, Spring 2019, p. 59.

19 My thanks to Marc Trachtenberg and Frank Gavin for illuminating discussions of the various drivers of Kennedy’s PALs decision.

question of nuclear war in Europe was not just academic.²⁰ Against this background, National Security Council (NSC) staffer Henry Owen highlighted the dangers of loose custodial arrangements for battlefield nuclear weapons. In an August 3, 1961 memo Owen euphemistically referenced the need to “strengthen custody, command and communication re: nuclear war heads in Europe so that they won’t go off by themselves in the event of Berlin fighting.”²¹ Shortly thereafter, on August 31, 1961 Kennedy asked Defense Secretary Robert McNamara for a study of US nuclear control arrangements in NATO Europe.²²

Kennedy’s focus returned to these issues in Spring 1962, and from that point forward, things moved rapidly. On May 1, National Security Adviser McGeorge Bundy hosted a briefing for Congressional Joint Commission on Atomic Energy (JCAE) members “about the recent Presidential decision to resume the dispersal of atomic weapons to non-US NATO forces.” The thrust of the briefing was on Kennedy’s decision to bolster the United States’ arsenal of some 555 nuclear warheads in Europe by adding an additional 1,025. However, alongside his description of this significant build-up, Deputy Defense Secretary Roswell Gilpatric explained that “the President has directed that top priority be given to installing permissive links in the Jupiter and subsequently in other weapons systems.” Building on Gilpatric’s intervention,

20 See e.g., Gavin, Francis J. *Nuclear Statecraft: History and Strategy in America’s Atomic Age*. Ithaca: Cornell University Press, 2012, Ch. 3 “Nuclear Weapons, Statecraft and the Berlin Crisis, 1958-1962.”

21 Memorandum from Henry Owen to McGeorge Bundy. August 3, 1961. DNSA NH01274. Owen’s memo may have been inspired in part by a State Department effort to enlist presidential support for the development of what was then called Stern’s ‘interlock.’ See Memorandum from John Pendler, Department of State Legal Office to Abram Chayes on the Atomic Stockpile. July 16, 1961. DNSA NH01141. While Stern may have ‘invented’ the Permissive Action Link, the concept originated with RAND researcher Fred Ikle in 1958. See Cotter, Donald R. “Peacetime Operations.” in Carter, Steinbruner and Zraket, eds., *Managing Nuclear Operations*, The Brookings Institution, 1987, pp. 46-47.

22 Memorandum for the President on NATO Nuclear Safeguards. October 31, 1961. DNSA NH01281. What the State Department called Stern’s ‘interlock’ in July 1961 had become known as the ‘permissive link’ by the time this late October memo was drafted. Sometime later, for unknown reasons, the word ‘action’ was inserted, yielding the moniker we use today. Perhaps it just sounded better.

Atomic Energy Commission (AEC) Chairman Glenn Seaborg observed that “It would be possible to start work with the Jupiter later this summer and complete installation by the end of the year or by next fall.”²³ The Jupiter missiles were presumably selected for early PAL installation because their 1,500 mile range made them the most threatening to the USSR, and therefore the most escalatory US weapons in Europe.

Kennedy’s decision to proceed with the PALs program preceded the more formal implementation guidance that he would sign one month later. On May 29, 1962 Kennedy received a memo from science adviser Jerome Wiesner presenting him with five different options for equipping “nuclear weapons dispersed overseas with permissive link hardware.” The fastest, cheapest, most limited option envisaged installing PALs only on Jupiter missile warheads in Italy and Turkey, and on the bombs assigned to non-US quick reaction alert (QRA) aircraft. The slowest, highest cost, most expansive option—“Alternative V”—encompassed “All nuclear weapons assigned to non-US NATO forces and all US weapons committed to and dispersed to NATO including those based in the UK and assigned to the naval aircraft on carriers based in European waters.”²⁴

Thus, Kennedy had a range of PALs options. How much control would he demand over which theater weapons? Did he only require a nuclear use veto over selected non-US nuclear forces? Should the PALs program include nuclear weapons that the US shared with the British? What about those nuclear weapons in NATO Europe that were wholly owned and operated by

23 White House Briefing for Joint Committee on Atomic Energy, May 1, 1962. DNSA NH01147.

24 Papers of John F. Kennedy. Presidential Papers. National Security Files. Meetings and Memoranda. National Security Action Memoranda [NSAM]: NSAM 160, Permissive Links for Nuclear Weapons in NATO. June 6, 1962. JFKNSF-336-016. John F. Kennedy Presidential Library and Museum. <https://www.jfklibrary.org/Asset-Viewer/Archives/JFKNSF-336-016.aspx>. Emphasis in original.

US military personnel? Who in Europe could the president trust with the bomb? With tensions still high in Europe and nuclear stalemate looming, the answer was no one.

Within a week, Kennedy signed National Security Action Memorandum (NSAM) 160, indicating his desire to pursue the most restrictive option available—Alternative V.²⁵ Kennedy's decision marked the beginning of an urgent effort to impose presidential control over US nuclear weapons in Europe.²⁶ Installation of PALs on the intermediate-range Jupiter missiles was completed in only three months by September 1962.²⁷ After that, PALs remained an important focus of presidential attention. In May 1963, Kennedy had elevated the PALs program to “the highest national priority category”²⁸ Kennedy did not live to see the completion of his effort to

25 Ibid.

26 Discussions of Permissive Action Links often reference the common belief that their combinations were set to a series of zeroes. The argument is that low-level personnel conspired to set a simple, uniform combination in an effort to maximize their autonomy and subvert presidential control. This belief is not entirely correct, but is grounded in reality. Former ICBM launch officer Bruce Blair reported in a 2004 article that as of the mid-1970s, “the Strategic Air Command (SAC) in Omaha quietly decided to set the “locks” to all zeroes in order to circumvent this [PALs] safeguard.” See Blair, Bruce. “The Case of the Missing Permissive Action Links.” *Center for Defense Information*. February 11, 2004. <https://web.archive.org/web/20040404013440/http://www.cdi.org/blair/permissive-action-links.cfm> However, Blair's description suggests that it was not a low-level initiative. Moreover, it does not seem to apply to the early European PALs. A 1964 briefing for the Gilpatric Committee on nuclear proliferation issues explained that “PAL codes for specific weapons in NATO are selected from a code manual by the PAL code management team attached to [US Commander in Chief Europe] headquarters. In selecting any one code, one-half of the digits are selected by one two-man team and the other half of the digits are selected by another two-man team. These teams are designated as “A” and “B” teams and personnel are never interchanged between them. [...] Different codes can be provided for each base, geographic area, component command or other subdivision of command as deemed appropriate. [...] Encoding of weapons is accomplished by two two-man teams known again as “A” and “B” teams. Each team is responsible for insertion of one-half of the weapon combination and is not permitted to know the other half. There is a requirement that neither team be given access to either code word. The security provided to [redacted] code words is equivalent to that provided the weapons release authenticator code words.” These procedures appear robust, and were probably effective enough to counter attempts at subversion. See Briefing for the Gilpatric Committee by William J. Howard. December 1, 1964. USDD CK2349121169. tinyurl.galegroup.com/tinyurl/5G3V75.

27 Cotter, Donald R. “Peacetime Operations.” in Carter, Steinbruner and Zraket, eds., *Managing Nuclear Operations*, The Brookings Institution, 1987, pp. 47-49.

28 Memorandum from Carl Kaysen to VP Lyndon Johnson on PALs as highest national priority. May 22, 1963. DNSA PD00978.

install PALs on American nuclear weapons in Europe, however the program would continue on even after Kennedy's assassination.²⁹

6) Conclusion:

Kennedy's tragically short White House tenure occupies a pivot point in the history of US nuclear posture. He was the first president to inherit a nuclear triad. He was the last to possess clear, decisive superiority over the Soviets. And he helped to usher in the European Settlement that defined the second part of the Cold War, in part due to his willingness to take a firm line against German control over nuclear weapons. From January 1961 to November 1963 his basic goals did not change. Moreover with the exception of his interest in inhibiting proliferation, they were in line with Eisenhower's. But the world changed around those goals, and therefore US Posture had to change as well.

The pivotal step away from the ferocious Maximal Posture was Kennedy's decision to end the nuclear defense mission. To a large extent, this decision was a simple acceptance of the inevitable. Kennedy was convinced that early 1960s technology could not defend the US against Soviet ICBMs. Therefore pragmatism, not a new-found dovishness, was the main driver of this Posture change. Kennedy was killed before his post-superiority, post-European Settlement Nuclear Security Theory could jell. Therefore, it was up to his successor, Lyndon B. Johnson, to try to put his stamp on the new Offensive Missile Posture.

²⁹ See Letter to McGeorge Bundy from the Deputy Secretary of Defense on PALs installation schedule. July 22, 1964. USDD CK2349134384. tinyurl.galegroup.com/tinyurl/5G3ze0. This document suggests that progress on PALs installation was steady, but that the project completion date had slipped by roughly a year from the ambitious NSAM 160 proposed schedule. For another history of PALs development and an update on the 'state of PALs' in the mid-1980s, see Caldwell, Dan. "Permissive Action Links: A Description and Proposal." *Survival* 29, no. 3 (1987): 224-38.

Chapter 6) The Johnson Exception: MAD and the Offensive Missile Posture¹

1) Introduction

When Lyndon B. Johnson was sworn in on November 22, 1963 he became the third president to occupy the Oval Office in less than four years. By then the defense mission and the Maximal Posture were dead. The remaining missions which constituted the new Offensive Missile Posture were counterforce, urban/industrial attack, and the theater mission.

More important than the inventory of missions, however, was Johnson's earnest but failed attempt to put US nuclear posture and indeed the whole US-Soviet relationship on a new trajectory towards MAD acceptance. For Johnson, the nuclear arms race itself was as grave a threat to US security as the Soviet Union. Consequently, he struggled mightily throughout his time in office to inaugurate serious arms control talks that would use cooperation to curtail the nuclear competition. However, Johnson failed to get the deal he desired by the end of his administration. Consequently, when his successor, Richard Nixon inherited Johnson's arms control enterprise, he employed it to gain advantage over the Soviets—returning US nuclear posture to its usual aggressive character.

1.1) Presidential Priorities under Johnson

Broadly speaking, Presidents John F. Kennedy and his post-assassination successor Lyndon B. Johnson shared similar foreign policy goals with one another and with President Eisenhower. Indeed, for Johnson, continuing to pursue Kennedy's foreign policies, at least until he won the 1964 election in his own right, was stated policy. The divergences among these three presidents'

¹ My thanks to Frank Gavin, Fiona S. Cunningham, Reid B.C. Pauly, Erik H. Sand and members of MIT's Security Studies Working Group for comments that have improved this chapter. Errors are mine.

approaches to foreign policy was more a matter of emphasis, and circumstance than of fundamental disagreement.

For example, all three sought to secure both the US homeland and NATO Europe from attack. However, following the European Settlement, the perceived Soviet threat to Europe diminished somewhat, even if it would not evaporate until 1991. Neither Kennedy nor Johnson shared Eisenhower's near obsession with doing so especially frugally. Related, both Kennedy and Johnson prioritized US efforts to inhibit nuclear proliferation. After Kennedy imposed new, strict use controls on US owned theater forces, Johnson led the charge towards the landmark 1968 Non-Proliferation Treaty and related arms control agreements.

Johnson believed that nuclear weapons were dangerous. Controlling them—through arms control and non-proliferation efforts—was therefore his chief nuclear priority.

1.2) Changing Times Changing Threat Perceptions

General consistency in presidential foreign policy objectives stood in contrast to significant change in how presidents Kennedy and Johnson perceived threats to those objectives. Johnson assumed the presidency in winter 1963 believing that the nuclear threat to the US did not originate solely from the Soviet Union. Without undervaluing the importance of a strong deterrent force, Johnson believed that the Cold War arms race itself generated risk for the US, and that risk had to be managed through arms control. This was a radical change in presidential threat perception that resulted from changes in the geopolitical landscape that had begun under Kennedy, as well as from the president's own causal beliefs about nuclear weapons. Therefore, Johnson had to figure out whether and how to adjust US nuclear posture accordingly.

1.3) Johnson's Nuclear Inheritance

When Johnson took the oath of office on November 22, 1963, the Maximal Posture was at its end, but the shape of the new Offensive Missile Posture remained unclear. Three components of this emerging posture were salient. First was the growing US Inter-Continental Ballistic Missile (ICBM) and Submarine-Launched Ballistic Missile (SLBM) force. These two missile legs of the strategic nuclear triad were growing in capability and importance.

Second was the absence of the defense mission. Kennedy stopped pursuing this capability in 1961-1962. The Eisenhower era complex of US-based interceptor aircraft and nuclear-tipped air-to-air and ground-to-air interceptor missiles designed to counter much slower Soviet bombers was useless against Soviet ICBMs. Kennedy had abandoned the defense mission, while paying lip-service to the idea of reconstituting it in the future by providing a small stream of defense-relevant research and development funding. Consequently, Johnson inherited an Offensive Missile Posture that left the homeland vulnerable.

Third was the altered nature of the theater nuclear mission. When Eisenhower undertook this mission in 1953, it had been designed to 'fail deadly.' In 1962, Kennedy rendered it somewhat safer by ordering the installation of Permissive Action Links (PALs) on all US-owned nuclear weapons in Europe. These special locks were designed to prevent the use of theater nuclear weapons without presidential authorization. In the event of Soviet attack they could have made presidentially authorized nuclear use in Europe more coordinated, and therefore effective. More importantly, they lowered the risk that local US or foreign commanders might start a nuclear war.

1.4) Johnson's Nuclear Security Theory

Johnson's core foreign policy priorities were basically in line with those of his predecessors. Yet he took office just as the nature and scale of the Soviet threat was undergoing a radical transformation. On one hand, the US had lost its decisive nuclear superiority. On the other hand, given warmer relations with Moscow, and in view of the perils of the arms race itself, perhaps superiority was no longer the path to security.

Regardless, Johnson found himself confronting this novel geopolitical environment while also shaping a new Offensive Missile Posture that he had inherited from Kennedy. It lacked the defense mission, included tighter controls over theater forces, and therefore seemed less ferocious. But its broad outlines remained unclear, and subject to presidential direction. What sort of nuclear security theory would guide Johnson's decisions in this regard?

Johnson's Theory of Nuclear Security centered on arms control. In fact, it augured towards policies that Theory of the Nuclear Revolution adherents would begin advocating over a decade later. Johnson's view was that arms racing itself raised the risk that the US or its allies could be attacked. Therefore, it had to be curtailed. Achieving this goal required US-Soviet cooperative arms control. While Johnson was not naive about pursuing this cooperation, he did have a profound belief that the US and the world would be safer with bilaterally negotiated, verifiable nuclear arms limits than it would without them. The Outer Space Treaty was a relatively small-scale example of this logic in action, while the Strategic Arms Limitation Talks that he doggedly pursued were far more ambitious.

Johnson made nuclear posture decisions that he thought would advance this goal. First, he tried with modest success to limit the technical and numerical growth of the US nuclear arsenal

despite his awareness that the Soviets were catching up. Second, he deviated from this dovish approach to posture when he thought that the threat of continued arms racing would convince the Soviets to begin negotiations. This was the reasoning behind his surprising 1967 decision to support the development of the Sentinel Anti-Ballistic Missile (ABM) defense system. By feigning a return to the defense mission—and perhaps the Maximal Posture—Johnson hoped to lock-in more relaxed postures for both Moscow and Washington through SALT negotiations.

Yet Johnson's attempts to direct US nuclear posture along a less aggressive trajectory failed to take root for three principle reasons. First, he was unable to secure the arms control limits he sought before leaving office. Second, despite his efforts to curtail growth in the size and capabilities of the US nuclear arsenal, seemingly unbeknownst to Johnson work continued on Multiple Independently-targetable Reentry Vehicle (MIRV) technology throughout the 1960s. The United States' first MIRV test in August 1968 hampered Johnson's attempts to convince his Soviet counterpart that he was prepared to negotiate in good faith. Third, Johnson was replaced in the White House by a nuclear hawk. Richard Nixon would leverage this nuclear inheritance to pursue a very different Nuclear Security Theory which opened the door to the new era of counterforce.

2) The Emergence of the Johnson Exception

Kennedy ended the Maximal Posture, but was killed before he could make affirmative decisions about the new Offensive Missile Posture. The task of shaping this novel nuclear inheritance within an equally novel geopolitical environment, fell to Lyndon B. Johnson. This combination of man and circumstance was the genesis of the Johnson exception.

Johnson assumed the presidency as a southern democrat with little foreign policy experience. He brought a fresh perspective to US-Soviet relations and US nuclear policy. How should the US act now that it was vulnerable to a nuclear attack from a long-standing rival with whom it now had few serious quarrels? Johnson's Nuclear Security Theory captured his answer to this dilemma. It was based on improved US-Soviet relations. He inaugurated a period of 'petite detente' that centered on his desire to advance US interests and preserve American security through serious strategic arms control negotiations with Moscow.¹ However, despite his best efforts, Johnson's attempt to bring about a revolutionary change in the trajectory of US nuclear posture was the exception rather than the rule.

2.1) *SALT: "To Ensure the Survival of Civilization in the Nuclear Age"*

When Lyndon B. Johnson was thrust unexpectedly into the presidency he had little experience in nuclear matters—or foreign policy generally—and much to learn. Within two weeks of assuming office, a December 5, 1963 NSC meeting turned to a discussion of the US-Soviet balance of power. In his presentation, Secretary of Defense McNamara shared with Johnson the same basic insights that Kennedy had heard during his NESC briefing nearly three months earlier. "In a nuclear exchange," McNamara explained, "there would be no winner, [...] A nuclear exchange involves the loss on each side of from 50 to 100 million lives." Hearing similarly gloomy news in the September 12, NESC briefing, President Kennedy's thoughts had turned to

¹ 'Petite detente' is borrowed from Schwartz, Thomas A. "Moving Beyond the Cold War: The Johnson Administration, Bridge Building and Detente." in Gavin, Francis J., and Mark Atwood Lawrence, eds. *Beyond the Cold War: Lyndon Johnson and the New Global Challenges of the 1960s*. Oxford ; New York: Oxford University Press, 2014.

competition for nuclear superiority. Could the US ever regain nuclear superiority over the Soviets? To Kennedy's deep dismay, the answer was no.

In contrast, Johnson's instinct was to avoid perpetuating nuclear competition. He concluded the December 5, 1963 NSC meeting by repeating a sentiment he had expressed as it began: "The greatest single requirement is that we find a way to ensure the survival of civilization in the nuclear age. A nuclear war would be the death of all our hopes and it is our task to see that it does not happen."² Thus, war avoidance—a cooperative endeavor—was a key pillar of Johnson's theory of security in the age of nuclear stalemate.³ More than any other president, Johnson could tolerate MAD.

In the coming years, Johnson's pursuit of strategic arms limitation talks (SALT) showed that his support for superpower nuclear cooperation was more than just rhetorical. Building on the success of Kennedy's August 1963 Limited Test Ban Treaty, (LTBT) Johnson went on to conclude the Outer Space Treaty banning nuclear weapons in space and on other planets in 1967, and most importantly, the 1968 nuclear non-proliferation treaty (NPT). These were signs of significant progress in superpower relations. However, they skirted the core issue in US-Soviet interactions—inescapable mutual vulnerability.

President Johnson was personally engaged in the pursuit of SALT talks, even as domestic turmoil and the Vietnam War competed for his attention. Beginning in late February 1964, Johnson exchanged 'pen pal' letters with his Soviet counterparts—first Nikita Khrushchev, then

² Summary Record of the 520th Meeting of the National Security Council. FRUS 1964-1968 v. 8. d. 150. <https://history.state.gov/historicaldocuments/frus1961-63v08/d150>.

³ This general characterization of Johnson's policies aligns with Ellis, Sylvia. "A Foreign Policy Success? LBJ and Transatlantic Relations." *Journal of Transatlantic Studies* (Routledge) 8, no. 3 (September 2010): 247–56; Schwartz, *ibid*; Schwartz, Thomas Alan. *Lyndon Johnson and Europe: In the Shadow of Vietnam*. Cambridge: Harvard University Press, 2003 and Brands, Hal. "Progress Unseen: U.S. Arms Control Policy and the Origins of Détente, 1963–1968." *Diplomatic History* 30, no. 2 (April 2006): 253–85.

Alexei Kosygin. At first, these letters centered on arriving at an informal agreement on bilateral reductions of nuclear weapons usable uranium-235.⁴ In time, Johnson argued directly for strategic arms limitation.⁵

This was Johnson's approach to nuclear security that continued until he left office. On the US side, he and McNamara were curtailing improvements in US nuclear capabilities—despite growth in the Soviet arsenal—in the hope of ending the tit-for-tat arms race pattern.⁶ Yet he saw that the threatening message sent by the Soviet Union's ongoing ABM development program could undermine these efforts, even if it was unlikely to be effective. Therefore, to avoid 'colossal costs' that would not 'substantially enhance' US or Soviet security, Johnson tried to engage with Moscow persistently, directly and earnestly. When arms could no longer defend the US against the Soviets, Johnson hoped that diplomacy could.

3)...Or How I Learned to Stop Worrying and Love the SIOP

The overwhelming majority of Johnson's nuclear weapons policy energies were directed towards arms control. Even so, he also made decisions indicating that—like Eisenhower and Kennedy before him—he valued the ultimate deterrent threat embodied in the SIOP.

The SIOP traces its origins to the late Eisenhower Administration. Within the Defense Department there was an ongoing debate on the future of US nuclear targeting. Predictably, the

4 The first of these letters is Oral Message From President Johnson to Chairman Khrushchev. February 22, 1964. FRUS 64-68 v. 11 d. 11. <https://history.state.gov/historicaldocuments/frus1964-68v11/d11>. Subsequent letters are reproduced in the same volume of FRUS. While Johnson's decision to reduce uranium production was driven by budget constraints, he saw the necessity of a production cut as a valuable opportunity to open a dialogue on nuclear arms with the Soviets. See Editorial Note. FRUS 64-68 v. 11 d. 10. <https://history.state.gov/historicaldocuments/frus1964-68v11/d10>.

5 Letter From President Johnson to Chairman Kosygin. January 21, 1967. FRUS 64-68 v. 11 d. 178. <https://history.state.gov/historicaldocuments/frus1964-68v11/d178>. Discussed in greater detail below.

6 Kugler, Richard L. "The Politics of Restraint: Robert McNamara and the Strategic Nuclear Forces, 1963-1968." PhD Dissertation, MIT, August 1975. My thanks to Charlie Glaser for sharing this reference.

Air Force and Navy had competing ideas about which service should control nuclear targeting, and to what ends. In June 1960, Eisenhower's Defense Secretary Thomas Gates resolved this dispute, largely in the Air Force's favor. In so doing, he established the Joint Strategic Target Planning Staff (JSTPS) within the Air Force's Strategic Air Command, which would maintain the National Strategic Target List (NSTL) and develop the SIOP.⁷

Eisenhower approved the first SIOP—SIOP 62—on December 2, 1960. When it went into effect on April 1 1961, less than three months into the Kennedy Administration, it called for the destruction of 3,729 targets using 3,423 nuclear weapons aimed at 1060 designated ground zeroes (DGZs) throughout the Soviet Union, Eastern Europe and China. This combined counterforce and urban/industrial attack laydown was projected to kill 54% of the Soviet population and 16%, of the Chinese population, amounting to 220 million people, within three days of the attack.⁸

President Kennedy received his first briefing on this war plan on September 13, 1961 from JCS Chairman Lyman Lemnitzer. He was displeased. According to historian Marc Trachtenberg, Kennedy “began asking Lemnitzer some basic questions, Why, he wanted to know, would he United States be “hitting all those targets in China?” They would be attacked, Lemnitzer replied, because they were “in the *plan*, Mr. President.”

What is crucial here is the source of Kennedy's displeasure. His main concern was not ‘overkill’ caused by the massive nuclear attack envisaged by the SIOP, but rather the fact that the

7 Kaplan, Edward. *To Kill Nations: American Strategy in the Air Atomic Age and the Rise of Mutually Assured Destruction*. Cornell University Press, 2015, pp. 151-153; 157.

8 See History of the Joint Strategic Target Planning Staff: Background and Preparation of SIOP-62. FJG Documents, Batch 2, Author's personal collection; Schlosser, Eric. *Command and Control: Nuclear Weapons, the Damascus Accident and the Illusion of Safety*. Penguin Books, 2013, pp. 206-207; Burr, William. “The Creation of SIOP 62: More Evidence on the Origins of Overkill.” National Security Archive Electronic Briefing Book 130, July 13, 2004. <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB130/>.

plan was indiscriminate and inflexible.⁹ Indeed, this shortcoming did not prevent Kennedy from making nuclear threats backed by the SIOP during the period before the US lost its decisive nuclear advantage.¹⁰

Though far less prone to nuclear saber rattling than his predecessor, Johnson was not inclined to give up existing nuclear capabilities. His decision-making on “Furtherance”—the predelegation of nuclear release authority to subordinate commanders in the event that he is killed or incapacitated in an enemy nuclear attack is especially revealing in this regard. According to a September 1964 memo, six months earlier Johnson had “approved recommendations from McNamara and the Joint Chiefs to put into effect updated instructions for expenditure of nuclear weapons in emergency conditions.” In the event of a nuclear attack on the US, the instructions stated, “every effort to contact the President must be made.” However, if those efforts fail, “The authorized retaliation for an attack on the US is a strategic attack” on the Sino-Soviet bloc.¹¹

9 Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton, N.J.: Princeton University Press, 1999, pp. 299-300; Sagan, Scott. “SIOP-62: The Nuclear War Plan Briefing to President Kennedy.” *International Security* Vol. 12, No. 1 (Summer, 1987), pp. 22-51. Memorandum for Secretary McNamara from CJCS L. Lemnitzer on " 'Doctrine' on Thermonuclear Attack." April 18, 1961. FJG documents batch 2. Author's personal collection. Note that SIOP 64 addressed Kennedy's concern by providing the President with “a selective capability to withhold... all strikes against Red China and its satellites and against the Soviet Bloc satellites, either individually or collectively.” US nuclear war plans changed in response to presidential desires. See Joint Chiefs of Staff Chairman Maxwell Taylor to Generals LeMay, Wheeler, and Greene, and Admiral McDonald, “Review of the SIOP Guidance,” 5 June 1964, CM [Chairman's Memorandum] -1407-64, Top Secret, in Burr, William. National Security Archive EBB 638, August 15, 2018. <https://nsarchive2.gwu.edu//dc.html?doc=4775205-Document-02-Joint-Chiefs-of-Staff-Chairman>.

10 See e.g., the speech Kennedy directed Deputy Secretary of Defense Roswell Gilpatric to deliver in October 1961 and Kennedy's January 1962 questions on nuclear employment. Gaddis, John L. *Strategies of Containment*. Oxford University Press, 2005. p. 205; Reeves, Richard. “Missile Gaps and Other Broken Promises,” *The New York Times*, February 10, 2009. <https://100days.blogs.nytimes.com/2009/02/10/missile-gaps-and-other-broken-promises/>. Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton, N.J.: Princeton University Press, 1999, pp. 293-295.

11 Memorandum From the President's Special Assistant for National Security Affairs (Bundy) to President Johnson. September 23, 1964. FRUS 64-68 v. 10 d. 54. <https://history.state.gov/historicaldocuments/frus1964-68v10/d54>. Note that this document only identifies the Soviet Union as the retaliatory target. However, a March 23, 1964 implementation document makes it clear that the entire Sino-Soviet bloc would be targeted in the event of a Soviet attack that killed or incapacitated Johnson. See Memorandum by C.V. Clifton, "List of Things Which Have to be

Four aspects of Johnson's predelegation decision are illuminating. First, political scientist Paul Bracken observes that the purpose of this kind of system was to make the president a kind of safety catch against nuclear release. So long as the president remained in contact with US nuclear forces, nuclear release was prohibited. However, if the president were killed, incapacitated, or left incommunicado as a result of an enemy attack, the safety catch would be removed. In effect, Johnson decided that his final order from beyond the grave was to be 'execute the SIOP.' Second, this kind of simple safety catch system was enabled, in part, by the SIOP's rigidity. If the president was unreachable following a nuclear attack, there was only one obvious course of action available to surviving commanders—execute the SIOP. No further discussion or decision was necessary. Third, this kind of thinking about the devolution of nuclear release authority meshed with the characteristics of the US nuclear command and control apparatus of the mid-1960s.

In August 1963, the US government and AT&T signed an executive memorandum establishing the National Communications System, through which government and military communications systems were integrated with "the most redundant, geographically dispersed communications system ever built: the American common carrier network, and especially the Bell Telephone system." The virtue of this system was that "Enemy missiles that destroyed communications nodes would not block the linkage of the president to the military, because calls would be automatically rerouted by the intermediate surviving switches. Redundancy, rather than hardening, was the tactic relied upon." Thus, reliance on redundancy and resilience, rather than

Done as a Result of the Joint Chiefs of Staff Meeting with the President on March 4, 1964," 23 March 1964, Top Secret, in Burr, William. National Security Archive EBB 638, August 15, 2018.

<https://nsarchive2.gwu.edu//dc.html?doc=4775204-Document-01-Memorandum-by-C-V-Clifton-List-of>.

protection against attack or preemption, had become a feature of both US nuclear release authority and its associated command and control system.¹²

Fourth, and finally, Johnson's predelegation order shows how even he saw value in the logic of security through threat of overwhelming nuclear retaliation that the SIOP enabled. Though he was far from a nuclear hawk, Johnson had learned to stop worrying and love—or at least tolerate—the SIOP.

4) Johnson's Puzzling Posture Decisions: The ABM Lever and the MIRV Deception

Like Eisenhower and Kennedy before him, Johnson saw some value in massive retaliation. But his nuclear security theory and main posture decisions centered on ensuring “the survival of civilization in the nuclear age” by negotiating limits on the US-Soviet nuclear arms race. In view of this, two important posture-related decisions from late in his administration are puzzling. First, Johnson pursued development of an ABM system beginning in September 1967. Second, the US conducted the first MIRV missile tests on August 16, 1968. If Johnson truly wanted to curtail the US-Soviet arms race, why pursue new, advanced offensive and defensive systems that could only perpetuate it? These questions cut to the core of Johnson's failure to shape the Offensive Missile Posture.

The ABM and MIRV decisions had very different roots. For Johnson, the ABM program was a lever that he could use to goad the Soviets into negotiating on strategic arms. The message was that if the Soviets chose not to negotiate now, the US might build defenses that could disadvantage Moscow in the future. Never mind that the US had little faith in its ability to field an effective ABM. Or that an ABM race would not increase either side's security. Johnson's

¹² Bracken, Paul. *The Command and Control of Nuclear Forces*. Yale Univ. Press, 1983. pp. 196-197; 206-207.

ABM threat helped to push the Soviets into scheduling the start of SALT talks with the US for August 21, 1968. For Johnson, ABM was valuable for diplomacy, not for war.

The MIRV tests, on the other hand, had a different character. They were not one of Johnson's negotiating levers. Indeed, there is no evidence that Johnson approved the tests before they happened. The MIRV test decision was the result of rare bureaucratic connivance that included key members of Johnson's executive team, including the secretaries of defense and state, as well as the chairman of the Atomic Energy Commission.

Once the US crossed the MIRV threshold by demonstrating its ability to place multiple warheads atop its whole long-range missile force, the arms race entered a new phase. First, because MIRVs are generically useful weapons, they can bolster both the counter-city and counterforce missions. Arguments in favor of fielding them abound. Second because there is no way to reliably distinguish a MIRVed from a non-MIRVed missile from afar. After successful testing, only invasive inspections can guarantee against cheating on a MIRV ban. This single MIRV test on August 16, 1968 opened the door to better counter-city and counterforce capabilities, while also making it difficult for Moscow and Washington to agree to forswear those capabilities.

By the time Johnson left office he had not succeeded in achieving the SALT agreement that he desired, but he did bequeath to his successor, Richard Nixon, with an ABM lever and a MIRV program that he would use to pursue a different kind of SALT agreement altogether.

4.1) Johnson's ABM Lever

Why did President Johnson come to support developing the Sentinel ABM system despite the risk of perpetuating an arms race that he sought to curtail? Not because he sought to reconstitute the defense mission, or even because he thought Sentinel likely to work. Because he believed—with some justification—that a feint towards ABM would goad Moscow into arms control talks.

Throughout 1964 and 1965 ABM defenses were a back burner issue. Efforts by the Joint Chiefs to press for a new system were regularly swatted down or deflected by Secretary of Defense Robert McNamara.¹³ This changed in spring and summer 1966 as the Soviets began to make progress on their 'Moscow System' ABM defenses. By November and December 1966, Johnson was presiding over regular, in-depth meetings about the desirability of a US counter to Soviet ABMs. The most thoroughgoing of these debates took place on December 6, 1966 in Austin, Texas.

On one hand, the Joint Chiefs advocated for rapid deployment of an American ABM system. According to a memorandum of the conversation, "General Wheeler then stated the case for the deployment of an ABM system. He said two new facts had to be taken into account: (1) the USSR was deploying an ABM system around Moscow, and they were deploying a system widely throughout the USSR which might have ABM capabilities; (2) they were installing at an accelerated rate hardened ICBM's, the SS-11, a city buster. By 1971 they might have between 800–1100 ICBM's. We do not know the objective of Soviet nuclear policy: whether it is parity

¹³ See e.g., Kaufmann, William. "The Strategic Nuclear Forces." p. 21. Author's personal collection. My thanks to Jennifer Greenleaf for sharing this source. Janne Nolan argues along similar lines, stating that McNamara 'bought off' his opponents with R&D funding, while hoping that the project would never yield a fieldable weapon. See Nolan, Janne E. *Guardians of the Arsenal : The Politics of Nuclear Strategy*. New York : Basic Books, 1989, p. 92.

with the U.S. or superiority.” In short, the Soviet threat to the US was growing. To limit the associated risks, Wheeler argued that the US needed defenses.

Presenting the opposite view, McNamara made two points. “First, the Soviet Union has been wrong in its nuclear defense policy for a decade. They have systematically spent 2 or 3 times what we have on defense. It has not been worth it. Their defenses are not worth a damn. We still can impose unacceptable losses on them even after a [Soviet] first strike. Because they are making an error in deploying ABM’s is no reason we should also make that error.” Second, McNamara argued that a US ABM deployment would only instigate a Soviet response. Putting a sharp point on this perspective, “Secretary McNamara concluded that we would be launching ourselves and the Soviet Union into two decades of escalatory action in the nuclear field in which the costs on each side would prove to be of the order of \$31–40 billion. We would each end up no better off than we are at present.”¹⁴

This Texas showdown ended inconclusively.¹⁵ Johnson was trying to balance his desire to pursue arms control against the danger of being left behind by Soviet advances if they desired superiority. Moreover, ongoing technological advances on both sides and related uncertainty about what the future of the US-Soviet relationship might hold added complexity and

14 Draft Notes of Meeting, December 6, 1966. FRUS 64-68 v. 10 d. 150.
<https://history.state.gov/historicaldocuments/frus1964-68v10/d150>.

15 See e.g. then Deputy Secretary of Defense Cyrus Vance’s memo to Johnson summarizing the 12/6 meeting and attempting to elicit a decision. Memorandum From the Deputy Secretary of Defense (Vance) to President Johnson. December 10 1966. FRUS 94-68 v. 10 d. 155. <https://history.state.gov/historicaldocuments/frus1964-68v10/d155>; Memorandum of Conversation. December 7, 1966. FRUS 64-68 v. 11 d. 168, fn. 4. <https://history.state.gov/historicaldocuments/frus1964-68v11/d168>. Brands, Hal. “Progress Unseen: U.S. Arms Control Policy and the Origins of Détente, 1963–1968.” *Diplomatic History* 30, no. 2 (April 2006): 277.

uncertainty. Several December 1966 follow-up memos to LBJ present the key dilemmas.¹⁶ The most insightful of these was from CIA Director Richard Helms.

Helms placed the ABM decision in the context of overall US-Soviet relations. Even the most modest of the available ABM program options, he argued, “would convey to the Soviets that we were not content to remain in a condition of mutual deterrence but were striving instead to gain a clear power advantage.” The signal sent by the program, not the capability it delivered, was the central concern. As a result, “the political implications for Soviet society and for Soviet-American relations of such an intensification of the arms race seem to me to be of significant importance. The strains imposed by such an effort would at the very least retard what movement we have thought might be developing toward moderation in the Soviet outlook and toward liberalization in Soviet society. Similarly, a new surge of competitive arming would tend inevitably to sustain tension and mistrust between the two countries, and thereby to limit even more the possibility of moving our relations gradually into more constructive channels.”¹⁷

Helms argued that US-Soviet relations were at a turning point. If Johnson pursued ABM, post-European Settlement progress towards a more constructive relationship might come to a halt. At the same time, it remained unclear whether or when the Soviet ICBM build up that the JCS highlighted might come to an end. While Helms was concerned about inadvertently telegraphing a US desire for “a clear power advantage,” the JCS clearly feared that this was

16 Memorandum From the President's Special Assistant for Science and Technology (Hornig) to the President's Special Assistant (Rostow). December 10, 1966. FRUS 64-68 v. 10 d. 156. <https://history.state.gov/historicaldocuments/frus1964-68v10/d156>; Memorandum From the Ambassador at Large (Thompson) to the President's Special Assistant (Rostow). December 10, 1966. FRUS 64-68 v. 11 d. 170. <https://history.state.gov/historicaldocuments/frus1964-68v11/d170>.

17 Memorandum From Director of Central Intelligence Helms to the President's Special Assistant (Rostow). December 10, 1966. FRUS 64-68 v. 11 d. 171. <https://history.state.gov/historicaldocuments/frus1964-68v11/d171>.

precisely what Moscow was striving for. Absent certainty about Soviet intentions—whether Moscow sought superiority or simple parity—Johnson was in a quandary.

His response was consistent with his Nuclear Security Theory: following the inconclusive December 1966 ABM debate he pursued arms control with renewed vigor. In January 1967—in parallel with his pivotal ‘pen pal’ letter to Kosygin—he promoted Llewellyn “Tommy” Thompson to Ambassador to the Soviet Union. Announcing this new appointment to Kosygin, Johnson wrote “I have directed Ambassador Thompson as a matter of first priority to discuss with you and the appropriate members of your Government the possibilities of reaching an understanding between us which would curb the strategic arms race.” Hinting at the costs of failure, he went on to say that “I think you must realize that following the deployment by you of an anti-ballistic missile system I face great pressures from the Members of the Congress and from public opinion not only to deploy defensive systems in this country, but also to increase greatly our capabilities to penetrate any defensive systems which you might establish.”¹⁸ Using a good cop/bad cop tactic, Johnson was presenting himself as an ally who could facilitate a mutually beneficial agreement, while suggesting that if Soviet cooperation was not forthcoming, Congressional and public pressure might compel him to take a step—ABM deployment—that both sides might come to regret.

Six months later Johnson hosted Kosygin at the hastily arranged Glassboro Summit. There he and Robert McNamara did their best to convince Kosygin that limiting the arms race—and

¹⁸ Letter From President Johnson to Chairman Kosygin. January 21, 1967. FRUS 64-68 v. 11 d. 178. <https://history.state.gov/historicaldocuments/frus1964-68v11/d178>.

especially ABMs—was in both US and Soviet interests. Unfortunately for Johnson, these efforts at personal diplomacy amounted to naught.¹⁹

The failure of the Glassboro Summit led Johnson to change tacks and feign support for ABM. Previously he had hoped that restraint in pressing US advantage in strategic arms could help to avert the sort of reflexive ‘red faced’ competition that his science adviser, Donald Hornig, had warned of in a December 1966 memo.²⁰ After months of trying this tactic—including in a face-to-face meeting with Kosygin—Johnson decided that only publicly announcing that he had decided to deploy an ABM system could goad the Soviets into negotiating. By approaching the Soviets with “the hand of peace here but the hand of strength here” Johnson sought to convince the Soviets to negotiate²¹

At Johnson’s direction, on September 18, 1967, Robert McNamara announced that the US would proceed with the deployment of the Sentinel ABM system. Sentinel was billed as “a Chinese-oriented thin ABM system” that could protect the US from a small attack by a weak and irrational state. It could not defend against the large and formidable Soviet nuclear arsenal, but if

19 For ‘hastily arranged’ see e.g., Memorandum of Conversation. June 16, 1967. FRUS 64-68 v. 14 d. 218. <https://history.state.gov/historicaldocuments/frus1964-68v14/d218>. Eight days before the Summit would actually take place, Johnson had Ambassador Thompson tell Dobrynin that while “President had himself had no word whether Chairman Kosygin was coming to our country or not. [...] If Kosygin wished to see the President, he would be welcome to see him.” For McNamara’s presentation and Kosygin’s views, see Memorandum of Conversation. June 23, 1967, 1:30 – 3:10pm. FRUS 64-68 v. 14 d. 21. <https://history.state.gov/historicaldocuments/frus1964-68v14/d231>. Johnson’s own account of the Glassboro Summit aligns with the documents in FRUS. See Johnson, Lyndon Baines. *The Vantage Point Perspectives of the Presidency, 1963-1969*. Holt, Rinehart and Winston, 1971. pp. 479-485. Dobrynin suggests that the issue with McNamara’s presentation may have stemmed from the fact that he had intended to present his views to Johnson and Kosygin privately, rather than in a large luncheon forum. His desire for privacy was rooted in the fact that he did not want word of his opposition to ABM to spread back to the Department of Defense, which he led. See Dobrynin, Anatoly. *In Confidence: Moscow’s Ambassador to America’s Six Cold War Presidents, 1962-1986*. Random House, 1995. pp. 165-166.

20 Memorandum From the President’s Special Assistant for Science and Technology (Hornig) to the President’s Special Assistant (Rostow). December 10, 1966. FRUS 64-68 v. 10 d. 156. <https://history.state.gov/historicaldocuments/frus1964-68v10/d156>;

21 Record of Meeting: Cabinet Room Meeting of Monday, July 29, 1968, 7:00 p.m. to 8:00 p.m. With the President, Secretary Rusk and Secretary Clifford and Tom Johnson. July 29 1968. FRUS 64-68 v. 14 d. 282. <https://history.state.gov/historicaldocuments/frus1964-68v14/d282>.

ever fielded, might provide some modest defense against a Chinese attack.²² Sentinel was a major change in US policy, and one that confused many foreign and domestic observers. The key to understanding it resides in the fact that Johnson's primary objective was not to actually reconstitute the defense mission, but to coax the Soviets into strategic arms negotiations.²³ For Johnson, Sentinel was not about defense capability; it was about diplomatic leverage.

22 Memorandum From the President's Special Assistant (Rostow) to President Johnson. August 2, 1967. FRUS 64-68 v. 10 d. 185. <https://history.state.gov/historicaldocuments/frus1964-68v10/d185>.

23 The alternative explanation for Johnson's decision centers on Congressional pressure. Unfortunately, this argument is weak. James Cameron argues that a combination of public and Congressional pressure forced Johnson to pursue Sentinel. See Cameron, James. *The Double Game: The Demise of America's First Missile Defense System and the Rise of Strategic Arms Limitation*. Oxford University Press, 2018. Janne Nolan argues that the pro-ABM stances of southern democrats were important. See Nolan, Janne E. *Guardians of the Arsenal: The Politics of Nuclear Strategy*. New York: Basic Books, 1989, pp. 92-93. Johnson, Thompson and Rusk pointed to Congressional pressure in their 'good cop/bad cop' discussions with Soviet officials, including Dobrynin. In his study of Johnson's arms control policy, Hal Brands makes no mention of a Congressional role in Johnson's thinking. See Brands, Hal. "Progress Unseen: U.S. Arms Control Policy and the Origins of Détente, 1963–1968." *Diplomatic History* 30, no. 2 (April 2006): 253–85. Was Johnson truly motivated by Congressional pressure, or did he manufacture this pressure to gain leverage with Kosygin? The weight of evidence suggests that Johnson felt no strong Congressional pressure. First, ABMs were a low profile issue in Congress in 1967. Anti-ABM lobbyist Thomas Halsted argues that "The evolution of the public debate over the ABM can be divided into three phases: First, there occurred a period of rapidly increasing congressional concern, abetted by some increase in public awareness, but largely internal to Congress. It began with the announcement in September 1967 that the Administration had decided to deploy the Sentinel ABM." Because of his job as an arms control lobbyist, Halsted must have been knowledgeable about the shape of Congressional opinion on this issue. However, Congress cannot have driven Johnson's ABM decision if Congressional concern about ABMs followed the announcement of that decision. See Halsted, Thomas A. "Lobbying Against the ABM, 1967-1970." *Bulletin Of The Atomic Scientists* 27, no. 4 (April 1971): 23-28. Second, Congressional opinion on ABMs was divided. For example, Congress approved \$366 million for the Sentinel system in its FY 1968 budget—down from Johnson's requested \$375 billion. This cut from Johnson's request does not signal strong unified support for an early ABM deployment. See "Congress and Evolution of the ABM" *Congressional Digest* 47, no. 11 (November 1968): 265. Third, Johnson makes no mention of Congressional pressure to deploy an ABM system in his memoir, which otherwise provides a detailed and accurate account of key episodes in this debate. See Johnson, Lyndon Baines. *The Vantage Point Perspectives of the Presidency, 1963-1969*. Holt, Rinehart and Winston, 1971. pp. 485-491. Fourth, in his memoir description of a conversation between himself and US Secretary of State Dean Rusk, Soviet Ambassador Anatoly Dobrynin hints that he viewed Rusk's arguments about pro-ABM Congressional pressure with skepticism by placing a key word in Rusk's argument in quotation marks. While Dobrynin offered no independent analysis of Rusk's claim in his memoir, he would have been very familiar with the shape of Congressional opinion on such an important issue. See Dobrynin, Anatoly. *In Confidence: Moscow's Ambassador to America's Six Cold War Presidents, 1962-1986*. Random House, 1995. p. 166. Fifth, the notion that Johnson was cowed by Congress does not pass the laugh test. For example, Johnson successfully pushed for landmark civil rights legislation despite the staunch opposition of the southern democrats that Nolan argues were influential in his decision-making on ABM. As both a Senator and President, Johnson was known for his ability to bend Congress to his will. Thus, the claim that his decision to support the Sentinel ABM program was a result of Congressional pressure, rather than his own strategic calculus, seems implausible.

In subsequent months Johnson maintained pressure on the Soviets. In a May 2, 1968 letter to Kosygin, he alluded to the new ABM program to argue that the longer the start of talks was delayed, the more difficult agreement might become. "As the United States Government has noted in previous communications, each passing month increases the difficulty of reaching agreement on this matter as, from a technical and military point of view, it is becoming more complex."²⁴ Johnson, who seems to have known little about the United States' ongoing work on MIRVs and their implications, may have more right than he knew.

By late June Johnson's ABM gambit showed signs of success. One early harbinger came on June 10, 1968. A new report from the CIA suggested that Soviet work on the Moscow System was slowing down.²⁵ Finally, on June 27, Kosygin responded to Johnson's May 2 letter, stating that he was prepared to move forward with strategic arms talks. On July 25, both leaders agreed that talks would begin one or one and a half months in the future, in Geneva.²⁶ It had taken nearly five years, but Johnson's exceptional Nuclear Security Theory showed signs of bearing fruit.

4.2) The MIRV Deception and the Calamity of August 1968.

By late June 1968, Johnson's long-sought arms control engagement with the Soviets seemed near at hand. After years of correspondence with Khrushchev then Kosygin, a series of agreements on nuclear arms including the Outer Space Treaty and the landmark Non-Proliferation Treaty (NPT) of 1968, and the difficult decision to pursue Sentinel, bilateral

24 Letter From President Johnson to Chairman Kosygin. May 2, 1968. FRUS 64-68 v. 11 d. 237. <https://history.state.gov/historicaldocuments/frus1964-68v11/d237>.

25 Intelligence Memorandum. June 10, 1968. FRUS 64-68 v. 10 d. 206. <https://history.state.gov/historicaldocuments/frus1964-68v10/d206>.

26 Letter From Chairman Kosygin to President Johnson. June 27, 1968. FRUS 64-68 v. 11 d. 249. <https://history.state.gov/historicaldocuments/frus1964-68v11/d249>; Letter From Chairman Kosygin to President Johnson. July 25, 1968. FRUS 64-68 v. 11 d. 261. <https://history.state.gov/historicaldocuments/frus1964-68v11/d261>.

negotiations on strategic offensive and defensive forces were on the horizon. Finally Johnson could lead an effort to grapple not only with peripheral issues, but with the existential problem of mutual vulnerability that by the late 1960s had come to define the superpowers' Cold War relationship.

Yet in a rare example of successful bureaucratic connivance, preparations were underway for MIRV tests that could undermine his hard won arms control progress. As historian John Prados has argued, these tests were “pregnant with meaning and responsibility” because they all-but foreclosed the option of banning MIRV technology in future arms control negotiations.²⁷ In late 1974, Nixon’s national security adviser and Secretary of State Henry Kissinger would famously say that “I wish I had thought through the implications of a MIRVed world more thoughtfully in 1969 and 1970 than I did.”²⁸ Whether genuine or not, Kissinger’s angst is misplaced. By August 1968 the horse had already left the barn.

Johnson’s first contact with MIRVs probably occurred in January 1965. Two days before his inauguration as an elected president of the United States, Johnson announced that he would proceed with the Poseidon C-3 development program. Crucially, it appears that Johnson was unaware of the missile’s MIRV capabilities, and simply chose to personally associate himself with the program to inoculate himself against the charge that he was weak on defense. Because he had purposefully avoided improving US nuclear capabilities, this was a charge to which he

27 Prados, John. “Lyndon Johnson and Europe: alliance politics, political economy, and ‘growing out of the Cold War.’” in Brands, H.W., ed. Brands, H. W., ed. *The Foreign Policies of Lyndon Johnson: Beyond Vietnam*. College Station, Tex: Texas A&M University Press, 1999, p. 27.

28 Krepon, Michael. “MIRVs and Remorse, Sort of” *Arms Control Wonk*, October 15, 2009. <http://www.armscontrolwonk.com/archive/402503/mirvs-and-remorse-sort-of/>.

was especially vulnerable.²⁹ Regardless, following Johnson's announcement work on the MIRVed Poseidon and Minuteman III missiles proceeded apace.

MIRV technology—including the possibility of counterforce usable accurate MIRVs—were occasionally discussed in memoranda for Johnson.³⁰ However, a thorough review of the documentary record contains no evidence that Johnson truly understood this new technology or its implications. Given his deep interest in arms control, if he had any inkling of MIRVs' importance, he surely would have inquired about them, requested studies of their potential, sought information on Soviet MIRV development, made margin notes indicating interest or concern on MIRV-related memos, or written about MIRVs in his memoirs. Yet he did none of these things. Rather, despite Johnson's lack of involvement, political scientist Ted Greenwood argues that steady progress in MIRV development up until 1968 was a product of a broad consensus around MIRVs' desirability, based on mutually reinforcing political, strategic, bureaucratic, technical and intelligence-related factors.³¹

Thus, by July 1968, the US was on the verge of conducting its first MIRV tests. It was simultaneously preparing to open arms control talks with the Soviets. Because it is difficult to distinguish MIRVed from non-MIRVed missiles at a distance, MIRV testing is a major threshold.

29 The origins of the 'Poseidon' moniker and events leading up to Johnson's announcement are colorfully related in Califano, Joseph A. *Inside: A Public and Private Life*. Public Affairs Press, 2005, pp. 140-141. For McNamara's deep engagement with MIRV and its role in his efforts to cap the number of US Minuteman missiles fielded see Kugler, Richard L. "The Politics of Restraint: Robert McNamara and the Strategic Nuclear Forces, 1963-1968." PhD Dissertation, MIT, August 1975. My thanks to Charlie Glaser for sharing this reference.

30 See e.g., Draft Memorandum From Secretary of Defense McNamara to President Johnson. Nov. 1, 1965. FRUS 64-68 v. 10 d. 103. <https://history.state.gov/historicaldocuments/frus1964-68v10/d103>; Draft Memorandum From Secretary of Defense McNamara to President Johnson. September 22, 1966. FRUS 64-68 v. 10 d. 139. <https://history.state.gov/historicaldocuments/frus1964-68v10/d139>.

31 Greenwood, Ted. *Making the MIRV: A Study of Defense Decision Making*. Cambridge, Mass. : Ballinger Pub. Co., 1975 p. 52. Notably, Greenwood also argues that MIRV development until 1968 cannot be explained by "The current tendency among students of the American weapons acquisition process [...] to consider either bureaucratic politics or the direct and indirect influences of the military industrial complex as the primary determinant of weapons decisions."

Once a country has shown that it can MIRV, only an arms control treaty with thoroughly invasive verification procedures could provide assurance against clandestine MIRVing. There is a tension between conducting a MIRV test and opening arms control talks. Yet Johnson seemed unaware of this tension in August 1968.

A wide-ranging July 29, 1968 conversation among Johnson, McNamara's replacement as Secretary of Defense, Clark Clifford and Secretary of State Dean Rusk illustrates the how president's Nuclear Security Theory led to the planned SALT talks. Following an exasperated survey of his efforts to maneuver Kosygin towards the negotiating table, Johnson explained his view of the present situation, saying "...and it looks like we are going ahead [with Sentinel], and we hold out the hand of peace here but the hand of strength here so we're going to go on, we don't want to do this, we'd like to save this 50 billion that the two of us are spending, but he's [Kosygin's] just got no sense at all. We'll go on. We are not going to let you destroy us. We're not going to let you be defended and us not defended. Then he comes up and says I'll see you in a month or month and a half. That's where we are."³² Johnson's hopes for arms control were earnest, and he believed fully that his 'ABM lever' strategy had worked, even as MIRVs are conspicuously absent from his argument.

Less than one week later, a *New York Times* editorial by Robert Kleiman lucidly argued that Johnson's efforts might be undermined by the upcoming MIRV tests. Presenting the underlying issue, Kleiman observed that "Impending talks with Moscow on the curbing of nuclear missiles confront President Johnson with a conundrum as complex as any he has faced in the White House: Can the arms race be slowed down by speeding it up?" On one hand "The Joint Chiefs of

³² Record of Meeting: Cabinet Room Meeting of Monday, July 29, 1968, 7:00 p.m. to 8:00 p.m. With the President, Secretary Rusk and Secretary Clifford and Tom Johnson. July 29 1968. FRUS 64-68 v. 14 d. 282. <https://history.state.gov/historicaldocuments/frus1964-68v14/d282>.

Staff want to go ahead this month with the first flight-tests of the revolutionary MIRV (Multiple Independently Targetable Re-entry Vehicles) warheads.” On the other hand, he argued, “the MIRV test series would take the world past a point of no return in the arms race that would certainly complicate, probably delay, and possibly doom attempts to negotiate missile ceilings.”³³

Three features of Kleiman’s editorial are worth highlighting. First, his presentation of the basic issues is remarkably clear. In fact, in this respect it was far superior to the information circulated within the upper echelons of the Johnson Administration on the MIRV issue prior to the first test.³⁴ Second, it displayed Kleiman’s good working knowledge of the inner-machinations of the Johnson Administration—the result of leaks. Third, because Kleiman’s argument and the publicity surrounding the upcoming tests that it could generate, were threats to MIRV supporters, it became a point of concern for the MIRV test supporters on Johnson’s executive team at a meeting two days later.

On August 7, 1968, the interagency SALT group—intended to coordinate the US government’s efforts in the upcoming strategic arms limitation talks—convened. In part because of Kleiman’s incisive editorial, the meeting records have a conspiratorial feel. Following discussion of the upcoming SALT talks, Secretary of Defense Clark Clifford left the room to take a phone call. Thereupon Navy Secretary Paul Nitze “introduced this item, which had to do with the US MIRV test program.” The memo Nitze sprang presented arguments in favor of proceeding with MIRV testing, but omitted counter-arguments. Indeed, the prominent inclusion of a ‘Press Policy Guidance’ section is the only tacit acknowledgment in the document that opposition to

33 Kleiman, Robert. “MIRV’s First Test and the Missile Freeze.” *The New York Times*. August 5, 1968.

34 The only obvious shortcoming in the editorial appears in the section on the verification problems MIRVs pose. It focuses on satellite observation rather than telemetry, which was more useful for learning about adversary MIRV capabilities. This is a nit-picky point.

MIRV even existed. Soon, Secretary of State Rusk referenced the Kleiman editorial, observing that “there was some belief, for example in the recent *Times* article, that starting the testing of MIRVs forecloses the possibility of ever prohibiting them.” This intervention drove his suggestion that a written statement following the tests might be preferable—less noticeable—than a press conference held by Clifford or a DOD press officer.

Having sidestepped the fundamental questions—whether the president would want a MIRV test, and whether proceeding was in the national interest, AEC Chairman Glenn Seaborg and Dean Rusk pushed the meeting to its conclusion: “I [Seaborg] said it should be remembered that the AEC has an accelerated, or crash program, for the construction of the nuclear warheads for the MIRVs, for Poseidon and for Minuteman III, and that authorization and commitment has already been undertaken for hundreds of millions of dollars worth of construction for this purpose, which is already underway.” Next Rusk asked “whether anyone was suggesting a postponement of the MIRV tests, and it was apparent that no one was suggesting such a postponement. [...] Rusk suggested that DOD try to issue the most unexciting press announcement possible, and as soon as possible.”³⁵ They had decided to proceed—quietly—with the MIRV tests slated to take place less than ten days hence, on August 16, 1968.

The skulduggery continued in the days leading up to the Poseidon C-3 and Minuteman III tests. In an August 12 memorandum to Walt Rostow, NSC staffer Spurgeon Keeny told his boss “As you know, the latter point has been made a major issue by Senator McCarthy and Bob

³⁵ For meeting notes see Notes of Meetings from Glen Seaborg Journal. August 7, 1968. FRUS 64-68 v. 11 d. 266. <https://history.state.gov/historicaldocuments/frus1964-68v11/d266>. For the Nitze memo see Memo by John S. Foster, Jr. to Mr. Clifford, Mr. Nitze, General Wheeler, Dr. Brown, Mr. Warnke, and Dr. Halperin on the MIRV (Multiple Independently Targetable Reentry Vehicle). Topics include: explanation of the MIRV; development reasons; objectives of test program; schedule of firings; probability of success; press policy guidance. Department Of Defense, 6 Aug. 1968. U.S. Declassified Documents Online. Document No. CK2349115256. tinyurl.galegroup.com/tinyurl/5E8kG8.

Kleiman (New York Times), among others, on the grounds that the successful test of a MIRV would make a strategic freeze impossible. It was agreed [at the interagency SALT group meeting] that, on the contrary, quite aside from security considerations, a unilateral moratorium on such testing at this time could hurt the prospects for an agreement by its effects on the attitudes of both Congress and the Soviets.”³⁶ While this sunny description states that the anti-MIRV views that Kleiman represented were given serious consideration at the interagency SALT group meeting, AEC Chairman Seaborg’s account of the meeting holds no such suggestion. The careful deliberation that Keeny described never took place.

At the Pentagon, in a staff meeting that same day, Defense Secretary Clifford twice emphasized his concern about the kind of leaks that Kleiman relied upon for his editorial. Pointing to apparently leaked information in a recent *Washington Post* article, Clifford told his staff that “it will prevent a lot of unnecessary alarms and excursions if we do not talk about the [arms limitation] talks and MIRVs.” Again, as the meeting closed, a Mr. Goulding emphasized that “Our announcement [of the upcoming MIRV tests] was carefully worded and personally approved by Mr. Clifford and Mr. Rusk. The reporters have been after us to see if the actual MIRV is being tested in the Minuteman III and Poseidon tests. We are not going to talk to reporters about this. Mr. Clifford said he welcomed the additional admonition by Mr. Goulding.”³⁷

Consequently, on August 16, 1968, the US successfully conducted its first MIRV tests at the Eastern Test Range near Cape Canaveral, Florida—as quietly as possible. A Minuteman III

36 Memorandum From Spurgeon M. Keeny, Jr., of the National Security Council Staff to the President's Special Assistant (Rostow). August 12, 1968. FRUS 64-68 v. 11 d. 267.

<https://history.state.gov/historicaldocuments/frus1964-68v11/d267>.

37 Secretary of Defense's 8/12/68 staff meeting. Department Of Defense, 12 Aug. 1968. U.S. Declassified Documents Online, tinyurl.galegroup.com/tinyurl/5E8qQ4.

missile released three re-entry vehicles, the Poseidon SLBM released two, and an entirely new kind of strategic capability was unleashed.³⁸

Days later, on August 20, 1968, the Soviets invaded Czechoslovakia, and forced Johnson—to his extreme regret—to scuttle the start of SALT talks, scheduled for the next day.³⁹ Not only had the US crossed a critical threshold without Johnson’s knowledge or consent, but to his deep disappointment, Johnson’s chance to negotiate on strategic arms and thereby durably alter the trajectory of US nuclear posture had disappeared.

5) Conclusion

Between 1963 and 1968, Johnson, aided especially by his influential Defense Secretary Robert McNamara, led an ambitious effort to fundamentally alter the trajectory of US nuclear posture. Given the European Settlement and the loss of the United States’ decisive superiority, Johnson saw risk, rather than reward, in continued US-Soviet nuclear competition.

38 Memo by John S. Foster, Jr. to Mr. Clifford, Mr. Nitze, General Wheeler, Dr. Brown, Mr. Warnke, and Dr. Halperin on the MIRV (Multiple Independently Targetable Reentry Vehicle). Topics include: explanation of the MIRV; development reasons; objectives of test program; schedule of firings; probability of success; press policy guidance. Department Of Defense, 6 Aug. 1968. U.S. Declassified Documents Online. Document No. CK2349115256. tinyurl.galegroup.com/tinyurl/5E8kG8. This document has the Poseidon test scheduled for Thursday August 15. Every other source places both tests on Friday August 16. Most likely, the scheduled 8/15 test was pushed back a day, perhaps due to weather or technical issues, or perhaps because clustering both tests together, on a Friday, could help to minimize publicity.

39 For Johnson’s reaction to Soviet invasion of Czechoslovakia see Prados, John. “Prague Spring and SALT: Arms Limitation Setbacks in 1968.” in H.W. Brands, ed. *The Foreign Policies of Lyndon Johnson: Beyond Vietnam*. Texas A&M University Press, 1999, pp. 30-31. Prados states that Johnson reacted strangely to news of the Soviet invasion, and was slow to digest this new information. He argues that this is evidence of Johnson’s strong desire to pursue arms control, and his extreme disappointment in the face of a last-minute setback. For Johnson’s post-Czechoslovakia efforts to rekindle the SALT talks see Memorandum From the President’s Special Assistant (Rostow) to President Johnson. November 14, 1968. FRUS 64-68 v. 11 d. 292.

<https://history.state.gov/historicaldocuments/frus1964-68v11/d292>; and especially Memorandum From the President’s Special Assistant (Rostow) to President Johnson. December 11, 1968. FRUS 64-68 v. 11 d. 299. <https://history.state.gov/historicaldocuments/frus1964-68v11/d299>. Rostow writes in part that “Every normal argument is for leaving it to Nixon. And that may be the correct course. But it may also be a decision we shall regret more than any other in the years ahead.” Johnson circled the words ‘we shall regret more’ and wrote “I agree” in the margin.

Correspondingly, he sought to advance US security interests through bilateral arms control. This novel Nuclear Security Theory was the core of the Johnson exception.

Yet, obviously, the Johnson exception was exceptional precisely because it did not endure. Johnson's attempt to reconstruct the relationship between nuclear weapons and US foreign and security policy was on its way to being undone even before he left office. In a rare example of important bureaucratic malfeasance, his own executive team pushed MIRV tests that were at odds with his overall goals. More importantly, his Soviet counterparts were understandably skittish about the new kind of relationship that Johnson was apparently trying to forge. Could they rely on his benevolent intentions?

Consequently, Johnson learned the hard way that the road from bitter confrontation to arms control cooperation was longer than his term of office. Within a few short months a new US president, Richard Nixon, would inherit the cards in Johnson's hand—Sentinel, MIRVs, and the arms control enterprise—but he would play them very differently from his predecessor.

Chapter 7) Diplomatic Wallop: Nixon, Nuclear Advantage, and the New Era of Counterforce¹

1) Introduction

Presidents Johnson and Nixon had fundamentally divergent views on US-Soviet relations in the nuclear stalemate, and correspondingly, on posture and the arms race. For Johnson, the arms race was a threat to human civilization, as well as a waste of resources that could be used to buy butter instead of guns. He tried to bend the new Offensive Missile Posture he inherited into a less competitive trajectory. Nixon's view was entirely different. In Nixon's mind, the US and Soviet Union were locked in competition—detente was just a ruse—and in that competition the nuclear balance was an indicator of national strength that could boost or diminish US resolve and influence a wide range of diplomatic outcomes. Nuclear advantage, Nixon believed, permitted the US to walk tall in the world, and get its way, even if decisive superiority over Moscow would remain elusive. Reciprocally, growth in Moscow's nuclear arsenal under Johnson—especially its ICBM force—was alarming to Nixon. These simple beliefs about the foreign policy value of nuclear strength drove Nixon's decisions about the character of the Offensive Missile Posture.

Channeling the president's impulses into weapons systems and war plans—nuclear posture—was the work of his executive team: Henry Kissinger, Nixon's national security adviser and later secretary of state, as well as Defense Secretaries Melvin Laird and James Schlesinger. Using arms control, as well as the MIRV and Sentinel programs inherited from Johnson, Nixon and his team pursued what evolved into an elaborate nuclear posture decision-making process. The Nixon Administration would curtail numerical growth in the Soviet nuclear arsenal via SALT,

¹ My thanks to Fiona S. Cunningham, Frank Gavin, Vipin Narang, Reid B.C. Pauly, Erik H. Sand and members of MIT's Security Studies Working Group for comments that have improved this chapter. Errors are mine.

while leaving the door open to improvements in counterforce weapons technology—where the US has traditionally led—as a way of regaining advantage in the nuclear competition. This process—given life in part by Johnson’s failed arms control gambit—put an end to the MAD acceptant Johnson exception and placed the US on the path to the new era of counterforce.

1.1) Nixon’s Geopolitical Goals

Nixon’s conception of US foreign policy goals was broader than that of his predecessors—especially Johnson. As an experienced politician and former Vice President under Eisenhower, Nixon entered the White House as a comparatively savvy foreign policy operator. Together, he and Henry Kissinger—his foreign policy partner in crime—conceptualized the US-Soviet Cold War as a global competition. By the early 1970s, they believed, it had expanded well beyond its former European borders. Events in the Middle East, Africa, Asia and in Europe all bore on the balance of power. Correspondingly, Nixon and Kissinger believed that success in the Cold War required careful management of this global power balance. This is not to say that ‘traditional’ US foreign policy goals like defense of the US homeland and maintenance of a free and independent Western Europe were unimportant to Nixon. Rather, these concrete goals had been subsumed within a wider ranging struggle for power.

1.2) Threats to Nixon’s Expansive Priorities

Nixon saw the United States’ deficient military capabilities—especially in the nuclear realm—as the greatest threat to the advancement of his foreign policy goals. Nixon believed that the Cold War was a global struggle that the US needed to contest on multiple fronts. Consequently,

his view was that military advantage—including counterforce—could tip the balance of power. Crucially, the value of this advantage was not principally military, but rather political. Having a militarily decisive counterforce capability may have been desirable, but given that it was impossible, any counterforce capability was more politically useful than none. Possessing a preponderance of power, he believed, could support US goals in ordinary negotiations as well as in deep crises. This power could be useful and influential even if it was never even brandished. The simple fact of US military might could bolster what Nixon once called its ‘diplomatic wallop.’ This perspective explains Nixon’s near obsession with what he viewed as the poverty of his nuclear inheritance from Johnson.

1.3) Nixon’s Nuclear Inheritance

Nixon took a dim view of the nuclear capabilities and development programs that he inherited from Johnson. The US nuclear arsenal had grown numerically on Johnson’s watch. In fact, in the year that Nixon took office, the US nuclear arsenal contained some 27,552 weapons, down from its 1967 peak of 31,255.² The nuclear triad of bombers, submarines and silo-based ICBMs had settled into the basic shape that it retains today. Moreover, improvements in US satellite and airborne intelligence gathering had substantially improved the United States’ ability to find and target fixed sites—factories, missile silos, command bunkers and the like—even deep within the Soviet interior. Thus, by several important metrics US nuclear forces were in okay shape when Nixon took office.

² Norris, Robert S., and Hans M. Kristensen, “Global Nuclear Stockpiles, 1945-2002.” *The Bulletin of the Atomic Scientists*, 58 No. 6: 103-104.

What then, was the source of his displeasure? It was his belief that the US nuclear arsenal he inherited from Johnson was stagnant in comparison with the Soviet arsenal. This perception of stagnancy had two related aspects. First, despite absolute growth in US nuclear arsenal, Nixon was fixated on the fact that the Soviets were catching up to the US in key areas. For example, in 1969 the USSR possessed nearly 1500 ICBMs as compared with some 1,000 for the United States.³ Never mind that Moscow's nuclear arsenal was only one third the size of Washington's. For Nixon it was the visceral feeling of lost relative strength that mattered. Second, and related, Nixon worried that the weapons programs he had inherited were not capable of rapidly closing this kind of capability gap. Johnson's and McNamara's purposive efforts to restrain the arms race coupled with Vietnam era skepticism on defense spending left Nixon with the ABM and MIRV programs as the only ongoing R&D programs that he could use to advance his ambitious, globe-spanning competitive goals. For Nixon, this lack of dynamism as compared with the Soviets in the nuclear field was both a sign of, and a source of weakness.

1.4) Nixon's Nuclear Security Theory

Nixon took office with expansive geopolitical goals, a profound sense of atrophied nuclear strength and few immediate prospects for regaining it. Consequently, he sought clever ways to make the most of what he saw as a bad hand. Surprisingly, Johnson's abortive SALT talks proved enormously useful in this regard.

Nixon took up the mantle of SALT early in his administration. While arms control was associated detente, in truth his primary goal was not to improve US Soviet relations, but to strike

³ Norris, Robert S., and Hans M. Kristensen, "Nuclear US and Soviet/Russian Intercontinental Ballistic Missiles, 1959-2008." *Bulletin of the Atomic Scientists*, 65 No.1: 62-69.

a SALT deal that would halt or limit the numerical growth of the Soviet nuclear arsenal. Because the Soviet Union was actively producing new weapons—especially ICBMs—this was a sphere of Soviet comparative advantage that Nixon saw as especially threatening. Secondly, Nixon also hoped to strike a deal that would preserve Washington’s ability to exploit its traditional edge in advanced nuclear technology. If the US could not compete with the Soviets in quantity, it would pursue quality instead.

The work of pursuing these twin objectives through arms control was difficult and complex. Bilateral nuclear arms control negotiation was novel, and the road between objectives and outcomes was by no means clear from the outset. The result was a convoluted process in which decisions about SALT and the future of US nuclear posture were practically indistinguishable. Like Johnson, Nixon threatened to field an ABM system as a way of gaining leverage over the Soviets. Unlike Johnson, he used that leverage to impose numerical limits on the rapidly growing Soviet arsenal, while preserving the United States’ ability to develop and field such counterforce-enabling technologies as MIRVs, high-yield miniaturized warheads, quiet submarines, and accurate missile guidance systems. As a result of these decisions, Nixon reversed Johnson’s efforts to curtail the Cold War arms race, altered the comparatively benign character of the Offensive Missile Posture and placed US nuclear posture on a trajectory towards the new era of counterforce.

2) Nixon’s Diminishing Diplomatic Wallop

Nixon’s preoccupation with the US-Soviet nuclear balance predated his presidency. In a July 19, 1967 pre-campaign speech at the Bohemian Grove bacchanalia—delivered roughly a month

after Johnson's failed Glassboro Summit—Nixon invited his audience to “look at the balance of power in the world. Twenty years ago the United States had a monopoly on the atomic bomb and our military superiority was unquestioned. Even five years ago our advantage was still decisive. Today the Soviet Union may be ahead of us in megaton capacity and will have missile parity with the United States by 1970.”⁴ For Nixon, what was measured—number of missiles, megatonnage or throw weight—was secondary to the visceral feeling of lost strength. Strength was important because it promoted confidence—an important asset for the famously insecure president with ambitious foreign policy goals.

Soon after his inauguration, Nixon's reaction to a February 12, 1969 discussion illustrates the point. Providing an example that would stick in the president's mind, an Air Force briefer told Nixon that “During Cuba: We could win under any circumstances. [...] 5–1 in favor of U.S. preemption. 68–86% U.S. Population Surviving. We had clear advantage, position of strength. But picture has been changed. Today's megaton exchange. They are now ahead or equal.” Soon after, an unnamed admiral observed that “In Soviet perspective: They are way ahead. Thus he may become bolder and more direct in his aggression.” In a telling response, Nixon completed the thought, saying “Because he knows we aren't confident.”⁵ While these assessments of both the Soviet position and the past utility of a preemptive capability that would sacrifice 14-32% of Americans are up for debate, they reinforced one of Nixon's durable beliefs about nuclear weapons, national confidence and diplomacy.

4 Address by Richard Nixon at the Bohemian Club. July 29, 1967. FRUS 69-76 v1 d2.

<https://history.state.gov/historicaldocuments/frus1969-76v01/d2>.

5 Minutes of NSC Meeting February 12, 1969. FRUS 69-76 v. 34 d. 5. <https://history.state.gov/historicaldocuments/frus1969-76v34/d5>.

How could the US regain its confidence despite the stalemate? Certainly not by continuing Johnson's policy of purposive restraint. Later that same month, Nixon revealed his strong desire to regain the strategic advantage. In another telling exchange, JCS Chairman Earle Wheeler argued that "If I thought technically, fiscally feasible to ABM defense which gave first strike capability, I would advocate it, destabilizing or not. Wouldn't bother me." Nixon's response? "Wouldn't bother me either."⁶ Given the choice, Nixon wanted aggressive nuclear capabilities.

Like Johnson, Nixon did not believe in the military efficacy of defenses. But unlike Johnson, he wanted to claw back as much of Washington's lost 'decisive' first strike advantage as he could—even if regaining a decisive, and therefore usable capability seemed impossible. Against the background of these conflicting martial concepts, Nixon's belief in the diplomatic utility of nuclear strength drove his pursuit of counterforce within the Offensive Missile Posture.

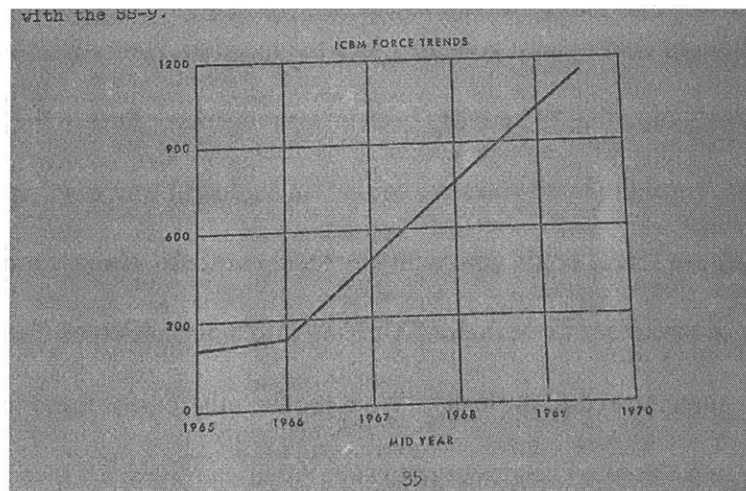


Figure 1. Graph from Defense Secretary Melvin Laird's first Annual Defense Department Report depicting one of the Nixon Administration's primary concerns: numerical growth in the Soviet ICBM force. From "Statement of Secretary of Defense Melvin P. Laird Before a Joint Session of the Senate Armed Services Committee and the Senate Subcommittee on the Department of Defense Appropriations on the FY1971 Defense Program and Budget." February 20, 1970, p. 35. Author's personal collection, courtesy of Stephen Van Evera.

6 Minutes of a National Security Council Meeting. February 19, 1969. FRUS 69-76 v. 32 d.5. <https://history.state.gov/historicaldocuments/frus1969-76v32/d5>.

U.S. vs. SOVIET INTERCONTINENTAL STRATEGIC OFFENSIVE FORCES				
	1 Sep 1968		1 Sep 1969	
	U.S.	Soviet	U.S.	Soviet
<u>ICBM Launchers a/ b/</u>	1,054	900	1,054	1,060
<u>SLBM Launchers c/</u>	656	45	656	110
Total Launchers	1,710	945	1,710	1,170
<u>Intercontinental Bombers d/</u>	646	150	581	140-145
<u>Total Force Loadings a/</u>				
Weapons b/	4,200	1,100	4,200	1,350

Figure 2. Table from Laird's 1970 Annual Defense Department Report illustrating another core Nixon Administration concern. The Soviet arsenal was growing in size, but because of Johnson's policies, the United States' was not. From "Statement of Secretary of Defense Melvin P. Laird Before a Joint Session of the Senate Armed Services Committee and the Senate Subcommittee on the Department of Defense Appropriations on the FY1971 Defense Program and Budget." February 20, 1970, p. 102. Author's personal collection, courtesy of Stephen Van Evera.

An August 13, 1971 NSC meeting on defense strategy shows how the various elements of Nixonian nuclear thought coalesced. Launching into the meeting, Henry Kissinger opened with the now familiar observation that "There has been an extraordinary shift in the strategic balance since the mid-1960's. Until the late 1950's we could win a general war whether we struck first or not. Our general purpose forces could deal with any local conflict—Cuba, for example. But today Soviet strategic forces are far stronger." Delving into a discussion of then-current US strategic forces, Kissinger asked rhetorically "What are the missions of these forces? They are: deterrence; second-strike assured destruction; to save American lives; a China ABM against small attacks; some counterforce capability (particularly against Communist China); also strategic interdiction against non-urban targets. In fact we have no disarming capability against the USSR but we do have some against China. [...] As long as we have a disarming capability we can use it to regulate their [China's] actions in local situations." Thus, Kissinger's overall

view was that the US could undertake both the counterforce and urban/industrial attack missions, but that the desirable counterforce mission was mainly viable against China as a result of the Soviet Union's growing retaliatory capability.

Proffering his own simplistic synopsis of the discussion, Nixon declared that "The main purpose of our forces is diplomatic wallop. [...] We can't separate diplomatic power from the ability to deny to the other side an ability to win a war without irreparable losses." Referring to SALT, he proffered that "We are in a position to have in effect a two-stage policy: To give hope that we are negotiating and maybe in the long-run can reduce our military burden. But at the same time we know we couldn't have come this far without a credible military posture—[...] Any possibility for continued progress in the future with the USSR and China—who are continuing to build their military strength—will depend on our military strength."⁷

Unpacking this exchange yields three useful insights. First, it highlights the complementarity in Nixon's and Kissinger's approach to posture decisions. Nixon simply desires 'diplomatic wallop,' while Kissinger better understands how to acquire it. Second, it underscores the gap between Nixon's public support for detente and his private competitive instincts. Third, it shows the circular relationship that Nixon believed existed between 'diplomatic wallop' and the strategic balance, in the context of SALT. While SALT would have been a cooperative enterprise under Johnson—aimed at curbing the arms race—for Nixon it was inherently competitive. The United States' overall goal was to gain and maintain diplomatic strength to advance its ambitious goals. Strength in turn was a product of the US-Soviet nuclear balance. The SALT talks were

7 Memorandum of Conversation at NSC meeting on defense strategy. August 13, 1971. FRUS 69-76 v.1 d. 96. <https://history.state.gov/historicaldocuments/frus1969-76v01/d96>. For the manifestation of these general concerns in NATO policy see Sayle, Timothy. *Enduring Alliance: A History of NATO and the Post War Global Order*. Ithaca, Cornell University Press, 2019, pp. 171-173.

therefore an opportunity for Nixon. They could lead to a deal that benefited the US by curtailing the rapidly growing Soviet nuclear arsenal. Yet just as SALT could yield diplomatic benefits for the US in the form of nuclear strength, nuclear strength was a key ingredient in successful SALT diplomacy. The appearance of nuclear strength during the negotiations could lead to a relatively advantageous agreement for the US, which in turn could produce additional gains—nuclear power and diplomatic wallop—in the future.

Nixon came close to articulating the recursive logic behind SALT somewhat more clearly in a St. Patrick's Day 1972 meeting—just over two months before he concluded the May 1972 SALT I and the ABM Treaties with Moscow. “Our position with respect to the Soviets has steadily eroded since 1961–62” Nixon argued. “It’s not going to change much. We have the only ABM—which won by 1 vote—as the only new weapons systems in 10 years.” The Safeguard ABM system that Nixon referenced was one of his primary sources of leverage during the negotiations. Moreover, because of progress in MIRV deployment and improvement that had taken place by 1972, “Our programming position may be better now than later.” But this was far from assured, therefore “It may be the last time we are able to look at them from a position of relative strength.”⁸ Nixon believed the US had to use this opportunity to make one last hard push to conclude a deal with the Soviets in May that would limit Soviet strengths and preserve American advantages. This circular dynamic helped make counterforce central to the Offensive Missile Posture going forward.

8 Memorandum for the Record of NSC Meeting on SALT. March 17, 1972. FRUS 69-76 v. 32 d. 240. <https://history.state.gov/historicaldocuments/frus1969-76v32/d240>.

3) Posture Decisions in the SALT Arena

The November 1969 – May 1972 Strategic Arms Limitation Talks were the arena in which Nixon both leveraged and pursued the relative nuclear strength over the Soviet Union that he thought would help preserve US interests. The talks were the context in which Nixon and Kissinger engaged with nuclear posture issues. Therefore, understanding SALT is central to understanding the origins of the new era of counterforce. SALT did not influence Nixon's underlying beliefs about the feasibility and desirability of nuclear advantage within the US-Soviet stalemate, but it did inform the way he pursued it. After SALT, fielding better weapons with improved and increasingly flexible counterforce capability, rather than simply more weapons, would become a durable trend in US nuclear posture.⁹

As the talks proceeded Nixon—advised by Kissinger and Laird—made three important nuclear posture-related decisions. First, less than two months after taking office, on March 14, 1969, Nixon announced his plan to field the 'Safeguard' ABM system, in a continuation of Johnson's ABM lever strategy. Second, Nixon continued work on MIRV systems, ultimately deploying the world's first MIRVed ICBMs and SLBMs in December 1970 and March 1971 respectively. This improved US military capabilities, but equally importantly for Nixon, it also bolstered the US negotiating position in SALT. Third, in February 1972—three months before the SALT talks were expected to conclude—Nixon approved the Trident SLBM program as part of a gambit to maintain pressure on the Soviets in the SALT endgame. Thus, for a time, the SALT negotiations, not some future nuclear conflict, had become the primary arena in which the

⁹ Niccolo Petrelli and Giordana Pulcini independently derived the same basic conclusion about Nixon's desire to compete qualitatively Moscow. See Pulcini, Giordana and Niccolo Petrelli. "Nuclear Superiority in the Age of Parity: US Planning, Intelligence Analysis, Weapons Innovation and the Search for a Qualitative Edge 1969-1976." *International History Review*, Vol. 40 No. 5, (2018) pp. 1191-1209.

utility of US nuclear forces was measured. And surprisingly, this strategy appeared to work—both in SALT and afterwards. The result was a SALT agreement which “was clearly to the advantage of the United States.”¹⁰

3.1) Some Folks Trust to Reason, Others Trust to Might: The ABM Lever Redux

In strong contrast to his predecessor, Nixon did not regard arms control itself as a desirable goal.¹¹ Rather, it was an instrument that he sought to use to secure strategic advantage. Thus, before proceeding with the talks that Johnson had teed up, Nixon sought to equip himself with a lever that he could use to get what he wanted. The handiest lever available was Johnson’s Sentinel ABM program. Johnson had apparently used it to good effect with the Soviets. Nixon thought that he could as well.

Weeks after Nixon’s inauguration, on February 6, 1969, Secretary of Defense Laird ordered a halt to the Sentinel program as the new administration evaluated how it could be harnessed to Nixon’s goals.¹² Within the Defense Department, this review was led by Deputy Secretary of Defense David Packard. It provides an early and comparatively accessible example of the byzantine debates that would come to characterize the SALT process. According to a March 5, 1969 NSC memo, the DOD study centered on four ABM options. 1) A costly ‘thick’ defense of US cities against the Soviets. 2) A ‘thin’ defense against Chinese ICBM attack, similar to Sentinel. 3) ‘Modified Sentinel’—DOD’s preferred option. 4) No missile defense at all.

10 Gaddis, John L. *Strategies of Containment*. Oxford University Press, 2005. p. 322.

11 See e.g., Letter from President Nixon to Defense Secretary Laird. February 4, 1969. FRUS 69-76 v. 1 d. 10. <https://history.state.gov/historicaldocuments/frus1969-76v01/d10>; as well as Letter From President Nixon to the Head of the Delegation to the Eighteen-Nation Disarmament Conference (Smith). March 15, 1969. FRUS 69-76 v. 1 d. 16. <https://history.state.gov/historicaldocuments/frus1969-76v01/d16>.

12 Spinardi, Graham. “The Rise and Fall of Safeguard: Anti-Ballistic Missile Technology and the Nixon Administration.” *History & Technology* 26, no. 4 (December 2010): 313–34.

Yet upon inspection, the DOD-recommended ‘modified Sentinel’ option was difficult to distinguish from Sentinel itself. With respect to defense of the US Minuteman ICBM force, DOD acknowledged “No real change” from the old system. Modified Sentinel would provide “more extensive area defense in all directions but is thinner in some directions and has some gaps.” Defense of the National Capital Area (NCA) would improve somewhat through the addition of some seventy additional interceptor missiles. Nationally, damage limiting capacity against the Soviet Union for modified Sentinel would be “Still very limited.”¹³ Distinctions of this sort—abstruse and occasionally non-existent—would stoke confusing debates throughout SALT.

Coming out against DOD’s recommended ‘Modified Sentinel’ was Nixon’s science adviser, Lee DuBridge. In a meeting with Nixon less than a week after receiving Packard’s study, “DuBridge opened the subject of ABM and made a strong statement in opposition to deployment.” His reasoning? “the system planned can’t really do the job and it will be at great cost.”¹⁴ Despite the apparent strength of this argument, and its alignment with other anti-ABM arguments dating back to Nixon’s time as Eisenhower’s Vice President—Nixon proceeded to announce his support for modified Sentinel three days later on March 14, 1969.

Nixon was driven not by the convoluted arguments of the DOD or the reasoned argument of DuBridge, but by his belief that having an active ABM program gave him an advantage in the SALT arena. In negotiations, as in warfare, a deception or feint is unlikely to fool the enemy

13 Paper Prepared by the National Security Council Staff. March 5, 1969. FRUS 69-76 v. 34 d. 18. <https://history.state.gov/historicaldocuments/frus1969-76v34/d18>.

14 Memorandum for the President’s File by the President’s Assistant (Haldeman). March 11, 1969. FRUS 69-76 v. 34 d. 23. <https://history.state.gov/historicaldocuments/frus1969-76v34/d23>. This conversation is also referenced in Spinardi, Graham. “The Rise and Fall of Safeguard: Anti-Ballistic Missile Technology and the Nixon Administration.” *History & Technology* 26, no. 4 (December 2010): 322.

unless the commander expends enough resources to make it appear real. Nixon therefore needed a convincing enough strategic rationale for his ABM system to muster Congressional funding.

This argument is borne out by Nixon's actions and statements in the days leading up to the March 14 ABM announcement. Speaking with Kissinger following the DuBridge meeting, Nixon asked "whether he [DuBridge] understands it is a defense against the Chinese even though it is deployment for purposes of defending Minuteman." Going on to plumb an apparent gap between Defense Department and DuBridge's views on ABM, as well as the views of possible Senate supporters, "President said what he needs to know is what could be done short of deployment which would still give us something."¹⁵ In a confusing monologue, Nixon was trying to juggle justifications for his ABM program in the hopes of finding one or more that would win Congressional approval.

Three days later, on the morning of his announcement, Nixon invited members of the Congressional leadership to the White House to lobby for their support. After walking through the range of DOD-presented options, Nixon told the assembled legislators that "the best interests of our country" and the "minimum essential to our security dictate the course he has decided upon." Parrying a question from Senator Fulbright who wondered "couldn't we double that Polaris Fleet?" to "insure the credibility of the United States deterrent force?" Nixon argued disingenuously that building offensive missiles would be provocative, but an ABM would not. In response, Fulbright jocularly and insightfully suggested that "the only reason the ABM wouldn't be provocative is that the Soviets wouldn't think it would work." Within hours, Nixon publicly announced that the US would build the 'Safeguard' ABM system—'modified Sentinel' re-

¹⁵ Memorandum for the President's File by the President's Assistant (Haldeman). March 11, 1969. FRUS 69-76 v. 34 d. 23. fn 2. <https://history.state.gov/historicaldocuments/frus1969-76v34/d23>.

christened by an eager staffer during the Congressional leadership morning meeting.¹⁶ Nixon, not Pentagon bureaucrats or the military services was leading the charge on this important aspect of US nuclear weapons policy.

Recounting these events in his memoirs, Nixon would argue that “I thought the Soviets’ primary interest in opening arms negotiations at that point was that without an ABM we would be in a disadvantageous negotiating position.”¹⁷ Like Johnson, Nixon was feinting in the direction of a return to the defense nuclear mission. Not because it was militarily feasible, but because of the effects he believed it would have on the Soviets in SALT.

Nixon’s interest in maintaining whatever leverage Safeguard gave him continued after his March 14, 1969 announcement of the program. During summer 1969, controversy surrounding ABM peaked when Safeguard came up for debate in the Senate and Massachusetts Senator Edward Brooke used the occasion to push for a MIRV testing moratorium. Nixon’s weak assurance that “We are considering the possibility of a moratorium as part of any arms control agreement” coupled with a decisive vote from Vice President Spiro Agnew pushed the 51-49 vote in Nixon’s favor.¹⁸ Once again reflecting in his memoirs, Nixon argued that “I am absolutely convinced that had we lost the ABM battle in the Senate, we would not have been able to negotiate the first nuclear arms control agreement in Moscow in 1972.”¹⁹

16 Memorandum From the President’s Special Assistant (Buchanan) to President Nixon. March 14, 1969. FRUS 69-76 v. 34 d. 24. <https://history.state.gov/historicaldocuments/frus1969-76v34/d24>. Note the similarity between the origins of the ‘Safeguard’ and “Poseidon’ monikers.

17 Nixon, Richard M. *RN : The Memoirs of Richard Nixon*. New York : Grosset & Dunlap, 1978. pp. 415-416.

18 See Editorial Note. FRUS 69-76 v. 32 d. 18. <https://history.state.gov/historicaldocuments/frus1969-76v32/d18>; as well as Goodby, James E. *At the Borderline of Armageddon : How American Presidents Managed the Atom Bomb*. Lanham, Md. : Rowman & Littlefield, 2006, p. 95. Goodby overstates Nixon’s interest in a MIRV moratorium.

19 Editorial Note. FRUS 69-76 v. 32 d. 18. <https://history.state.gov/historicaldocuments/frus1969-76v32/d18>. FRUS cites Nixon, *ibid* pp. 415-418.

Unwilling to let up pressure on the Soviets following his narrow legislative success and the opening round of SALT talks in Helsinki, in early 1970 Nixon chose to press on with Safeguard, moving the project into 'phase II.' In a December 30, 1969 telephone conversation Deputy Secretary of Defense David Packard told Henry Kissinger: "I wanted to chat about Safeguard. We have got things worked out here so there are two courses we can go. Wanted to get your advice which way the President wants to go. One, is to take the next step with two additional sites going toward full 12 deployment with some emphasis on the area defense capability. Also going to include some money for R&D to upgrade Minuteman defense in case we need it. Involves \$1-1/2 billion in authorization and about \$900 million in expenditures. The other course would be to simply go ahead with phase 1 but put R&D toward area defense." Channeling Nixon, Kissinger replied "I am practically certain he wants the first course you mentioned. He wants to get into phase 2 if only for bargaining effect." Less than a month later, at a January 23, 1970 NSC meeting, Nixon affirmed this position and the SALT motive behind it, stating that "I don't want there to be any doubt that I'm committed to area defense. In terms of negotiations, I feel we must go forward with the plan."²⁰

Thus, Nixon's support for Safeguard—and by extension, his public advocacy for the defense mission that had been abandoned by Kennedy—did not stem from a belief that ABM defense was feasible. In fact, based on his March 1969 conversation with his science advisor, Dubridge, Nixon seems to have understood that it was not. Correspondingly, his support for the Safeguard system was based upon its utility as a negotiating lever, not as a military weapon.

²⁰ For 12/30/69 conversation see Transcript of Telephone Conversation Between the President's Assistant for National Security Affairs (Kissinger) and the Deputy Secretary of Defense (Packard). December 30, 1969. FRUS 69-76 v. 34 d. 113. <https://history.state.gov/historicaldocuments/frus1969-76v34/d113>. For 1/23/70 NSC meeting, see Editorial Note. FRUS 69-76 v. 32 d. 50. <https://history.state.gov/historicaldocuments/frus1969-76v32/d50>.

3.2) *Preserve the MIRV*

Safeguard, like Sentinel before it, was a paper system that would not be fielded for several years—if ever. In contrast, when Nixon entered office he inherited two live MIRV programs—Poseidon C3 and Minuteman III—that were in testing, and promised to deliver fieldable weapons soon. The Soviets, on the other hand, were still testing the simple MRV capability that the US had mastered in its Polaris A-3 missile five years earlier.²¹ While the Soviets were building more missile launchers, the US was developing the ability to launch more warheads with existing launchers. Consequently, Nixon took steps early in the SALT talks to preserve the United States edge in this one field—MIRV technology—where he believed the US had a true military and negotiating advantage. US MIRVs would not provide ‘decisive’ superiority that could end the nuclear stalemate, but Nixon believed they could add to US diplomatic wallop.

The question of a MIRV ban had been raised by Senator Edward Brooke in summer 1969 during the Congressional debate over Safeguard. During a June 19, 1969 press conference, Nixon proffered modest support for a conditional moratorium on MIRV testing during the upcoming SALT talks.²² In private, however, Nixon had decided that he wanted no such thing.

In an NSC meeting the day before his press conference, Nixon asked “Why is MIRV important? Forget payload; enough is enough. Is it because we can hit the additional targets? Is that what it comes down to?” In response to this simple but important question, Nixon received answers that covered the full range of justifications for MIRV. Alluding to their utility for

21 For Soviet MRV test see Memorandum From Secretary of Defense Laird to President Nixon. April 21, 1969. FRUS 69-76 v. 34 d. 26. <https://history.state.gov/historicaldocuments/frus1969-76v34/d26>. For Polaris A-3 deployment see MacKenzie, Donald A. *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance*. MIT Press. Inside Technology. Cambridge, Mass: MIT Press, 1993, pp. 258-259.

22 Goodby, James E. *At the Borderline of Armageddon: How American Presidents Managed the Atom Bomb*. Lanham, Md. Rowman & Littlefield, 2006, pp. 94-95.

offensive counterforce, JCS Chairman Earle Wheeler replied “Targets. We can get good accuracies on MM III.” He went on to observe that they were also useful for penetrating Soviet ABM defenses: “Our MIRV’s clusters can’t be killed with one warhead.” As if trying to stake out a middle ground while nodding to MIRVs’ counter-city role, Secretary of Defense Laird observed that “They can’t read our program as having hard target capability.”²³ In the words of political scientist Ted Greenwood, MIRVs had “something for everyone.”²⁴

This included the President. Characteristically summing up his own takeaways from the exchange, Nixon posited that “It all comes down to diplomacy as we all know. First strike, counterforce can be an asset.”²⁵ Thus, Nixon’s June 19, 1969 press conference the next day was perhaps the first time that he disingenuously presented himself as open minded on a MIRV ban.

The second time was far more consequential. In fact, Nixon used it to halt serious discussion of a MIRV ban in SALT. Despite Johnson’s desire to limit the arms race, banning MIRVs became difficult after the August 16, 1968 tests due to verification challenges. Nixon sought to use these challenges to guarantee the United States’ ability to compete with the Soviets through MIRVing.

The first round of SALT talks took place in Helsinki from November 17 through mid-December 1969. These opening negotiations introduced both delegations to one another, but made no substantive progress. However, two features of this initial foray into SALT are salient.

23 Minutes of a National Security Council Meeting. June 18, 1969. FRUS 69-72 v. 32 d. 19. <https://history.state.gov/historicaldocuments/frus1969-76v32/d19>.

24 Greenwood, Ted. *Making the MIRV: A Study of Defense Decision Making*. Cambridge, Mass.: Ballinger Pub. Co., 1975, p. 49.

25 Minutes of a National Security Council Meeting. June 18, 1969. FRUS 69-72 v. 32 d. 19. <https://history.state.gov/historicaldocuments/frus1969-76v32/d19>. It is worth noting that Nixon may have been more informed than his question suggests. In a recent memo to Nixon, Undersecretary of State Elliot Richardson made an extremely lucid case that US MIRVs could provide leverage in SALT: ““If the Soviets are to forego construction of more land based hard-site ICBMs and SLBMs and any mobile land based ICBMs, they could understandably ask for some quid pro quo from us. It is hard to see anything in our current programs but the MIRVs which we could offer.” See Memorandum From Acting Secretary of State Richardson to President Nixon on MIRV testing. May 22, 1969. FRUS 69-76 v. 32 d. 9. <https://history.state.gov/historicaldocuments/frus1969-76v32/d9>.

Writing to Nixon in his “last report from Helsinki giving my personal impressions,” lead SALT negotiator Gerard Smith told Nixon that “They appear to be seriously interested in avoiding an ABM competition,” suggesting, perhaps, that continuing to pursue Safeguard could be a good way to gain leverage.

Crucially, Smith also told Nixon, “Though I don’t know exactly what to make of it, their MIRV silence seems significant.” The Soviets had not yet raised the MIRV elephant in the room with their American counterparts. Providing an anecdote that can only have reinforced Nixon’s strong belief in the ‘diplomatic wallop’ that MIRV could provide, Smith went on to say that “One Soviet official privately said, in effect: You have MIRV, we don’t; so it’s up to you to raise it.”²⁶

Smith did not know exactly what to make of this, but Nixon did. It fed into his belief that US advantages in nuclear technology could drive success in SALT, and by extension, successful post-SALT nuclear competition. This line of thinking informed his approach to the second round of SALT talks, scheduled to begin April 16, 1970 in Vienna.

Two days after presiding over a free-wheeling March 25, 1970 NSC meeting, Nixon issued National Security Decision Memorandum (NSDM) 49, directing “that the Verification Panel prepare four options for his final review and decision concerning the U.S. position in Vienna. The options are: [A] “limited”: Safeguard-level ABM with MIRVs permitted; [B] “comprehensive I”: ABM at zero or NCA [National Capital Area] level with MIRVs permitted; [C] “comprehensive II”: ABM at zero or NCA level with MIRVs banned; [D] “reductions”: substantial phased reductions on each side; MIRVs permitted.”²⁷ Together, these

26 Letter From the Chief of the Delegation to the Preliminary Strategic Arms Limitation Talks (Smith) to President Nixon. December 9, 1969. FRUS 69-76 v. 32 d. 44.

<https://history.state.gov/historicaldocuments/frus1969-76v32/d44>.

27 For 3/25 NSC meeting see Minutes of a National Security Council Meeting. March 25, 1970. FRUS 69-76 v. 32 d. 59. <https://history.state.gov/historicaldocuments/frus1969-76v32/d59>; for NSDM 49 options see National

options would provide the president with a wide range of alternative initial negotiating positions ranging from modest (option A) to quite ambitious (options C and D).

Of these options, only C contained a MIRV ban. As initially drafted by the Verification Panel, this MIRV ban would have been verified only at a distance via ‘National Technical Means’ (NTM)—a term encompassing satellite photography, reconnaissance aircraft and similar means—not via on-site inspections.²⁸ On one hand, this introduced some risk of Soviet cheating, but on the other hand, it would make negotiations on this option far more straightforward in view of Moscow’s strong opposition to the idea of westerners traipsing through Soviet territory and inspecting Moscow’s ICBM silos. Correspondingly, the relative merits of on-site inspection versus NTM for MIRV ban verification became the subject of debate.

During an April 8, 1970 meeting on the upcoming round of SALT, Vice President Spiro Agnew asked “what are the arguments against on-site inspection?” Cutting off Gerard Smith “the President interjected that the answer is that they are oversensitive. They have a closed society. They check us now; we don’t check them. Why should they give in at little cost to us?”²⁹ Nixon was clearly aware of the Soviets’ sensitivity on onsite inspection.

Consequently, he faced a choice. On one hand, he was under some domestic pressure—from the left generally, and in the Senate from people like Senators Brooke and Fulbright—to use SALT to limit MIRV technology. Pursuing this goal would mean finding a way to respond to Soviet sensitivities related to on-site inspection, while guaranteeing that a MIRV ban could be

Security Decision Memorandum 49. March 27, 1970. FRUS 69-76 v. 32 d. 61.

<https://history.state.gov/historicaldocuments/frus1969-76v32/d61>. Note that NSDM 49 did not refer to these options by letter. The letter designators were used in subsequent memoranda and discussion, and are introduced early here for clarity.

²⁸ Newhouse, John. *Cold Dawn: The Story of SALT*. Holt, Rinehart and Winston, 1973, pp. 180-181.

²⁹ Memorandum of Conversation at NSC meeting on SALT. April 8, 1970. FRUS 69-76 v. 32 d. 65.

<https://history.state.gov/historicaldocuments/frus1969-76v32/d65>.

reliably verified. This would be difficult, but not impossible.³⁰ If Nixon had wanted such an agreement, he could have worked at it. Instead, he used the Soviet allergy to on-site inspection to force them to reject the MIRV ban that he himself hoped to avoid.³¹ In so doing, he preserved a key US nuclear advantage.

Following the NSC meeting, Nixon issued his decision. He ordered the Verification Panel's original version of option C redrafted to include a mandate for onsite inspections.³² On its face, this could be interpreted as evidence of Nixon's justifiable aversion to the risk of Soviet cheating. However, the argument that he wanted to force the Soviets take the MIRV ban off the negotiating table as soon as possible is supported by his behavior at a meeting with his negotiating team on April 11, 1970, days before they departed for Vienna.

Nixon "introduced the meeting by informing the group that he had selected the broader option [C] with the back-up to include Option D rather than the more restricted option [A or B] to provide a more flexible far-reaching initial U.S. position." By making Option C, which included a MIRV ban, the United States' opening gambit in SALT Nixon could gain credit for having tried to limit this new technology. At the same time, discussion at this April 11 meeting indicates that he was clearly aware that Soviet opposition to the on-site inspection requirement that he had inserted would kill option C's chances.

Former Ambassador to the Soviet Union and SALT negotiator Llewellyn Thompson told Nixon "that Option C appeared to him to be the most promising from the Soviet perspective

³⁰ See e.g., Memorandum From Frank Perez of the Bureau of Intelligence and Research to the President's Assistant for National Security Affairs (Kissinger) on MIRV verification. July 23, 1969. FRUS 69-76 v. 32 d. 29. <https://history.state.gov/historicaldocuments/frus1969-76v32/d29>.

³¹ This interpretation of Nixon's behavior is shared by Newhouse, *ibid*, pp. 180-181, and borne out by the evidence below.

³² For finalized text of negotiating instructions including on-site inspection requirement, see National Security Decision Memorandum 51. April 10, 1970. FRUS 69-76 v. 32 d. 68. <https://history.state.gov/historicaldocuments/frus1969-76v32/d68>.

although they will most likely react strongly against the inspection requirements.” Circling back to this topic following a discussion of Congressional involvement in SALT, “The President asked Ambassador Thompson to comment on the Soviet fixation for secrecy in its society.” In response, “Both Thompson and Nitze discounted the McCauley argument [that the Soviet Union would lose its secretive bearing as it grew in strength] on the grounds that Soviet secrecy is really party policy.” Signaling his agreement, “The President replied that his reading of Russian history confirms that things have not changed very much over the years and that a recent book he was reading by Tolstoy confirmed that he had censorship problems of his own.”³³

Nixon fully understood the Soviets’ aversion to on-site inspection, and in the second round of SALT—just as the US and Soviet negotiating teams began to really grapple with the issues—he used this aversion to end talk of a MIRV ban. Days later in Vienna, on Nixon’s instructions, “The Americans wasted little time in offering Option C,” and as he had hoped, “their Russian colleagues wasted still less time in refusing it.”³⁴

As a result of Nixon’s clever gambit, at an early stage in SALT the US had secured the freedom to press onward with its work on MIRVs—which it did. By the end of the year, the Minuteman III—the world’s first MIRVed ICBM—became operational and went on alert. Scarcely three months later, by March 1971, it was joined by the world’s first MIRVed SLBM, the Poseidon C-3. For comparison, the Soviet Union did not match these feats until 1975 and 1978, respectively.³⁵

33 Memorandum of Conversation of Meeting Between SALT Delegation and the President. FRUS 69-76 v. 32 d. 69. <https://history.state.gov/historicaldocuments/frus1969-76v32/d69>.

34 Newhouse, John. *Cold Dawn: The Story of SALT*. Holt, Rinehart and Winston, 1973, p 183.

35 Schilling, Warner R. “U.S. Strategic Nuclear Concepts in the 1970s: The Search for Sufficiently Equivalent Countervailing Parity.” *International Security* 6, no. 2 (1981): 48–49.

3.3) *Yankee Trails*

The continued focus on conventional counterforce via anti-submarine warfare (ASW) that McGeorge Bundy had supported from the first days of the Kennedy Administration bore real fruit by early in the Nixon Administration. In fact, just as Washington and Moscow were preparing to undertake the first round of SALT talks, the Navy demonstrated an emerging ability to seriously degrade the Soviet Union's forward deployed ballistic missile submarine (SSBN) fleet practically on command. This despite the conventional wisdom that SSBNs at sea are practically invulnerable, and therefore can be relied upon as a secure retaliatory force. The Navy's challenge to this conventional wisdom was the hallmark of what the ASW community came to call its 'happy time,' as well as a major factor influencing the US-Soviet strategic balance.

Much as the 1950s saw enormous technical innovation in ASW, the 1960s were a period of significant doctrinal innovation. Running debates within and across the submarine, maritime patrol aircraft (VP) and surface fleet ASW communities about how best to employ new passive acoustic sonars were the primary driver of this innovation. By the mid-1960s, consensus began to solidify around 'the barrier strategy.' According to ASW expert Owen Cote, "The core of the new concept of operation was to place barriers between Soviet homeports and open ocean patrol areas wherever maritime geography made them possible [...] For example, the 'GIUK gap' separating Greenland, Iceland, and the United Kingdom became a key choke point, and the 1965 decision to emplace SOSUS arrays and create a barrier there was part of a general strategy that sought to push SOSUS barriers as far forward as possible. Data from these sensor barriers, as well as high-frequency director finders (HF/DF, pronounced 'huff duff') designed to locate Soviet submarines

by monitoring their radio transmissions, was used to cue sonobouy and torpedo-equipped maritime patrol aircraft or submarines which then prosecuted the track.³⁶

According to then Navy Secretary Paul Nitze, this barrier strategy was remarkably effective. In 1965 congressional testimony, he argued that “Our antisubmarine warfare effort of past years has been more effective than we have sometimes realized. We have had the advantage of training against our own submarine forces, which, as you know, have been in the forefront of both developmental and operational know-how since World War II. Thus, our own peacetime opposition has perhaps been more effective than a real enemy would be.” Moreover, in line with McGeorge Bundy’s 1961 guidance, US ASW efforts were directed squarely at counterforce. In 1964, director of ASW research and development Admiral Edwin Hooper explained that “one would like to destroy those missiles (Soviet SLBMs) or the means of launching them before they are launched, if possible, and if so launched we would like to destroy the missiles immediately and then get those which have not been launched. In other words, missile destruction is considered as associated with the anti-submarine warfare program.”³⁷ By the late 1960s, two decades of sustained technical and doctrinal innovation culminated in the first ever long trail of a Soviet SSBN lurking off of the east coast of the United States.

In early September 1969, the *USS Lapon* departed Norfolk, VA on a mission to hunt Soviet SSBNs in the North Atlantic. *Lapon* was then a relatively new Sturgeon class nuclear powered attack submarine (SSN) equipped with a powerful spherical passive acoustic sonar array in its

36 Cote, Owen. *The Third Battle: Innovation in the US Navy's Silent Cold War Struggle with Soviet Submarines*. Naval War College Newport Papers v. 16. 2003. p. 41. For use of HF/DF in ASW see Sontag, Sherry, Christopher Drew, and Annette Drew. *Blind Man's Bluff: The Untold Story of American Submarine Espionage*. Public Affairs Press, 1998. pp. 76-77.

37 Quoted in Cote, Owen. *The Third Battle: Innovation in the US Navy's Silent Cold War Struggle with Soviet Submarines*. Naval War College Newport Papers v. 16. 2003. pp. 44-45, 51-52.

bow. This new sonar, with its wide angle of ‘view’ was purpose built for covertly stalking enemy submarines at close range.³⁸

As *Lapon* transited the Atlantic, the SOSUS barrier sonar array as well as US P-3 maritime patrol aircraft detected one of the Soviet Union’s new Yankee class SSBNs on its way from its home port to the North Atlantic via the GIUK gap. On September 16, *Lapon*’s commander Chester “Whitey” Mack received word of these contacts. Soon after, over five weeks stretching from roughly September 24 to November 9, 1969, *Lapon* trailed the Yankee submarine, undetected by its prey, at ranges from 3,000 to 5,000 yards only giving up the trail when the Yankee’s strategic patrol came to an end.³⁹ It is difficult to overstate how significant this new capability was for the United States. At the strategic level, it demonstrated the ability to routinely and reliably hold at risk the Soviet Union’s deployed SSBNs, which conventional wisdom held were practically invulnerable. Operationally, lessons learned by *Lapon*’s crew, and the other ASW forces that supported them would be distributed throughout the fleet and further refined in subsequent long trails. *Lapon* had not accomplished a one-off feat. Rather, it had opened the door to a new conventional counterforce capability of national significance.

This fact was not lost on the president and his executive team, then engaged in preparations for the first round of SALT talks. Four weeks into its trail, *Lapon* received a message: “Admiral Moorer states that SECDEF and all in Washington watching operation with special interest and

38 For spherical sonar array description see Cote, Owen. *The Third Battle: Innovation in the US Navy’s Silent Cold War Struggle with Soviet Submarines*. Naval War College Newport Papers v. 16. 2003. pp. 48-50.

39 Sontag, Sherry, Christopher Drew, and Annette Drew. *Blind Man’s Bluf: The Untold Story of American Submarine Espionage*. Public Affairs Press, 1998. pp. 121-139.

notes with great pleasure and pride superb performance of all participants.” After *Lapon* returned to Norfolk, President Nixon awarded her crew a presidential unit citation.⁴⁰

3.4) Trident, China, and Pressing to Close the Deal

Even after the SALT talks proceeded, Nixon sought to increase the bargaining leverage that he believed MIRVs conferred, even beyond simply continuing the Minuteman III and Poseidon C3 missile programs. He pursued this goal despite tight defense budget margins caused by Vietnam spending, and the associated antipathy to defense spending generally. Thus, Nixon had a challenging needle to thread. How could he gain visible, near-term leverage—the kind that could help at SALT now—at low cost? Hinting at the United States’ new ‘long trail’ capability was out of the question. That secret was too vital to give away. The answer was the Undersea Long-Range Missile System, (ULMS), later rechristened ‘Trident.’ To this day, the Trident missile is the world’s best SLBM, and the United States’ most potent counterforce weapon. It had its genesis in Nixon’s effort to close a SALT deal with the Soviets that would halt the growth of their ICBM force and hopefully permit the US to catch up with advanced MIRV technology.

On October 12, 1971, some seven months after the United States’ first Poseidon C-3 equipped submarine went on patrol, Nixon announced that he would travel to Moscow in May 1972 for a summit meeting with the Soviet leadership. The connection between the planned summit and SALT was clear. The race was on to complete an agreement that Nixon and Soviet Premier Leonid Brezhnev could sign in May. If Nixon was to marshal any additional leverage for the talks, he would need to do so quickly.⁴¹

40 Sontag, Sherry, Christopher Drew, and Annette Drew. *Blind Man’s Bluff: The Untold Story of American Submarine Espionage*. Public Affairs Press, 1998. pp. 138-139.

41 Editorial Note. FRUS 69-76 v 32 d. 203. <https://history.state.gov/historicaldocuments/frus1969-76v32/d203>.

Later that month, on October 27, 1971, a conversation between Nixon, Kissinger, and Office of Management and Budget Director George Schultz illustrated Nixon's goals, as well as the constraints within which he was operating. On one hand, public and Congressional support for defense spending was very low. On the other hand, Nixon argued that he and Kissinger were "also extremely interested [unclear] the defense budget and so on. [unclear] And it also will give us a strong bargaining position with the Soviet as we go forward with the arms talks." Thus, Nixon sought to finesse the FY 1973 defense budget to gain maximum negotiating leverage at minimal cost. This was no easy task.

Yet Nixon, Kissinger and Schultz found a solution. Discussing ways to increase the defense department's obligational authority—total available budget—without increasing near-term spending, Schultz observed that "if you want to build up, say, the Navy ships to a greater extent, build more ships, that's the kind of thing that tends to build the obligational authority faster. [unclear exchange] Takes awhile to actually spend it up." This could make the defense budget look fatter, even if actual spending came later.

His mind turning to SALT, Nixon replied "For example, we could build more Polaris." To which Kissinger—more familiar with ongoing weapons R&D programs than his boss—suggested "Well, I think we should push the ULMS development." Failing to mask his ignorance of the program, Nixon responded "The ULMS, as I understand—what the hell is that?" Kissinger informed explained that "ULMS is the larger boat with larger missiles that can operate farther out, which therefore makes a larger area of the world available to you for [unclear]." Crucially, in the context of Nixon's overall goals, approving the ULMS/Trident program could kill several birds with one stone.

First, it leveraged the US advantage in MIRV technology. Second, Soviet attention to this new program could boost US leverage in the rapidly approaching SALT endgame. Third, the ULMS/Trident R&D effort would be low-cost in the near term. It was therefore the kind of thing Nixon wanted to pursue.⁴²

At an NSC meeting on SALT two weeks later, on November 12, 1971, Nixon asked Laird to “determine what range of programs we might pursue to expand rapidly our submarine-launched ballistic missile forces.” After a prod from Kissinger, Laird responded on January 4, 1972. He “concluded that an acceleration of the Undersea Long-range Missile System (ULMS) is the best initiative available now.” Looking to the future, Laird pointed out that ULMS had “growth potential” which “provides us with an option to increase the ULMS operating area if that becomes desirable against advanced ASW [Anti-Submarine Warfare] threats in the 1980s and 1990s.” Laird was foreshadowing what would become the upgraded version of the original Trident C-4 missile—the D-5 which is in service today.⁴³ The next month, on the morning of February 17, 1972, Nixon approved Laird’s proposal to proceed with the ULMS program, and work began on what remains the world’s best SLBM.

42 Conversation with President Nixon. FRUS 69-76 v. 34 d. 199.

<https://history.state.gov/historicaldocuments/frus1969-76v34/d199>. A November 1, 1971 conversation in which Nixon seems to support an ICBM build-up illustrates his limited concern with the details of how he got his SALT leverage. See Conversation Among President Nixon, Secretary of Defense Laird, and the President’s Assistant for National Security Affairs (Kissinger). FRUS 69-76 v. 34 d. 201.

<https://history.state.gov/historicaldocuments/frus1969-76v34/d201>.

43 Memorandum from Phil Odeen to Henry Kissinger on New Ballistic Missile Submarines, with attachments. January 28, 1972. DNSA Doc. No. NT01170. Laird followed up with Nixon on ULMS in a January 26, 1972 memorandum in which he presented five arguments for the program. See Memorandum From Secretary of Defense Laird to President Nixon on new ballistic missile submarine program. January 26, 1972. FRUS 69-76 v. 34 d. 205. <https://history.state.gov/historicaldocuments/frus1969-76v34/d205>.

Later that same afternoon, Nixon left for his historic trip to China.⁴⁴ Though the timing of these two events was probably coincidental, both contributed to Nixon's goal of maintaining pressure on the Soviets. If the Soviets saw warming Sino-US relations, and an active US SLBM program, surely they would be tempted to close a SALT deal while they believed the global balance of power was still relatively favorable to them. At the same time, it is unclear how the logic behind this tactic squared with Nixon's belief that the Soviet Union was rapidly overtaking the US in nuclear strength, and that the US window of opportunity for negotiating from a position of relative strength was closing.

Regardless, there is suggestive evidence that this tactic worked. On March 1, 1972, Kissinger joined Soviet Ambassador Anatoly Dobrynin for lunch to discuss the recent trip to China. A suspicious Dobrynin probed Kissinger, stating at one point "there had to be something more to it, and he wondered whether any agreement [with the PRC] had been made at the expense of the Soviet Union." Likewise, when the conversation turned to SALT, "Dobrynin said that our new submarine program had shaken a lot of people in the Soviet Union, including himself." As the meeting drew to a close, Dobrynin "stressed the need for making more rapid progress [on SALT] and affirmed the extreme interest of the Soviet Union in having a constructive summit."⁴⁵

Surprisingly, by all appearances the combination of the new Trident program and Nixon's trip to China had in fact strengthened the US position in the SALT negotiation endgame.

44 For ULMS/Trident approval, see Memorandum From the President's Assistant for National Security Affairs (Kissinger) to President Nixon. February 17, 1972. FRUS 69-76 v. 34 d. 207.

<https://history.state.gov/historicaldocuments/frus1969-76v34/d207>. For RMN departure to China, see Nixon, Richard M. *RN: The Memoirs of Richard Nixon*. New York: Grosset & Dunlap, 1978, p. 559.

45 Memorandum of Conversation between Henry Kissinger and Anatoly Dobrynin. March 1, 1972. FRUS 69-76 v. 14 d. 54. <https://history.state.gov/historicaldocuments/frus1969-76v14/d54>. For pre-China trip evidence of Soviet concern about ULMS and the SALT talks see also Memorandum of Conversation between Henry Kissinger and Soviet Ambassador Dobrynin. February 15, 1972. FRUS 69-76 v. 14 d. 51. <https://history.state.gov/historicaldocuments/frus1969-76v14/d51>.

3.5) Sealing the Deal

Less than three months later, the SALT agreement was nearly complete. On May 20, 1972, Nixon prepared to depart for Moscow by providing Kissinger's NSC deputy, Alexander Haig, with instructions on how to handle SALT-related issues in his absence. These instructions reveal much about Nixon's views on SALT and US-Soviet relations, and hints at the future shape of the Offensive Missile Posture. "All of us who have worked on this problem know that the deal we are making is in our best interest, but for a very practical reason that the right-wing will never understand—that we simply can't get from the Congress the additional funds needed to continue the arms race with the Soviet in either the defensive or offensive missile category." Therefore, using the third person for some reason, Nixon told Haig that "The most important point to make is that the President is not being taken in and that the military totally supports what we are doing [...] adding that "The most convincing argument you can make to this group is that the President is determined that we must go forward at the fastest pace possible with ULMS, MIRV, B-1 and any new weapon systems not covered by the agreement."⁴⁶

Nixon's instructions to Haig were clearly directed towards selling the SALT agreement. However, to paraphrase Kissinger, the arguments Nixon advanced had the added benefit of being true. Nixon earnestly believed that the arms race was something to be won, not curtailed. And his support for "ULMS, MIRV, B-1 and any new weapon systems not covered by the agreement" was sincere. These weapons, augmented later by the B-2 bomber, MX missile, and new long-range theater nuclear forces for Europe—so-called 'forward based systems' that had been intentionally omitted from SALT—would form the basis of the US nuclear arsenal for the rest of

⁴⁶ Memorandum From President Nixon to the President's Deputy Assistant for National Security Affairs (Haig). May 20, 1972. FRUS 69-76 v. 32 d. 286. <https://history.state.gov/historicaldocuments/frus1969-76v32/d286>.

the Cold War. The SALT agreements were signed on May 26, 1972, in the form of the ABM treaty, as well as an ‘Interim Agreement’ on limitation of strategic offensive arms.

4) ‘Use the Freeze’: Towards the New Era of Counterforce

The conclusion of the ABM treaty and the first SALT agreement in May 1972 finally positioned the US to pursue the nuclear advantage that Nixon had long sought. SALT capped the growth of Moscow’s formidable ICBM force—a major Nixon concern—and allowed the US to improve its nuclear forces by leveraging its technological advantages. Beginning in 1972, that is precisely what the Nixon Administration did. The Nixon team devised more flexible nuclear war plans and more accurate weapons that formed the starting point for the new era of counterforce.

4.1) Towards Improved Counterforce

The May 26, 1972 arms control agreements would have important effects on the US-Soviet nuclear balance and the future of US nuclear posture. First, the ABM treaty strictly limited US and Soviet defenses, formalizing the fact of mutual vulnerability.⁴⁷ With respect to offensive forces, the ‘interim agreement’ as it was known left the Soviets with a 3:2 advantage in missile numbers, and a 3:1 advantage in total megatonnage. On the other hand, the US enjoyed more than a 2:1 advantage over the Soviets in deliverable nuclear warheads in part due to MIRVs.⁴⁸

47 On the US side, an abortive effort to field a treaty-compliant version of the Safeguard ABM system was halted in early 1976 after only six months as a result of well-founded doubts about its effectiveness. Spinardi, Graham. “The Rise and Fall of Safeguard: Anti-Ballistic Missile Technology and the Nixon Administration.” *History & Technology* 26, no. 4 (December 2010): 313–34.

48 Newhouse, John. *Cold Dawn: The Story of SALT*. Holt, Rinehard and Winston. 1973, p. 263.

How did these simple numerical comparisons actually impact the strategic balance? A fulsome answer would require detailed interactive military analysis. However, by all appearances, SALT opened the door to significant US counterforce advantages. It certainly advanced Nixon's desire for diplomatic wallop. According to historian John Gaddis, SALT succeeded in placing a cap on Moscow's rapidly growing missile force which was then Washington's most urgent concern. At the same time, it included no restrictions on bombers, fighter bombers, forward based systems, or missile accuracy—all areas in which the US had an advantage. As a result, Gaddis concludes that "On balance, given trends in strategic weapons development over the previous decade, SALT I was clearly to the advantage of the United States."⁴⁹

Nixon's plan was to leverage these sources of US advantage to improve US counterforce capabilities going forward. He had argued in June 1969—three years before the SALT treaty—that "first strike counterforce can be an asset."⁵⁰ And to get counterforce, Nixon understood—at least in general terms—that the US needed MIRVs and missile accuracy.⁵¹ The only question was, would Nixon pursue it? Of course he would, overcoming significant, long-standing opposition from Congress and his own bureaucracy to do so.

Even before SALT was signed, Nixon, Kissinger and Laird set about preparing to boost US counterforce capability.⁵² One component of this effort was Nixon's decision to pursue the

49 Gaddis, John L. *Strategies of Containment*. Oxford University Press, 2005. p. 322.

50 Minutes of a National Security Council Meeting. June 18, 1969. FRUS 69-72 v. 32 d. 19.

<https://history.state.gov/historicaldocuments/frus1969-76v32/d19>.

51 See e.g. an exceptionally lucid memo to Nixon that presented the military ingredients for effective counterforce. Memorandum From the Under Secretary of State (Richardson) to President Nixon. March 25, 1970. FRUS 69-76 v. 32 d. 60. <https://history.state.gov/historicaldocuments/frus1969-76v32/d60>. The author also made this argument to Nixon in person. See Minutes of a National Security Council Meeting. March 25, 1970. FRUS 69-76 v. 32 d. 59. <https://history.state.gov/historicaldocuments/frus1969-76v32/d59>.

52 John Gaddis argues that these efforts were the product of "Laird's maneuvers" behind Nixon and Kissinger's back. The historical record presented below does not substantiate this view. See Gaddis, John L. *Strategies of*

ULMS/Trident system. While the program was justified in terms of submarine survivability—longer range missiles with the same accuracy as shorter range missiles would give the submarines carrying them more ocean space to roam and hide—it would necessarily lead to increased missile accuracy, and therefore counterforce capability at shorter ranges.

After SALT, the Nixon Administration's pursuit of counterforce only intensified. Speaking by phone shortly after his return from the SALT signing ceremony in Moscow, Kissinger jocularly accused Laird of "terrifying" Kissinger's staff in his absence. Kissinger went on to tell Laird that "the President this morning with the [Congressional] Leaders made a very strong pitch on getting new strategic assistance. L[aird]: Well, you see some day I would like to have him come out for the submarine thing. K[issinger]: He came out totally and Stennis promised him he'd push the ULMS. L: Good." As the conversation drew to a close, Laird circled back to Kissinger's comment about his "terrified" staff, inquiring "But we don't have any problems I don't think with your staff. K: Oh, no, I'm just pulling your leg. L: The only thing is that I've been pressing them on being for offensive weapons systems." Alluding to bureaucratic opposition to offensive counterforce capabilities, Laird explained that "They keep sending me the questions over here to various sections about whether they're needed or not and I don't like that." Kissinger replied, reassuringly "Don't worry about it. We're – the President and I are behind it and the staff is just trying to make itself feel important. L: But you understand why I have to press on the ULMS. K: Me, we want you to press for these offensive systems." Ending the call, Kissinger told Laird "The way to use this freeze is for us to catch up. If we don't do this we don't deserve to be in

Containment. Oxford University Press, 2005. p. 321.

office.”⁵³ Kissinger’s message perfectly underscored the profound importance he and Nixon attached to out-competing the Soviets.

This attitude was reflected in Kissinger’s and Nixon’s pro-SALT arguments to Congress. In a June 13, 1972 conversation with members of the Republican Congressional leadership, Nixon posited that “The United States must continue, which means the B–1 program. It must continue with the ULMS program and new submarines. We must continue, of course, with this MIRV program, because the Soviet Union will be continuing with all their modernization and other programs [...]”⁵⁴

Two days later, Kissinger offered similar testimony before the Senate Foreign Relations Committee. Responding to the question “Does the agreement perpetuate a US strategic disadvantage?” Kissinger said no. He argued that “The quality of the weapons must also be weighed. We are confident we have major advantage in nuclear weapons technology and in warhead accuracy. Also, with our MIRV's we have a two-to-one lead today in numbers of warheads and this lead will be maintained during the period of the agreement, even if the Soviets develop and deploy MIRV's of their own.” [...] “Thus the agreement confines the competition with the Soviets to the area of technology. And, heretofore, we have had a significant advantage.”⁵⁵ Crucially, Kissinger’s argument was based on the primary arsenal characteristics—MIRVs and accuracy—that enable counterforce.

53 Memorandum of Telephone Conversation between Henry Kissinger and Secretary of Defense Laird. June 2, 1972. DNSA Doc. No. KA08123. This conversation is also quoted in part in Gaddis, John L. *Strategies of Containment*. Oxford University Press, 2005. p. 322-323.

54 Conversation Among President Nixon, Members of the Republican Congressional Leadership, and Others. June 13, 1972. FRUS 69-76 v. 32 d. 326. <https://history.state.gov/historicaldocuments/frus1969-76v32/d326>.

55 Briefing by the President's Assistant for National Security Affairs (Kissinger) for the Senate Foreign Relations Committee. June 15, 1972. FRUS 69-76 v.1 d. 118. <https://history.state.gov/historicaldocuments/frus1969-76v01/d118>.

4.2) *The Hard Target “Debate”*

Yet efforts by Nixon, Kissinger and Laird to ‘use the freeze’ to Washington’s advantage predictably encountered vocal opposition led by Massachusetts Senator Edward Brooke and lead SALT negotiator Gerard Smith. This opposition was ineffectual, but illustrates Nixon’s commitment to counterforce.

First, on July 21, 1972, Smith called Kissinger to ask “Henry, are you informed on the development in the Department of Defense about proceeding now with a hard target killer for our minuteman as a bargaining chip for SALT II? [...] The arithmetic that my people have done for me indicate that if we go ahead on this line the public position the President has taken just is not going to stand.” Smith was referencing an earlier assertion by Nixon that “our MIRV’s just don’t have the yield or the accuracy” to be effective at counterforce.⁵⁶ Smith was trying to maneuver Nixon into standing by his previous claims that he had no counterforce ambitions for the US.

In what may have been a concerted effort, Senator Brooke wrote to President Nixon on August 7, 1972, presenting a similar argument. Referencing a recent *New York Times* article which posited a “major change in American missile development programs looking toward the development of technology capable of destroying hard targets,” Brooke reminded Nixon that such a change would contravene “the long-standing United States policy of not developing capabilities which the Soviets might construe as threatening to their deterrent.” While Brooke’s synopsis of US nuclear posture history is wrong, he goes on to point to recent statements by Nixon on the subject, including a December 29, 1969 letter that Brooke had extracted from Nixon in exchange for supporting Safeguard. Nixon had written that “there is no current United States program to develop a so-called ‘hard target’ MIRV capability” and that further “the

⁵⁶ Negotiating Strategy for Strategic Arms Limitation Talks II. July 21, 1972. DNSA Document No. KA08386.

purpose of our strategic program is to maintain our deterrent, not to threaten any nation with the first strike.” Both Smith and Brooke were pressuring Nixon to square post-SALT strategic modernization plans with past Administration statements forswearing offensive counterforce.

Brooke’s letter naturally instigated discussion on how to respond. NSC Staffer Phil Odeen wrote to Kissinger on August 10, highlighting the stakes. “The prospect is for a Senate debate, a possible delay on the interim agreements (and hence the ABM treaty) and the possibility that this could become an issue in the campaign.” Odeen argued. Describing the DOD program, Odeen stated that it would “increase MM III yields from 170 KT to 450 – 500 KT. [and] provide for accuracy improvements, through hardware and software improvements, from the present CEP of .16 nautical mile to .075 nautical mile (450 feet).” “Without such capabilities today we can destroy more than 50 percent of the Soviet IBM force and with currently programmed improvements [accuracy] almost 70 percent of the Soviet ICBM force in 1975.” However, implementing the new DOD program and making 1000 Minuteman missiles “high accuracy” and higher yield weapons could reduce the Soviet force of 1600 ICBMs in hardened silos to some 35-115—destroying 93-98% of the original force. If this analysis was correct, US counterforce capability could be massively improved, but the US-Soviet nuclear stalemate would still prevail.

Based on this analysis, Odeen harbored “serious doubts about the value of this program” which were reflected in the response to Brooke that he drafted for Kissinger’s review, and President Nixon’s signature. “In light of the concern expressed in your August 7 letter,” it began, “I would like to reiterate that our strategic policy remains unchanged. It is to maintain a sufficient deterrent to nuclear war and not to threaten any nation with a first strike.” Yet Odeen’s apparent belief that Nixon would avoid anything short of decisive advantage was misplaced. As a

result, Kissinger provided Odeen with a very different response to Brooke, this time to be sent by Secretary of Defense Laird—not the President.

The text of this new draft amounted to a classic non-denial denial. In this letter, Laird was to assure Brooke that “all programs supported by the Defense Department and the Administration are consistent with the defense policies which the President and I, as Secretary of Defense, have enunciated in numerous authoritative statements.” Further, the draft for Laird asserted, “there will be no decisions by this Administration in regard to our strategic forces that would involve either superfluous or provocative programs.” Conspicuously absent from the draft were words like ‘counterforce’ and ‘hard-target capability.’⁵⁷ Brooke’s and Smith’s effort to leverage Nixon using his past statements had failed. Nixon refused to forswear counterforce, and indeed began to move the US decisively into the offensive counterforce posture.

Beaten, when the SALT I ‘interim agreement’ on strategic offensive forces was ratified on October 3, 1972, Brooke voted in favor.⁵⁸

4.3) Counter-China Counterforce

The Nixon Administration’s intertwined decisions about SALT and the future of US nuclear posture were primarily animated by US-Soviet competition. First because Moscow was Washington’s SALT negotiating partner, and second because the Soviet Union was a far more formidable nuclear threat than its nearest rival—China. A SALT outcome that contributed to US diplomatic advantage over the Soviets would almost automatically aid against the weaker

⁵⁷ The Brooke letter, Odeen memo and draft, and final draft for Laird are all contained in Letter From Sen. Edward Brooke to President Nixon on hard target kill capability, and attachments. April 15, 1972. DNSA Doc. No. NT01421.

⁵⁸ “Congress Approves SALT Offensive Arms Agreement.” *In CQ Almanac 1972*, 28th ed., 04-622-04-625. Washington, DC: *Congressional Quarterly*, 1973. <http://library.cqpress.com/cqalmanac/cqal72-1251467>.

Chinese. Regardless, Nixon and Kissinger did not overlook China as they planned to improve its counterforce capabilities following the SALT treaty.

A March 12, 1971 conversation shows that this interest predates the Nixon Administration's post-SALT counterforce improvements. In a meeting on Asia nuclear policy and China, Kissinger observed that "I know there is an extraordinary disparity between our nuclear strength and that of the Chinese. I take it we are assuming that we use nuclear weapons against these 10–25 ICBMs and can be assured of destroying them." The response was redacted, but in a later exchange a CIA representative argued that "The Chinese are likely to launch a pre-emptive attack if they are in danger of losing their strategic force. We know that one of their test sites now has a silo. At some point the Chinese ICBM capability will be ensiloed." Whereupon Kissinger referenced the United States' improving counterforce capability, stating that "By that time our accuracy will be such that it won't make any difference."⁵⁹

The Administration's interest in counter-Chinese counterforce persisted even as Sino-US relations warmed. Soon after returning from his groundbreaking July 1971 secret trip to China, Kissinger wrote to Nixon, laying out his proposed Fiscal Year (FY) 1973 defense program. "The military power of the United States" he argued, "remains an essential underpinning to your foreign policy. [...] In these circumstances, the strategic nuclear forces have three essential missions to perform: Deterrence of the USSR by the assurance of a second-strike capability which will cause unacceptable damage. Deterrence of China by the prospect of highly effective disarming strikes. Reassurance of our allies with the knowledge that, with our large and growing

59 Minutes of Senior Review Group Meeting on Asia Nuclear Policy and China. March 12, 1971. FRUS 69-76 v. 34 d. 181. <https://history.state.gov/historicaldocuments/frus1969-76v34/d181>.

number of deliverable warheads, we can exercise options other than urban/industrial attacks in the event of threats to them or to the United States itself.”⁶⁰

Two features of this argument warrant discussion. First is the attempt—evocative of Eisenhower’s ‘retaliatory offensive striking power’—to elide the dilemmas of counterforce, retaliation and allied assurance by trying to do it all. Second is the much clearer emphasis on maintaining a disarming counterforce capability against China. What should we make of this confusing statement of US nuclear posture priorities? Even as the seeming impossibility of disarming counterforce against the Soviet Union continued to muddle discussion of how the US should posture itself against its main adversary, the desirability of disarming counterforce against smaller, weaker China remained crystal clear.

4.4) A New Era of Counterforce

The pathway to improved counterforce—both against the Soviet Union and China—was now open, and the Nixon Administration proceeded briskly down it. Two modifications to US nuclear posture were important, and both came into view by spring 1974. First was a significant change in US nuclear war plans which resulted in greater flexibility. Second was a series of improvements to US strategic and theater nuclear forces which increased their counterforce capability, and dovetailed with new nuclear employment options.

Nixon and Kissinger’s persistent desire to add new, flexibly usable options to the United States’ main nuclear war plan—the Single Integrated Operational Plan, or SIOP—had been a back-burner issue throughout the SALT process. By early 1974 the administration had produced

⁶⁰ Memorandum From the President’s Assistant for National Security Affairs (Kissinger) to President Nixon. August 1971. FRUS 69-76 v. 34 d. 194. <https://history.state.gov/historicaldocuments/frus1969-76v34/d194>.

new policy guidance for both overall US nuclear strategy—NSDM 242—and nuclear war planning—NUWEP 74. NSDM 242 was completed in January 1974. It called for the development of a series of nuclear employment options that would give the president some flexibility in choosing what kinds of targets to destroy in which countries when ordering a nuclear attack. The immediate operational changes may have been minimal, but conceptually this was a significant departure from earlier versions of the SIOP.⁶¹ NUWEP-74 was the follow-on document that articulated what these options should be. It was completed three months later, in April 1974, but had been in progress for over a year.⁶²

A January 3, 1973 summary by Phil Odeen characterized it as “a radical departure from the current targeting policy—in substance as well as format. The main difference is this: the current policy tries to win a nuclear war through destruction of the enemy’s force and military capability and to limit damage to the US through counter force attacks. The new proposed policy aims at trying to stop the war quickly and at a low level of destruction. Damage to the US is to be limited by controlling escalation.” The way to accomplish this damage limitation by escalation control was through accurate, flexibly employable counterforce missiles. In this connection, “the new draft policy prescribes a wide range of options which fall into four basic classes” ranging from major attack options to regional options. It also emphasized a new goal for urban/industrial attack—counter-recovery targeting aimed at preventing The Soviet economy and society from recovering quickly following a nuclear war.⁶³ The presentation of these options in a national

61 NSDM 242. January 17, 1974. https://fas.org/irp/offdocs/nsdm-nixon/nsdm_242.pdf.

62 Thus the defense secretary with whom it is most associated—James Schlesinger—had little to do with developing the actual policy. See Terriff, Terry, *The Nixon Administration and the Making of US Nuclear Strategy*, Cornell University Press, 1995, p. 187.

63 This document provides an excellent summary of NUWEP 74—albeit as the policy was in draft form. It is worth quoting at length so that it can be used by others. “Recognizing the uncertainty over how a nuclear conflict might start, the new draft policy prescribes a wide range of options which fall into four basic classes. 1. Major Attacks – These are the large war attacks along the line of the current SIOP. There are four options (M1) major Soviet and East

nuclear policy document marked a major step towards the employment planning and operational flexibility that would become a hallmark of the counterforce mission in subsequent decades.

In parallel with efforts to update its strategic nuclear war planning, the US began modernizing its theater and strategic nuclear forces. For example, in March 1973 the US began replacing older Sergeant and Honest John missiles with the more modern Lance.⁶⁴ In early 1974 Secretary of Defense James Schlesinger announced the development of the new Pershing IB missile—an early moniker for the 100 foot accurate counterforce-capable Pershing II missile which, alongside the Ground Launched Cruise Missile (GLCM) and the Soviet SS-20 would be at the center of the 1980s Euromissiles Crisis.⁶⁵ The most comprehensive account of these decisions, by

European GPF and nuclear military forces; (M2) the first option plus counter value political and economic targets; (M3) and (M4) are the same two options but for the PRC rather than the USSR. There are withholds that can exclude targets collocated with major urban areas, targets in any specific country, Moscow and Peking and overflight of the USSR (in the PRC only options.) 2. Selected Attack Options – There are 12 such options. They make a somewhat greater effort to control escalation. The selected attacks are smaller packages of the targets in the major options. [...] In all cases a reserve to carry out the counter value task would be maintained, using survivable forces to discourage the enemy from a major attack on our cities. The major attack options spelled out in the guidelines are: (S1) Soviet nuclear threat to the US (S2) The nuclear threat to NATO. (S3) The nuclear and conventional air threat to NATO. (S4) The conventional ground force threat to NATO. (S5) The naval threat to NATO. (S6) Nuclear defense of NATO without using CONUS based forces. (S7) Soviet nuclear threats to our forces and allies in Asia. (S8) Soviet conventional threat to our forces and allies in Asia. (S9) Soviet air defenses. (S10) PRC nuclear threats. (S11) PRC national civilian and military controls. (S12) PRC conventional threat to US forces and allies. 3. Limited Options – A wide range of limited options are also possible. However, the draft guidance does not really come to grips with this category in the specific terms used for Major and Selected Options. It states that Limited Options should be possible drawing on selected parts of the above options. It also states that these options depend heavily on the scenario, require more study, and may in large part depend on circumstances at the time of war initiation. [...] 4. Regional Options. – These are options in which threats to any region are counted [countered?] by strikes from US nuclear forces in that region. As in the case of Limited Options the guidance is not specific. [...] The guidance provides that general plans should be made for strikes in three circumstances: in response to Soviet nuclear attacks, after a prolonged conventional war and after a short war. [...] The enemy's control over its tactical nuclear forces should be left intact to avoid automatic responses." Analytical Summary DOD Targeting Study Results and Proposals. Attachment to Odeen Memo to HAK of 1/5/73. FJG collection Box 1, first Nixon binder. For another helpful summary of NUWEP-74 see Long, Austin. "Deterrence -- From Cold War to Long War." RAND Corporation 2008, pp. 36-37. <http://www.rand.org/pubs/monographs/MG636.html>.

64 Auten, Brian J. *Carter's Conversion: The Hardening of American Defense Policy*. Columbia: University of Missouri Press, 2008, pp. 72-73.

65 Auten, Brian J. *Carter's Conversion: The Hardening of American Defense Policy*. Columbia: University of Missouri Press, 2008 p. 75.

historian Michael Yaffe, argues that theater nuclear force modernization was undertaken at this point not in response to a NATO or European request, but upon the United States' initiative.⁶⁶

US counterforce improvements were not limited to weapons for European battlefields. US strategic nuclear forces also received substantial upgrades throughout the 1970s and into the 1980s. Indeed, testimony and analysis of the FY 1975 defense budget illustrated the shape of things to come. According to a January 1974 memo, "The budget includes new research and development programs to provide additional strategic forced deployment options for the late 1970s and early 1980s, including: 1. Improvements to the current Minuteman III guidance system. 2. Development of larger warheads for retrofit to current ICBM/SLBMs. 3. Acceleration of the development of a new ICBM with significant improvements in accuracy and warhead design. (Both fixed and mobile versions are being considered.) 4. Testing of a Minuteman III equipped with seven MIRVs. 5. Development of a cruise missile for the B-52, B-1, or other cruise missile carriers."⁶⁷

Schlesinger's FY 1975 Annual Defense Department Report included additional information on these counterforce-enabling initiatives. Addressing Congress, Schlesinger proposed "some additional refinements to the existing Minuteman guidance system" alongside engineering development of a new higher yield warhead for the Minuteman III. This new warhead would become the W78 warhead/Mk 12A re-entry vehicle which is still in use on the Minuteman

⁶⁶ Yaffe, Michael. *Origins of the Tactical Nuclear Weapons Modernization Program, 1969-1979*. Ph.D. Dissertation. University of Pennsylvania, 1991.

⁶⁷Memorandum from Jan Lodal for Henry Kissinger on Trident Slowdown. January 8, 1974. DNSA Doc. No. NT01663. Pulcini and Petrelli likewise locate the dawn of the new era of counterforce in the FY 1975 defense budget. See Pulcini, Giordana and Niccolo Petrelli. "Nuclear Superiority in the Age of Parity: US Planning, Intelligence Analysis, Weapons Innovation and the Search for a Qualitative Edge 1969-1976." *International History Review*, Vol. 40 No. 5, (2018) p. 1201.

missile today. Its sub-730 feet CEP—which has certainly been improved since—provided it with good counterforce capability.⁶⁸

Providing an update on the ongoing Trident program, Schlesinger pointed to “an advanced development program which will define our ability to improve and measure the accuracy of our SLBMs and which, if implemented by retrofit, could lead to improved accuracy in the future.” This Trident Improved Accuracy Program (IAP) was central to the effort to give the traditionally city-busting SSBN fleet a potent counterforce capability.⁶⁹

Looking ahead Schlesinger also requested “about \$37 million in FY 1975 for advanced technology leading to the development of an entirely new ICBM. We are considering the technologies for both a new, large payload fixed-base missile which would be launched from the existing Minuteman silos, and a new mobile missile, either ground or air launched.” “This new system” Schlesinger concluded “plus appropriately sized MIRVs would give the new ICBM a very good capability against hard targets.”⁷⁰ Schlesinger’s request would develop into the MX or Peacekeeper ICBM. His testimony foreshadowed years of ugly debates about how to base it.

These programs, alongside the already progressing Trident SLBM program would provide the backbone for US strategic nuclear forces through the end of the Cold War and in the case of the modernized Trident II D5 and Minuteman III missiles, up to the present.⁷¹

68 For accuracy figure see MacKenzie, Donald A. *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance*. Cambridge, Mass: MIT Press, 1993, p. 428.

69 For Trident IAP see Spinardi, Graham. “Why the U.S. Navy Went for Hard-Target Counterforce in Trident II: (And Why It Didn’t Get There Sooner).” *International Security* 15, no. 2 (1990): 173-177.

70 Report of the Secretary of Defense James R. Schlesinger to the Congress on the FY 1975 Defense Budget and FY 1975-1979 Defense Program. March 4, 1974. pp. 51-56. Author’s personal collection, with thanks to Steven Van Evera. Also available at http://history.defense.gov/Portals/70/Documents/annual_reports/1975_DoD_AR.pdf?ver=2014-06-24-150705-323.

71 For a lucid description of how these programs not only survived the early Carter Administration’s efforts to curtail investment in US nuclear forces, but ultimately won Carter’s strong support, see Auten, Brian J. *Carter’s Conversion: The Hardening of American Defense Policy*. Columbia: University of Missouri Press, 2008.

5) Conclusions:

By 1974—a dozen years after Kennedy abandoned the Maximal Posture—the outlines of an aggressive Offensive Missile Posture had solidified. The US would continue to pursue the counter-city, counterforce, and battlefield missions, having abandoned the defense mission.⁷² Meanwhile, it would continuously improve its counterforce capability through advancements in both strategic and theater nuclear forces. Why would the US invest in counterforce capabilities that were costly, and increased first strike incentives, while forswearing the defenses that at least in theory, could have helped to restore Washington’s decisive nuclear advantage, and made its counterforce threats credible? US nuclear posture defied military logic. Why?

The answer is not some pathology in the military bureaucracy. The answer is that Nixon thought improved counterforce could provide “diplomatic wallop,” and that this was a useful thing to have. Bargaining advantages that accrued from nuclear strength, he believed, could help him advance his expansive geopolitical goals. Correspondingly, from his administration’s earliest days, Nixon and his executive team pursued counterforce advantage through the SALT negotiations with remarkable persistence and creativity. In so doing, they relied on the cards that they had inherited from Johnson—ABM, MIRV and SALT—but they played those cards according to a very different Nuclear Security Theory.

While Johnson had hoped to fundamentally alter the trajectory of US nuclear posture, Nixon succeeded. His Cold War predecessors would build upon their nuclear inheritance from Nixon to pursue Nuclear Security Theories that differed from Nixon’s but shared an emphasis on counterforce.

⁷² The painfully brief six-month Safeguard ABM deployment in 1975-76 is the exception that proves the rule. See Spinardi, Graham. “The Rise and Fall of Safeguard: Anti-Ballistic Missile Technology and the Nixon Administration.” *History & Technology* 26, no. 4 (December 2010): 313–34.

Chapter 8) Fallen Dove: The Abortive Carter Pivot

1) Introduction

Jimmy Carter came to office dovish, detail-oriented and inexperienced, but knowledgeable about nuclear issues through his training as a US Navy reactor officer. This background formed the basis for his abortive efforts to substantially revise US foreign policy and nuclear posture. Consequently, his single term as president provides a compact and vivid illustration of how presidents work to connect nuclear means and political ends.

This is because of the remarkable transformation in Carter's nuclear policy that took place during his first two years in office. As a result of his initial foreign policy priorities and early understanding of the threats and opportunities the US faced, Carter entered office hoping to make dramatic cuts in the size and counterforce capabilities of US nuclear forces. Yet within two years his understanding of the threat and causal beliefs about US posture had changed. Instead, he grew more convinced that Soviet hostility would persist. Therefore, to secure US interests he advanced the same kind of counterforce-centric Offensive Missile Posture as Nixon and Ford.

Carter's brief flirtation with a MAD-acceptant nuclear policy was unusual. Regardless, it fits with my overall argument. This chapter illustrates how changes in Carter's views on US foreign policy goals and threats to them, led Carter to rely successively upon two different Nuclear Security Theories. Moreover, it shows that his relatively quick transition towards support for a more aggressive, counterforce-centric posture was enabled by his nuclear inheritance. Though Carter's two different NSTs were very different from one another, both represented presidential efforts to connect nuclear means and political ends in a complex, uncertain world.

1.1) Carter's Foreign Policy Priorities

Jimmy Carter's basic foreign policy goals were liberal and expansive. Liberal in the sense that he was focused on advancing core liberal values, including democracy, equality and human rights. Carter was a persistent, vocal advocate for these ideals, frequently using his bully pulpit to shame countries like the Soviet Union that systematically repressed their citizens. Moreover, his focus on these liberal issues was not strictly utilitarian. Whatever advantage he could gain from using human rights as an anti-Soviet cudgel was, for Carter, practically incidental to their inherent worth. This was a striking conceptual departure from Nixon's hard-nosed realism. Both presidents had ambitious foreign policy goals, but the content of those goals was very different.

Carter's foreign policy was expansive in that it was acutely concerned with the whole world. In some ways this was an extension of Nixon's global Cold War concept. However, unlike Nixon, Carter's intellectual atlas was not divided into central and peripheral regions. Rather, Central America, the Middle East and Africa rivaled the Fulda gap as key fronts in the Cold War. At the same time, it was Carter's view was that US-Soviet relations need not be brutally antagonistic. Contrary to the views of his detractors, he was not hopelessly naive. He harbored no illusions about warm, friendly superpower relations. However, Carter did hope that Washington and Moscow could cooperatively limit the most pernicious aspects of their relationship—especially the nuclear arms race—even as they competed in other aspects of the globalized Cold War.

1.2) Carter's Changing Views of The Soviet Threat

Perception of the magnitude and persistence of the Soviet threat was easily the most important driver of Carter's nuclear posture decisions. His understanding of this threat evolved throughout his time in office, but can be divided into two periods. This evolution was the cause of Carter's changing Nuclear Security Theories.

Until roughly spring 1978, Carter had a relatively benign view of the Soviet threat. This was not because he suffered any illusions about the nature of the Moscow regime. Indeed, his focus on human rights was a product of his strong belief in Russian malevolence—directed inward, against its own people. Moreover, he saw clearly that Moscow was Washington's primary rival in the struggle for power, prestige and influence on the world stage. Yet his concern about Soviet behavior was tempered, initially, by his optimistic belief that a more cooperative relationship was within reach. Carter came to office in January 1977 with the ambition of carving out areas of US-Soviet cooperation, especially in arms control and non-proliferation, even as the superpowers competed vigorously elsewhere.

Carter's transformation began in spring 1978, and was complete by fall 1979—even before the Soviets invaded Afghanistan in late December. His early efforts to make quick progress towards a SALT II agreement had been frustrated by a pattern of Soviet intransigence. For Carter, this signaled that Moscow did not share his desire for arms control cooperation. At the same time, ongoing advances in Soviet strategic and theater nuclear forces, as well as growth in Soviet conventional forces, threatened US interests in Europe, and contributed to Carter's belief that his benevolence was being taken advantage of. Consequently, he came to believe that the Soviet threat was greater and more persistent than he had initially thought. This was in part a function of

actual improvements in Soviet military capabilities. But it was also a response to Moscow's apparent rejection of his good faith efforts to place US-Soviet relations on a less hostile trajectory.

1.3) Carter's Nuclear Inheritance

By the time Jimmy Carter took office in January 1977, the trend towards improved counterforce within the Offensive Missile Posture begun under Nixon was well underway. Nixon's FY 1975 budget had captured the shape of things to come in US nuclear posture. Key programs initiated under Nixon and continued under Ford began to bear fruit under Carter. These include the accurate, silo-killing Mk-12A reentry vehicle for the Minuteman III ICBM, as well as the Trident I C4 SLBM. Both of were fielded in fall 1979. Carter then continued the ongoing Trident II D5 SLBM program, and authorized what became the B-2 stealth bomber program. Both advanced systems remain in service today.

Turning to ASW counterforce, US capabilities in this realm had continuously improved since the Nixon Administration. By the mid-1970s the *USS Lapon's* heroic first long trail had become almost routine. At the same time, improvements in the range of Soviet SLBMs meant that new Delta class submarines could threaten the US homeland from protected bastions near Soviet waters, and no longer had to transit past the SOSUS array. This development had the potential to undermine the US barrier strategy for strategic ASW, and forced the US to choose between accepting or aggressively challenging Soviet efforts to protect their strategic missile submarines in their home waters. Characteristically, the US chose the latter.¹

¹ Cote, Owen. *The Third Battle: Innovation in the US Navy's Silent Cold War Struggle with Soviet Submarines*. Naval War College Newport Papers v. 16. 2003. pp. 63-65.

Command and control was another important element of Carter's nuclear inheritance. By the mid-1970s the ground-based network built by the US and AT&T during the 1950s and 1960s was no longer adequate. By now, fixed ground targets were comparatively easy to destroy, even in great numbers. The US could no longer assume that the large, redundant, distributed landline network that it had previously relied upon would survive a well-planned Soviet attack.

Second, the push for increasingly flexible nuclear war plans dating to Kennedy had begun to bear fruit under Nixon with NSDM-242. This in turn imposed new nuclear command and control requirements. For example, if the SIOP included more than one retaliatory option, someone—ideally the president—would need to decide which one(s) to exercise following a first strike, establish their authority and communicate their decision to whatever US forces had survived. This in turn implied requirements for attack attribution and characterization and leadership teleconferencing. Who had just attacked us? Had their strike been at all limited? What response is best—or least horrible?

Consequently, throughout the 1970s the US developed fielded new attack warning and characterization systems such as the Vela satellites and PAVE PAWS early warning radars, as well as specialized command and control aircraft like the E-4 'doomsday plane' whose advanced communications suites, large battlestuffs, and long endurance were intended to facilitate command and control during and after a nuclear war. While the notion that the president could flexibly employ limited nuclear options from airborne command posts during an extended conflict was strictly fantasy, the pursuit of this goal coupled with other elements of Carter's

nuclear inheritance catalyzed Carter's quick transition in 1978 and 1979 from pursuit of a comparatively relaxed nuclear posture towards renewed support for a more aggressive one.²

In addition to these weapons, early warning and command and control programs, Carter also inherited an ongoing SALT process. Following the conclusion of the SALT I interim agreement and the ABM treaty, work towards a follow-on agreement proceeded apace. From the outset, SALT had been envisioned as a continuous series of talks on nuclear arms during which progress was captured by formal treaties, rather than as a narrow set of negotiations that would be halted upon conclusion of a single treaty.

Against this background, the November 1974 Ford-Brezhnev summit meeting in Vladivostok became an early fulcrum of tension under Carter, as he sought to revisit negotiating points that the Soviets claimed President Ford had previously agreed to on Washington's behalf. Thus, maintaining arms control momentum while using that process to further his own nuclear policy agenda would become one of the key challenges of Carter's first two years in office.

1.4) Two Nuclear Security Theories

Jimmy Carter had two basic Nuclear Security Theories. The first guided his nuclear posture decisions through summer/fall 1979, though he had begun to reconsider it as early as spring 1978. The second guided his decisions from fall/winter 1979 through January 1981 when he left

² The first Vela satellite was launched in 1971, and the constellation of 3 satellites was complete by 1973. See Blair, Bruce. *Strategic Command and Control: Redefining the Nuclear Threat*. The Brookings Institution, 1985. pp. 141-143. PAVE PAWS radar development began in 1975 and reached initial operating capability in 1980. The first E-4 aircraft entered service as the National Emergency Airborne Command Post (NEACP) in 1974 as a replacement for the EC-135J, which was substantially less capable in that role. Increasing reliance on aircraft for nuclear command and control during and after the 1970s did mitigate some of the vulnerabilities of ground-based systems. However, these benefits came at the cost of limited aircraft endurance, and potentially decreased connectivity between the president and key advisors during a serious crisis. See e.g. Blair, *Ibid*, pp. 177-180; as well as Babbit, Albert E. "Command Centers." in Carter, Steinbruner and Zraket, Eds. *Managing Nuclear Operations*. Brookings Institution, 1987, pp. 342-344, 350-351.

office. The key driver of Carter's transition from one NST to the other was his growing belief that the Soviet Union preferred competition with the US—including nuclear competition—to a stable, arms control-based MAD-type relationship. Yet this transition between NSTs was catalyzed by his nuclear inheritance which was already improving US counterforce capabilities.

Carter's first NST aimed to moderate the US-Soviet nuclear competition. Like Johnson before him, Carter saw the arms race as inherently dangerous. Consequently, he pursued a SALT II agreement that was considerably more ambitious than that staked out by Ford and Brezhnev at Vladivostok, and would have resulted in cuts—rather than just limits—for US and Soviet nuclear forces. In parallel, he aimed to substantially reduce US defense spending, limit growth in nuclear capabilities, and pledged to remove all US theater nuclear weapons from South Korea. By making the maintenance of 'essential equivalence' between US and Soviet nuclear forces his basic nuclear posture goal, Carter hoped to induce a reciprocal Soviet response that would stabilize the arms race at a MAD equilibrium.

Carter adopted his second NST after his cooperative overtures were persistently spurned. By spring 1978 Carter began to view Moscow as inherently hostile. By fall 1979 this line of thinking began to drive his nuclear posture decisions. Whereas earlier he had been a skeptic of the MX missile program and efforts to develop new long-range theater nuclear forces (LRTNF) now he threw his support behind these efforts and others. According to this new NST, if the Soviet Union was going to act like a hostile power, Carter would treat it like one by continuing the United States' push for improved offensive counterforce.

2) This is the Dawning of the Age of Aquarius...

As a presidential candidate, Jimmy Carter advocated a radically new approach to US foreign and security policy centered on what would later be called ‘soft power.’ US defense spending, he argued, should be cut massively, by \$5-7 billion per year, or roughly 6%-8%. In the nuclear realm, he supported a MAD-acceptant deterrent force based principally on highly survivable submarine launched ballistic missiles, rather than the distributed triad of submarines, bombers and land-based ICBMs that he had inherited. Moreover, Carter believed that this SLBM force should be designed so as to limit US counterforce capabilities. Because successful counterforce necessitated striking first, and first strike plans incentivize reciprocal adversary first strike planning, Carter saw it as dangerous and destabilizing.³ Therefore curtailing counterforce—not pursuing it—was the path to US security.

These unorthodox views were rooted in Carter’s skepticism of the realpolitik policies of his predecessors.⁴ Liberal democratic values, Carter believed, should be central to US foreign policy. In a June 1976 campaign speech, for example, he argued that “We simply must have an international policy of democratic leadership, and we must stop trying to play a lonely game of power politics.”⁵ Later, in September 1976, he amplified this message, stating that “military strength alone is not enough. Over the years, our greatest source of strength has come from those basic, priceless values which are embodied in our Declaration of Independence, our Constitution, and our Bill of Rights: our belief in freedom of religion—our belief in freedom of expression—

³ Auten, Brian J. *Carter’s Conversion : The Hardening of American Defense Policy*. Columbia : University of Missouri Press, 2008 pp. 118-119. Percentage cut is based on FY 1975 national security spending in Gaddis, John Lewis. *Strategies of Containment: A Critical Appraisal of American National Security Policy during the Cold War*. Rev. and expanded ed. New York: Oxford University Press, 2005, p. 393.

⁴ Auten, Brian J. *Carter’s Conversion : The Hardening of American Defense Policy*. Columbia : University of Missouri Press, 2008 pp. 172-173.

⁵ Address by Jimmy Carter. FRUS 77-80 v.1 d.6. <https://history.state.gov/historicaldocuments/frus1977-80v01/d6>.

our belief in human dignity.”⁶ Carter’s campaign-trail statements captured the basic ideas that would define his initial foray into US foreign and security policy.

2.1) Attempted Nuclear Revolution

After his January 1977 inauguration, Carter wasted little time in trying to make his new foreign policy vision a reality. On January 26, a member of Carter’s executive team—almost certainly National Security Adviser Zbigniew Brzezinski—spoke with Defense Secretary Harold Brown by secure telephone about several of the president’s early nuclear policy directives. First, Brown was informed that “the President had directed the following, ‘Without public notice, I want nuclear weapons removed from South Korea. Submit plan to me.’” This was part of Carter’s wider campaign pledge to withdraw all US troops from South Korea. Next, Carter “requested ‘an early brief analysis of the interrelationship between effective deterrence and lower strategic levels.’” He was making a rapid push towards nuclear force reductions by asking a leading question about how much deterrent power the US really required. This conversation with Brown captured some of Carter’s other questions and concerns about US nuclear policy as well. For example, his reported concerns about crisis communications with the Soviet leadership and depressed trajectory SLBM strikes on Washington DC reflected his detail-oriented approach to policy.⁷ Yet Carter’s top-level priority in the very first days of his administration was to seek ways to reduce US theater and strategic nuclear forces.

⁶ Address by Jimmy Carter. FRUS 77-80 v.1 d.9. <https://history.state.gov/historicaldocuments/frus1977-80v01/d9>.

⁷ Summary of a conversation informing Secretary of Defense Harold Brown of President Jimmy Carter's decision to remove all U.S. nuclear weapons from South Korea. White House, 26 Jan. 1977. USDD CK2349483635. Emphasis in the original.

Nor was Carter content to act unilaterally. On that same day, January 26, 1977, Carter wrote personally to his Soviet counterpart Leonid Brezhnev—much as Johnson had—laying out his hopes for an ambitious arms control agenda. “As I understood your very important speech at Tula,” he wrote, “the Soviet Union will not seek superiority in arms, will oppose the concept, and will require only a defense sufficient to deter any potential adversary. The United States seeks nothing more or less for itself. With perseverance and wisdom therefore our two countries should be in a position to avoid a new armaments race. I have said to the American people that my firm goal is to eliminate all nuclear weapons.” To initiate movement towards these lofty goals, Carter suggested three next steps. “A critical first step should be the achievement of a SALT II agreement without delay, and an agreement to proceed toward additional limitations and reductions in strategic weapons. Moreover, I hope we can promptly conclude an adequately verified comprehensive ban on all nuclear tests, and also strive to achieve greater openness about our respective strategic policies.” Driven by the objectives, threat perceptions and causal beliefs embedded in his initial NST, Carter was taking early, concrete steps to bring about the changes in US-Soviet relations, and US nuclear posture that he had promised on the campaign trail.

Yet these efforts yielded little progress. First, Carter’s moves to clandestinely withdraw US troops and its 683 theater nuclear weapons from South Korea were met with sharp opposition within the US, South Korean and Japanese governments. By April 1978 he accepted a face-saving limited troop withdrawal that left US nuclear forces on the peninsula intact.⁸ Second, his effort to limit the strategic nuclear arms race by decreasing the United States’ emphasis on counterforce did not translate into operational change in US nuclear capabilities or posture. The

⁸ A good summary of this episode, including the weapon count, can be found in Oberdorfer, Don. *The Two Koreas: A Contemporary History*. Basic Books 2001 pp. 85-94.

SIOP, which still took months to compile, could not turn on a dime. Third, Carter's arms control initiatives were flailing also. In March 1977 his ambitious and detailed 'comprehensive proposal' that would have brought about reductions in both US and Soviet nuclear arsenals was quickly rejected by Moscow.⁹ Barely two months into his administration, it was becoming clear to Carter that his plan to improve US-Soviet relations and limit the arms race had not survived first contact with the enemy.¹⁰

Soviet intransigence limited Carter's ability to make the thoroughgoing nuclear posture changes that he desired. This underlying foreign policy failure had three related causes. First was the scope of Carter's ambitions. His expectation that he could make substantial progress on his far-reaching arms control agenda within a few short months was probably unrealistic to begin with. Second was Moscow's obstinance. Perhaps understandably, the Soviet leadership was skeptical of this foreign policy neophyte from Georgia, and reluctant to engage on nuclear arms control while being hectoring about human rights—which they regarded as a minor internal issue that was none of Washington's business.¹¹ Third was the Carter Administration's own foreign policy incoherence. The President's conception of US interests spanned the globe, and encompassed issues as seemingly disparate as nuclear disarmament and human rights. Yet it was never clear how these disparate issues related to one another, or how they should be prioritized or

9 For details of the proposal, see Presidential Directive/NSC-7. March 23, 1977. FRUS 69-76 v. 33 d. 156. <https://history.state.gov/historicaldocuments/frus1969-76v33/d156>. For Soviet rejection see Memorandum From the President's Assistant for National Security Affairs (Brzezinski) to President Carter. April 1, 1977. FRUS 77-80 v.1 d. 32. <https://history.state.gov/historicaldocuments/frus1977-80v01/d32>.

10 Timothy Sayle argues that this was roughly when Carter's national security team began to view the Soviets as persistently intransigent, but that Carter did not yet share this assessment. See Sayle, Timothy. *Enduring Alliance: A History of NATO and the Postwar Global Order*. Ithaca, Cornell University Press, 2019, pp. 192-193.

11 See e.g., Memorandum From the President's Assistant for National Security Affairs (Brzezinski) to President Carter. July 8, 1977. FRUS 77-80 v/ 1 d. 51. <https://history.state.gov/historicaldocuments/frus1977-80v01/d51>; Memorandum of Conversation between President Carter and Soviet Foreign Minister Gromyko. September 23, 1977. FRUS 69-76 v. 33 d. 183. <https://history.state.gov/historicaldocuments/frus1969-76v33/d183>.

sequenced. Consequently, even his closest advisors struggled to translate Carter's intentions into consistent lines of policy action.¹² By fall 1977, Carter's efforts to quickly establish an improved modus vivendi with the Soviet Union was becoming a public failure.

It was around this time that the administration was becoming increasingly self-conscious of the fact that despite Carter's friendly overtures, Soviet military capabilities were growing rapidly. The USSR began deploying its new, road mobile, highly accurate MIRVed SS-20 Intermediate-Range Ballistic Missile (IRBM) in August 1976. By December 1977 Moscow had fielded enough SS-20s to populate nine bases and counting.¹³ At the same time, Soviet conventional capabilities were improving as well. Even as Carter was assuming office, the January 1977 Nunn-Bartlett report warned that the Soviet Union had the ability to launch a quick, no-warning blitzkrieg style conventional attack on Western Europe that would all-but necessitate NATO escalation to nuclear use.¹⁴ By May 1978, Brzezinski was warning in public "that the Soviet Union has been engaged in a sustained and massive effort to build up its conventional forces, particularly in Europe," and that "this pattern of behavior I do not believe is compatible with what was once called the code of détente,"¹⁵

12 Divergent foreign policy views between the hawkish National Security Adviser Zbigniew Brzezinski and the comparatively dovish Secretary of State Cyrus Vance contributed to this incoherence as well. See Garrison, Jean A. "Framing Foreign Policy Alternatives in the Inner Circle: President Carter, His Advisors, and the Struggle for the Arms Control Agenda." *Political Psychology*, vol. 22 No. 4, (Dec. 2001) pp. 775-807. Regardless, the fact that Brzezinski felt the need to write to Carter nine months into his Administration urging him to "look ahead and develop a coherent strategy—including priorities, timing, and yes, linkages—for managing our dealings with the Soviet Union" did not bode well. For the persistence of this problem see Memorandum From the President's Assistant for National Security Affairs (Brzezinski) to the Cabinet. Undated. FRUS 77-80 v. 1 d. 78. <https://history.state.gov/historicaldocuments/frus1977-80v01/d78>.

13 For initial deployment see Podvig, P. L., and Oleg Bukharin, eds. *Russian Strategic Nuclear Forces*. Cambridge, Mass: MIT Press, 2001, pp. 224-226. For December 1977 status see NEWLY IDENTIFIED SS-20 MOBILE IRBM BASE, NOVOSIBIRSK MOBILE IRBM BASE 2, USSR. December 19, 1977. NGA Records, CIA FOIA Reading Room. <https://www.cia.gov/library/readingroom/docs/CIA-RDP78T05698A000300010107-6.pdf>.

14 Auten, Brian J. *Carter's Conversion: The Hardening of American Defense Policy*. Columbia: University of Missouri Press, 2008 pp. 150-152.

15 Editorial Note: FRUS 77-80 v.1 d. 81. <https://history.state.gov/historicaldocuments/frus1977-80v01/d81>.

Thus, by at least spring 1978, persistent growth in Soviet nuclear and conventional capabilities had become a source of significant concern throughout the US and NATO. Fears of Soviet aggression that had been largely recessed since the early 1960s began to resurface. Carter's first NST had centered on US nuclear restraint and US-Soviet arms control, but it failed to induce the Soviet cooperation that he desired.

3)...But Mercury Is in Retrograde

By spring 1978, Jimmy Carter was re-evaluating the MAD-acceptant NST that he had pursued since taking office. The new NST that he would adopt by fall 1979 was rooted in his growing belief that Moscow's failure to engage constructively with his new administration, coupled with its efforts to bolster its conventional and nuclear military strength, were evidence of durable Soviet hostility.

Consequently, Carter chose a new NST centered on improved US nuclear capabilities—especially for counterforce. His ability to quickly pivot to this new NST was catalyzed by the various counterforce-improving weapons development programs and war planning innovations that he had inherited from Nixon and Ford. As a result, Carter's first NST stands out as a minor exception to a long-term trend—within the Offensive Missile Posture, as well as US posture more generally—towards improved counterforce.

3.1) 'Peace without Victory' versus 'Victory without War'

Rumblings about the global scope and persistence of the Soviet challenge to US interests date to at least February 1978. In a memo that month to Carter, Brzezinski warned of “strategic

deterioration.”¹⁶ Soon after, Carter began preparing to announce a major change in his approach to the Soviets. In a March 3, 1978 memo, Brzezinski provided Carter with an outline for an upcoming defense policy speech that cut to the heart of the issue. “The speech,” he argued, “should note briefly that you conceive national security to be more than military affairs and that your efforts in the non-military areas of national security have been many. That must not, however, lead anyone to the mistaken view that you neglect the military dimension of this country’s security. If we and our allies seek a world of “peace without victory” while others, pretending to accept that spirit of detente, actually seek “victory without war,” the world will not be safe, and the military factor will become crucial. Recent Soviet behavior is not reassuring on this point.”

Carter’s thinking paralleled Brzezinski’s. If the Soviets insisted on pressing for military advantage, the US had no choice but to reciprocate. Correspondingly, in his marginalia response to Brzezinski, Carter noted that he also wanted to “teach the average American what we have & are doing. Keep language simple—not too much theory—J. p.s. One or two newsworthy specific items would help. (ASAT—MX—CM—CTB—SALT, etc).”¹⁷ Carter’s ‘simple language’ acronym salad referenced a series of ongoing military programs—an anti-satellite weapon, the MX missile and cruise missiles (as well as the comprehensive test ban and SALT negotiations). His objective was to provide evidence that his new, firmer policy was not just rhetorical; it would be backed with shiny new nuclear hardware.

¹⁶ Memorandum From the President’s Assistant for National Security Affairs (Brzezinski) to President Carter February 9, 1978. FRUS 77-80 v. 1 d. 68. <https://history.state.gov/historicaldocuments/frus1977-80v01/d68>.

¹⁷ Memorandum From the President’s Assistant for National Security Affairs (Brzezinski) to President Carter on Speech on Defense Policy. March 3, 1978. FRUS 77-80 v.1 d. 71. <https://history.state.gov/historicaldocuments/frus1977-80v01/d71>.

On St. Patrick's Day 1978, Carter delivered the speech on his new approach to US-Soviet relations. Its broad outlines would have suited both Nixon and, later, Reagan. Referencing his evolving understanding of the Soviet threat, Carter opened his remarks by touching on "new circumstances we face." Flatly dismissing a core assumption of the Theory of the Nuclear Revolution, Carter argued against the myth that "because we do possess nuclear weapons of great destructive power, that we need do nothing more to guarantee our Nation's security. Unfortunately," he observed, "it's not that simple." Rather, "Our potential adversaries have now built up massive forces armed with conventional weapons—tanks, aircraft, infantry, mechanized units. These forces could be used for political blackmail, and they could threaten our vital interests unless we and our allies and friends have our own military strength and conventional forces as a counterbalance." With respect to nuclear forces, Carter observed that "the United States retains important advantages. But over the past decade, the steady Soviet buildup has achieved functional equivalence in strategic forces with the United States."¹⁸ Carter was highlighting a pattern of threatening Soviet military decisions that he had previously overlooked. His initial Nuclear Security Theory was in the early stages of a significant transformation.

Nor was this merely public posturing. An August 1978 NSC meeting on US Soviet relations, dealt with the full range of salient issues ranging from European security to arms control to Africa policy. Increasingly convinced of the need for strength in response to Soviet intransigence, Carter at one point inquired "Other than increasing the defense budget, what else should we do to improve relations with the Soviets?" At the same time he maintained his opposition to narrow realpolitik, observing that "You have about got me convinced that we need

¹⁸ Address by President Carter. March 17, 1978. FRUS 77-80 v.1 d. 72.
<https://history.state.gov/historicaldocuments/frus1977-80v01/d72>.

to do more on defense. We also have to compete in other areas for minds and hearts in different countries—through trade, economic relations and the like.”¹⁹ He was still Jimmy Carter, but in terms of handling Moscow, he was coming to agree with Nixon that strength was key to success.

3.2) *Counterforce Cures MADness*

Naturally, Carter’s new perspective had corresponding implications for his posture decision-making. In June 1978 Carter approved PRM-38 requesting a new study of “Long-Range Theater Nuclear Capabilities and Arms Control.” When it was completed on August 19, 1978 it described three acute European security and non-proliferation concerns that the Soviet conventional and especially nuclear build-up was causing. “First, qualitative and quantitative improvements in Soviet theater nuclear capabilities have brought the Soviets closer to more credible responses to NATO nuclear use at lower levels.” That is, the Soviets were fielding theater nuclear forces that were powerful, but potentially usable. “Second, the Soviets have introduced new long-range theater nuclear systems—SS-20 and Backfire [bombers ... which] has revived European concern about the threat that has long-been posed by these systems.” While Soviet LRTNF did not really alter the nuclear balance in Europe, they did inform European perceptions. “Third, US acceptance of strategic parity, in SALT terms, has deepened concerns in Europe about the credibility of US strategic use in the defense of Europe.”²⁰ What all of this added up to was a familiar refrain by this point in the Cold War. The Soviets were scary; the Europeans were

19 Minutes of a National Security Council Meeting on ‘U.S.-Soviet Relations: Policy Implications of Interaction of Political Trends in Key Regions with Soviet Conventional and Strategic Buildup’ August 15, 1978. FRUS 1977-1980 Vol. 1 doc. 94, <https://history.state.gov/historicaldocuments/frus1977-80v01/d94>.

20 Memorandum to Vice President Walter Mondale, “Response to PRM-38: Long Range Theater Nuclear Forces,” August 19, 1978. State Department FOIA Release courtesy of William Burr. Conference reader, “The Euromissiles Crisis and the End of the Cold War.

frightened; and if the US still wanted to defend Europe while inhibiting proliferation, it would have to do something to provide reassurance.²¹

This line of thinking, captured in the PRM-38 study, laid the ground-work for the December 1979 US/NATO ‘dual-track’ decision to deploy the new Pershing II and Ground Launched Cruise Missile (GLCM) to Europe, while simultaneously negotiating to limit these deployments.²² This was a landmark decision that not only reassured the Europeans that the US had the will to defend them—obviating the need for further nuclear proliferation. It also resulted in improved counterforce capabilities for US theater nuclear forces in the mid-1980s.

Two months after PRM-38, in October 1978, Carter received the results of another study: the ‘Comprehensive Net Assessment and Military Force Posture Review’ or PRM-10. PRM 10 was “one of the largest strategic reviews of the Cold War—if not the largest.” It assessed the full range of US military capabilities, and presented Carter with a variety of options for the future of US military force structure. With respect to strategic nuclear forces, it outlined four basic postures that Carter might pursue.

The first and most restrained option called for continued pursuit of the urban/industrial attack mission with little or no counterforce capability. This was similar to the minimum deterrent or MAD-acceptant posture that Carter had initially been drawn to. The last and most aggressive option called for the US to develop better hard target kill capability as part of an effort to pursue clear nuclear superiority over the Soviet Union. Though the full details of Carter’s decision remain classified, political scientist Brian Auten argues persuasively that he selected a version of

21 For the strength of concern about proliferation within the Carter Administration, especially to Germany and Japan, see e.g., Nye, Joseph. “Nonproliferation: A Long-Term Strategy.” *Foreign Affairs* April 1, 1978. Nye was then serving as chair of the NSC group on non-proliferation policy.

22 Goodby, James E. *At the Borderline of Armageddon : How American Presidents Managed the Atom Bomb*. Lanham, Md.: Rowman & Littlefield, 2006, pp. 119-121.

PRM-10's option 3. It called for matching the Soviet Union's hard target counterforce capability and pursuing one or more of the Air-Launched Cruise Missile (ALCM), B-1 bomber or MX missile—all of which had counterforce utility.²³ After eighteen months of trying to hold the line on nuclear force modernization, when presented with a wide range of options in fall 1978 Carter chose to pursue same basic counterforce-centric Offensive Missile Posture as his predecessors. In so doing, he decisively rejected his initial view that a minimum deterrent was sufficient for US needs.

3.3) *The Enduring Pursuit of Flexible Nuclear Employment Options*

This trend only gathered strength through the rest of 1978 and into 1979, expanding beyond nuclear weapons acquisition policy and into war planning. In November 1978 the Administration's Nuclear Targeting Policy Review (NTPR) confirmed the basic outlines of Nixon's NSDM-242, and emphasized the value of counterforce.²⁴

This return to continuity with the Nixon/Ford approach continued through the spring. For example, an April 4, 1979 meeting between the key members of Carter's executive team—Defense Secretary Harold Brown, Secretary of State Cyrus Vance, and National Security adviser Zbigniew Brzezinski centered on “strategic forces employment policy”—nuclear war planning.

In a clarifying paragraph inserted into the meeting minutes, Brzezinski made three observations

23 Auten, Brian J. *Carter's Conversion: The Hardening of American Defense Policy*. Columbia: University of Missouri Press, 2008 pp. 149, 157, 198-199. According to William Odom, the comprehensive net assessment and the military force posture reviews that flowed from PRM-10 were actually two separate studies that were completed in summer 1977, but left the strategic nuclear force structure issues discussed here to be dealt with later. See Odom, William. “The Origins and Design of Presidential Decision 59: A Memoir” in Henry D. Sokolski, Ed., *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice*. US Army War College Strategic Studies Institute, 2004 p. 178.

24 Nuclear Targeting Policy Review, Phase I1 Report, Executive Summary, November 1978. NSA EBB 390. September 14, 2012. <https://nsarchive2.gwu.edu/nukevault/ebb390/docs/11-1-78%20policy%20review%20summary.pdf>.

about the Nuclear Targeting Policy Review, and in turn about the general direction of US nuclear war planning in the late 1970s. First, the review proposed that the US should “shift our industrial targeting back toward two broad sets of targets—war supporting industry, and, as the ultimate deterrent, the broad urban industrial base that would support the post-war power of the Soviet Union.” This was an obvious reference to the desire to maintain the urban/industrial attack mission, while moving away from the counter-recovery targeting concept included in NSDM-242/NUWEP-74.

Second, Brzezinski continued, “Within military targeting, the study proposes a more flexible building block approach to the SIOP, plus the development of a capability to target Soviet conventional forces even after they have begun to move away from their peacetime locations.” This ‘building block’ approach was an extension of the limited and regional nuclear attack options described five years before in NSDM-242.

Finally, emphasizing continuity in US nuclear war planning, Brzezinski argued that “While implementation of the study’s recommendations may lead to some shifts in the fraction of our weapons going to military as opposed to non-military targets, it does not appear that this shift will be significant.”²⁵ Thus, by spring 1979 the Carter Administration was pursuing the same basic mix of counterforce and flexibility enhancements, backed by counter-value targeting as ‘the ultimate deterrent’ that had characterized the Nixon and Ford Administrations’ nuclear employment policies.

25 Special Coordination Committee Meeting on Strategic Forces Employment Policy, April 4, 1979, 1:45 – 3:00pm. NSA EBB 390, September 14, 2012. <https://nsarchive2.gwu.edu/nukevault/ebb390/docs/4-4-79%20SCC%20mtg.pdf>. These meeting notes also raise an important point about candor—or lack thereof—in US nuclear policy. At the outset of the conversation Brzezinski “noted that there are a large number of important political questions raised by this study; in particular, what we say about employment policy to our allies and our public.”

At a June 4, 1979 meeting, Carter joined together the nuclear force modernization effort embodied by the results of PRM-10 and the results of the nuclear targeting policy review. This would prove pivotal in transforming Carter's new NST into operational capabilities for his successors. Following a wide-ranging discussion with Vance, Brzezinski and Brown Carter endorsed the idea of a flexible nuclear employment policy emphasizing counterforce backed by counter-value targeting that would become known as the 'countervailing strategy.' At the same time he voiced his continued support for nuclear force modernization and the development of the "largest possible" accurate, MIRVed, counterforce capable. MX missile.²⁶ While these decisions would surely have been anathema to Carter when he first came to office, by 1979 they were the natural consequence of his updated Nuclear Security Theory.

In a September 7, 1979 press conference Carter explained his support for the MX missile in a way that shed light on this new NST. He couched his argument in terms that would be familiar to Presidents Ronald Reagan and Barack Obama. "Unhappily, we do not yet live in the kind of world that permits us to devote all our resources to the works of peace. And as President, I have no higher duty than to ensure that the security of the United States will be protected beyond doubt. As long as the threat of war persists, we will do what we must to deter that threat to our Nation's security. If SALT II is ratified and SALT III is successful, then the time may come when no President will have to make this kind of decision again and the MX system will be the last weapon system of such enormous destructive power that we will ever have to build. I fervently

²⁶ Auten, Brian J. *Carter's Conversion : The Hardening of American Defense Policy*. Columbia : University of Missouri Press, 2008 pp. 294-295. Surprisingly, given Carter's submarine background and his belief in the stabilizing qualities of SLBMs, in the same meeting he decided to slow down work on the Trident II-D5 SLBM, ostensibly to save money.

pray for that time, but until it comes, we will build what we must, even as we continue to work for mutual restraint in strategic armaments.’²⁷ ‘Carter’s conversion’ was complete.²⁸

4) Back on Track

From fall 1979 onward, Carter’s nuclear posture decisions consistently favored the same kinds of improved counterforce capabilities for both strategic and theater nuclear forces that Nixon and Ford, and later Reagan, also pursued. His new beliefs about the persistent, growing Soviet threat had caused him to change his mind about the role of nuclear forces in US security. When he assumed office, he had been intent on cutting back on the size and capabilities of the US nuclear arsenal. Now, he thought that it was essential to at least match, and in some areas exceed Soviet nuclear capabilities.

Carter’s views on theater nuclear forces illustrates the extent of this transformation and its implications. In April 1978 he chose to halt the planned deployment of enhanced radiation weapons (ERWs) or ‘neutron bombs’ to Europe—apparently following personal reflection during a fishing trip. This sudden turnabout resulted in an embarrassing diplomatic kerfuffle, as well as concerns in Europe about Carter’s commitment to providing NATO with a stiff nuclear defense.²⁹

Within a year, Carter’s approach to the theater nuclear mission had changed completely. By April 1979 work towards the eventual deployment of accurate, counterforce-capable LRTNF was

27 Editorial Note: FRUS 77-80 v.1 d. 125. <https://history.state.gov/historicaldocuments/frus1977-80v01/d125>.

28 Auten, Brian J. *Carter’s Conversion : The Hardening of American Defense Policy*. Columbia : University of Missouri Press, 2008 pp. 1-2.

29 Goodby, James E. *At the Borderline of Armageddon : How American Presidents Managed the Atom Bomb*. Lanham, Md. : Rowman & Littlefield, 2006, pp. 117-118; Auten, Brian J. *Carter’s Conversion : The Hardening of American Defense Policy*. Columbia : University of Missouri Press, 2008 p. 227. Sayle notes that discussions in NATO of proceeding with ERW deployment while negotiating arms reductions provided a template for the dual track decision on long-range theater nuclear forces. See Sayle, Timothy. *Enduring Alliance: A History of NATO and the Postwar Global Order*. Ithaca, Cornell University Press, 2019, pp. 194-199.

accelerating. NATO's new High Level Group (HLG) within the Nuclear Planning Group (NPG) was proving responsive to US efforts to build consensus around the kind of LRTNF deployment sketched out in PRM-38.³⁰ By October 1979 Secretary of State Vance was circulating an integrated decision document that laid out the political groundwork for what would become the 'dual track decision.'³¹ And on December 12, 1979, the HLG agreed to the United States' proposal to deploy LRTNF in Europe, in order to match the ongoing Soviet deployment of SS-20 LRTNF weapons while also opening the door to talks to limit or ban these weapons.³² Thus, in the space of a year, the Carter Administration had gone from waffling on ERW to leading a NATO effort to harden European defense with counterforce-capable LRTNF. This shift was not the product of inertia or bureaucratic malfeasance. Rather, it was driven by the President's updated beliefs about how best to simultaneously pursue the core goals of defense of the homeland, European defense and non-proliferation.

Carter's decision-making on strategic nuclear forces followed a similar trajectory. Operationally, some of the programs that he inherited bore fruit in late 1979. The Trident I C4 missile came online in October 1979, providing Washington's SSBN fleet with a modest counterforce capability. In December 1979, Minuteman III missiles began receiving accurate, high yield Mk-12A reentry vehicles which increased their counterforce capabilities too.³³

30 Auten, Brian J. *Carter's Conversion: The Hardening of American Defense Policy*. Columbia: University of Missouri Press, 2008 p. 228.

31 Cable, Cyrus Vance to U.S. Embassies, "TNF Integrated Decision Document," State Department FOIA Release. Conference Reader, "The Euromissiles Crisis and the End of the Cold War, 1977-1987, Part 2, Document 28. Contributed by William Burr.

32 Results of "Special Meeting of [NATO] Foreign and Defence Ministers" (The "Double-Track" Decision on Theatre Nuclear Forces). Conference Reader, "The Euromissiles Crisis and the End of the Cold War, 1977-1987, Part 2, Document 46.

33 MacKenzie, Donald A. *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance*. 1st MIT Press pbk. ed. Inside Technology. Cambridge, Mass: MIT Press, 1993, pp. 279, 428.

However, Carter did far more than just passively accept the counterforce benefits of his predecessors' weapons development programs. He had already approved development of the stealthy, air-defense penetrating B-2 bomber.³⁴ In July 1980 he approved PD-59, a new nuclear weapons employment policy document. An outgrowth of PRM-10, the Nuclear Targeting Policy Review and the April 4, 1979 Brown, Vance, Brzezinski meeting, PD-59 was fundamentally an extension and re-affirmation of the basic thinking behind NSDM-242. It emphasized flexibility and continued improvement of counterforce capabilities in US nuclear war planning. For example, it outlined five target categories that Carter sought to hold at risk in each potential theater of nuclear operations: 1) strategic and theater nuclear forces, including nuclear weapons storage; 2) enemy nuclear command and control infrastructure; 3) other [conventional] military forces, including mobile targets; 4) industrial facilities providing immediate support to military operations during wartime; 5) enemy political control systems and general industrial capacity.³⁵ While PD-59 was fundamentally a continuity document, Carter's signature on it underscores how his theory of nuclear security had evolved between 1977 and 1980.³⁶

34 Webbe, Stephen. "Stealth Plane a Secret that has Been Out Since 1976" *Christian Science Monitor* August 25, 1980. <https://www.csmonitor.com/1980/0825/082544.html>.

35 PD-59. From Burr, William. National Security Archive EBB 390. September 14, 2012.

<https://nsarchive2.gwu.edu/nukevault/ebb390/docs/7-25-80%20PD%2059.pdf>. William Odom, Janne Nolan, James Goodby and Tom Nichols share the view that PD-59 did not substantially alter US nuclear war planning. See Odom, William. "The Origins and Design of Presidential Decision 59: A Memoir" in Henry D. Sokolski, Ed., *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice*. US Army War College Strategic Studies Institute, 2004 pp. 175-196; Nolan, Janne E. *Guardians of the Arsenal: The Politics of Nuclear Strategy*. New York: Basic Books, 1989 pp. 137-139, 257; Goodby, James E. *At the Borderline of Armageddon: How American Presidents Managed the Atom Bomb*. Lanham, Md.: Rowman & Littlefield, 2006 p. 124; and Nichols, Thomas M. "Carter and the Soviets: The Origins of the US Return to a Strategy of Confrontation." *Diplomacy & Statecraft* 13, no. 2 (June 2002): 35.

36 Major General William Odom, National Security Adviser Zbigniew Brzezinski's military assistant, sees somewhat more consistency in Carter's thinking over time. Odom wrote that "A major question arises from this account. What did President Carter really think of this series of PDs on nuclear weapons issues? I do not know his real views because Brzezinski dealt directly with him on all of these issues. I just know that the President read the rationales for each PD and that he signed them. [...] On the official record, President Carter consistently supported reducing the numbers of nuclear weapons and doing everything possible to control or totally eliminate them. This image is at odds with the image one gains from seeing his signature on all of the PDs. I do not see the two images as

5) Conclusion:

The Carter Administration provides a compact illustration of how presidents direct US posture to advance their expansive foreign policy goals. Carter entered office with globe-spanning competitive ambitions. One of those ambitions was to curtail the US-Soviet arms race. However, as Carter's perception of the nature of the Soviet adversary changed, his Nuclear Security Theory changed. He abandoned his initial MAD-acceptance and resumed the pursuit of aggressive counterforce.

Carter also illustrates two important implications of my argument. The first has to do with the significance of nuclear inheritances. In this case, Carter's rapid 'conversion' was enabled by his nuclear inheritance. Counterfactually, had his beliefs about the Soviet threat remained constant throughout his time in office, he would have had to struggle mightily to halt or slow the various nuclear weapons development programs he inherited. It is not the case that nuclear inheritance is destiny, but it certainly carries weight. That weight is only growing because, since the late 1950s, the duration of nuclear weapons acquisition programs and the longevity of nuclear weapons and their delivery systems have only grown.

Second, Carter also highlights other important constraints on presidential agency. While presidents—not bureaucrats—direct posture, they do so within a geopolitical context that tends to change slowly. As a result, presidents frequently use their considerable power in the nuclear policy realm to support continuity, rather than change in posture.

incompatible. The PDs, including PD-59, offered a way to avoid a SIOP decision on short notice. Perhaps it was not much better than the choice to launch the SIOP, but it certainly was a responsible attempt to make massive nuclear exchanges of thousands of nuclear warheads less probable." Regardless, both Odom and I emphasize Carter's personal engagement with nuclear issues, and his willingness to pursue counterforce capabilities. See Odom, William. "The Origins and Design of Presidential Decision 59: A Memoir" in Henry D. Sokolski, Ed., *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice*. US Army War College Strategic Studies Institute, 2004 pp. 194-196.

Chapter 9) President RayGun and his Vaporware Powered Cold War Victory Vision

1) Introduction

Ronald Reagan's electoral victory over incumbent Jimmy Carter in 1980 brought to the oval office a man seemingly brimming with contradictions. He was a movie star turned president, and a dyed-in-the-wool Cold War hawk with a burning desire to eliminate nuclear weapons. For others, these contradictions might have been crippling. But not for Reagan. Instead, he compressed seemingly incompatible goals into a remarkably coherent Nuclear Security Theory that sought to simultaneously challenge the Soviets and the Cold War security system based on nuclear threats.

What were the effects of Reagan's never say die NST? With respect to posture, continuous improvements in US counterforce capability was the rule. One important exception was the elimination of all US and Soviet intermediate-range nuclear forces—Soviet SS-20s as well as the United States' brand new GLCMs and Pershing IIs. The Intermediate-range Nuclear Forces (INF) Treaty was the world's first agreement to verifiably eliminate a whole class of nuclear weapons. It reduced nuclear risk by creating an escalatory 'firebreak' between theater forces whose use might be confined to Europe and the strategic nuclear forces for global war.

Yet beyond posture, Reagan's whole approach to nuclear weapons and foreign policy was enormously influential in the late Cold War. Equally opposed to Soviet communism and the nuclear threat, Reagan leveraged US technical prowess to pursue an ambitious Strategic Defense Initiative (SDI) that he hoped would render nuclear weapons impotent. SDI never yielded operational capabilities. However, the belief that it might informed decisions in Washington and

Moscow as the end of the Cold War approached. At the same time, Reagan's belief in nuclear abolition opened the door to the INF Treaty—itsself a key sign that the Cold War was thawing. Reagan did not single-handedly win the Cold War, but he did believe that it could be won soon.

1.1) The Gipper's Goals

In a sharp departure from his predecessor, Reagan's primary foreign policy goals numbered only two. But they were audacious. First, he wanted to break the Soviet system. For Reagan, Soviet communism was, repressive, unnatural and not to be tolerated. When contrasted with the socially, economically and technologically vibrant US, Reagan believed the USSR had to be rotting from within. Moreover, as a result of past clashes with communist and leftist labor leaders as president of the Screen Actors Guild, Reagan saw the communist system as something that he himself could confront.¹ Unlike his predecessors, Reagan was not prepared to accept the Soviet Union's permanent existence. Instead, Reagan sought regime change.²

Reagan's second goal was the elimination—or at least significant reduction—of the threat posed by nuclear weapons. Just as Reagan rejected the Soviet system as unnatural and vile, he also rejected the system of US and global security based on the threat of Armageddon.³ In a greatest threat competition, Reagan placed Soviet communism in a dead heat with the nuclear weapons the US relied upon to keep it at bay.

1 Mann, James. *The Rebellion of Ronald Reagan: A History of the End of the Cold War*. Penguin Books, 2009, pp. 17-19. For the importance of national leaders' beliefs about their efficacy see Kennedy, Andrew. *The International Ambitions of Mao and Nehru: National Efficacy Beliefs and the Making of Foreign Policy*. Cambridge, Cambridge University Press, 2011.

2 A dark joke is illustrative. During a sound check for his weekly radio address on August 11, 1984, Reagan quipped "My fellow Americans, I'm pleased to tell you today that I've signed legislation that will outlaw Russia forever. We begin bombing in five minutes." Audio available at <https://www.youtube.com/watch?v=8mwAntNGz9k>.

3 This is the persuasive argument of two new histories of the Reagan Administration. See Mann, James. *The Rebellion of Ronald Reagan: A History of the End of the Cold War*. Penguin Books, 2009; and Lettow, Paul. *Ronald Reagan and his Quest to Abolish Nuclear Weapons*. Random House, 2006.

1.2) Reagan's Threat Perceptions

The threats that Reagan saw in the world were closely connected to his primary foreign policy goals. Soviet communism and nuclear weapons were the main threats that the US had to contend with. Yet Reagan's fear of the Soviets was tempered by his basic belief that the Moscow regime was rotting from within. While he was by no means sanguine about the Russians' conventional and nuclear strength, Reagan was not afraid that the Soviets would spring an attack on the West without warning. This faith in Soviet weakness allowed him maneuvering room that was central to his Nuclear Security Theory. Reagan thought that continued—even intensified—arms competition might be costly enough to advance his goal of breaking the Soviet system. Alternatively, Soviet efforts to avert intensified competition via arms control could advance his goal of reducing nuclear risk. And crucially, placing high-tech defensive weapons at the center of his pressure strategy could potentially advance both goals simultaneously.

1.3) Reagan's Nuclear Inheritance

Following his 'conversion' by Fall 1979, President Jimmy Carter had supported nearly all of the nuclear weapons and related programs that he had inherited from Nixon and Ford. As a result, Reagan inherited a large, sophisticated, and increasingly counterforce-capable nuclear arsenal.

In strategic missiles, the accurate, silo-killing Mk-12A re-entry vehicles had begun to enter the Minuteman III force in 1979, and their numbers continued to grow through the early Reagan years. Likewise the Trident-I C4 SLBM had entered the Navy's ballistic missile fleet under Carter. Under Reagan work continued apace on its successor, the improved accuracy Trident-II

D5. Reagan also inherited the MX missile program. This new, large ICBM was supposed to be a more accurate, more counter-force capable, and hopefully more survivable replacement for Minuteman. Growth in the size and accuracy of the Soviet Union's MIRVed ICBM force caused many American observers to fear that Minuteman missile silos were vulnerable to prompt destruction in a sneak attack. Correspondingly, along with the MX development program, Reagan also inherited a contentious debate about how the US should base MX to make it survivable.

Turning to the bomber force, Jimmy Carter famously and controversially canceled the costly B-1A development program in June 1977. The purpose of this program was to develop a penetrating bomber to replace the aging B-52. Unbeknownst to the American public, Carter canceled the B-1A in part because the still top secret stealth bomber program seemed more likely to yield a sufficiently capable aircraft. Regardless, in a public departure from Carter, Reagan restored funding for the modified B-1B program in 1981. While secret work would continue on the stealth or 'Advanced Technology Bomber' as it was then called, Reagan believed that continuing the B-1B program would help him to maintain pressure on the Soviets. The first B-1Bs became operational in 1986.⁴ The B-2s followed roughly a decade later.

Finally, Reagan also inherited two rapidly progressing long-range theater nuclear weapons programs. These were the Pershing II ballistic missile and the Ground Launched Cruise Missile. While both programs were US initiatives dating to the late Nixon Administration, they had become closely linked to NATO politics under President Carter. Since 1976 the Soviets had been deploying highly accurate SS-20 intermediate-range missiles capable of targeting most of

⁴ For a detailed history of the B-1 bomber saga see Kotz, Nick. *Wild Blue Yonder: Money, Politics and the B-1 Bomber*, Princeton University Press, 1988.

Europe. This caused considerable alarm in NATO capitals. To assure its allies, Carter and the US led NATO in setting out a 'dual-track' approach to addressing the threat. This mid-December 1979 decision called for NATO to seek negotiations with the Soviets to ban all intermediate-range nuclear forces. At the same time, the US and NATO would continue working to field their own counterforce-capable intermediate-range Pershing IIs and GLCMs to match the Soviet SS-20s and goad Moscow into negotiations.

Reagan continued the LRTNF/INF policy he inherited from Carter and saw it to its successful conclusion. In late 1983, Reagan oversaw the deployment of US intermediate-range nuclear forces in Europe. And four years later he succeeded in negotiating and signing the INF ban that the dual-track decision had ultimately aimed to bring about.

1.4) Reagan's Nuclear Security Theory of Cold War Victory

Throughout his two terms, Reagan would leverage his formidable nuclear inheritance to advance his two audacious foreign policy goals with remarkable consistency. For Johnson and Carter, the goals of combating the nuclear threat itself and deterring the Soviets had been in tension. Presidents could compete with the Soviets using nuclear weapons or they could negotiate with the Soviets to reduce nuclear risk, but they could not readily do both.

Reagan saw things differently. On one hand, his antipathy towards the Soviet system and his belief that he could personally combat it practically mandated a rejection of detente. He could not let the Soviet government persist unchallenged and unreformed as a result of his forbearance. Only direct confrontation, he believed, could shake the system to its core. On the other hand, Reagan abhorred nuclear weapons and the arms race. As much as he wanted to pressure the

Soviets, he feared that arms racing would eventually lead to nuclear war. Therefore, he sought to transcend the ‘anti-Soviet competition’ vs. ‘anti-nuclear cooperation’ tradeoff that had constrained his predecessors.

Initially, Reagan did this by continuing his predecessors’ support for improvements in offensive nuclear forces. Continued competition in costly advanced weapons, he believed, used US strengths to exploit Soviet technological weakness. However, when the MX program—central to this strategy—was dealt a significant setback by Congress, Reagan changed tacks. Beginning in 1983, he argued earnestly, persistently and forcibly for an ambitious collection of ABM systems known as the Strategic Defense Initiative, or derisively, ‘Star Wars.’ Reagan’s dream was to field a system of defensive weapons so capable that they would render offensive nuclear forces practically impotent. Pressure to compete in the requisite advanced technologies might weaken or even break the rotting Soviet system. Even if not, a breakthrough in defenses might end the threat of nuclear annihilation that had loomed over the world since 1945. Reagan believed that pursuing SDI was a win-win policy.

Deeply held confidence in Yankee ingenuity and the ‘can-do’ American spirit formed the foundation of Reagan’s overall NST, and his post-1983 pursuit of SDI. It was therefore on the strength of these American qualities that Reagan sought to challenge both the Soviets, and the Cold War security system based on nuclear threats. Leading a full-court press involving offensive weapons development, arms control negotiations, and the longer-term prospect of advanced defenses that could render offensive weapons impotent, Reagan sought to roll back the Soviet threat and the nuclear threat simultaneously.

2) Setting the Policy Trajectory

Ronald Reagan's first two years in office were spent setting the foreign and nuclear policy agenda for the rest of his administration. Unlike Carter, Reagan's pre-presidential views on how to connect nuclear means and political ends did not change appreciably after he took office. Reagan changed tactics—for example, by shifting the weight of his support from MX to SDI—but not his overall strategy for meeting both the Soviet and nuclear threats. At the same time, many of Reagan's pre-presidential views were unorthodox. Was the mighty Soviet Union really so weak that it might be forced to collapse or reform? Could nuclear weapons ever be eliminated? Could ABM defenses be made so effective that they were desirable, rather than dangerous or destabilizing? Contrary to popular opinion within the Washington beltway, Reagan believed that the answer to all three questions was yes. Consequently, he oversaw a two year effort to codify these ideas into formal US policy. Not unlike the Obama Administration a generation hence, in the Reagan White House the purpose of drafting policy was to communicate the president's views, more than to develop them.

2.1) *Pre-Presidential Views*

Reagan's basic views on the Soviet system, nuclear weapons and US foreign policy were formed well before he took office. In a series of self-scripted campaign and pre-campaign radio appearances, Reagan sought to communicate his ideas on these subjects to the American people. Communism, he argued at one point, is "a temporary aberration which will one day disappear from the earth because it is contrary to human nature." In contrast, the strength and vibrancy of the US economic system, gave us the ability to "outspend them forever."

Turning to nuclear weapons, Reagan warned his radio audience that “We live in a world, in which the great powers have aimed ... at each other horrible missiles of destruction ... that can in minutes arrive at each other’s country and virtually destroy the civilized world we live in.” It was this combination of anti-communist and anti-nuclear beliefs that fueled Reagan’s rejection of detente. According to historian John Gaddis, “His rejection of Mutual Assured Destruction, and hence of the SALT process, stemmed from a long-standing conviction that relying on nuclear weapons to keep the peace was sooner or later to bring on a nuclear war. Detente itself, he believed, had frozen the nuclear danger in place, rather than doing anything to alleviate it.” Or as Reagan put it in his folksy way, “Isn’t that [detente] what a farmer has with his turkey—until Thanksgiving Day?” As a result of this package of deeply held beliefs, when he took office on January 20, 1981, “Reagan’s objective was straightforward, if daunting: to prepare the way for a new kind of Soviet leader by pushing the old Soviet system to its breaking point.”⁵

2.2) *From Vision to Policy*

Between January 1981 and January 1983, Reagan’s foreign and nuclear policy vision became formal US policy. Three core policy documents—on strategic forces, US national security policy, and US Soviet policy—captured Reagan’s Nuclear Security Theory and set it in motion. The first was National Security Decision Directive (NSDD) 12 on strategic nuclear forces. NSDD 12 laid out a strategic modernization program with “five mutually reinforcing parts:” These included fielding more survivable command and control systems; modernizing the bomber force “by the

⁵ For communism as ‘temporary aberration,’ ‘horrible missiles of destruction,’ and ‘turkey’ quotes, see Gaddis, John L. *The Cold War: A New History*,” Penguin Books, 2005. pp. 217-218. For ability to ‘outspend them forever,’ detente having ‘frozen the nuclear danger in place,’ and Reagan’s ‘straightforward if daunting’ objective, see Gaddis, John L. *Strategies of Containment*, Oxford University Press 2005, pp. 350-354, 357.

addition of two new types of bombers,”—a reference to the newly re-funded B-1B and the still top-secret stealthy B-2; “improving the accuracy and payload of our [SLBMs] and addition of sea-based cruise missiles (SLCM);” “improving strategic defenses; and “deploying a new, larger, more accurate land-based ballistic missile.” Reagan signed it on October 1, 1981.⁶

Three features of NSDD 12 warrant discussion. First is the extent to which Reagan’s strategic modernization plans built upon his nuclear inheritance from Carter, Ford and Nixon. Second, and related, is the way it prioritizes programs—like the stealth bomber, and improved accuracy—that relied on US technological advantages. This approach was not new, but was fully consistent with Reagan’s faith in Yankee ingenuity. Finally, NSDD 12 provides an early preview of Reagan’s abiding interest in strategic defenses. Succinctly summarizing the basic outlines of what would grow into SDI, NSDD 12 asserted that “Strategic Defenses will be modernized, including air and space defenses. A vigorous research and development program will be conducted on ballistic missile defense systems.”⁷ While earlier ABM systems like Sentinel and Safeguard had been arms control bargaining chips for Johnson and Nixon, Reagan really wanted operational strategic defenses. SDI, he believed, could help press American technological advantage, break the Soviet system, and render nuclear weapons impotent.

Having provided early direction on strategic force modernization, Reagan now turned his attention to the wider framework of US national security policy. On February 5, 1982 he signed National Security Study Directive (NSSD) 1-82, and received the results in April of that year. NSSD 1-82 described the United States’ strategic environment, overall objectives, as well as

6 NSDD 12, “Strategic Forces Modernization,” October 1, 1981. Available online from “The Reagan Files” courtesy of Jason Saltoun-Ebin. <http://thereaganfiles.com/nsdd-12-strategic-forces.html>. For a good description of NSDD-12, see Lettow, Paul. *Ronald Reagan and his Quest to Abolish Nuclear Weapons*. Random House, 2006, pp. 56-57.

7 NSDD 12, “Strategic Forces Modernization,” October 1, 1981. Available online from “The Reagan Files” courtesy of Jason Saltoun-Ebin. <http://thereaganfiles.com/nsdd-12-strategic-forces.html>.

political, economic, diplomatic and military strategies for advancing those objectives. It was a means-ends chain for US national security rooted in Reagan's own beliefs and objectives, and closely coupled with NSDD-12.

An April 27, 1982 National Security Council discussion of the study results bears out this description. In the meeting, NSSD 1-82 lead author Tom Reed explained to Reagan "in October you adopted the strategic forces modernization plan, which was codified in NSDD-12 which implicitly spurred the TRIAD and provided a very high priority to C3I [command, control, communications, intelligence]. You also adopted the concept of flexibility for strategic reserves and that was codified in NSDD-13. This section says get on with it, essentially as promulgated last fall, and do it in a balanced and steady way."⁸ As a result, by May 1982, the NSSD 1-82 process was complete, and Reagan signed a new basic national security policy document, NSDD-32 that would implement his vision.⁹ Reagan was driving the bureaucracy—not the other way around.

The final and arguably most important component of Reagan's effort to codify his ambitious foreign and nuclear policy ideas got under way three months later, in August 1982. On August 21, Reagan directed a study centered on two subjects: "1. The likelihood of changes in the Soviet system: to ascertain what realistic expectation one can have of significant changes in the Soviet system and in Soviet international behavior, and in which areas; whether such changes are likely to make the country more or less threatening, and in which areas. The question of non-evolutionary (violent) collapse of the system from within and its implications for US security

⁸ National Security Council Meeting on NSSD 1-82. April 27, 1982. Available online from 'The Reagan Files' courtesy of Jason Saltoun-Ebin. <http://www.thereaganfiles.com/19820427-nsc-47.pdf>.

⁹ Lettow, Paul. *Ronald Reagan and his Quest to Abolish Nuclear Weapons*. Random House, 2006, pp. 68-69. For declassified text of NSDD-32 see 'NSDD-32,' May 20, 1982. Federation of American Scientists, <https://fas.org/irp/offdocs/nsdd/nsdd-32.pdf>.

will also be considered. 2. Soviet vulnerabilities and strengths: the sources of strains and tensions within the Soviet system and the bases for continuity.”¹⁰

Reagan’s two questions and the way he asked them were evidence of his strong suspicion that the Soviet Union was far weaker than it appeared. On January 17, 1983, Reagan signed the National Security Decision Directive that developed from this study—NSDD-75. The overall focus of US strategy towards the Soviets, it explained, was “To contain and over time reverse Soviet expansionism by competing effectively on a sustained basis with the Soviet Union in all international arenas.”¹¹ At the same time, this capstone document also left room for the outwardly softer approach towards the Soviets that Reagan would employ in his later dealings with Gorbachev. According to its principle author, Richard Pipes, Reagan instructed Pipes to avoid language that would appear to limit his freedom to pursue “compromise and quiet diplomacy” with Soviet leaders.¹² Reagan intended to confront the Soviets, and wanted the flexibility to do so in whatever ways seemed most productive.

3) Ronald RayGun and Star Wars

As Reagan translated his ideas into administration policy, he was also working to “get on with” his strategic force modernization efforts. NSDD-12’s discussion of the president’s desire to field a “new, larger, more accurate land-based ballistic missile,” was a reference to the ongoing counterforce-improving MX ICBM program. With roots dating to Nixon, by the early 1980s MX

10 NSDD 11-82. US Policy Toward the Soviet Union. August 21, 1982. Available online from ‘The Reagan Files,’ courtesy of Jason Saltoun-Ebin. <http://thereaganfiles.com/19821216-nsc-70.pdf>. Emphasis in original.

11 Gaddis, John L. *Strategies of Containment*, Oxford University Press 2005, p. 356. For declassified text of NSDD-75 see ‘NSDD-75’ January 17, 1983. Federation of American Scientists, <https://fas.org/irp/offdocs/nsdd/nsdd-75.pdf>.

12 Mann, James. *The Rebellion of Ronald Reagan: A History of the End of the Cold War*. Penguin Books, 2009, pp. 30-31.

was the subject of a divisive national debate about how the new weapon ought to be based. Only after wading into this debate and stumbling would Reagan pivot, making strategic defenses the central pillar in his overall plan to overcome the Soviet threat, and the nuclear threat.

3.1) *MX and 'Dunce-Pack'*

Growing Soviet counterforce capabilities were central to the problem. By 1980 Moscow had a 5:2 ICBM warhead advantage over the US. While the US still enjoyed a substantial numerical advantage in bombers and SLBMs, the size and accuracy of Moscow's large ICBM force that caused US officials to believe that it posed a counterforce threat to the US silo-based Minuteman force.¹³ Consequently, the country faced two unpalatable alternatives: Accept that the ICBM force situated in its homeland was vulnerable, or adopt some costly, elaborate system for ICBM protection.¹⁴ Reagan inherited one such ICBM protection millstone from Carter when he entered the White House.

Describing his thinking about the MX program to reporters in September 1979, Jimmy Carter outlined "five essential criteria which the basing system would have to meet." The first of these was the ability "to survive an attack."¹⁵ By 1981 efforts to pursue these five goals simultaneously had yielded an immensely complex basing plan: 200 MX missiles would be fitted on giant transport trucks that would have dwarfed familiar tractor-trailers. These transporters would roam across huge swaths of the American West, constantly shifting missiles among some 4,600

13 Lettow, Paul. *Ronald Reagan and his Quest to Abolish Nuclear Weapons*. Random House, 2006, p. 84.

14 Implicit in this debate is the fact that Carter, like Reagan, desired improved counterforce capabilities, but also wanted the United States' new counterforce capable missile to be able to ride out an attack. This would preserve the *option* of striking second, as well as perhaps the possibility of launching a second-strike counterforce attack. For desirability of second strike counterforce see Sagan, Scott Douglas. *Moving Targets : Nuclear Strategy and National Security*. Princeton, N.J. : Princeton University Press, 1989.

15 Editorial Note: FRUS 77-80 v.1 d. 125. <https://history.state.gov/historicaldocuments/frus1977-80v01/d125>.

hardened concrete launchers in an elaborate shell game designed to frustrate Soviet nuclear targeters. Building these shelters would have been the single largest construction project ever undertaken by the United States. By November 1982, Reagan had rejected this costly, controversial scheme in favor of another unattractive alternative.¹⁶

Variouly termed ‘Closely-Spaced Basing’ (CSB), ‘dense-pack’ or pejoratively ‘dunce-pack,’ Reagan’s new proposal involved building 100 hardened MX missile silos in dense clusters. In a Soviet attack, the first incoming warhead might destroy one or more silos. However, high winds, radiation and airborne debris from the explosion would deflect or destroy follow-on warheads for a period of several minutes. In nuclear targeting jargon, this is called fratricide. Thus, the ‘protective’ effects of the first nuclear blast would supposedly prevent the Soviets from quickly destroying all of the MX silos in a cluster with a sneak attack. Those missiles that had survived the first warhead could therefore be launched in retaliation well before they could be destroyed.

Within weeks of being proffered, the Reagan administration’s dense-pack solution to the ICBM vulnerability problem collided with a skeptical, Democrat controlled House of Representatives. Reagan’s November 22, 1982 dense-pack announcement was followed by a December 7 vote. The House rejected the concept as unsound, and moreover withheld all funds for MX ICBM production until a more suitable basing mode was identified.¹⁷ This was a significant stumbling block in Reagan’s quest to leverage US technical prowess to compete “effectively on a sustained basis with the Soviet Union in all international arenas.”

¹⁶ For Carter’s plan and Reagan’s rejection see Lettow, Paul. *Ronald Reagan and his Quest to Abolish Nuclear Weapons*. Random House, 2006, pp. 84-85. For NSC discussion of alternatives see National Security Council Meeting on M-X Basing Decision. November 18, 1982. Available online from ‘The Reagan Files’ courtesy of Jason Saltoun-Ebin. <http://www.thereaganfiles.com/19821118-nsc-66.pdf>.

¹⁷Lettow, Paul. *Ronald Reagan and his Quest to Abolish Nuclear Weapons*. Random House, 2006, p. 85.

3.2) Defense is the New Offense

Reagan responded with a change in tack. Because of its relative maturity, MX had been an important component of Reagan's plan to modernize US strategic forces and maintain pressure on the Soviets. A new generation of powerful, advanced missiles was only a few years from deployment.

At the same time, Reagan had no deep love for offensive nuclear weapons like MX. On the contrary, it remained his ultimate goal to eventually eliminate them. Consequently, Reagan responded to the Congressional vote to defund MX by shifting the weight of his system acquisition evangelism towards defensive, rather than offensive weapons. For Reagan, this was neither a bluff nor a gambit. Rather, he saw it as an opportunity to employ US technological prowess to out-compete the Soviets, and to end the world system of international security based on the threat of nuclear annihilation.

It was this line of thinking that led to Reagan's famous March 23, 1983 speech on the Strategic Defense Initiative (SDI)—derisively called 'Star Wars.' Addressing the nation from the Oval Office, Reagan observed (misleadingly) that "since the advent of nuclear weapons, those steps [to address the Soviet threat] have been increasingly directed toward deterrence of aggression through the promise of retaliation." And moreover, "This approach to stability through offensive threat has worked. We and our allies have succeeded in preventing nuclear war for more than three decades." Yet it was Reagan's view that the risks that came with this deterrent status quo could not be sustained indefinitely.

In language that again echoed Eisenhower's coded description of "retaliatory offensive striking power," Reagan explained that "in recent months, however, my advisers, including in

particular the Joint Chiefs of Staff, have underscored the necessity to break out of a future that relies solely on offensive retaliation for our security.” Presenting his personal beliefs on this front, he made the case that “I’ve become more and more deeply convinced that the human spirit must be capable of rising above dealing with other nations and human beings by threatening their existence.” In contrast, Reagan offered “a vision of the future which offers hope. It is that we embark on a program to counter the awesome Soviet missile threat with measures that are defensive.” These would be based upon “the very strengths in technology that spawned our great industrial base and that have given us the quality of life we enjoy today.” Reagan’s ultimate, earnestly felt goal was to create a world in which “free people could live secure in the knowledge that their security did not rest upon the threat of instant US retaliation to deter a Soviet attack.” Closing his speech, Reagan acknowledged the magnitude of the project he was proposing: “My fellow Americans, tonight we’re launching an effort which holds the promise of changing the course of human history.”¹⁸

Reagan’s SDI announcement came as a shock to the world, as well as to many of his close advisers. His plan ignored the nuclear strategy orthodoxy suggesting that defenses could be just as threatening to an opponent as offensive forces. Indeed, this was the exact argument that Robert McNamara had famously tried and failed to make to Alexei Kosygin at the 1967 Glassboro Summit. SDI also threatened to undermine the 1972 ABM treaty—a pillar of US-Soviet detente. Yet while the SDI announcement may have looked like a political ‘bolt from the blue,’ in fact, it was something that Reagan had been mulling at least since he signed NSDD-12 in October 1981.

¹⁸ Address to the Nation on Defense and National Security. March 23, 1983. Ronald Reagan Presidential Library, <https://www.reaganlibrary.gov/sites/default/files/archives/speeches/1983/32383d.htm>.

Soon after the December 1982 House vote against MX, Reagan met with the Joint Chiefs. Employing his characteristically oblique way of providing direction, he asked about the possibility of moving away from offense to deter a nuclear attack and moving toward a relatively greater reliance on defense.¹⁹ Following up two months later, Chairman of the Joint Chiefs of Staff John Vessey offered Reagan the Chiefs' qualified support for improved strategic defenses. The President's idealistic vision of a world dominated by defenses, and where offensive nuclear forces were practically obsolete seemed decidedly unrealistic. However, the Chiefs agreed that defenses could play some productive role in US security strategy. Most likely, they sought to backstop US counterforce capabilities with defenses that could 'mop up' a small uncoordinated Soviet retaliatory effort. Regardless, the Chiefs agreed that research and development work on defenses seemed prudent. According to former Ambassador James Goodby, "When he left the meeting, President Reagan, fortified by his own private advisors and by his own opinion, had decided that it was time to change the rules of the game."²⁰ As a result of presidential direction, the status quo surrounding nuclear deterrence and detente was changing.

Reagan's public and private support for SDI continued long after his March 23, 1983 speech. As a first step, on March 25, 1983 he signed NSDD-85 on "Eliminating the Threat from Ballistic Missiles." In crisp language laying out his vision, Reagan declared "I direct the development of an intensive effort to define a long term research and development program aimed at an ultimate goal of eliminating the threat posed by nuclear ballistic missiles."²¹ At a November 30, 1983 NSC meeting "for the purpose of reporting the activities since the March 23 speech," Reagan

19 Lettow, Paul. *Ronald Reagan and his Quest to Abolish Nuclear Weapons*. Random House, 2006, pp. 86-87.

20 Goodby, James E. *At the Borderline of Armageddon : How American Presidents Managed the Atom Bomb*. Lanham, Md. : Rowman & Littlefield, 2006, p. 140.

21 NSDD 85: Eliminating the Threat from Ballistic Missiles. March 25, 1983. Available online from, "The Reagan Files" courtesy of Jason Saltoun-Ebin. <http://www.thereaganfiles.com/83325-nsdd-85.pdf>.

staked out his hopes and fears, observing that “to take an optimistic view, if the US is first to have both offense and defense, we could put the nuclear genie back into the bottle by volunteering to eliminate offensive weapons. The pessimistic view is that a meeting similar to this NSC is now underway in the Kremlin; if the Soviets get new defenses first, we can expect nuclear blackmail.”²²

Likewise, on January 6, 1984, Reagan signed NSDD-119 providing more expansive guidance on SDI. It directed DOD to manage the strategic defense program and, reflecting the president’s antipathy to nuclear weapons, to “place principal emphasis on technologies involving non-nuclear kill concepts.”²³ Consequently, by Spring 1984 the Strategic Defense Initiative Organization (SDIO) had been established as a semi-independent agency within the defense department. Crucially, the Soviets had taken notice: a contemporaneous study by the Arms Control and Disarmament Agency (ACDA) “concluded that 70 percent of Soviet propaganda around the world was focused on SDI.”²⁴ Reagan’s central goals were to eliminate or reduce the nuclear threat, and to put enough pressure on the Soviet system to break it. By advancing SDI, Reagan was advancing both ambitious goals in tandem.

4) Under Pressure—Forward Strategic ASW

The Strategic Defense Initiative was Reagan’s high profile effort to pressure Moscow and reduce the nuclear threat from space. It was complemented by a lower profile but arguably riskier effort under water, called ‘forward strategic anti-submarine warfare (ASW).’

22 National Security Council Meeting on Strategic Defense Initiative. November 30, 1983. Available online from “The Reagan Files” courtesy of Jason Saltoun-Ebin. <http://thereaganfiles.com/19831130-nsc-96-sdi.pdf>.

23 NSDD 119: Strategic Defense Initiative. Available online from “The Reagan Files” courtesy of Jason Saltoun-Ebin. <http://www.thereaganfiles.com/8416-nsdd-119.pdf>.

24 Lettow, Paul. *Ronald Reagan and his Quest to Abolish Nuclear Weapons*. Random House, 2006, pp. 138-140.

Much had changed in the ASW world since the *USS Lapon's* pre-SALT I long trail of a Soviet Yankee class submarine. By the mid-1970s this once heroic feat had become more common. The US had the ability to seriously degrade, or potentially eliminate what most experts believed was the Soviet Union's most survivable nuclear weapons almost at will.²⁵ Yet around this same time the Soviet Union began to field Delta class SSBNs. Equipped with new, longer-range ballistic missiles, Delta class boats could threaten the US homeland from bastions close to Soviet waters. Unlike their predecessors, they had no need to pass through the GIUK gap, exposing themselves to the combination of SOSUS passive sonars, maritime patrol aircraft and attack submarines that had made earlier Soviet SSBNs so vulnerable. The barrier strategy that had been the backbone of US ASW success since the mid-1960s was growing untenable.

Consequently, the US had a choice. On one hand, it could elect not to trail Delta class submarines in the Barents Sea. But accepting vulnerability was not the American way. Alternatively, it could double down on ASW-enabled conventional counterforce with an aggressive plan to surge SSNs forward at the onset of conventional war in Europe. These SSNs would race into the Barents Sea to hunt down and kill Soviet missile submarines. If, as proponents of this strategy speculated, the conventional phase of a European war might last for thirty to sixty days, US attack submarines would have plenty of time to reduce the size of the Soviet nuclear arsenal—one enemy submarine at a time. According to this view, by relying on an aggressive forward strategic ASW strategy the US could tilt the strategic balance in the United States' favor during a protracted conventional war despite the Soviets' new bastion strategy.²⁶

25 Sontag, Sherry, Christopher Drew, and Annette Drew. *Blind Man's Bluff: The Untold Story of American Submarine Espionage*. Public Affairs Press, 1998. pp. 186-188.

26 Cote, Owen. *The Third Battle: Innovation in the US Navy's Silent Cold War Struggle with Soviet Submarines*. Naval War College Newport Papers v. 16. 2003. pp. 63-65.

Though the declassified historical record remains thin, President Carter seems to have encountered this issue early in his presidency. On the campaign trail, the former submariner made confident assertions about the invulnerability of both US and Soviet ballistic missile submarines. In July 1976, for example, he argued to a group of reporters that “There is no way for us to detect or destroy the Soviet Union’s atomic submarines. And neither is there an ability that the Soviets have to detect or destroy ours.”²⁷ Yet by June 1979 he had radically, if implicitly revised this view, likely on the basis of information that he could only have gleaned after assuming the presidency. During a summit meeting with his Soviet counterpart, Leonid Brezhnev, Carter proposed that both sides agree to establish some kind of “safe haven or sanctuary for strategic submarines in certain areas of the ocean that could be excluded from activities involved in anti-submarine warfare.” Carter’s suggestion hints at his new familiarity with the Soviets’ bastion strategy for the defense of its SSBNs as well as the fact that the US Navy could hold them at risk. Regardless, in keeping with the pattern of Soviet intransigence that contributed to ‘Carter’s conversion,’ Brezhnev made no reply to this proposal.²⁸ Thus, according to Owen Cote, “most if not all elements of this [forward strategic ASW] strategy were in place by the late 1970s.”²⁹

By the mid-1980s, the pursuit of forward strategic ASW was in full swing. This effort was enabled, in part, by the Jimmy Carter-approved decision to tap an undersea cable in the Barents Sea used by the Soviet Navy. By 1984, this program began yielding detailed data on Soviet

27 Quoted in Auten, Brian. *Carter’s Conversion: The Hardening of American Defense Policy*. University of Missouri Press, 2009, p. 91.

28 Memorandum of Conversation between President Carter and Leonid Brezhnev. June 17, 1979, 11am – 1pm. Foreign Relations of the United States 1977-1980 v. 6 d. 203. <https://history.state.gov/historicaldocuments/frus1977-80v06/d203>.

29 Cote, Owen. *The Third Battle: Innovation in the US Navy’s Silent Cold War Struggle with Soviet Submarines*. Naval War College Newport Papers v. 16. 2003. pp. 63-65.

SSBN operations in the region that could be used to improve US ASW.³⁰ Crucially, despite expert skepticism in the West about the efficacy of forward strategic ASW, the Soviets appear to have taken the conventional counterforce threat to their ballistic missile submarine fleet very seriously. For example, by the mid-1980s Soviet naval exercises had begun to focus on defending SSBNs against US nuclear attack submarines. This was a significant departure from past practice. Speculating on the sources of Soviet concern, ASW expert Owen Cote observes that the acoustic environment in the Barents Sea, coupled with US advantages in submarine quieting and passive sonar technology could have given the US a critical edge over Moscow. Moreover, on continental Europe, improvements in NATO conventional ground forces could have given US SSNs more time to attrite the Soviet missile submarine force before war there escalated.³¹ Overlooked was the possibility that US ‘success’ in degrading an important component of Moscow’s strategic nuclear forces could have created incentives for the Soviet leadership to release their submarine-based nuclear weapons before they were destroyed—instigating the kind of nuclear attack that the US had hoped to prevent.³² Thus, while the potential operational military effects of forward strategic ASW remain unclear, it does seem to have dovetailed with Reagan’s overall strategy of maintaining pressure on the Soviet Union in order to reduce the nuclear threat, and ultimately bring about the Soviet collapse

30 Sontag, Sherry, Christopher Drew, and Annette Drew. *Blind Man’s Bluff: The Untold Story of American Submarine Espionage*. Public Affairs Press, 1998. pp. 209-211, 244-247.

31 Cote, Owen. *The Third Battle: Innovation in the US Navy’s Silent Cold War Struggle with Soviet Submarines*. Naval War College Newport Papers v. 16. 2003. pp. 72-73.

32 Posen, Barry. *Inadvertent Escalation: Conventional War and Nuclear Risks*. Cornell Studies in Security Affairs. Ithaca, N.Y: Cornell University Press, 1991.

5) SDI—The Perfect Weapon

The Strategic Defense Initiative might have generated similar perverse ‘use or lose’ incentives had it ever led to a fielded system. But it did not. Thus, SDI was arguably the United States most effective failed weapons program ever. Despite the fact that SDI was vaporware—a collection of smoke and mirrors that never materially influenced US nuclear capabilities, it was influential because of the significance that both Reagan and Soviet leader Mikhail Gorbachev attached to it.

For Reagan, SDI was the path to achieving his Nuclear Security Theory’s highest ambitions. By embracing SDI he was rejecting detente, leveraging American vitality, putting Soviet communism on its heels, and working to make nuclear weapons irrelevant.³³ Gorbachev, for his part, probably saw that Reagan’s scheme was crazy. But even if it was unlikely to work it could still expand the already costly arms race to a new area of competition. By this account, the fact that SDI never left the drawing board does not matter. Even as vaporware, SDI influenced Reagan’s and Gorbachev’s calculations about nuclear weapons, arms control, and future strategic competition in important ways.

Reagan’s support for offensive nuclear force modernization and SDI took place in parallel with his long-standing desire to engage the Soviets in a new round of arms control talks. In some respects, Reagan’s simultaneous push for defenses, modernization and negotiations resembles strategies adopted years earlier by Johnson and Nixon. However, Reagan’s approach was different in two key ways. First, in contrast to Johnson and Nixon, Reagan’s push for ballistic missile defenses was no bluff. With Yankee ingenuity and a can-do attitude, Reagan earnestly believed America could build a future in which the threat of nuclear annihilation was no longer

³³ See e.g., Lettow, Paul. *Ronald Reagan and his Quest to Abolish Nuclear Weapons*. Random House, 2006, pp. 145-146; 154; 155.

the basis for security. Second, and related, was Reagan's ultimately justified belief that the Soviet system could be pressured into collapse or reform. In both respects, Reagan believed that he could accomplish things that none of his predecessors had even dared to attempt.

Reagan's pursuit of these goals was stymied throughout his first term by the recurring deaths of Soviet leaders. Between Fall 1982 and March 1985, the USSR underwent three separate leadership transitions. Long-serving Soviet leader Leonid Brezhnev died in November 1982, Yuri Andropov in February 1984, and Konstantin Chernenko in March 1985.

By March 1985, the tumblers began to align, and Reagan's push to reduce offensive nuclear forces began to pick up steam. Three factors were key. The first was the establishment in January 1985 of a framework within which a new round of US-Soviet arms talks could take place beginning in March. As a result of talks between Soviet Foreign Minister Andrei Gromyko and US Secretary of State George Schultz, both sides agreed to talks centered on three related issues: Strategic Arms Reduction Talks (START); Intermediate-range Nuclear Forces (INF); and the question of SDI-type defenses based in outer space. Discussion of arms reductions, rather than limitations, reflected Reagan's desire to reverse, rather than simply curtail the arms race. The inclusion of INF talks was presaged by the December 1979 NATO 'Dual Track' agreement and the deployment of GLCM and Pershing II missiles in Europe. Moreover, it is significant that Reagan's deep commitment to SDI meant that missile defenses would become the subject of US-Soviet negotiations for the first time since the landmark 1972 ABM treaty.³⁴ Thus, this the main features of this new framework for arms control dialogue aligned with Reagan's overall Nuclear Security Theory.

³⁴ Lettow, Paul. *Ronald Reagan and his Quest to Abolish Nuclear Weapons*. Random House, 2006, pp. 150-151.

A second key element in Reagan's second term arms control success was Soviet leadership succession. When Konstantin Chernenko died, he was replaced on March 11, 1985 by the comparatively youthful, intellectually flexible Mikhail Gorbachev. The Reagan-Gorbachev personal dynamic would become pivotal to the outcome of subsequent US-Soviet arms control.

Finally, there was the march toward a Reagan-Gorbachev summit that began at Chernenko's funeral. When he traveled to Moscow to pay the United States' respects to the late Soviet leader, Vice President George H.W. Bush carried with him a personal note from Reagan to Gorbachev. Reagan invited his new Soviet counterpart to a summit. After settling into his new office, Gorbachev accepted this invitation on June 1, 1985, and the two leaders were slated to meet in November.³⁵

From here the pace of events quickened. When Reagan and Gorbachev sat down together in Geneva in November, they established a decent working relationship almost immediately. This was reflected in the results of their talks. Both leaders agreed in principle to pursue 50% reductions in strategic nuclear forces, and to place interim limits on INF.³⁶ Tellingly, these early agreements did not extend into the realm of strategic defenses, which would remain a persistent source of tension between the two leaders.

Following the summit, a February 3, 1986 NSC meeting to plan a US response to a letter from Gorbachev provided Reagan with an opportunity to reinforce his views on US nuclear weapons policy. After agreeing that the US should continue to press for 50% reductions in strategic forces, Reagan went on to posit that "the US does not give up on SDI. We should point out that SDI is not for the US alone – we seek a mutual shift from sole reliance on offensive

35 Lettow, Paul. *Ronald Reagan and his Quest to Abolish Nuclear Weapons*. Random House, 2006, p. 163.

36 Goodby, James E. *At the Borderline of Armageddon : How American Presidents Managed the Atom Bomb*. Lanham, Md. : Rowman & Littlefield, 2006, p. 142.

weapons to an offense-defense mix.” Reagan’s desire to protect the US and the world from nuclear danger was sincere, and deep enough that he was seemingly willing to share US-developed SDI technology with his adversaries in Moscow. Turning to INF, “The President concluded the meeting by stating that it was clear that we needed to work in INF for total elimination of those systems. If the Soviets tried to put some SS-20s in Asia, perhaps we could counter by putting Pershing II and GLCM systems in Alaska, where they could reach Soviet systems in Asia. The Soviets must know that if there is not complete elimination of INF, we will not eliminate our INF.”³⁷ Reagan’s generosity in defensive arms was tempered by an understanding that continued competition in offensive weapons could yield further concessions.

To a large extent, the outcome of the storied October 1986 Reykjavik, Iceland summit was the product of these firm views on offensive nuclear weapons and defenses. As at Geneva, Gorbachev opened negotiations in the first session by laying out an ambitious, detailed proposal covering strategic nuclear forces, INF and defenses. By the afternoon of the second day, Reagan authorized a US proposal that would cut all US and Soviet nuclear forces by 50% within five years, and eliminate all offensive ballistic missiles within ten years. Yet the summit ultimately foundered on the question of SDI.

Fearing what the Americans might do with their sweeping foreign policy ambitions and technological prowess unleashed, Gorbachev was fiercely resistant to Reagan’s desire to permit ‘laboratory’ testing of SDI technology. Reagan, for his part, could not understand how Gorbachev could oppose US efforts to develop defensive weapons that he planned to share with

³⁷ National Security Planning Group meeting on Arms Control – Responding to Gorbachev. February 3, 1986. Available online from ‘The Reagan Files’ courtesy of Jason Saltoun-Ebin. <http://thereaganfiles.com/19860203-nspg-127-arms.pdf>.

the Soviets to render offensive nuclear weapons practically useless.³⁸ The result was a heart-breaking reversal. Near the beginning of their 3:25pm meeting on October 12, Reagan described the “tremendous party for the whole world” that would mark the occasion in 1996 when he and Gorbachev would meet again in Iceland to destroy the world’s last two nuclear missiles. A world-changing deal seemed within reach. But by 6:50pm, it had become clear that the negotiations had come to naught. Moving to leave, Reagan told Gorbachev “I don't know when we'll ever have another chance like this and whether we will meet soon.”³⁹

Having come seemingly so close to a deal to outlaw nuclear weapons—albeit one that did not include other nuclear powers like China, Britain or France—both leaders left Reykjavik empty-handed, hurt and angry. According to Paul Lettow, “The outcome of the meeting at Reykjavik has puzzled journalists and scholars. Yet Reagan’s actions at Reyjavik—his proposal that the United States and the USSR abolish all nuclear weapons, and his eventual refusal to agree to a nuclear-free world without a missile defense to guarantee it—grew directly out of his ideas regarding nuclear weapons and missile defense.”⁴⁰

Yet neither Reagan’s overall Nuclear Security Theory nor the Reykjavik summit was a total loss. The seeming intractability of the whole complex of strategic offensive, INF and defensive weapons issues that had been bundled together in the January 1985 framework for the nuclear and space talks led Reagan to agree to pursue an INF ban independent of an agreement on SDI

38 Goodby, James E. *At the Borderline of Armageddon : How American Presidents Managed the Atom Bomb*. Lanham, Md. : Rowman & Littlefield, 2006, pp. 144-145.

39 For Reagan’s description of the 1996 party, see U.S. Memorandum of Conversation, Reagan-Gorbachev, Final Meeting, 12 October 1986, 3:25 p.m. - 4:30 p.m. and 5:30 p.m. - 6:50 p.m., National Security Archive Electronic Briefing Book 203. October 13, 2006. For Reagan’s parting comments to Gorbachev see Russian transcript of Reagan-Gorbachev Summit in Reykjavik, 12 October 1986 (afternoon), published in FBIS-USR-93-121, 20 September 1993, National Security Archive Electronic Briefing Book 203. October 13, 2006; both available at <https://nsarchive2.gwu.edu//NSAEPP/NSAEPP203/index.htm>.

40 Lettow, Paul. *Ronald Reagan and his Quest to Abolish Nuclear Weapons*. Random House, 2006, p. 226.

and START.⁴¹ Within ten months, in December 1987, Reagan and Gorbachev signed the INF Treaty in Washington. A landmark agreement, the INF Treaty banned Washington and Moscow from possessing missiles with ranges between 500 and 5,000km. As a result, they created a wider ‘firebreak’ between short-range battlefield nuclear weapons and ICBM and SLBM-type strategic nuclear forces. And for the first time, both sides verifiably eliminated a whole class of perfectly good nuclear weapons.⁴²

6) Conclusion

Ronald Reagan was a complicated figure whose nuclear policy was difficult to parse. How was this movie star turned president manage a nuclear abolitionist Cold War hawk? Yet by unpacking the underlying Nuclear Security Theory that drove Reagan’s nuclear policy decisions, these apparent contradictions begin to resolve themselves.

Like all Presidents, Reagan took office with ideas about the goals he would pursue and the threats he would counter. Anti-communism and anti-nuclearism were his twin guiding lights. He wanted to end the Soviet Union, and eliminate nuclear arms. Even by the lofty standards of American presidents, these were ambitious objectives. Reagan also had a nuclear inheritance—a counterforce-oriented arsenal that was already on a trajectory to grow even more capable throughout his time in office. The product of these inputs was a Nuclear Security Theory—a theory about connecting nuclear means and political ends—that used a marvelous piece of vaporware to step over the competition vs. negotiation trade offs that had befuddled his

41 Mann, James. *The Rebellion of Ronald Reagan: A History of the End of the Cold War*. Penguin Books, 2009, p. xii.

42 For a fascinating history of INF verification, see Harahan, Joseph P. *Onsite Inspections Under the INF Treaty: A History of the Onsite Inspections Agency and INF Verification*. Diane Pub. Co., 1994.

predecessors. Reagan's theory was that by pursuing SDI he could both leverage US technological vibrancy, reduce the risk of nuclear war, and perhaps, ultimately, win the Cold War. And to the utter shock of the US foreign and nuclear policy elite, he turned out to be right.

Chapter 10) What a Long Strange Trip It's Been: George H.W. Bush and the End of the Cold War¹

1) Introduction

President Reagan left the White House on January 20, 1989 confident that the Cold War was over. His former Vice President and successor, President George H.W. Bush was not so sure. Cautious by nature and concerned that the new warmth in US-Soviet relations was fleeting, President Bush was loathe to abandon the status quo Offensive Missile Posture—especially while Soviet strategic nuclear force modernization continued apace. Consequently, Bush and his team pushed strategic arms control to the back burner and supported ongoing nuclear modernization programs, anticipating a return to Cold War competition.

Yet by the end of his single term in office, the Soviet Union had collapsed. Bush had signed two new, major strategic nuclear reduction treaties, and undertaken two rounds of ‘unilateral but reciprocal’ Presidential Nuclear Initiatives with the Soviet Union and Russia. These efforts resulted in drastic cuts to existing US strategic and theater nuclear forces, and brought several nuclear weapons development and acquisition programs to a screeching halt. Less visibly, a series of changes in US nuclear war plans led by Defense Secretary Dick Cheney and supported by Bush reduced the size of the Single Integrated Operational Plan’s (SIOP’s) target base by 40% and opened the door to truly flexible, or adaptive war planning beginning in the mid-1990s. In sum, the sweeping changes initiated by Bush and his executive team set the trajectory for the shape, size and capabilities of the offensive nuclear force that the US possesses today.

¹ My thanks to Andrew C. Miller for comments that improved this chapter. Errors are mine.

What caused this characteristically cautious president to undertake the most rapid and significant changes to US nuclear forces since Eisenhower's Monopoly-Maximal Posture transition? The confluence of three events in Summer and Fall 1991 led Bush to abandon his initial Nuclear Security Theory. The first two did not drive change, as much as they enabled it by informing the Bush team's views about the relationship between nuclear weapons and American security. In January-February 1991 the United States won an overwhelming victory over the Soviet-equipped Iraqi Army in the Persian Gulf War. Consequently, senior US officials began to question the value of theater nuclear weapons given America's conventional military prowess. At longer range, the post-Gulf War revelation of Iraq's surprisingly advanced nuclear weapons program raised the question: would other dictators reach for nuclear weapons to deter American interference and advance their aggressive goals in the post-Cold War world?

Next, in April 1991, a massive, thoroughgoing review of the Single Integrated Operational Plan (SIOP), the United States' main nuclear war plan, revealed that the nuclear arsenal could be cut by some 40% without reducing the strength of the US deterrent. Both the Gulf War and the SIOP Review opened President Bush and his advisors to the possibility that US security needs could be met with fewer strategic and theater nuclear weapons.

Against this background, an attempted coup in the USSR in August 1991 gave Bush a reason to pursue these reductions with vigor. Bush now believed that the US could secure itself with fewer nuclear weapons—and he had always known that the US would be better off if the Soviets arsenal was smaller. Therefore, he sought to lock in bilateral strategic arms control agreements while he still had an engaged partner—Gorbachev—who exercised sole control over Soviet nuclear forces. At the same time, he saw the upheaval surrounding the end of the Cold War as an

opportunity to resolve a series of thorny politico-military problems connected with US theater nuclear forces in a quick, straight-forward way. Finally, he believed—correctly—that unilateral nuclear arms cuts, withdrawals and program cancellations could inspire Soviet/Russian reciprocity. This line of thinking led to the landmark Presidential Nuclear Initiatives.

Taken together, these three events corresponded to a dramatic shift in Bush's Nuclear Security Theory. The 'traditional' Soviet threat had diminished. The threat posed by thousands of Soviet nuclear warheads seemed less troublesome than the insidious threat of aggressive dictators or terrorists armed with a few nuclear weapons—perhaps pilfered from the former USSR. And moreover the Gulf War and SIOP Review suggested that massive nuclear arsenal was no longer the sine qua non of security. Instead, it seemed that fewer weapons would be at least sufficient—and to the extent that the Soviet Union matched US cuts, then having fewer weapons on both sides could even enhance US security.

As Bush's new Nuclear Security Theory solidified, he and his executive team took steps to begin adjusting US nuclear posture accordingly. Throughout 1991 President Bush aggressively pursued traditional arms control—now aimed at reducing, rather than limiting, US and Soviet nuclear arsenals. To align the theater nuclear mission with the newly reduced Soviet/Russian threat and to mitigate the risk that Moscow might lose control of its nuclear weapons, he undertook the Presidential Nuclear Initiatives—two rounds of swift, deep 'unilateral but reciprocal' US-Soviet/Russian arms cuts. Looking ahead, he halted or truncated a number of ongoing weapons acquisition programs that would have borne fruit in the 1990s, and presided over the most significant revision of US nuclear war plans since Eisenhower approved the first SIOP on December 2, 1960. Overall, Bush to set in motion the largest, fastest nuclear posture

changes since the 1952-1956 Monopoly-Maximal Posture transition. While, strictly speaking, US Posture did not change until the addition of the hedging mission in 1994, it is President Bush who deserves the lions share of the credit for the trajectory of US nuclear posture through the 1990s.

1.1) Changing Threats

For his first two years in office, President George H.W. Bush's foreign policy was guided by his concern that the improvement in US-Soviet relations inaugurated by Reagan and Gorbachev was still reversible. Moscow's control over Eastern Europe was diminishing, the Soviet economy was performing badly, and Gorbachev was increasingly unpopular with the military. Soviet strategic nuclear force modernization was proceeding apace. Given these trends, it seemed to Bush that Gorbachev could halt his reforms, or be pushed aside by a more hardline leader. Either eventuality would quickly erase recent progress in US-Soviet relations. The cautious president was not ready to declare the Cold War over yet. Correspondingly, he saw no good reason to change the course of US nuclear posture.

This began to change in Summer and Fall 1991 as Bush and his advisors began to update their understanding of the post-Cold War threats the US might face. Two events drove this change in threat perception. The first was the Gulf War. The fact that Saddam Hussein had invaded oil rich Kuwait in August 1990, and had to be forcibly ejected by a US-led international coalition in January and February 1991 was a reminder that in the post Cold-War world some despots would inevitably challenge US interests. Deterring or defeating them would be the sole superpower's responsibility and prerogative. Thus, the Gulf War hinted at the shape of things to come.

Crucially, this perceived threat was magnified in the aftermath of the Gulf War. The revelation that Saddam Hussein's nuclear weapons program was surprisingly advanced highlighted how dangerous 'things to come' might be. The US-led coalition won the war so easily because they had spent months massing conventional forces near Iraq and Kuwait. It was sobering to realize that a few years hence, Saddam might have been able to deter or destroy those vulnerable massing forces with just a few simple nuclear weapons. Despots who chafed under US hegemony, the Bush team soon realized, would have tremendous incentives to pursue nuclear weapons to counter US conventional superiority. Indeed, this had been NATO's strategy for dealing with presumed Soviet superiority since Eisenhower. This nuclear-armed 'rogue' threat was something new that the Bush team would have to prepare for.

The second driver of change in the Bush team's forward-looking threat perception was the abortive military coup against Soviet leader Mikhail Gorbachev in August 1991. It was always clear that the Soviet Union's (or its successors') nuclear capabilities would remain a potential threat well into the 1990s, no matter what. However, the failed coup highlighted the risks of Soviet disintegration. This changed the Bush White House's perspective on the Soviet threat. Soviet strength, manifesting itself in aggression was no longer the main concern. Rather, it was Soviet weakness and domestic instability that could lead to accidental or unauthorized nuclear use, or to the theft of nuclear weapons, fissile material or technology.

The prospective security challenges highlighted by the Gulf War and possible Soviet collapse were different in many ways. However, both centered on the belief that even small numbers of nuclear weapons could do dramatic harm to US interests. A Soviet-designed 'suitcase nuke' in terrorists' hands could devastate an American city. Soviet nuclear experts might sell weapons,

expertise or fissile material to the highest bidder. Dictators armed with nuclear weapons and other weapons of mass destruction (WMD) could invade neighbors and abuse their own people without fear of US-led intervention. And all of these threats could threaten US leadership and freedom of action in the new post-Cold War world order.

Thus, by fall 1991 the Soviet threat that had animated US foreign policy and nuclear posture for over forty years was evaporating. Despite having become habituated to thinking in terms of thousands of warheads and targets, and millions of potential casualties in case of war, the US emerging from the Cold War with a surprising sensitivity to the power of small arsenals.

1.2) New Opportunities

This sensitivity to small, emerging nuclear threats was matched by the emergence of new opportunities for what was, by the end of 1991, the world's only superpower. Indeed, the Bush Administration's surprising sensitivity to rogue state nuclear threats that had not yet materialized was fueled by the desire to pursue these new opportunities unopposed. As the Soviet threat retreated, American ambitions advanced. Two opportunities in particular proved especially influential during and after the George H.W. Bush Administration.

First was the opportunity to pursue permanent global hegemony. By Spring 1991 the US was on the cusp of a post-Cold War world filled with nearly limitless possibilities. The Soviet Union was emaciated. China was weak and poor. No other rival was on the horizon. Why shouldn't the US, having reached the pinnacle of global power, use its strength to stave off or undermine any state that might someday challenge it? Indeed, the fact that only states with nuclear weapons

could credibly challenge the US explains much about America's new found sensitivity to small nuclear threats. Thus, the prospect of permanent hegemony seemed achievable, if audacious.

The second major opportunity that President Bush and his team encountered was loosely connected with, and arguably in tension with the first. That was the opportunity to make deep cuts in US conventional and nuclear forces. Cuts to conventional forces were principally driven by the American people's—and Congressional Democrats'—desire for a post-Cold War peace dividend. Bush and his advisors worked proactively to meet this demand while ensuring that the cuts were tailored to preserve key military capabilities. Cuts to US nuclear forces were enabled by the results of the SIOP Review and the Gulf War. This SIOP Review, initiated by Defense Secretary Dick Cheney, found that the National Strategic Target List (NSTL) and US strategic forces could be reduced by some 40% without undermining the United States' ability to deter its adversaries or carry out the countervalue and counterforce missions. Decisive victory in the Gulf War clarified the extent of US conventional prowess and the corresponding low utility of the theater mission.

While there was a conceptual tension between the two goals of pursuing hegemony and cutting conventional and nuclear forces, in practical terms President Bush and his advisors were convinced that the US was strong enough that it could comfortably shed some defense muscle without jeopardizing its power position.

1.3) Bush's Nuclear Inheritance

President George H.W. Bush took office as the Offensive Missile Posture was approaching the pinnacle of 'half throttle counterforce.' In terms of offensive weapons, the benefits of investments made and programs initiated as far back at the Nixon Administration were at hand. The highly accurate MX Peacekeeper ICBM was first deployed in 1986 and the force was still growing to its planned size of fifty missiles, each with ten warheads. Similarly the highly accurate Trident II D5 SLBM—progeny of Nixon's ULMS program—was slated to enter the Navy's inventory in March 1990. These modern offensive counterforce weapons were animated by a SIOP which, thanks to reforms dating to the so-called Schlesinger doctrine of 1974, and continuing under Reagan, provided the President with a number of nuclear employment options. These included an option to spare enemy cities from destruction, limited options that were designed to appear limited to the Soviet leadership, and, most likely, country withhold options that permitted the president to strike the Soviet Union but not portions of Eastern Europe. Even so, had major nuclear war broken out when Bush first took office, the total number of targets to be struck in the SIOP's target list stood at an overwhelming 10,000.

In contrast, the defensive forces that might have backed these formidable offensive weapons, and made US counterforce first strike threats appear truly credible were wholly non-existent. President Bush had inherited the Strategic Defense Initiative (SDI) from his predecessor. Still years away from even the prospect of fielding any defensive capability, the Bush Administration sometimes paid lip service to SDI's desirability, but ignored it in practice.

On the diplomatic front, Bush also inherited a number of arms control efforts from President Reagan. These included the Strategic Arms Reduction Talks (START) aimed at cutting, rather

than just limiting US and Soviet strategic forces, as well as the Conventional Forces in Europe (CFE) talks. Work on implementing the Intermediate-range Nuclear Forces (INF) Treaty of 1987 by destroying US Ground Launched Cruise Missiles (GLCMs) and Pershing II missiles, and Soviet SS-20 ballistic missiles began before Bush took office, and was completed in 1991.

1.4) George H.W. Bush's Nuclear Security Theories

President George H.W. Bush, like President Carter, pursued two separate Nuclear Security Theories during his one term administration. Carter initially hoped that by restraining or curtailing US nuclear capabilities he could improve US-Soviet relations. Disappointed when Moscow spurned his overtures, by Summer/Fall 1979 he adopted a new NST directed towards continuing improvements to US counterforce capabilities.

George H.W. Bush's NST transition was, in some ways, a mirror image of Carter's. Initially concerned about a reversal in US-Soviet relations and a return to nuclear competition, Bush chose to preserve the Offensive Missile Posture status quo until Summer/Fall 1991. And while Bush supported arms control, the risk averse president first sought progress on the Conventional Forces in Europe treaty as a brake against what he saw as Reagan's frenetic nuclear arms reduction efforts. Like most of his predecessors, Bush believed that the road to security was paved with modern, capable offensive nuclear forces.

Events in Summer/Fall 1991 began pushing Bush and his executive team towards a radically different NST. This new NST was geared towards capturing the opportunities and threats of the post-Cold War world. The threat of a massive Soviet nuclear attack was receding. Smaller but still serious post-Cold War nuclear threats evoked by the USSR's disintegration and the

discovery of Saddam's surprisingly advanced nuclear weapons program following the Gulf War. In truth, these threats had not yet materialized. Yet for Bush and his advisors, they loomed on the horizon. Nuclear and other WMD technologies would surely spread. So would cruise missiles and ballistic missiles to deliver them. And those who wanted these dangerous weapons most, and would pursue them most doggedly were the same bad actors who sought to challenge American hegemony. Even as the Soviet threat that had dominated American fears and foreign policy evaporated, Bush's view was that the 1990s would not be a time to relax. Instead, they would be a new and uncertain kind of dangerous.

At the same time, the SIOP Review, Gulf War and end of the Cold War highlighted important opportunities for nuclear arms reductions. First, they all suggested that US security needs could be met with substantially smaller strategic and theater nuclear forces. Second, the US also had an opportunity to leverage its own arms cuts to elicit similar cuts from the Soviets. In view of all this, the logic went, nuclear arms reductions really could enhance US national security. This new belief was at the heart of Bush's second Nuclear Security Theory.

Consequently, in fall 1991 Bush began working to bring US nuclear posture into alignment with the post-Cold War threats and opportunities he saw on the horizon. A massive nuclear arsenal was no longer necessary. Bush therefore shrank it, while leaving its general characteristics unchanged. The combination of counterforce, counter-value and theater missions that defined the Offensive Missile Posture remained the same. Likewise, the nuclear triad of bombers, ICBMs and SLBMs that had formed the holy grail of deterrent effectiveness, survivability and reliability remained in place. Yet despite these important elements of continuity, the initial steps that Bush took to begin altering US posture were quick and massive.

Most urgently, he withdrew all US ground-launched theater nuclear weapons from Europe and Asia, ordered nuclear weapons removed from all US Navy surface ships, and took US bombers off alert. Taken together, these changes included in this first Presidential Nuclear Initiative (PNI) were primarily intended to use the end of the Cold War as an opportunity to resolve a number of festering politico-military problems associated with US theater nuclear forces. They also had the benefit of generating comparable Soviet reductions. In a follow-on initiative, in January 1992, Bush halted or truncated several ongoing US weapons programs, including the B-2 bomber and the accurate, high-yield silo-killing W88 SLBM warhead. Perhaps most importantly, he and Defense Secretary Dick Cheney updated US nuclear war planning, abolishing the Cold War Strategic Air Command and replaced it with a new Strategic Command. These decisions opened the door to flexible, adaptable nuclear war planning of the sort that the US would need to advance its audacious goals in a changing world.

And those goals were nothing if not audacious. Indeed, days before leaving office his administration released its Defense Planning Guidance for the 1990s. A combination foreign policy swan song and influential road map for successors, this controversial document laid out the Administration's sweeping, overwhelming vision for a future of permanent American hegemony. At the same time, it described the Bush team's fear of "hostile non-democratic powers" which might oppose this hegemony, while highlighting how advanced conventional and flexible nuclear forces might counter them.

By fall 1994 President Bush was two years out of office, and the US had begun pursuing the United States first new nuclear Posture in over 30 years. While President Clinton oversaw this transition, the responsibility for massively reducing the size of the US nuclear arsenal, re-

orienting it towards the ‘rogue threat,’ charting the course for US foreign policy in the 1990s, and initiating the most far-reaching changes to US nuclear forces since the early 1950s resided with President George H.W. Bush and his executive team.

2) Bush Does Not Do ‘The Vision Thing’

President George H.W. Bush entered the White House skeptical of the US-Soviet rapprochement fostered by his predecessor, Ronald Reagan, and Soviet leader Mikhail Gorbachev. How could he trust that tensions would remain low? Gorbachev had strong opponents at home—especially within the military. Soviet strategic nuclear force modernization continued unabated. Even *if* Gorbachev was a sincere reformer, Bush knew that he might be pushed aside, and that Cold War competition could resume without warning. If it did, Bush was intent on ensuring that the US was not caught flat footed. Caution was the order of the day.

Given this, it is unsurprising that Bush ran a disciplined, centrally coordinated policy process. While not averse to creative new ideas, he was averse to embracing them without careful deliberation. Consequently, through spring 1991 Bush’s Nuclear Security Theory remained centered on the continued pursuit of the Offensive Missile Posture that had served his predecessors well enough since 1963. Meanwhile, the world around him was changing at breakneck speed.

2.1) Easy Does It

In January 1989, President Reagan’s outgoing Secretary of State, George Schultz, worried that his Bush Administration successors “did not understand or accept that the cold war was

over.”² His concern was justified. Bush’s incoming National Security Adviser Brent Scowcroft captured the new administration’s prevailing view, observing that nothing about the Soviet Union, or its military posture had been permanently or irrevocably changed.³ Soviet leader Mikhail Gorbachev looked and acted like a reformer—but what were his true motives? Could warming East-West relations give Moscow the diplomatic and economic breathing room that it needed for an eventual return to hard-line policies? Could he be replaced by someone who opposed US-Soviet rapprochement? For Bush and his executive team, these were all live issues⁴

This cautious, skeptical attitude towards Moscow was characteristic of Bush’s early foreign policy. On February 15, 1989, less than a month after taking office, he ordered a comprehensive inter-agency review of US foreign policy called National Security Review (NSR) 3. Rejecting what he called Reagan’s ‘vision thing’ Bush preferred a methodical foreign policy process. Thus, NSR-3 was intended not only to inform his thinking, but also to buy his administration time to consider its foreign policy agenda and signal that Bush would not blindly follow in Reagan’s footsteps.⁵

The completion of NSR-3 in late May 1989 marked the end of the Bush’s initial pause in US-Soviet relations. According to Scowcroft it was “disappointing—mainly a ‘big picture’ document, short on detail and substance, without the kind of specific and imaginative initiatives needed to get US-Soviet relations on a productive path.” The inter-agency foreign policy

2 Quoted in Zelikow, Philip and Condoleeza Rice. *Germany Unified and Europe Transformed*. Harvard University Press, 1995. p. 20.

3 Ibid.

4 Shiffrinson, Joshua. *Dilemmas of Decline, Risks of Rise: The Systemic and Military Sources of State Strategy Towards Declining Great Powers*. PhD Dissertation, MIT, September 2013, pp. 72-73.

5 For cautious approach see Gaddis John L. *The Cold War: A New History*. Penguin Press, 2005, pp. 239-240. For ‘vision thing,’ see Sarotte, Mary. *1989: The Struggle to Create Post-Cold War Europe*. Princeton University Press 2009, p. 4. For initiation of NSR-3 see *ibid* p. 24. For background on Bush’s management style see Zelikow, Philip and Condoleeza Rice. *Germany Unified and Europe Transformed*. Harvard University Press, 1995. p. 21.

bureaucracy had failed to deliver. As a result, Bush and his team concluded that they would have to develop and implement these ‘imaginative initiatives’ themselves.⁶

Two ideas that had been in gestation since March would become key pillars of Bush’s early approach to both the Soviet Union and his NATO allies. First, Bush sought to distance himself from Reagan’s staunch anti-nuclear stance. His concern was that Reagan had discredited the US/NATO reliance on nuclear weapons for their security and that the INF treaty weakened deterrence.⁷ A consistent pattern of anti-nuclear rhetoric from a sitting president, Bush feared, may have weakened the credibility of American alliance commitments and nuclear threats. If it continued it might even increase the risk of allied proliferation.

Correspondingly, Bush threw his support behind a plan to modernize eighty eight Lance missiles based in West Germany, despite strong German opposition.⁸ These were nuclear capable short-range theater ballistic missiles with a range of roughly 500km. Modernizing them would improve NATO’s ability to execute Follow On Forces Attack, (FOFA) a defense concept which involved destroying Warsaw Pact forces deep behind enemy lines before they advanced to the front lines. More than that, Lance modernization would send a strong signal that the US was serious about its continued nuclear commitment to NATO.

Channeling Bush’s credibility concerns, in April 1989 Secretary of State James Baker pressed West German Defense Minister to support Lance modernization with a thinly veiled threat. “We’re slipping down a path of denuclearization of our defense, with a big risk to nuclear

6 For ‘pause’ see Service, Robert. *The End of the Cold War: 1985-1991*. MacMillan, 2015 p. 374.

Scowcroft quoted in Bush, George H.W. and Brent Scowcroft. *A World Transformed*. Alfred A. Knopf, 1998 p. 40.

7 Zelikow, Philip and Condoleeza Rice. *Germany Unified and Europe Transformed*. Harvard University Press, 1995. p. 20; Service, Robert. *The End of the Cold War: 1985-1991*. MacMillan, 2015 pp. 363-365.

8 For the public opinion roots of German opposition, see Sayle, Timothy. *Enduring Alliance: A History of NATO and the Postwar Global Order*. Ithaca, Cornell University Press, 2019, p. 213.

coupling,” Baker argued, referring to the escalatory linkage between theater and strategic nuclear weapons that was believed to connect the US and NATO Europe. Moreover, if the West Germans were to “denuclearize the Alliance defense before there’s a major change in the conventional force posture,” they would be “unraveling the forward defense strategy, too.” That is, without modernized Lance for FOFA, NATO might be unable to defend the inner-German border. Consequently, the logic goes, large portions of West Germany might be devastated by war and perhaps permanently lost to the Soviets. Finally, Baker inserted his argument’s logical extension into his notes by hand: without nuclear weapons in Europe, the US could not be confident in its ability to defend its own troops. Baker’s threat would have been unmistakable to Stoltenberg. Without allied support for theater nuclear force modernization, the US might have no choice but to withdraw its ground forces from the continent, leaving West Germany exposed to Soviet predation.⁹ So powerful was the American desire to defend and influence Western Europe while inhibiting proliferation there that it was willing to levy tough threats against a long-standing ally over the question of Lance missile modernization.

Baker had been harsh with Stoltenberg, and the US position on Lance was, in the spring of 1989, the key source of tension within the alliance. Nevertheless, US officials pressed this same theme the next month in a more public setting: NATO’s fortieth-anniversary summit. Keeping up-to-date theater nuclear forces like a modernized Lance missile in Germany, they insisted, was necessary to compensate for the Warsaw Pact’s supposed conventional superiority. US officials’ willingness to threaten its allies with abandonment and also to press their case at what was

⁹ Lance modernization specifics and Baker’s meeting notes quoted in Sarotte, Mary. *1989: The Struggle to Create Post-Cold War Europe*. Princeton University Press 2009, pp. 26-27. This was not the first time that the US had made this threat to Germany. See Gerzhoy, Gene. “Alliance Coercion and Nuclear Restraint.” *International Security* 39, no. 4 (Spring 2015): 91–129.

supposed to be a celebratory anniversary summit only underscores how strongly Bush and his team felt about the centrality of modern, capable theater nuclear forces to European defense.¹⁰

After Lance modernization, the second key idea that animated Bush's initial approach to European security and US-Soviet relations centered on conventional forces. Bush initially prioritized conventional arms control over nuclear arms control. This impulse was the brainchild of Brent Scowcroft. After privately securing Bush's advance approval, Scowcroft presented a proposal for treaty-mandated conventional force cuts during an informal meeting of Bush's core foreign policy team in late March 1989. In its initial form, Scowcroft's proposal was radical. He argued that the US should press for an agreement with the Soviet Union that would see both countries completely withdraw all of their ground forces from Europe. "It made military sense" he argued "because NATO minus most of its US troops was better off than the Warsaw Pact without Soviet troops. But, primarily, such a move would reduce the smothering presence of Soviet forces in Central Europe—one of our goals." According to Scowcroft, Defense Secretary Dick Cheney was "stunned" by his proposal and Secretary of State James Baker preferred an incremental approach that focused on the withdrawal of tanks as a first step.¹¹

Regardless, by the time the NSR-3 pause was over in late May 1989, Bush had decided that Scowcroft's reasoning was persuasive. Correspondingly, he directed his team to pursue a conventional arms control treaty with Moscow. "I want this done," he said at a meeting of his top advisers. "Don't keep telling me why it can't be done, Tell me how it can be done."¹² This

¹⁰ Ibid p. 26. For Lance modernization as the key source of tension see Zelikow, Philip and Condoleeza Rice. *Germany Unified and Europe Transformed*. Harvard University Press, 1995. pp. 29-30.

¹¹ Bush, George H.W. and Brent Scowcroft. *A World Transformed*. Alfred A. Knopf, 1998 pp. 42-46. For Scowcroft's advance coordination with Bush see Gates, Robert. *From the Shadows: The Ultimate Insider's Story of Five Presidents and How They Won the Cold War*. Simon and Schuster, 1996 pp. 461-462. The fact that Gates records Scowcroft's coordination with Bush corroborates Scowcroft's claim to have proposed this idea.

¹² Zelikow, Philip and Condoleeza Rice. *Germany Unified and Europe Transformed*. Harvard University Press, 1995. pp. 29-30.

vigorous pursuit of conventional arms control stood in stark contrast to Bush's early efforts to maintain or even enhance the status quo in US nuclear force posture.

Bush's early decisions on Lance modernization and conventional arms control highlight key elements of his overall approach to foreign policy. He did not leap into policy decisions. He was cautious. While he was open to novel ideas and imaginative proposals like aggressive pursuit of conventional arms control, he only pursued these ideas after some deliberation. Finally, and most importantly, while the world was at the brink of massive geopolitical upheaval, Bush continued to view US relations with its main adversary and key allies through the traditional Cold War security paradigm.

2.2) Re-evaluating the Conventional and Nuclear Forces

For the cautious Bush team, the peaceful, unopposed fall of the Berlin Wall on November 9, 1989 marked the first of the irrevocable changes in Soviet policy that they had been waiting for. Though not yet fully convinced, as Reagan and Schultz had been, that the Cold War was over, they were growing receptive to the possibility that they had reached the beginning of the end. Correspondingly, this momentous event took place alongside two early, parallel efforts to adjust the US military to handle the quickly changing geopolitical landscape.

Five days before the Wall fell, Joint Chiefs of Staff Chairman Colin Powell began thinking seriously about deep cuts to US conventional force structure. Inspiration struck as he rode an exercise bike given to him by Austrian body builder, actor, and future California Governor Arnold Schwarzenegger. Over the next ten days Powell developed his ideas into a briefing for

Defense Secretary Dick Cheney that he delivered on November 14, and to President Bush the next day.

Anticipating public and Congressional demand for a post-Cold War peace dividend, Powell's goal was to ensure that any cuts in the US armed forces were carefully planned to preserve core capabilities. By accepting that cuts were inevitable, Powell believed that perhaps he could ensure that they would be made intelligently. Thus, Powell's exercise bike musings became the genesis for the landmark Base Force concept that shaped US conventional forces throughout the 1990s.¹³

While JCS Chairman Colin Powell's energies were directed towards the future of US conventional forces, Defense Secretary Dick Cheney was turning his attention towards nuclear war planning. Cheney was initially briefed on the United States' main set of nuclear war plans—the Single Integrated Operational Plan, or SIOP—when he entered the Pentagon in spring 1989. At that point, as a result of changes begun in 1974 with NSDM-242 and NUWEP 74, and which continued between 1985 and 1989 under the leadership of DOD official Frank Miller, the SIOP was no longer the monolithic all or nothing war plan that it had been in the 1960s. In Spring 1989 it included one strike option that would have spared Soviet cities from destruction, and some options that had been designed—taking into account Soviet early warning and attack assessment capabilities—to appear limited and restrained from the Soviet perspective. Moreover, it did not include Chinese targets, though there were enough spare or un-targeted SLBMs in the Secure Reserve Force (SRF) to cover the PRC target base if necessary. Finally, the SIOP had been updated so that it could reliably destroy the entire programmed target base even if the president chose to ride out an incoming attack, instead of launching under attack (LUA).¹⁴ US

13 Powell, Colin, with Joseph Persico. *My American Journey*. Random House, NY, 1995 pp.434-439.

14 Author's interview with Franklin C. Miller, August 31, 2018. See also Butler, George Lee. *Uncommon Cause: A Life At Odds With Convention. Volume 2*. Chapter 1. Outskirts Press, Denver CO 2016. On reliance on LUA: Before

nuclear war plans were not yet as flexible as they would soon become, but they were no longer as rigid as they had once been.

Following his first exposure to the SIOP—likely SIOP 6E, Cheney was briefed again on the new, updated SIOP 6F in Fall 1989. This new iteration of the plan would come into effect on October 1, 1989.¹⁵ Despite the new flexibility added to the SIOP through the 1970s and 1980s, it remained a massively destructive set of plans. It called for the ability to deliver some 10,000 warheads to targets throughout the Soviet Union and Warsaw Pact. For his part, Cheney was unclear about the rationale behind the details of this newest iteration of the United States' main nuclear war plan. According to Cheney, "I said to the planners, how many warheads are going to hit Kiev under the current plan? It was a difficult question to answer because I don't think anybody had ever asked it before, but I finally got a report back that under the current targeting plan, we had literally dozens of warheads targeted on this single city. It was time to rationalize our nuclear targeting."¹⁶

Consequently, Cheney ordered a comprehensive, civilian-led target-by-target SIOP Review beginning in Fall 1989. It was not finished until April 1991. Upon completion it would suggest

the 1985-1989 reforms, the SIOP might have called for an ICBM to destroy a Soviet air defense site in order to permit bombers to penetrate into the Soviet Union a few hours later. If the ICBM were destroyed in a Soviet first strike, the air defense site might not be destroyed, which could in turn cause the loss of the bomber to Soviet air defenses, and the corresponding survival of its targets. Thus, confidence in the United States' ability to launch a fully successful retaliatory strike hinged in part on the assumption that the president would choose to launch US nuclear forces while they were under attack, rather than waiting to respond.

15 Ball, Desmond, and Robert C. Toth. "Revising the SIOP: Taking War-Fighting to Dangerous Extremes." *International Security* 14, no. 4 (1990): 65-66.

16 Koch, Susan J. "The Presidential Nuclear Initiatives of 1991-1992" National Defense University Center for the Study of Weapons of Mass Destruction Case Study 5, September, 2012 p. 2. For Cheney quote see Cheney, Richard. *In My Time: A Personal and Political Memoir*. Threshold Editions, 2011. pp. 232-233. Note that Cheney dates his question about targeting Kiev ambiguously "in my first months as secretary of defense." Koch places the initiation of his SIOP review somewhat later, in November 1989. Frank Miller argues that Cheney's review was inspired by analytic work on the SIOP performed by an OSD team that he led and a corresponding briefing for Cheney delivered in late Fall 1989. See Butler, George Lee. *Uncommon Cause: A Life At Odds With Convention. Volume 2*. Outskirts Press, Denver CO 2016, pp. 13-14.

that the US could reduce its strategic nuclear forces by some 40% to 5,888 warheads with no corresponding diminution of its ability to hold at risk the entire Soviet and, if necessary, Chinese target bases.

2.3) *Baby Steps Towards the End of the Cold War*

Beginning in Fall 1989, Powell and Cheney were leading early steps to update US conventional and nuclear force postures for the post-Cold War era. Yet despite the collapse of the Berlin Wall and the rapid changes taking place in the Soviet Union and Eastern Europe, the Bush Administration as a whole retained its cautious, status-quo oriented character. In September 1989, for example, just as the US and Soviets began making real progress on the long-stalled START negotiations, Bush gave a speech in Baltimore, Maryland, stating that he intended to maintain a robust US nuclear deterrent capability.¹⁷ Similarly, nearly a month after the Wall fell, Bush met with Gorbachev for their first summit in Malta. Historian Hal Brands argues “...the President’s suspicions had not disappeared entirely, and the Malta summit also reflected this cautious approach.” At the end of the summit, “Gorbachev proposed a joint communique stating that he and Bush had come ‘to a common conclusion that the period of Cold War was over.’ Even after the fall of the Berlin Wall, Bush did not wish to commit to such a bold statement.”¹⁸

¹⁷ Baglione, Lisa. “Finishing START and Achieving Unilateral Reductions: Leadership and Arms Control at the End of the Cold War.” *Journal of Peace Research* v. 34 n. 2 (1997) p. 135; Service, Robert. *The End of the Cold War: 1985-1991*. MacMillan, 2015 p. 406. Service argues that Bush’s speech attracted Soviet attention, with Defense Minister Dmitri Yazov arguing that ‘We do not have the right to forget 1941.’ The implication was that if the US was not yet relaxing its military posture, the Soviet leadership could not afford to either.

¹⁸ Brands, Hal. *From Berlin to Baghdad: America’s Search for Purpose in the Post-Cold War World*. University of Kentucky Press 2008, p. 26. For a similar discussion of Bush at Malta see Sarotte, Mary. *1989: The Struggle to Create Post-Cold War Europe*. Princeton University Press 2009, p. 154. Robert Service argues that Bush began to adopt a ‘bold approach’ to Soviet policy that was similar to Reagan’s as early as July 1989. See Service, Robert. *The End of the Cold War: 1985-1991*. MacMillan, 2015 p. 374-377. Bush’s statements and policies do not support this argument.

Only in August 1990 did Bush's outlook show early signs of incremental change. In a path breaking Aspen Institute speech, Bush outlined how he planned to "shape our defense capabilities to these changing circumstances." Drawing upon work done for Powell's Base Force concept, he stated that by 1995 "our security needs can be met by an active force 25% smaller than today's. America's armed forces will be at their lowest level since 1950." Yet far-reaching as this speech was, it also underscores how embedded Bush's thinking was in the Cold War.

In a section titled "What prudence demands," President Bush explained that "The Soviets will enter a START (Strategic Arms Reduction Talks) treaty with a fully modernized, highly capable, and very large strategic force." Consequently, "To maintain clear and confident strategic deterrence into the next century, we need the B-2 [stealth bomber]. [...] We need to complete the Trident [SLBM] program. [...] We can defer final decisions on our land-based ICBMs as we see how the START talks proceed, but we must keep our options open. And that means completing the development of the Small ICBM and the rail-based Peacekeeper."¹⁹ As of August 1990, Bush's Nuclear Security Theory was couched in 'prudence.' So long as the Soviets competed in nuclear offensive arms, the US would preserve and continue the offensive missile posture.

3) The Gulf War, the SIOP Review, and the August Coup

The confluence of three developments between August 1990 and August 1991 caused President Bush to re-evaluate and ultimately abandon his status-quo oriented Nuclear Security Theory. The first was the Persian Gulf War to eject Saddam Hussein's Iraqi Army from neighboring Kuwait. The second was the completion of Defense Secretary Dick Cheney's SIOP

¹⁹ Annual Report to the President and Congress. US Department of Defense. January 1991. Appendix E. "President Bush's Speech to the Aspen Institute Symposium. August 2, 1990. Author's personal collection courtesy of Steve Van Evera

Review. The third was the August 1991 coup attempt against Soviet leader Mikhail Gorbachev. The first two developments informed the Bush team's thinking about the relationship between nuclear weapons and American security, and their understanding of Bush's nuclear inheritance. In different ways, both suggested that the US had more nuclear weapons than it needed. The third development—the August coup—generated a sense of urgency around the nuclear arms reductions that the SIOP Review and Gulf War suggested were now possible.

Thus, beginning in August 1990, the Bush team began to realize that the catalog of potential threats facing the US was expanding in breadth, but decreasing in magnitude. Without Moscow as a rival the US could pursue an even more ambitious global agenda, and would therefore likely encounter more, but weaker challengers. Correspondingly, Bush's second Nuclear Security Theory was based on the notion that more weapons did not equate with more security. Indeed, to the extent that US reductions incentivized Soviet reciprocity, his belief was that a smaller arsenal might be better.

3.1) The Gulf War, Conventional Military Power and the Nascent Rogue Threat

As President George H.W. Bush was preparing to describe his vision for US conventional and nuclear force posture in his Aspen Institute speech, a conflict was unfolding in the Middle East. That same day, August 2, 1990, the Iraqi Army invaded neighboring oil-rich Kuwait, and threatened to capture portions of Saudi Arabia's far larger oil reserves.²⁰ Within the Bush White House, Saddam Hussein's invasion of Kuwait was seen as a major challenge—to US interests in

²⁰ Both the invasion and the speech took place on August 2, 1990, but because of the time difference between Kuwait and Washington, Bush learned of the invasion on the evening of August 1, 1990 Washington time, and departed for Aspen the following morning. See Cheney, Richard B. Oral History Interview, March 16-17, 2000. UVA Miller Center Presidential Oral History Project. <https://millercenter.org/the-presidency/presidential-oral-histories/richard-b-cheney-oral-history-secretary-defense>.

a vital region, US allies, and US global leadership in what was quickly starting to look like a post-Cold War world.

To meet this challenge, the US assembled an international coalition of thirty four nations to compel Saddam Hussein to withdraw from Kuwait. US ground forces began streaming into the Gulf region on August 8, 1990 and continued to mass through mid-February 1991. Unable to force Saddam's withdrawal through threats and ultimatums, the US-led coalition began offensive air operations on January 17, 1991, followed by a decisive 100 hour ground war spanning February 24-27. As a result, the Iraqi Army was ejected from Kuwait and substantially attrited on retreat, though the US chose not to advance on Baghdad to oust Saddam Hussein. Following the war, UN inspectors revealed that Saddam's efforts to acquire weapons of mass destruction, including nuclear weapons had been more serious, and more nearly successful, than had been widely understood.²¹

The Gulf War and ensuing WMD revelations influenced the Bush Administration's thinking about the future in at least four ways. First, pre-war DOD analysis revealed that nuclear weapons would not be especially effective against Saddam Hussein's largely Soviet-equipped army. By mid-October 1990, as US and coalition forces were massing in the Middle East, Secretary of Defense Dick Cheney and Joint Chiefs of Staff Chairman Colin Powell were prodding Central Command (CENTCOM) commander H. Norman Schwarzkopf to devise a plan to oust Saddam from Kuwait with one corps, instead of the two that he desired. At Cheney's request, Powell directed a Pentagon team to "work out nuclear strike options. The results unnerved me [Powell].

21 Stewart, Richard. *War in the Persian Gulf: Operations Desert Shield and Desert Storm August 1990 – March 1991*. United States Army Center of Military History, 2010; US Department of State. "The Gulf War, 1991." *Milestones 1989-1992*. Office of the Historian, <https://history.state.gov/milestones/1989-1992/gulf-war>; Ritchie, Nick. *US Nuclear Weapons Policy After the Cold War*, Routledge 2008 pp. 26-27; Braut-Hegghammer, Maalfrid. *Nuclear Physics: Why Iraq and Libya Failed to Build Nuclear Weapons*. Cornell University Press, 2016.

To do serious damage to just one armored division dispersed in the desert would require a considerable number [17] of small tactical nuclear weapons. I showed this to Cheney and then had it destroyed. If I had had any doubts before about the practicality of nukes on the field of battle, this report clinched them.”²²

Second, and related, the speed and decisiveness of the US victory over the Iraqi Army—previously considered quite formidable—“led the US military to conclude that conventional forces could now achieve effects that had previously required nuclear weapons. Moreover, their [nuclear] employment would create radiation and necessitate the use of specialized protective equipment that would only slow a US offensive. As a result of Gulf War learning, many military leaders came to view theater nuclear weapons as impediments to conventional superiority and military dominance, rather than as assets” Why lean on theater nuclear weapons when US conventional forces were clearly better?²³

Third, the revelation of the extent of Iraq’s WMD development efforts placed a new kind of threat in vivid relief. In the post-Cold War world, even comparatively weak states with small, simple nuclear or other WMD arsenals might threaten US allies and interests from behind a deterrent shield. For example, if Saddam Hussein had possessed nuclear weapons, the US might have been unable or unwilling to evict him from Kuwait. In a prescient passage that captured US fears looking ahead to the post-Cold War era, the February 1992 Annual Defense Department Report observed that “The Gulf War taught us that there remain real challenges to our national

²² Powell, Colin, with Joseph Persico. *My American Journey*. Random House, NY, 1995 pp.485-486. Powell does not provide a specific number of weapons required. The 17 figure is from Cheney, Richard B. Oral History Interview, March 16-17, 2000. UVA Miller Center Presidential Oral History Project. <https://millercenter.org/the-presidency/presidential-oral-histories/richard-b-cheney-oral-history-secretary-defense>. Note that Cheney did not specify what kinds of weapons Powell’s study had envisioned using, but they were probably nuclear artillery shells.

²³ Koch, Susan J. “The Presidential Nuclear Initiatives of 1991-1992” National Defense University Center for the Study of Weapons of Mass Destruction Case Study 5, September, 2012 p. 6.

security interests. [...] In the future, the United States may have to respond to hostile countries willing to employ weapons of mass destruction. [...] Although Saddam Hussein did not use these weapons, we may not be so lucky the next time. Unfortunately, a number of nations—including Iran and North Korea—are working to develop nuclear or unconventional weapons.”²⁴ The clear implication was that the US needed to begin preparing to confront these potential proliferators.

Fourth, and more broadly, the Gulf War provided an early hint of the possibilities and challenges that might await the US following the collapse of its main rival. As historian Hal Brands argues, “the end of that [Cold War] conflict had loosed the bonds on American power. [...] At the same time, Brands observes that “although the existential threat to the nation had disappeared, it had been replaced by a number of less predictable challenges. Moscow ‘is no longer the enemy,’ Bush said in late 1991. ‘The enemy is uncertainty. The enemy is unpredictability.”²⁵ The USSR was dying, but this was no time for the US to let down its guard.

In Spring 1991 these insights were only just coming into view. However, in conjunction with the SIOP Review and the August 1991 Soviet coup, they would inform the sweeping nuclear arms reductions that Bush would initiate in subsequent months.

3.2) *The SIOP Review*

The SIOP Review that Secretary of Defense Dick Cheney ordered in Fall 1989 was complete by April 1991. With analysis that probed down to the individual target level, it was probably the

24 Annual Report to the President and Congress. US Department of Defense. February 1992, p.5. Author’s personal collection courtesy of Steve Van Evera. Note that the fact of Iraq’s WMD programs was not a total shock to the Bush team, but the extent and sophistication of those programs was. See e.g., Cheney, Richard B. Oral History Interview, March 16-17, 2000. UVA Miller Center Presidential Oral History Project.

<https://millercenter.org/the-presidency/presidential-oral-histories/richard-b-cheney-oral-history-secretary-defense>.

25 Brands, Hal. *From Berlin to Baghdad: America’s Search for Purpose in the Post-Cold War World*. University of Kentucky Press 2008, p. 52.

most comprehensive civilian-led review of the mechanics of US nuclear war plans ever undertaken. Its goal was not to facilitate arms control, devise new limited nuclear options, or to combat ‘overkill.’ Rather, Cheney’s basic objective in ordering the review had been to ‘rationalize’ US nuclear war plans. For Cheney, having plans to unleash massive nuclear attacks was okay in principle—provided that those plans were linked to US national goals.²⁶ The net effect of the SIOP Review was to reveal that in terms of arsenal size, Bush’s nuclear inheritance was larger and more destructive than necessary. Consequently, as the end of the Cold War and the specter of WMD-armed dictatorships altered the array of threats and opportunities facing the US, the SIOP Review let Bush know that he had the ability to make significant arsenal cuts.

The SIOP Review proceeded in two steps. The first focused on the contents of the National Strategic Target List (NSTL). Its objective was to understand what targets the US planned to destroy in case of war. The second step was to connect targets with weapons of appropriate type and quantity. In practical terms, this meant deciding whether to use one or two warheads to destroy a given target, and whether the target merited ‘fast flyers’ like ICBMs or SLBMs, or ‘slow flyers’ like bombers or cruise missiles.

The results of this seemingly straight-forward effort were significant and surprising. The SIOP Review arrived at four main findings which collectively indicated that the US could satisfy its objectives with an arsenal of 5,888 strategic warheads—a 40% reduction from the ~10,000 strategic nuclear warheads then in the US nuclear arsenal. First, the SIOP Review identified two kinds of problems with the NSTL. They were ‘phantom targets’ which had been moved or

²⁶ This section draws heavily upon the author’s interview with former DOD official and SIOP Review participant Frank Miller, August 31, 2018. See also Cheney, Richard B. Oral History Interview, March 16-17, 2000. UVA Miller Center Presidential Oral History Project. <https://millercenter.org/the-presidency/presidential-oral-histories/richard-b-cheney-oral-history-secretary-defense>; Koch, Susan J. “The Presidential Nuclear Initiatives of 1991-1992” National Defense University Center for the Study of Weapons of Mass Destruction Case Study 5, September, 2012 p. 2.

decommissioned by the Soviets, or erroneously identified by US intelligence, as well as real targets that were not valuable enough to warrant nuclear attack.²⁷ Phantom and ancillary targets like these could be safely removed from the NSTL with no corresponding diminution in US security, the SIOP Review concluded. This resulted in an overall decrease in the number of targets that the US had to be able to hold at risk.

The second two findings centered on weaponeering—the allocation of weapons to targets. The SIOP Review’s third finding was that damage requirements were grossly inflated. This caused growth in the number and yield of weapons required to cause ‘enough’ damage to a given target. For instance, according to pre-SIOP Review damage evaluation criteria, the domed building in Hiroshima famously destroyed by the first atomic bomb ever used in war would have been classed as having sustained only moderate damage. This despite the fact that it had obviously been rendered entirely unusable.

Fourth, it became clear in the SIOP Review that many clustered targets could be destroyed with only one or two well-placed nuclear weapons, rather than with one or two warheads per individual target.²⁸ Adjusting damage criteria and accounting for clustered targets in strike planning meant that the targets remaining in the NSTL could be plausibly serviced by a smaller number of weapons than previously understood.

27 Miller offered the Soviet Ministry of Pulp and Paper’s wartime relocation site as a hypothetical example. This kind of target was not valuable enough to the Soviet leadership that it could conceivably influence their decision-making. Therefore there was no deterrent benefit to targeting it. Author’s interview with Frank Miller, August 31, 2018.

28 An example centered on an area familiar to many readers may help illustrate the point. The White House, Treasury Department, Eisenhower Executive Office Building, and New Executive Office Building are clustered along Pennsylvania Avenue NW between 15th St NW and 17th St. NW in Washington DC. Pre-SIOP Review targeting methodology might have called for each of these targets to be serviced by one or two warheads each, resulting in 4-8 warheads falling on the same small ~2 block area. Post-SIOP Review targeting methodology could have cut this warhead allocation down to a mere 1 or 2 warheads, likely aimed at the southern edge of Lafayette Park.

Thus, by April 1991, the results of the SIOP Review gave the Bush Administration good reason to believe that by improving its nuclear war plans, the US could comfortably reduce the size of its strategic nuclear forces by 40% without harming US national interests. While these findings did not cause the US to immediately begin reducing its nuclear arsenal, in subsequent years they did enable significant reductions which made sense for other reasons as well.

3.3) The August Coup and the New Soviet Threat

Six months after the American led victory in Iraq, from August 19-21, 1991 communist hardliners attempted a coup against Soviet leader Mikhail Gorbachev. In years past, evidence this stark that the Soviet system was coming apart at the seams might have been cause for celebration in Washington. The main adversary was crumbling. Instead, it was a cause for alarm that touched off some of the largest, fastest changes in US nuclear force structure ever undertaken.

By August 1991, news of a coup in the USSR was not entirely unexpected. Two months earlier, on June 20, 1991, Moscow's mayor urgently called upon US Ambassador to the Soviet Union, Jack Matlock, warning of a coup plot in the offing. With President Bush's blessing, Matlock passed word of the plot to Gorbachev, presumably causing it to be foiled or canceled.²⁹

Despite this temporary success in June, Bush remained concerned about Soviet internal stability. Gorbachev's tenuous grasp on power informed Bush's approach to the ongoing START negotiations. According Matt Fuhrmann, "Bush had 'no desire to jeopardize' Gorbachev's cooperation and was cautious to avoid exacerbating Gorbachev's difficulties. Despite making so

²⁹ Baker, James with Thomas DeFrank. *The Politics of Diplomacy: Revolution, War and Peace: 1989-1992*. GP Putnam's Sons, NY, 1995. pp. 470-472. Note that Bush risked exposing a valuable source of information—the Moscow mayor—in order to pass along this warning to Gorbachev. It is difficult to overstate how unusual and therefore significant this decision was for a former CIA Director who was accustomed to aggressively protecting intelligence sources. It highlights the enormous value that Bush attached to Gorbachev's continued leadership.

much progress in other areas during this time period, Bush refrained from pursuing any aggressive nuclear arms control policies. Most notably Bush chose not to renegotiate START in an attempt to push the Soviets toward making deeper cuts in their arsenal, even as the United States' leverage continued to increase."³⁰

Bush's view was that the US was better off with Gorbachev in the Kremlin than with any plausible alternative. But Gorbachev's leadership was increasingly contested. The question of control over Soviet nuclear forces was embedded within the issue of Gorbachev's grasp on power. If the comparatively reasonable Gorbachev fell, an aggressive hard-line communist might come to control those forces. Alternatively, if the USSR splintered, its nuclear arsenal might be inherited by several successor states, or even rogue military commanders or terrorists. When it came to command and control of Soviet nuclear forces, the devil Bush knew—Gorbachev—was better than the devil he did not.

Consequently, word of an ongoing Soviet coup in August activated the Bush team's concerns about control of Soviet nuclear weapons. While Gorbachev was vacationing in Crimea, a group of communist hard-liners encircled his compound, cut off his communications, and attempted to seize power in Moscow. In Washington, JCS Chairman Colin Powell was alerted to the coup via a phone call to his home from the Pentagon watch officer shortly after midnight on August 19, 1991. According to his account, he "hit the usual buttons and found that there had been no change in the alert status of conventional Soviet military forces. The Soviets had a system called 'Chegev,' [sic. 'Cheget'] using a device the size of an attache case that allowed a handful of

30 Fuhrmann, Matthew and Bryan Early. "Following START: Risk Acceptance and the 1991-1992 Presidential Nuclear Initiatives." *Foreign Policy Analysis* 2008 v. 4. p. 34. Lisa Baglione makes a similar argument. Baglione, Lisa. "Finishing START and Achieving Unilateral Reductions: Leadership and Arms Control at the End of the Cold War." *Journal of Peace Research* v. 34 n. 2 (1997) p. 135-152.

leaders to communicate in the event of a nuclear crisis. We were able to monitor the system and knew that there had been no change in the Soviets' nuclear posture either."³¹ Powell's instinctive concern about Soviet nuclear command and control during the coup would reverberate throughout the Bush White House in the following months.

In the coup's aftermath, control of Soviet nuclear forces rocketed to the top of the Bush Administration's priority list. "The attempted coup deeply affected the President," Lisa Baglione argues, "No longer was the Kremlin the source of the most pressing threats. Instead, the problem of ensuring security involved guaranteeing central control over Soviet nuclear weapons." In a sign of the new priority attached to Soviet command and control, and to the evolving US-Soviet relationship, Secretary of State James Baker addressed these issues directly with both Gorbachev and his main liberal rival Boris Yeltsin during his first trip to Moscow after the coup, on September 10, 1991.³² In a tectonic shift, the US was no longer principally concerned about the Soviet nuclear arsenal being too large or capable, but rather, about Gorbachev's ability to control it being too weak.

4) Presidential Nuclear initiatives and STARTing to Change Posture

In Summer and Fall 1991, the growing fragility of the Soviet regime, the SIOP Review and the Gulf War led Bush to re-evaluate his earlier Nuclear Security Theory. Initially, his status-quo

31 Powell, Colin, with Joseph Persico. *My American Journey*. Random House, NY, 1995 pp. 538-539. Nikolai Sokov claims that Soviet coup leaders bypassed the Cheget system to raise the alert posture of Soviet nuclear forces. It is unclear whether this is true. See Sokov, Nikolai. "Controlling Soviet/Russian Nuclear Weapons in Times of Instability." in Sokolski, Henry and Bruno Tetrakis, Eds. *Nuclear Weapons Security Crises: What Does History Teach?* US Army War College Strategic Studies Institute, 2013, pp. 101-105. My thanks to Reid B.C. Pauly for flagging this source. The possibility that Powell believed, erroneously, that he had a clear view of the inner-workings of the Soviet command and control system, and was correspondingly relaxed about the risk of unauthorized nuclear use when he should have been alarmed is frightening.

32 Baker, James with Thomas DeFrank. *The Politics of Diplomacy: Revolution, War and Peace: 1989-1992*. GP Putnam's Sons, NY, 1995. p. 527.

view was that the US required a large arsenal of modern strategic and theater nuclear forces. Prudence demanded continuation of the Offensive Missile Posture.

Yet by Fall 1991, he increasingly believed that US nuclear forces could be considerably reduced, and that the theater forces could be almost completely withdrawn from service. Given the SIOP review, the decline of the Soviet threat and the potential emergence of small regional nuclear adversaries, Bush began to believe that fewer weapons would be sufficient—and if they incentivized Soviet reductions, all the better. Consequently, during his last sixteen months in office, President Bush initiated the largest, fastest changes in nuclear posture since the Eisenhower Administration. While the US would not abandon the Offensive Missile Posture until it adopted the hedging mission in 1994, it was Bush who opened the door to this shift.

4.1) STARTing Strategic Arms Reductions

President Bush signed two landmark strategic nuclear arms treaties during his term. The first was START I, signed with the Soviet Union on July 31, 1991—three weeks before the August coup attempt and five months before the Soviet Union was finally dissolved on Christmas Day 1991. The second was START II, signed with newly independent Russia on January 3, 1993, weeks before President George H.W. Bush left office.

START I was the world's first strategic arms reduction treaty. Unlike SALT, START aimed at cutting US and Soviet/Russian strategic nuclear forces—not just curtailing their growth. Not only did START inaugurate the era of bilateral strategic arms cuts, but those cuts were deep. Within seven years, START I required the US and the USSR to cut some 40% of their strategic nuclear warheads, as well as 30% of their strategic delivery vehicles. Moreover, in a key victory

for the US, the Soviets also agreed to a 50% cut in their inventory of feared SS-18 heavy MIRVed ICBMs. In short, the START I cuts were massive.³³

Two factors shaped the broad outlines of this treaty. First, the SIOP Review had an enabling effect. This study, which had concluded in April 1991 that the US could safely cut some 40% of its strategic nuclear arsenal, seems to have given President Bush and his advisors confidence that START-scale cuts were doable—even if they had been done unilaterally. Reflecting on the impact of the SIOP review in a later interview, Defense Secretary Cheney “what we concluded from all of that was we had a lot more nuclear warheads than we needed. That we could cover the target base and do what needed to be done with fewer weapons. [...] it also offered up the opportunity to put stuff on the table in the course of strategic arms control talks, because now we had something to trade away. I think it was a very important development.”³⁴

Second was the Bush team’s understanding of the fragility of the Soviet regime, which inspired Bush to make the cuts that he now knew were feasible. Bush thought that it was important to rapidly lock in a straight-forward deal. Time was of the essence. There was no telling how long Gorbachev would remain in power. He therefore wanted to secure an agreement while he still had an engaged counterpart who exercised sole control over Soviet nuclear forces. At the same time, Soviet fragility augured against the kind of brass knuckled push for nuclear advantage through arms control that characterized Nixon’s approach to SALT. While US leverage grew as the Soviet Union became progressively weaker, Bush also seems to have

33 Cohen, David. “From START I to START II: Dynamism and Pragmatism in the Bush Administration’s Nuclear Weapons Policies.” *Presidential Studies Quarterly*, v. 27 n. 3 (Summer 1997) pp. 412-428. Tables 1 and 2 on pp. 415 and 419 are especially useful.

34 See Cheney, Richard B. Oral History Interview, March 16-17, 2000. UVA Miller Center Presidential Oral History Project. <https://millercenter.org/the-presidency/presidential-oral-histories/richard-b-cheney-oral-history-secretary-defense>.

understood that exploiting this leverage to secure a more advantageous deal could make Gorbachev vulnerable to his domestic political opponents. This in turn could bring about exactly the kinds of frightening Soviet collapse scenarios that Bush hoped to avoid. Bush had strong incentives to finalize the START I treaty in expeditious fashion.³⁵ Thus, Soviet fragility, coupled with Bush's understanding thanks to the SIOP review that deep cuts would not undermine the US deterrent contributed to the successful conclusion of START I on July 31, 1991.³⁶

Nor was START I the end of President Bush's strategic arms control efforts. As early as Spring 1990, Secretary of State James Baker had made an informal proposal to the Soviets to de-MIRV both US and Soviet ICBM forces. MIRVed ICBMs, especially those in fixed silos, make attractive counterforce first strike targets, the argument goes. Following standard nuclear targeting practice of assigning two warheads to destroy a single MIRVed missile could result in the destruction of many enemy warheads. Therefore, during a serious crisis or war, the existence of MIRVed ICBMs could generate incentives for both sides to limit damage to themselves by striking first at the enemy's land-based missile force. Eliminating MIRVed ICBMs, as Baker and

35 Fuhrmann, Matthew and Bryan Early. "Following START: Risk Acceptance and the 1991-1992 Presidential Nuclear Initiatives." *Foreign Policy Analysis* 2008 v. 4. p. 34; Baglione, Lisa. "Finishing START and Achieving Unilateral Reductions: Leadership and Arms Control at the End of the Cold War." *Journal of Peace Research* v. 34 n. 2 (1997) p. 135-152.

36 Note that it is unclear how influential the Gulf War was on Bush and his advisors' thinking on the START negotiations. On one hand, Frank Miller argued in an August 31, 2018 interview that the lessons of the Gulf only began to influence US strategic force planning in later years. On the other hand, Defense Secretary Dick Cheney suggested in an interview that the decisive US victory in the Gulf War may have influenced the START process. In an interview he observed that "In a whole other part of the DoD arena, cruise missile technology, we had developed the capability—with standoff conventional weapons, which we demonstrated conclusively in Iraq—that we can go in and hit key nodes and shut down a country. Take down the power grid, shut down their transportation system, their telecommunication system, whatever it meant. It meant pinpoint strikes with accurate weapons, but a conventional warhead. You give me a few cruise missiles, I can shut down any country in the world for a period of time. Then you went over and you looked at the SIOP, apply nuclear weapons, these enormously powerful weapons, and we were just blanketing stuff." See Cheney, Richard B. Oral History Interview, March 16-17, 2000. UVA Miller Center Presidential Oral History Project. <https://millercenter.org/the-presidency/presidential-oral-histories/richard-b-cheney-oral-history-secretary-defense>. Either way, the effectiveness of US conventional firepower in the Gulf did contribute to the Presidential Nuclear Initiatives, especially the first, discussed separately below.

others sought to do, would correspondingly eliminate this destabilizing first strike incentive by making the ratio of missiles expended to warheads destroyed unfavorable to the attacker.³⁷

By early 1992 the Soviet Union had collapsed, and US-Russian relations had grown more relaxed. In his January 28, 1992 State of the Union address, President Bush lent his public support to the de-MIRVing effort packaging it within a proposed a START II agreement. This follow-on arms reduction treaty would ban MIRVed ICBMs, while also cutting US and Russian strategic warhead inventories to roughly 4,700 each. The following day Russian President Boris Yeltsin, heir to the Soviet Union's nuclear legacy, quickly responded with an even farther reaching proposal that called for deeper cuts, as well as the elimination of MIRVs from both ICBMs and SLBMs. For the US, which valued and relied upon its increasingly accurate, reliable Trident SLBM force, this was a step too far.³⁸

Regardless, by their June 1992 summit in Washington, Bush and Yeltsin had agreed to a START II deal that would ban MIRVed ICBMs, and limit both sides to 3,500 warheads and 1,750 SLBMs each. And on January 3, 1993, as a lame duck in the final weeks of his presidency President Bush traveled to Moscow to sign the resultant treaty. By the time he left the White

37 Baker, James with Thomas DeFrank. *The Politics of Diplomacy: Revolution, War and Peace: 1989-1992*. GP Putnam's Sons, NY, 1995. p. 659. Note that the idea of de-MIRVing ICBMs was not novel, but the high level of support that it enjoyed from within the Administration was. According to Franklin C. Miller, then Deputy Assistant Secretary of Defense for Nuclear Forces and Arms Control Policy, the US interest in de-MIRVing ICBMs was predicated on a genuine interest within the Administration in increasing strategic stability—not in cultivating US advantage by causing the Soviets to reduce the land-based forces on which they relied while preserving the United States' edge in MIRVed SLBMs. Author's interview with Franklin C. Miller, August 31, 2018.

38 Baker, James with Thomas DeFrank. *The Politics of Diplomacy: Revolution, War and Peace: 1989-1992*. GP Putnam's Sons, NY, 1995. p. 659; Rice, Condoleezza. *No Higher Honor: A Memoir of My Years in Washington*. Crown Publishers, New York, 2011. p. 60. Note that Yeltsin's proposal was no surprise to Bush—the two leaders had discussed their respective propositions with one another in advance.

House, Bush had concluded agreements with the Soviet Union and Russia that would reduce US strategic nuclear forces by 75% from 1990 levels.³⁹

4.2) *The Presidential Nuclear Initiatives*

By agreeing to deep cuts in US and Soviet/Russian strategic forces and arriving at a stability enhancing deal to eliminate MIRVed ICBMs, President Bush made unprecedented progress in traditional strategic nuclear arms control. In addition, he took the lead on a set of non-traditional nuclear arms reduction initiatives. These paved the way towards revolutionary reductions in theater nuclear forces plus the truncation or cessation of a number of strategic weapons programs as well.

Following the August 1991 coup attempt in Moscow, President Bush and his team undertook a series of innovative and far-reaching ‘unilateral but reciprocal’ Presidential Nuclear Initiatives (PNIs) with Gorbachev and later Yeltsin. Unlike the formal, negotiated, verified arms control treaties of the past, these Presidential Nuclear Initiatives (PNIs) took the form of informal declarations or understandings between Bush and his counterparts.

Bush’s three goals with the PNIs were to align US theater forces as well as ongoing weapons development and acquisition programs with the new post-Cold War reality; to intelligently respond to Congressional pressures to cut the defense budget; and to inspire similar adjustments from the USSR and Russia.⁴⁰ In conjunction with the START treaties they signaled a profound

39 Cohen, David. “From START I to START II: Dynamism and Pragmatism in the Bush Administration’s Nuclear Weapons Policies.” *Presidential Studies Quarterly*, v. 27 n. 3 (Summer 1997) p. 415, 418. Planned reductions in the Soviet/Russian nuclear arsenal reduced the size of the target base that US planners needed to hold at risk. This dynamic enabled US reductions below the levels prescribed by the SIOP Review.

40 Janne Nolan argues that causing the Soviet Union to secure its theater forces including by withdrawing them from the republics was the main driver of the PNIs—especially the first. See Nolan, Janne. *An Elusive Consensus: Nuclear Weapons and American Security After the Cold War*. The Brookings Institution 1999 p. 29. However, the available material on the September 5, 1991 NSC meeting, and the apparently late addition, at DOD’s suggestion, of

change in Bush's basic nuclear security theory. With the Soviet Union teetering towards its December 25, 1991 collapse, and US conventional strength unrivaled, nuclear arms reductions—not stockpile modernization and maintenance—were now central to Bush's Nuclear Security Theory.

The genesis of the first Presidential Nuclear Initiative was a September 5, 1991 National Security Council meeting. Speaking to his advisors, Bush "wondered if there was anything we could do in defense to save money in these conditions, and to take advantage of the changes." Following discussion of such options as cutting short-range nuclear weapons, reducing intercontinental-range nuclear forces below START-mandated levels, de-alerting the bomber force, and curtaining nuclear testing, President Bush seemed interested, in principle, in all of them. A handful of such proposals" he declared, "would put us on the offense," and he "closed the meeting by asking impatiently if there wasn't anything more ambitious we could do." Thus, Bush's initial goal was to take advantage of the opportunity for nuclear force posture adjustments brought about by the end of the Cold War. Summarizing the meeting, long-serving US government arms-control and non-proliferation expert Susan J. Koch argues that "Presidential direction was critical to the scope and scale of the initiative, and the speed and decisiveness with which it came to fruition. It became evident to all involved in shaping the initiative that "No" was not an option because of the President's clear intent."⁴¹

an explicit challenge to Gorbachev to reciprocate suggests that while Bush may have desired increased security for Soviet TNF, this was not the primary motivation behind his first initiative. By the time of the second PNI, in January 1992, the desire for reciprocity may have become more important to Bush in part because he may have come to anticipate that it would be forthcoming.

41 See Bush, George H.W. and Brent Scowcroft. *A World Transformed*. Alfred A. Knopf, 1998 pp. 540-542; Koch, Susan J. "The Presidential Nuclear Initiatives of 1991-1992" *National Defense University Center for the Study of Weapons of Mass Destruction Case Study 5*, September, 2012 p. 4.

Taking direction from Bush, National Security Advisor Brent Scowcroft developed the actual initiative. Reflecting on this work in his joint memoir with President Bush, Scowcroft argued that “Perhaps we could take advantage of the situation to solve a number of tactical nuclear weapons questions at the same time.” These questions included the problem of short-range nuclear weapons in Western Germany that, if ever launched, would fall upon newly reunited German territory. These weapons were worse than useless where they were. Advancing them to the east might have been seen as provocative by the Soviets and Germans alike. Withdrawing them might signal a diminution of the US commitment to Germany and NATO. Similarly, the South Korean government wished for the withdrawal of US nuclear forces from its territory, however it wanted this withdrawal to be accomplished in a way that avoided signaling to the North that the US commitment to the South was on the decline. Finally, the presence of nuclear weapons on US Navy ships had become a source of tension between the US and Japan and New Zealand. Strong anti-nuclear sentiment in both countries made port visits by nuclear armed vessels politically problematic, and was therefore a sore spot in US relations with two important allies.

In the aftermath of the August coup attempt, and enabled by a clear mandate from President Bush, Scowcroft saw an opportunity to resolve all of these problems in one sweeping step that would reduce the political costs that the US might otherwise have paid. Thus, the first Presidential Nuclear Initiative was primarily aimed at adjusting the disposition of US theater nuclear forces in ways that would advance US interests, but which under other circumstances might have been political or diplomatic non-starters.⁴²

As with the START I and II arms reduction treaties, Bush’s Presidential Nuclear Initiatives were enabled by the results of the SIOP Review, as well as by post-Gulf War skepticism about

42 Bush, George H.W. and Brent Scowcroft. *A World Transformed*. Alfred A. Knopf, 1998 pp. 544-547.

the utility of theater nuclear weapons given US conventional military prowess. Recalling his thinking in an interview years later, Cheney reported, “I’d have to give General Powell some credit in this area. I mean, he certainly influenced my thinking on it. He was not a big fan of tactical nukes. [...] He never believed in this notion of an 8-inch Howitzer firing a nuclear round and that the Army somehow needed a nuclear mission. So he had consistently chipped away at this notion that we needed tactical nuclear weapons in the U.S. Army, for example. This fit with that, and he had been arguing successfully, and I think correctly, that this was a mission we could get rid of. That kind of thinking would have found us receptive, not resistant, when they said they [Bush and Scowcroft] wanted a package of stuff that we could put on the table.”⁴³

Through the rest of September 1991 the specifics of the first PNI took shape. In keeping with the President’s initial objective, according to Susan Koch, “The White House, the Joint Staff, and the military Services had all thought only in terms of unilateral U.S. actions, though they certainly hoped for some comparable actions by Moscow. OSD staff added the explicit “challenge” for Soviet reciprocity.” Further, “The call for Soviet reciprocity was driven primarily by concern over the security of Soviet nuclear warheads.” Following the August coup attempt, the fate of the Soviet Union itself, and its nuclear forces, had become significant American concerns. If the USSR disintegrated, what would become of Moscow’s nuclear weapons based in Belarus, Ukraine and Kazakhstan? Would they remain in place, or return to Russia? And either way, who, exactly, would ultimately control them? Important though these concerns were, they were not a main driver of the PNIs. Thus, the notion of challenging Moscow to make reciprocal

43 Cheney, Richard B. Oral History Interview, March 16-17, 2000. UVA Miller Center Presidential Oral History Project. <https://millercenter.org/the-presidency/presidential-oral-histories/richard-b-cheney-oral-history-secretary-defense>.

cuts—frequently understood as the PNI’s central feature—was not core to Bush’s or Scowcroft’s initial thinking, and in fact originated within the Defense Department.⁴⁴

President Bush began to unveil his first Presidential Nuclear Initiative on the morning of September 27, 1991—only three weeks since telling the NSC that he wanted to go “on the offense” in arms reductions. Bush began the day at 7:00 AM with a series of phone calls to NATO heads of government, providing them with scant notice of the TNF reductions that he would announce later that evening. At 9:22 AM he spoke with Mikhail Gorbachev and outlined the cuts he planned. The positive response that he received to his challenge that Moscow undertake reciprocal cuts was encouraging.⁴⁵

Later, at 8:02 that evening, President Bush addressed the nation from the Oval Office to present his initiative in detail. He announced the planned elimination of 2,150 nuclear weapons associated with the Lance missile and nuclear artillery; withdrawal of 700 nuclear gravity bombs from Europe and South Korea; withdrawal of 2,535 nuclear weapons from US Navy surface ships; and the immediate de-alerting of all US strategic bombers, as well as those ICBMs slated for eventual elimination under START. Just a few hundred nuclear gravity bombs left in Europe—down from a Cold War peak of over 7,000 theater weapons of all kinds—would constitute the remainder of US theater nuclear forces.

44 Koch, Susan J. “The Presidential Nuclear Initiatives of 1991-1992” *National Defense University Center for the Study of Weapons of Mass Destruction Case Study 5*, September, 2012 p. 8.

45 For allied consultations see Koch, Susan J. “The Presidential Nuclear Initiatives of 1991-1992” *National Defense University Center for the Study of Weapons of Mass Destruction Case Study 5*, September, 2012 p. 9. For Bush-Gorbachev conversation see White House Memorandum of Telephone Conversation between Mikhail Gorbachev and George Bush Secret September 27 1991. <https://nsarchive.gwu.edu/briefing-book/nuclear-vault-russia-programs/2016-09-30/unilateral-us-nuclear-pullback-1991-matched>. Franklin C. Miller states that the US would have proceeded with the first PNI even if Gorbachev had responded coldly to Bush’s challenge to reciprocate because updating US TNF deployment policy was in the US interest irrespective of Soviet response. The fact that the Soviets responded with similar withdrawals was thus something of an anticipated bonus. However US action was not conditional on a favorable Soviet response. Author’s interview with Franklin C. Miller, August 31, 2018.

In addition to these immediate arms reductions, Bush also ordered a halt in the development of the road-mobile MX missile variant, the road-mobile small-ICBM, and the short-range air-launched missile (SRAM) II program. And in an important organizational change with significant operational implications, Bush announced that the Cold War legacy Strategic Air Command (SAC) would be abolished, replaced by a newly established Strategic Command (STRATCOM). Turning to the Soviet Union, Bush referenced the challenge to reciprocate that he had presented to Soviet leader Mikhail Gorbachev that morning. “The Soviet nuclear stockpile now seems less an instrument of national security, and more of a burden,” he argued.⁴⁶ Thus, the Presidential Nuclear Initiatives began as a unilateral effort geared towards addressing thorny problems with US theater nuclear weapons, but evolved into a loose cooperative effort between former adversaries to reduce nuclear risk.

Bush’s announcement had immediate operational effects. The following day Defense Secretary Dick Cheney issued orders to implement the President’s directives. In a memorandum to the service secretaries, Cheney directed the “accomplishment of the following as soon as possible: 1. The United States armed forces shall eliminate its inventory of ground-launched theater nuclear weapons. 2. Tactical nuclear weapons shall be removed from all surface ships, attack submarines, and land-based naval aircraft bases. 3. United States strategic bombers shall stand down from their alert postures and their nuclear weapons shall be removed and stored in secure areas. 4. The United States intercontinental ballistic missiles scheduled for deactivation under the terms of the Strategic Arms Reduction Treaty shall stand down from alert. 5.

⁴⁶ For inventory of US reductions see Cohen, David. “From START I to START II: Dynamism and Pragmatism in the Bush Administration’s Nuclear Weapons Policies.” *Presidential Studies Quarterly*, v. 27 n. 3 (Summer 1997) p. 416, as well as Koch, *Ibid*, Appendix B. For Bush speech text see Bush, George. “Address to the Nation on Reducing United States and Soviet Nuclear Weapons.” September 27, 1991. <http://www.presidency.ucsb.edu/ws/?pid=20035>.

Development of the mobile Peacekeeper ICBM rail garrison system and the mobile portions of the small ICBM program shall be terminated. 6. The nuclear short-range attack missile program (SRAM-II) shall be terminated. 7. A Unified Command Plan with a United States Strategic Command to which elements of the US strategic deterrent are to be assigned shall be submitted to me.” Cheney’s directive was clear and thorough. Some steps, like the establishment of STRATCOM, would take time to implement. Others happened fast: by the end of the day on September 28, 1991—for the first time in thirty years—the US Air Force had no strategic bombers on alert. Not one.⁴⁷

In addition to resolving several TNF-related problems that the US had faced, Bush’s initiative elicited a prompt, substantial response from the Soviet side. On October 5, 1991, Mikhail Gorbachev announced his reciprocal plans to eliminate some 10,000 land-based tactical nuclear weapons, withdraw all of the USSR’s sea-based tactical nuclear weapons, freeze the development and deployment of several new weapons programs and pledged to reduce the Soviet ICBM force by an extra 1,000 warheads below the START-mandated ceiling. The result was that the Soviet Union’s strategic forces were reduced, and crucially, its theater nuclear weapons were withdrawn from Soviet republics and returned to Russia where, hopefully, they

⁴⁷ Department of Defense Secretary of Defense Memorandum for Secretaries of the Military Departments Reducing the United States Nuclear Arsenal Secret Formerly Restricted Data September 28 1991. National Security Archive. <https://nsarchive.gwu.edu/briefing-book/nuclear-vault-russia-programs/2016-09-30/unilateral-us-nuclear-pullback-1991-matched>; Koch, Susan J. “The Presidential Nuclear Initiatives of 1991-1992” *National Defense University Center for the Study of Weapons of Mass Destruction Case Study 5*, September, 2012 p. 1.

could be more readily secured.⁴⁸ The first round of ‘unilateral but reciprocal’ Presidential Nuclear Initiatives was a resounding success.

Bush followed up on this success with a second, similar nuclear arms reduction initiative four months later at his January 28, 1992 State of the Union address. This second PNI centered on strategic forces—Bush’s dramatic theater nuclear force reductions were already in motion. However, both efforts were similar in that Bush sought to use them to take the initiative on, and extract Soviet reciprocity from, a series of US decisions that were otherwise logical and self-interested. Specific steps that Bush announced included reducing procurement of new B-2 stealth bombers from 75 to twenty, canceling the small-ICBM program entirely, halting production of the high-yield hard target-killing W88 warhead for the Trident SLBM, and ending production of the MX missile and advanced strategic cruise missiles.⁴⁹

Though presented as a package in the State of the Union, these decisions had been taken in serial, and each had its own particular logic. For example, the B-2 bomber and small ICBM programs were both enormously expensive. The decisions to cut the B-2 purchase and halt small ICBM development were thus driven largely by Congressional demand for post-Cold War defense budget cuts. The advanced strategic cruise missile was canceled because of cost growth and reliability concerns. The competing ALCM-B air launched cruise missile development program seemed more likely to deliver better results. Finally, there was little choice but to cancel

48 Bush, George H.W. and Brent Scowcroft. *A World Transformed*. Alfred A. Knopf, 1998 p. 547; Cohen, David. “From START I to START II: Dynamism and Pragmatism in the Bush Administration’s Nuclear Weapons Policies.” *Presidential Studies Quarterly*, v. 27 n. 3 (Summer 1997) p. 415; Baglione, Lisa. “Finishing START and Achieving Unilateral Reductions: Leadership and Arms Control at the End of the Cold War.” *Journal of Peace Research* v. 34 n. 2 (1997) p. 138; Acting Secretary of State Lawrence Eagleburger transmits Russian status report on unilateral nuclear arms reductions. Department Of State, 7 Nov. 1991. U.S. Declassified Documents Online, Document No. CK2349622717 <http://tinyurl.galegroup.com/tinyurl/6VUC41>.

49 Cohen, David. “From START I to START II: Dynamism and Pragmatism in the Bush Administration’s Nuclear Weapons Policies.” *Presidential Studies Quarterly*, v. 27 n. 3 (Summer 1997) p. 417.

W88 warhead production because the Rocky Flats plant, where it was manufactured, was in the process of being shuttered and transformed into a Superfund environmental cleanup site as a result of serious criminal violations of US environmental law.⁵⁰ Thus, Bush's second PNI was an effort to build upon the success of his first, and to make a virtue of necessities. The strategy worked. Bush was rewarded—this time by Gorbachev's successor and Russian Federation President Boris Yeltsin—with a further round of reciprocal arms reductions and cancellations.⁵¹

Motivated by the disintegration of the United States' main rival, and enabled by the encouraging results of the SIOP Review and the Gulf War, Bush successfully concluded two rounds of path-breaking 'unilateral but reciprocal' Presidential Nuclear Initiatives, in addition to two momentous traditional nuclear arms control deals as well. The results—in terms of strategic stability, cost savings, and the security of Russian nuclear weapons—were significant and positive. For the last year of the Bush Administration then, the dominant question facing the foreign and security policy team became 'what's next?'

4.3) There is Always Room for Improvement: Post Cold War Strategic Capabilities

President Bush's arms reduction ventures were his most visible steps towards bringing US nuclear posture into alignment with the new post-Cold War era. Yet two other incipient changes in US nuclear policy and foreign policy more generally would also have important, long-lasting effects on US posture. The first was the disestablishment of the Cold War legacy Strategic Air Command (SAC) and its immediate replacement by a new Strategic Command (STRATCOM).

⁵⁰ Author's interview with Franklin C. Miller, August 31, 2018.

⁵¹ See Baker, James with Thomas DeFrank. *The Politics of Diplomacy: Revolution, War and Peace: 1989-1992*. GP Putnam's Sons, NY, 1995. p. 659; Rice, Condoleeza. *No Higher Honor: A Memoir of My Years in Washington*. Crown Publishers, New York, 2011. p. 60.

The SAC-STRATCOM transition opened the door to important changes in US nuclear operations and acquisition policy that would materialize under President Clinton. The second was the development of new defense planning guidance that articulated the audacious foreign and security policy that the US would pursue for at least the next decade. The end of the Cold War did not signal the end of America's expansive foreign policy ambitions.

One of the principle drivers behind the decision to eliminate SAC in favor of a new STRATCOM was the dramatic reduction in the size of US strategic forces. As President Bush explained in his September 27, 1991 Presidential Nuclear Initiative announcement, "the United States will streamline its command and control procedures, allowing us to more effectively manage our strategic nuclear forces. As the system works now, the Navy commands the submarine part of our strategic deterrent, while the Air Force commands the bomber and land-based elements. But as we reduce our strategic forces, the operational command structure must be as direct as possible."⁵² Bush therefore planned to give the new Strategic Command operational control over both Air Force ICBMs and bombers as well as Navy ballistic missile submarines. As its strategic forces shrank, the intuition was that the US would need to extract as much utility as possible from each remaining warhead and delivery system. Centralizing operational control over the whole force within a single command was one way of making US nuclear operations more efficient.⁵³ The transition from SAC to STRATCOM took place on June 1, 1992 under the leadership of Air Force General Lee Butler.

52 Bush, George. "Address to the Nation on Reducing United States and Soviet Nuclear Weapons." September 27, 1991. <http://www.presidency.ucsb.edu/ws/?pid=20035>.

53 See Annual Report to the President and Congress. US Department of Defense. February 1992, pp. 64-65. Author's personal collection courtesy of Steve Van Evera

The establishment of STRATCOM helped the US improve the capabilities of its shrinking strategic forces in two ways. First, it facilitated movement towards increased flexibility in targeting and war planning. In late 1992, STRATCOM undertook a “long-term program [...] to modernize strategic nuclear planning by developing a flexible, global Strategic War Planning System (SWPS). This would establish adaptive planning capabilities to enable presidents and war planners to respond in near real time to changes in policy, threat and force structure.”⁵⁴ According to General Butler, this effort centered on the development of new algorithms and software that would reduce the amount of time necessary to produce a new SIOP. Butler’s goal was to give STRATCOM the ability to devise nuclear response options for an unexpected regional contingency within hours—rather than weeks or months. The ability to flexibly retarget bombers, ICBMs and SLBMs, and to adapt US war plans to changing circumstances ended the Cold War system by which the SIOP rigidly tethered individual weapons to individual targets. By the mid-1990s, the advent of adaptive planning meant that in theory, each weapon could hold at risk any target that it had the range and yield to destroy.⁵⁵

Second, STRATCOM’s increased authority over nuclear operations, as compared with the old SAC, came with the ability to set requirements for the number and characteristics of nuclear weapons in the US arsenal. Previously, the Air Force and Navy set weapons requirements separately. SAC’s Joint Strategic Target Planning Staff (JSTPS) then allocated those weapons to targets in the SIOP. For example, the Navy would decide how many submarines and SLBMs and

54 Ritchie, Nick. *US Nuclear Weapons Policy after the Cold War: Russians, ‘Rogues’ and Domestic Division*. Routledge, 2009. p. 25; Nolan, Janne. *An Elusive Consensus: Nuclear Weapons and American Security After the Cold War*. The Brookings Institution 1999 p. 91.

55 Butler, George Lee. *Uncommon Cause: A Life At Odds With Convention. Volume 2*. Outskirts Press, Denver CO 2016, p. 140. According to Butler, this effort was incomplete when he stepped down as STRATCOM head in 1994, but “success was assured.” Ibid p. 161.

associated warheads it needed based upon how it, as a service, planned to operate and fight. The Navy's stated requirements were of course subject to review and adjustment by the Secretary of the Navy, Secretary of Defense, the President and Congress. However, within the uniformed military there existed no institutionalized system for evaluating US strategic force requirements as a whole and determining the optimal composition of the arsenal given 1) US political objectives and corresponding war plans, and 2) other extant or planned strategic nuclear capabilities. Over the years, the absence of a system for holistically evaluating US strategic forces requirements had been one of the major causes of numerical growth in the US arsenal.⁵⁶ Thus, the combination of growing adaptive planning capabilities and centralized authority for setting strategic force requirements within the new STRATCOM helped to improve the capabilities of US strategic forces, even as Russia's capabilities withered.

4.4) *A Modest Proposal*

The other late-Bush Administration change with significant long-range impact was the publication of new defense planning guidance in January 1993—weeks before the President left office. The new defense planning guidance had been a work in progress for most of 1992. A draft of the document stirred controversy when it was leaked to the press in March 1992. What was the source of the controversy? With the Cold War over and no great power rivals in sight, the document sketched out a plan to maintain permanent American hegemony. According to journalist James Mann, “The part of [Deputy Undersecretary of Defense for Policy Planning Zalmay] Khalilzad's draft that attracted the most notice was its suggestion that the United States

⁵⁶ Author's interview with Franklin C. Miller, August 31, 2018; Nolan, Janne. *An Elusive Consensus: Nuclear Weapons and American Security After the Cold War*. The Brookings Institution 1999 p. 21.

should work actively to block the emergence of any potential competitor to American power. [...] Thus the United States would be the world's lone superpower not just today or ten years from now but permanently."⁵⁷ This vision was overwhelmingly ambitious.

By the time the final version was released in January 1993, some of the language from the leaked draft had been softened. However, the basic framework for future US foreign and security policy that it outlined remained untempered. "Simply put," the finished guidance argued, "it is the intent of the new Regional Defense Strategy to enable the US to lead in shaping an uncertain future so as to preserve and enhance this strategic depth won at great pains." "Strategic depth" was a euphemism for the United States' post-Cold War security surfeit. Emphasizing America's willingness to act unilaterally as necessary, it argued that "even as we hope to increasingly rely on collective approaches to solve international problems we recognize that a collective effort will not always be timely and, in the absence of US leadership, may not gel. Where the stakes so merit, we must have the forces ready to protect our critical interests."

Openness to unilateral military action would become a hallmark of the foreign policy of the George W. Bush presidential administration eight years later. Moreover, outlining what had become a growing fear within the US government, especially since the post-Gulf War revelations about the advanced state of Iraq's nuclear program, it observed that "Nuclear weapons cannot be disinvited; and the threat of nuclear proliferation, despite our best efforts, persists. Other countries—some of them, like Iraq, especially hostile and irresponsible—threaten to acquire nuclear weapons. Some countries are also pursuing other highly-destructive systems, such as chemical and biological weapons. These developments require us to be able to deter use of such weapons, and to improve our defense capabilities."

⁵⁷ Mann, James. *Rise of the Vulcans: The History of Bush's War Cabinet*. Penguin Books 2004 p. 209-212.

The concern here was two-fold. As a general proposition, the US opposed proliferation, especially to ‘hostile and irresponsible’ states ‘like Iraq.’ But more concretely, there was the concern that if these states did proliferate—as they had strong incentives to do—they could stand against the US, limiting the would-be permanent hegemon’s freedom of to do as it wished. Thus, the specter of WMD-armed ‘rogue states’ that haunts US foreign policy and nuclear posture to this day was first conjured during the late George H.W. Bush Administration, before any such states had actually emerged.⁵⁸

It is unclear how influential the Bush team believed that this new defense planning guidance would be given that it was released during the Administration’s final month. But regardless of expectations, it seems to have informed, or at least characterized, the trajectory of US foreign and security policy throughout the Clinton years and into the George W. Bush Administration. According to Mann, “the Democrats failed to come up with any clear alternative vision of American strategy that would forswear the 1992 [Defense Planning Guidance] vision of the United States as a sole superpower. When the Clinton administration sought to articulate its own view of America’s role in the world it stressed the importance of globalization, open markets and democracy. Those themes did not contradict the 1993 strategy, but rather described the economic and political basis of the new international system the United States intended to dominate.”⁵⁹

58 “Defense Strategy for the 1990s: The Regional Defense Strategy,” Secretary of Defense Dick Cheney, January 1993. Published in Burr, William, National Security Archive Electronic Briefing Book no. 245. <https://nsarchive2.gwu.edu/nukevault/ebb245/>.

59 Mann, James. *Rise of the Vulcans: The History of Bush’s War Cabinet*. Penguin Books 2004 p. 215. Note that Mann’s view is somewhat at odds with Hal Brand’s argument that the US lacked a coherent grand strategy throughout the 1990s until 9/11. If Mann is correct, Clinton more or less adopted Bush’s foreign policy. Alternatively, if Brands is correct, Clinton failed to develop any coherent strategic direction of his own, and instead US foreign policy drifted until the George W. Bush Administration picked up where the earlier Bush Administration left off. See Brands, Hal. *From Berlin to Baghdad: America’s Search for Purpose in the Post-Cold War World*. University of Kentucky Press 2008. Regardless, in different ways both observers hold Clinton Administration foreign policy in low esteem.

5) Conclusion

President Bush and his top advisors initiated a series of changes in US nuclear posture more significant and rapid than any seen since the transition from the Monopoly Posture to the Maximal Posture between 1952 and 1956. This was not what they had planned when they took office in January 1989. At that point, the contrast between President Bush's cautious outlook and Reagan's visionary optimism was well known. A durable improvement in US-Soviet relations seemed possible, but the total, peaceful collapse of the Soviet Union did not. Nor did anyone anticipate that Soviet weakness would replace Soviet nuclear strength as a central threat to US interests. Enabled by the SIOP Review and lessons learned from conventional victory in the Gulf, President Bush and his advisors set in motion sweeping changes in US posture.

Yet there was one other thing that the Bush team had failed to anticipate: losing the 1992 election. Consequently, Bush left office while the significant changes to US nuclear posture that he had initiated were still in train. Not until September 1994, eighteen months after Bush left office did the new Clinton Administration's Nuclear Posture Review (NPR) introduce the hedging mission, and with it, the new Adaptable Posture that the US would pursue for the next decade.

While Bush had already left office when the US transitioned from the Offensive Missile Posture to the Adaptable Posture, it was, to a large extent, an extension of Bush's nuclear policy changes and the Nuclear Security Theory that undergirded them. The August 1991 coup attempt in the Soviet Union was like a triggering event. It caused Bush to re-evaluate his earlier view that nuclear security could be preserved with a large, modern, capable nuclear arsenal. Following the coup, Bush was of the view that perhaps fewer nuclear weapons—on both sides—would be safer.

They would be easier to secure, and moreover, it now seemed that the US could get by with fewer anyway. In particular, the SIOP Review had made it clear that the US did not need as many strategic nuclear weapons as Bush had inherited. The Gulf War demonstrated US conventional military prowess, as well as the surprising disutility of theater nuclear weapons. And post-Gulf War revelations about Iraq's nuclear program conjured the new threat of WMD-armed 'rogue' states that could hamper American attempts to preserve its permanent hegemony. In skeletal terms, changes in Bush's and his advisors' understanding of the kinds of nuclear threats the US faced, and the opportunity to adjust US nuclear forces—making them smaller, but more flexible, capable and usable against rogue dictators—caused the Bush team to set the stage for the first nuclear Posture shift in nearly thirty years.

Chapter 11) Yesterday's Weapons Under the 'Tomorrow Guy': The Clinton Administration and the Adaptable Posture

1) Introduction

The election and inauguration of President Bill Clinton in January 1993 was the final step in the long ending of the Cold War. Unlike his predecessor, Clinton was not a foreign policy president. 'It's the economy, stupid!' was his unofficial but effective campaign slogan. With the Soviets vanquished, American voters had the luxury of choosing the domestically-focused foreign policy neophyte Clinton over the incumbent Cold War victor Bush. Clinton entered office with only a passing interest in the nuclear forces that had been central to the recent Cold War.

In this way Clinton was an exception. A rare president who did not personally guide US nuclear posture—even as it underwent significant changes on his watch. Consequently, this chapter represents a weak point in my overall argument that presidents direct posture to advance ambitious foreign policy goals. Under Clinton the key decisions about US nuclear posture emanated from a combination of the Bush White House and the Pentagon. Clinton reviewed and ratified these decisions, but for once the Oval Office was not the cockpit for US nuclear posture decision-making.

While Clinton's non-interest in US posture made him an outlier, his attitude did foreshadow the shape of things to come. In the post-Cold War world nuclear weapons remained useful, but no longer were they central to US grand strategy. Rather, now they were just one of many levers of national power available to the president—more useful for less pressing goals like hedging against Russian revanchism, or deterring nuclear armed rogue states than for spreading democracy and halting ethnic cleansing.

What were the results of Clinton's disengaged approach to US nuclear posture? The Clinton Pentagon, first under Defense Secretary Les Aspin and subsequently under his successor, William Perry, attempted the most thorough review of US posture and the role of nuclear weapons in US security since the Eisenhower Administration. This Nuclear Posture Review (NPR) considered a wide range of posture alternatives, including some that would have been unthinkable five years earlier. Yet most of these alternatives were rejected.

On one hand, the Clinton years saw a shift in US Posture. The US discarded the 30 year old Offensive Missile Posture in favor of the new Adaptable Posture. This Posture featured a new mission—hedging—which involved conditionally and reversibly reducing the size and/or ferocity of US nuclear forces in an effort to influence other states' behaviors. In addition, improvements in weapons retargeting and war planning capabilities lent exceptional flexibility to those forces that remained. On the other hand, aside from these refinements, US offensive nuclear forces continued along the same trajectory that President Bush had laid out. The nuclear forces of the 1990s would be smaller in numbers but more flexible and capable than they had been before. In a true reflection of the United States' 1990s concerns and ambitions, US nuclear forces could now be re-grown quickly in the event Russia became hostile again, or employed in small numbers as needed against rogue nuclear-armed dictators.

1.1) Security Threats in the 1990s

During the 1990s the US enjoyed an unprecedented surfeit of security. With no great power competitor even on the horizon, America was certainly the unipole, and arguably the global

hegemon. Yet despite its now unrivaled power, two *potential* threats still bore on US nuclear posture.

The first and most significant was Russia. In the early 1990s its long-term trajectory was far from clear. On one hand, it appeared to be taking early but promising steps towards democracy and market reforms under President Boris Yeltsin. If it continued along this path then perhaps—in decades or generations—Russia might have evolved into a state like the United Kingdom or France. Nuclear armed, but non-threatening. On the other hand, it was also plausible that post-Soviet Russia could turn towards authoritarianism. In this case it might menace US interests. There was no way for the Clinton Administration to forecast which direction Russia might veer years or decades into the future. Consequently, the simple fact that Russia continued to possess thousands of nuclear weapons, only a handful of which were needed to devastate the US homeland, was not something that responsible officials could afford to forget.

The second threat was from what came to be called ‘rogue states.’ It had two related aspects. The first was centered on an understanding that dictators like Saddam Hussein and others could plausibly use their weapons of mass destruction (WMD—an umbrella term for nuclear, chemical, biological and radiological weapons) to curtail America’s ability to project power around the world. Rogue-states with WMDs could negate the United States’ costly and hard-won conventional military advantages. Consequently, one important debate during the 1993/1994 Nuclear Posture Review had to do with whether and how US nuclear forces might counter non-nuclear WMD threats.

The other aspect of the rogue state threat had to do with proliferation. Dictators that did not yet possess WMDs might decide that they were highly desirable. After all, these weapons might

be the only way for poor, otherwise weak states to prevent the US from meddling in their affairs. To meet this challenge, the US defined proliferation itself—as distinct from WMD use or threats—as a real and present military threat. According to what might have been called the ‘don’t even think about it’ doctrine, even *attempting to pursue* WMDs could generate an American military response. This downward expansion of the definition of a threat implied the need for both conventional and nuclear counter-proliferation capabilities.

1.2) Opportunities

For the US, the 1990s was a decade of practically limitless possibilities. While Clinton’s primary focus was on domestic politics, he did see important opportunities in the post-Cold War world. Three stand out as relevant for US nuclear posture.

First was belief that Russia might succeed in making liberal reforms. He supported developments in this direction through his persistent engagement with Russian President Boris Yeltsin. A strong believer in personal diplomacy, Clinton seems to have viewed his relationship with Yeltsin as a means of supporting Russian democratic and market reforms. Clearly, the opportunity for warmer US-Russian relations that would likely prevail if Russia democratized was an important Clinton goal.

The second opportunity was something of an extension of the first. Clinton supported the spread of Western democracy and capitalism throughout the world—especially to former Soviet-controlled Eastern Europe. Conceptually, this may have been an outgrowth of Clinton’s primary focus on domestic politics. Shouldn’t the democratic capitalism that was good for the US be

good for other states as well? Indeed, the recent collapse of authoritarian communism appeared to validate this perspective.

However, in practical terms, the goal of spreading Western values to Eastern Europe came into conflict with Clinton's goal of improving US-Russia relations as NATO expansion to the east became a vehicle for bringing former communist states into the Western fold. What Clinton saw as a US-led liberal institution, however, Russia remembered as a hostile military alliance which was now creeping towards its borders while it was powerless to resist. Clinton's pro-democracy policies as manifested in NATO expansion were, for Russia, tantamount to predation. Thus the whole question of democratic and capitalist evangelism, NATO expansion and US-Russia relations that would later contribute to the return of great power competition emerged under Clinton.

Finally, the end of the Cold War was an opportunity for a thoroughgoing reappraisal of US conventional and nuclear forces. When the Cold War began the US military had largely demobilized following World War II. We had no tradition of maintaining a standing army in peacetime. Likewise, atomic weapons were new. Before Clinton took office, every previous decision about US nuclear posture had been taken within the context of the Cold War. Now that it was over, what kinds of conventional and nuclear forces would the US require? These questions became the subject of two related studies—the Bottom Up Review (BUR) on conventional forces and the Nuclear Posture Review (NPR) on nuclear forces. Both studies would inform the shape of the US military throughout the 1990s and beyond.

1.3) Clinton's Nuclear Inheritance

President Clinton's nuclear inheritance was a crucial driving factor behind his Administration's posture decisions. Two trends were especially salient. First was the reduction in size of the US nuclear arsenal. As a result of the START I agreement, the Presidential Nuclear Initiatives and the START II deal that Bush signed just before leaving office, the US strategic arsenal was slated to shrink to a mere 3,500 warheads by 2003. Likewise US theater nuclear forces in Europe and Asia had been, or were being substantially reduced as well. The decisions to take these steps had been taken by President Bush. However figuring out how, exactly, to carry many of them out would be the work of the Clinton Administration.

The second major trend was the improving quality of the nuclear forces that remained. This was partially the result of the fact that when making cuts, newer, more capable systems were typically retained while older ones were discarded. Moreover, behind the scenes these smaller but more modern forces became more flexible. By the mid-1990s improvements in adaptive planning capabilities and command and control gave STRATCOM the ability to develop nuclear employment options in hours or days, rather than in months. The old rigid Major Attack Options and Selective Attack Options still existed within the SIOP. However the ability to quickly devise new options involving many or few nuclear weapons while a crisis was unfolding added a scalpel-like edge to strategic forces that had once been incredibly blunt. Under the Adaptable Posture US strategic offensive forces may have been smaller, but they were also getting more capable.

1.4) Nuclear Security Theory?

It is not clear that President Clinton had a Nuclear Security Theory. Again, this is an important exception to my overall argument that presidents rely on Nuclear Security Theories as heuristics as they direct US nuclear posture with and through their executive teams. However, as the first post-Cold War president, Clinton does not appear to have thought a great deal about nuclear weapons. They were important in principle, but not necessarily something that he cared to focus on. As a result, Clinton leaned upon his defense department to make key decisions about US posture. Unlike his predecessors, he does not appear to have pushed his advisors for options, asked pointed questions, and issued firm directives to get what he wanted from US posture. As President, Clinton was briefed on and ratified DOD nuclear posture decisions, but his engagement with the underlying issues appears to have been superficial.

Absent strong presidential guidance, the defense department undertook an enormously wide-ranging study of US nuclear posture. The resulting Nuclear Posture Review largely ratified the direction in which US posture was already headed. Bush had initiated significant cuts in the arsenal, and by signing START I and II, had committed the US to more in the future. The NPR therefore recommended a START II compliant nuclear posture based on the nuclear triad which would retain—and through improved flexibility in planning and targeting, enhance—the missions that comprised the Offensive Missile Posture. These were the urban/industrial attack, counterforce and theater use missions.

In addition, the NPR recommended the addition of a new mission—hedging. With this new mission the US reduced the number of nuclear warheads that it deployed on its ICBMs and SLBMs and at its bomber bases. At the same time, it retained the ability to re-grow its deployed

arsenal within weeks or months by re-uploading reserve warheads. The overall objective was to create incentives for Russian nuclear reductions, and to reduce the visibility of nuclear forces in US security policy, without discarding the benefits that might come with possessing a larger arsenal.

Undertaking this mission once the Cold War was over marked the first US posture shift in over 30 years—from the Offensive Missile Posture to the Adaptable Posture. Crucially, Clinton ratified this posture shift and the handful of other posture adjustments that took place on his watch. However, he did not drive them.

2) The ‘Tomorrow Guy’s’ Foreign Policy

In sharp contrast with his predecessor, President Clinton took office with practically no foreign policy experience. It was perhaps unsurprising then that Clinton’s initial foray into foreign policy both reflected the administration’s domestic political focus, and retained strong elements of continuity with Bush Administration policy. According to historian Hal Brands, “Clinton and his aides knew that in addition to organizing foreign policy, they had to frame it in a manner that was rhetorically persuasive enough to win the support of skeptical observers at home.”¹ In practice, this involved emphasizing economic issues like globalization and open markets, as well as democratization. As journalist James Mann observes, “Those themes did not contradict [late Bush Administration policy] but rather described the economic and political basis of the new international system the United States intended to dominate.”² Thus, the central

1 Brands, Hal. *From Berlin to Baghdad: America’s Search for Purpose in the Post-Cold War World*. University of Kentucky Press 2008, p. 101.

2 Mann, James. *Rise of the Vulcans: The History of Bush’s War Cabinet*. Penguin Books 2004 p. 215.

elements of Clinton's foreign policy were, to a large extent, repackaged ideas inherited from President Bush.

This overall approach to foreign policy had follow on implications for US nuclear policy. Clinton Russia advisor Strobe Talbott captured the President's attitude in his memoir, observing that "Clinton saw strategic arms control as old business—unfinished, worthwhile and necessary, to be sure, but nonetheless not high on his agenda. He liked to refer to himself as 'a tomorrow guy' and where Russia was concerned that meant letting others (like me [Talbott]) think about how many warheads the Russian Strategic Rocket Forces had aimed at the US."³

While Talbott may have done some worrying about Russian strategic forces, main responsibility for dealing with them—and US nuclear policy overall under Clinton—resided in the Pentagon. In a pre-innauguration press conference announcing the members of his prospective national security team, Clinton's nominee for Defense Secretary, former House Armed Services Committee Chairman Les Aspin outlined his own post-Cold War policy priorities, which were a reflection of Clinton's. Aspin argued that national security challenges included "not only the threat from regional powers but [also] the new nuclear danger of proliferation and the possibility of the reversal of reforms in the former Soviet Union with untold consequences. It even includes economic. The President-elect has set the overall task of reviving our economic security at home. The Defense Department can contribute there, too."⁴

³ Talbott, Strobe. *The Russia Hand: A Memoir of Presidential Diplomacy*. Random House, New York 2002. p. 43. Talbott did not respond to repeated requests for an interview.

⁴ "The Transition: Excerpts from Clinton's News Conference Introducing His Latest Nominees." *The New York Times*, Decembe 23, 1992. p. A-14. Janne Nolan also argues that personnel policy was nuclear policy for Clinton, and highlights the significance of the Aspin nomination. See Nolan, Janne. *An Elusive Consensus: Nuclear Weapons and American Security After the Cold War*. The Brookings Institution 1999, p. 38.

Thus even before Clinton took office, Aspin had foreshadowed three of the main pillars of Clinton's overall national security policy. First was Clinton's personal engagement with Russian President Boris Yeltsin to support Russia's democratic transition. Second was Aspin's effort to provide a politically popular peace dividend via conventional and nuclear force reductions. Finally, Aspin's reference to the related problems of regional powers and proliferation presaged the North Korean nuclear crisis that would emerge in spring 1994 and highlight the importance of adaptive planning and tailored deterrence as key US nuclear capabilities for confronting WMD-armed or aspiring dictators.

2.1) The US and Russia—or Clinton and Yeltsin

The future of US-Russia relations was arguably Clinton's central long-range foreign policy concern. The Soviet collapse was still recent. Moscow's nuclear arsenal was still large. Both factors contributed to uncertainty and raised the stakes. Clinton's first phone conversation as president with Boris Yeltsin, on January 23, 1993, was therefore an important moment. It highlighted priorities and set the tone.

Clinton phoned Yeltsin. The overall tenor was warm but business-like. Following an exchange of pleasantries, Clinton, possibly reading from a script, raised a number of issues. First was the importance of appointing a capable US ambassador to Moscow. This may have reflected Clinton's usual willingness to delegate certain foreign policy, even if, as their relationship grew, Clinton and Yeltsin would deal with many matters personally. Second and third were economic issues—debt management and boosting US investment and trade with Russia. Fourth, Clinton turned to nuclear issues, emphasizing the importance of getting Ukraine—still home to former

Soviet nuclear weapons—to give up its nuclear arms by ratifying START I and signing the nuclear non-proliferation treaty (NPT). Finally, Clinton raised other regional issues, including tensions in Bosnia and with Iraq.⁵

Though this initial Clinton-Yeltsin phone call was not pivotal, it was illustrative of Clinton's overall approach to US-Russia relations. Nuclear weapons were important, and ideally the US and Russia would address key issues like arms control, proliferation and nuclear security in the former Soviet Union together. Yet despite their importance, they were still 'old business' and therefore not at the top of Clinton's agenda.

In contrast, supporting Yeltsin—and by extension, Russia's domestic stability and nuclear security—was at the top of Clinton's agenda. This preference for stability under Yeltsin, even at the expense of the democratic process, was especially clear from Clinton's handling of events surrounding the October 1993 siege on the Russian Duma, or legislature. On September 21, President Yeltsin announced plans to dissolve parliament, called for new elections, and ordered a referendum on a draft constitution. According to historians Tom Blanton and Svetlana Savranskaya, this was one of several examples of Yeltsin's growing penchant for ruling by fiat. Even so, following Yeltsin's speech, Clinton phoned the Kremlin. He assured Yeltsin that "I want to issue a public statement to state my support for you but before I do I wanted to hear from you how this affects your position and the process of reform in Russia." Later in the call, revealing his primary concern with Russia's stability, Clinton asked Yeltsin "Are the military and security services with you?" Yeltsin replied that they were, telling Clinton "there will be no bloodshed."⁶

⁵ Memorandum of telephone conversation: Telcon with President Boris Yeltsin of Russia on January 23, 1993. National Security Archive EBB 641. Svetlana Savranskaya and Tom Blanton eds. <https://nsarchive2.gwu.edu/dc.html?doc=4954099-Document-01-Memorandum-of-telephone-conversation>.

⁶ Memorandum of Telephone Conversation: Telcon with President Boris Yeltsin of Russian Federation. National Security Archive EBB 641. Svetlana Savranskaya and Tom Blanton, Eds. <https://nsarchive2.gwu.edu/dc.html?>

Within weeks, however, events proved Yeltsin wrong. On October 2-3, 1993, hard-line Russian military forces occupied the Duma while the supposedly dissolved Parliament voted to impeach Yeltsin. In response, Yeltsin ordered Russian tanks to surround the Duma, and special forces to recapture the building and arrest the coup leaders. In a brief phone call from Air Force One on October 5, Clinton told Yeltsin, who were by now on a first-name basis, “Good evening, Boris. I wanted to call you and express my support. I have been following events closely and have tried to support you as much as possible.” On one hand, Yeltsin’s decision to forcibly put down an attempted coup was understandable. At the same time, the fact that Clinton chose not to raise Yeltsin’s role in instigating that coup by governing through diktat reflected his increasingly warm personal relationship with Yeltsin, and his willingness to prioritize stability over democracy in Russia.⁷

Two issues would intrude on the overall positive dynamic that Clinton and Yelsin enjoyed throughout the 1990s. The first was the question of NATO’s expansion to include former Warsaw Pact countries like Poland, the Czech Republic and Hungary. The second was the US desire to develop some kind of missile defenses.

Russia was understandably allergic to the notion of NATO expansion eastward. The United States’ goal may have been merely to peaceably extend the security and other benefits that Western European countries had long enjoyed to the newly independent states of Eastern Europe.

[doc=4954101-Document-03-Memorandum-of-Telephone-Conversation](#). For Blanton and Savranskaya background on Yeltsin’s governing style, see text of EBB 641.

⁷ Memorandum of Telephone Conversation: Telcon with President Boris Yeltsin of Russian Federation. National Security Archive EBB 641. Svetlana Savranskaya and Tom Blanton, Eds. <https://nsarchive2.gwu.edu/dc.html?doc=4954103-Document-05-Memorandum-of-Telephone-Conversation>; Christopher, Warren. *In the Stream of History: Shaping Foreign Policy for a New Era*. Stanford University Press, 1998. p. 91. Though Russia’s October 1993 crisis was similar in many ways to the August 1991 coup, there is no discussion in the available records suggesting US concern about Russian nuclear command and control. It seems likely that this is a reflection of the thinness of the available records rather than of the underlying facts. This is an interesting path for future research.

However, for Russia, the fact that a once hostile alliance was advancing closer to its borders was anathema. Despite Yeltsin's objections, following considerable debate Clinton decided to support NATO expansion in Fall 1993. Key issues appear to have been the effective lobbying by well-organized pro-enlargement policy entrepreneurs and Clinton's interest in winning political support of Polish-, Hungarian- and Czech-Americans, on the one hand, balanced against less organized bureaucratic opposition—especially Pentagon concerns about interoperability with Soviet equipped militaries and the possibility of strong Russian opposition or even reprisals. Clinton announce his decision at a NATO summit in January 1994.⁸

To soften the blow to Russia, Clinton also introduced the NATO Partnership For Peace (PFP). This program gave Russia and other former Soviet states not yet on a NATO membership track ways to work with the alliance, without yet making firm alliance commitments. This in turn helped make Russia feel included in NATO, without in fact including it.⁹ Despite this gesture, Yeltsin—like Putin after him—staunchly opposed NATO expansion. For example, at a May 10, 1995 meeting in Moscow commemorating allied victory in World War II, Yeltsin argued that NATO expansion was “a new form of encirclement, and that “many Russians have a sense of fear.” Plainly asserting the United States' durable interest in European security, Clinton asked rhetorically, “does the US at the end of the Cold War still need a security relationship with Europe along with a political and economic relationship?” To which Yeltsin interjected “I'm not sure you do.” For his part, Clinton was clear—about US objectives, as well as about Yeltsin's

8 For an insightful history of NATO enlargement see Goldgeier, James M. *Not Whether but When: The US Decision to Enlarge NATO*. Washington DC: The Brookings Institution, 1999.

9 Christopher, Warren. *In the Stream of History: Shaping Foreign Policy for a New Era*. Stanford University Press, 1998. p. 227; Brands, Hal. *From Berlin to Baghdad: America's Search for Purpose in the Post-Cold War World*. University of Kentucky Press 2008, pp. 174-175. James Goldgeier

inability to resist them. “Well, I believe we do,” he replied.¹⁰ NATO expansion became one of the key underlying sources of the tension in US-Russia relations that exists today.

The second background source of US-Russia tension was missile defense. Reagan’s Strategic Defense Initiative had made missile defenses a salient issue for the first time since Nixon and Brezhnev signed the ABM Treaty in 1972. SDI remained a back burner topic under President Bush, who lacked Reagan’s enthusiasm for the program, but was apparently reluctant to eliminate it—despite its lack of progress towards fielding any operational defensive capability. Thus, SDI soldiered on until “Clinton’s first secretary of defense, Les Aspin, shifted the focus of that program from national missile defense that could shoot down Russia’s intercontinental rockets to theater missile defense (TMD) to defend US allies and forward deployed forces against shorter-range rockets like the ones Iran, Iraq, Libya, and North Korea were beginning to develop.”¹¹

Yet despite the United States’ theater, rather than national ambitions, the ABM Treaty still limited ballistic missile defenses. Consequently, the US had to find a way to differentiate its prospective theater missile defenses which had no bearing on Russia’s ability to strike or retaliate against the US homeland, from national missile defenses (NMD) which might. Because offensive and defensive weapons complement one another, the Russian concern was that effective US national missile defenses might augment its already excellent counterforce capabilities, returning to Washington the decisive first strike advantage that it had lost in 1963. Because of their regional focus, theater missile defenses did not entail this same risk.

10 Summary report on the one-on-one meeting between Presidents Clinton and Yeltsin, May 10, 1995, Kremlin. National Security Archive EBB 640. Svetlana Savranskaya and Mary Sarotte, Eds. <https://nsarchive2.gwu.edu//dc.html?doc=4950563-Document-04-Summary-report-on-the-one-on-one>.

11 Talbott, Strobe. *The Russia Hand: A Memoir of Presidential Diplomacy*. Random House, New York 2002. pp. 376-378.

According to Clinton's lead Russia advisor, "The turning point came at the Helsinki summit between Clinton and Yeltsin in March 1997. The two presidents had an intense but inconclusive go at each other on this subject in the course of a longer conversation about NATO enlargement, then turned the issue over to their aides. [...] In the end, the Russians agreed to a detailed technical demarcation between permissible TMD programs and prohibited ABM ones.[...] The Helsinki summit had moved the Russians closer to an important threshold they seemed prepared to consider adjusting the strategic equation, letting the US add defense against certain kinds of threats, while continuing to subtract offense—as long as the smaller arsenal Russia ended up with would still be able to penetrate whatever defenses the US eventually deployed."¹² Clinton had been able to temporarily smooth over persistent US-Russian differences over the US desire to field some kind of missile defenses, and Russian concerns about their ability to threaten the US homeland with their nuclear forces, thereby preserving strategic stability. However, the technical demarcation agreement that developed from this March 1997 summit would not last. In 2001, President Bush abandoned the ABM Treaty, leading to the United States' most recent nuclear posture transition—to the Strategic Combined Arms Posture.

2.2) *North Korea*

The US experience in and following the 1991 Gulf War against Iraq had conjured the threat of the aggressive WMD-armed dictator that would haunt the US throughout the post-Cold War era. The prevailing view was that these WMD-armed rogue states could threaten US interests and allies while using deterrent threats to prevent the US from responding. These fears were

¹² Talbott, Strobe. *The Russia Hand: A Memoir of Presidential Diplomacy*. Random House, New York 2002. pp. 376-378.

exacerbated by the possibility that WMDs, key materials or know-how might leak from the former Soviet Union and facilitate rogue state proliferation efforts. Consequently, Clinton Administration policy was to treat the danger of proliferation “as a real and present military threat in addition to the traditional approach of dealing with proliferation as a diplomatic problem.”¹³ This policy shift exemplified the United States heightened sensitivity to threats from comparatively weak, backwards states in the post-Cold War era.

By the time Clinton took office in 1993, North Korean leader Kim Il Sung had joined Iraq’s Saddam Hussein as a poster-boy for this emerging proliferation threat. In his memoir, Secretary of State Warren Christopher recalled that “of all the foreign policy challenges the Clinton Administration faced upon taking office, none was more immediately dangerous than North Korea.”¹⁴ North Korea had long harbored nuclear weapons ambitions. But in Spring 1994 it began to pursue those ambitions aggressively by denying International Atomic Energy Agency (IAEA) inspectors access to its nuclear power plant at Yongbyon. The purpose of IAEA inspections was to verify that North Korea was not diverting the plutonium contained in the Yongbyon reactor’s spent fuel rods to a weapons program. Consequently, the standoff over inspections turned into a crisis on May 14, 1994 when North Korea began removing spent fuel rods. There was every reason to suspect that the goal was to reprocess these rods to extract weapons-usable plutonium.

As a result of North Korea’s apparent movement towards proliferation—now a “real and present military threat”— Secretary of Defense William Perry ordered the Chairman of the Joint

13 Annual Report to the President and Congress. US Department of Defense. January 1994, p. 6. Author’s personal collection courtesy of Steve Van Evera. Note that this language was absent from the 1993 edition of the ADDR.

14 Christopher, Warren. *In the Stream of History: Shaping Foreign Policy for a New Era*. Stanford University Press, 1998. pp. 213-215.

Chiefs of Staff General John Shalikashvili and the head of US Combined Forces Command Korea General Gary Luck to “update our contingency plan to accommodate the latest intelligence on North Korean forces, and to include a specific plan for dealing with the massive deployment of long-range artillery that North Korea had positioned within range of Seoul.” With respect to the threat posed by activities at Yongbyon, he also ordered the preparation of a “plan for a ‘surgical’ strike by cruise missiles on the reprocessing facility at Yongbyon. The strike option took into account that the reactor would have spent fuel in it, and even that it could be operating.”¹⁵ The Clinton team was undertaking serious military planning to attack North Korea preemptively to prevent it from building nuclear weapons.

As these military preparations were underway, diplomatic efforts to resolve the crisis continued. In June, former President Jimmy Carter traveled to North Korea, met with Kim Il Sung, and—without consulting Clinton Administration officials—announced live on CNN that a settlement was near at hand. Carter’s odd, unofficial personal intervention averted what might otherwise have escalated into a second Korean war.

However, despite the crisis’s unusual resolution, it had enduring implications for US nuclear posture. First, it deepened concerns about proliferation and rogue states. These now seemed like threats that the US would have to deal with on a fairly regular basis. Second, it highlighted the challenges of deterring actors like Saddam Hussein and Kim Il Sung, who appeared to be quite risk acceptant. Reflecting on the crisis after the fact, Secretary of Defense Perry reportedly “had no way to know what Kim really thought about nuclear weapons,” and had “no reason to believe that our nuclear forces would be capable of deterring the use of their nuclear forces.”¹⁶ The

¹⁵ Perry, William. *My Journey at the Nuclear Brink*. Stanford University Press, 2015. pp. 103, 106-107.

¹⁶ Coll, Steve and David B. Ottaway, “New Threats Create Doubt in US Policy.” *The Washington Post*, April 13, 1995, pg. A1.

challenge of identifying what adversaries value and finding ways to hold it at risk was not new. Indeed, it was the foundation of deterrence theory and had been at the forefront of US thinking about employment planning since at least the late 1970s.¹⁷ However, the new rogue state challenge pointed up the difficulties that the US would face in tailoring its deterrent threats to target the fears and values of a variety of new, different, non-Soviet adversaries. And as the Clinton team's internal strike planning discussions demonstrate, the common belief was that in cases where deterrence would not work, preemption might.

2.3) The Bottom Up Review

The collapse of the Soviet Union, uncertainty about the future of US-Russia relations, and the rogue state/proliferation threat had substantially altered the kinds of threats that the US military would need to prepare to meet within a span of a few short years. Led by Colin Powell, the Bush Administration had already undertaken defense budget cuts as part of a larger effort to preserve the Base Force that Powell believed provided an irreducible minimum of core capabilities. The Clinton Administration's Bottom Up review (BUR) was therefore an extension of this same basic effort.

Led by Defense Secretary Les Aspin, the BUR set out to reorient America's conventional military forces away from the extinct Soviet threat, and towards "the need to project power into regions important to US interests and to defeat potentially hostile regional powers, such as North Korea and Iraq."¹⁸

¹⁷ See e.g. Memorandum from Leon Sloss to Director, Joint Staff et al, on Nuclear Targeting Policy Review, December 13, 1978. <https://www.archives.gov/files/declassification/isca/pd/2011-002-doc1.pdf>. My thanks to Franklin C. Miller for bringing this document to my attention.

¹⁸ Annual Report to the President and Congress. US Department of Defense. January 1994, p. 12. Author's personal collection courtesy of Steve Van Evera.

As a combined result of both the Base Force effort and the Bottom Up Review, the US armed forces shrank appreciably between 1990 and 1994. The Army shrank from 28 to 20 active and reserve divisions, the Navy cut 4 aircraft carriers, and the Air Force shrank from 36 to 22 active and reserve fighter wing equivalents. All told, the real defense budget shrank by over 16% between Fiscal Year (FY) 1991 and 1995, and remained on a downward trajectory.¹⁹

3) The Nuclear Posture Review

The 1993/1994 Nuclear Posture Review (NPR) was the nuclear forces complement to the conventional forces-focused BUR. It was arguably the most extensive review of US nuclear posture since the Eisenhower Administration. Options that would have been practically unthinkable five years before or after—like eliminating ICBMs entirely—were given serious consideration.

Defense Secretary Les Aspin announced the beginning of the NPR process on October 29, 1993. Following Aspin's resignation in early February 1994, it was completed under his successor, William Perry, in September 1994.

Its results were a mix of evolutionary and revolutionary. On one hand, the beginning of the hedging mission marked the United States' first nuclear posture transition in over thirty years. This was a massive change. On the other hand, this transition, as well as many of the other incremental posture adjustments prescribed in the NPR were based on earlier decisions taken by Bush. For example, Bush's decision to sign START II weeks before leaving office meant that it would be up to his successors to devise a smaller, START II compliant force structure. This was

¹⁹ Ibid pp. 254-255.

therefore a key NPR objective. Likewise, following Bush's PNIs, NPR participants explored options for the future of US forward deployed theater weapons in Europe.

By the time it was complete, the NPR had evaluated an enormous range of options. Its core recommendations for offensive forces were surprisingly status-quo oriented. They included the maintenance of a smaller, hedged version of the United States' late Cold War triad animated by an increasingly flexible employment planning and retargeting apparatus. To a large extent, the NPR outlined the shape of the offensive nuclear forces that the US relies upon today.

3.1) *NPR Origins*

The first ever Nuclear Posture Review was orchestrated by then Assistant Secretary of Defense Ashton Carter. An academic nuclear weapons expert from Harvard, Carter had done intermittent work for the Pentagon beginning in the early 1980s. He was pulled into the Clinton Defense Department by Deputy Secretary of Defense (and later Secretary) William Perry.²⁰ There he found in Les Aspin a Defense Secretary who shared his academic bent, as well as his belief that it was clearly desirable to undertake a thorough review of US nuclear posture at the dawn of the post-Cold War era. Thus the initial intellectual muscle behind this first NPR appears to have come from both Aspin and Carter.²¹

Aspin kicked off the Nuclear Posture Review in late October 1993. It was geared towards addressing several fundamental questions about the future of US nuclear posture. These included

1) what START II compliant force structure should the US adopt? In other words, how should

²⁰ Perry recounts in his memoir how he smoothed over a challenge to Carter's Senate confirmation following accusations that Carter had presumed his office. See Perry, William. *My Journey at the Nuclear Brink*. Stanford University Press, 2015. p. 79.

²¹ Nolan, Janne. *An Elusive Consensus: Nuclear Weapons and American Security After the Cold War*. The Brookings Institution 1999, pp. 39-41.

the United States' 3,500 START II accountable warheads be divided up among the various available delivery systems? 2) What kinds of deterrent threats should the US make, and prepare to carry out? For example, should the US adopt a no first use policy? Should it threaten nuclear retaliation in response to rogue state chemical or biological weapons use? 3) With the Cold War standoff over, should the US take its ICBMs and SLBMs off alert, or take other steps to reduce risk of accidental or unauthorized nuclear use? 4) In addition to deciding how to implement START II cuts, should the US begin preparing for a future round of START III arms reductions as well? These were basic questions about the role of nuclear weapons in US foreign and security policy and the future of US posture. Given the evaporation of the Soviet threat that had animated US nuclear posture to date, they lacked obvious answers.²²

The Nuclear Posture Review process that Carter established reflected the complexity of the underlying issues. It centered on six working groups, each focused on a particular issue area. These working groups were 1) the role of nuclear weapons in US security strategy; 2) US nuclear force structure; 3) US nuclear operations; 4) nuclear safety and security; 5) Relationship between US nuclear posture and counterproliferation; 6) Relationship between US nuclear posture and cooperative threat reduction with the former Soviet Union.²³

22 On kickoff date, the Washington Post covered the new NPR in an October 19, 1993 article. See Smith, R. Jeffrey. "Nuclear Arms Doctrine to be Reviewed." *The Washington Post*, October 19, 1993, p. A17. Hans Kristensen dates the kickoff as October 29, 1993. See Kristensen, Hans. "The 1994 Nuclear Posture Review." *The Nuclear Information Project*. July 8, 2005. <http://nukestrat.com/us/reviews/npr1994.htm>. For underlying questions, see Smith *ibid* and interview with Elaine Bunn, October 22, 2018.

23 Kristensen, Hans. "The 1994 Nuclear Posture Review." *The Nuclear Information Project*. July 8, 2005. <http://nukestrat.com/us/reviews/npr1994.htm>. This description aligns with NPR Executive Director Elaine Bunn's recollection during an interview on October 22, 2018. It diverges somewhat in form, but not substance, from the description of the NPR process presented to the Senate Armed Services Committee at the end of the NPR. See Deutch, John. "Briefing on the Results of the Nuclear Posture Review." Hearing before the Committee on Armed Services of the United States Senate, September, 22, 1994, p. 6. <http://nukestrat.com/us/reviews/sascnpr092294.pdf>.

Each working group had a chair, as well as some thirty to forty members from the Defense Department, the military services, and elsewhere in the interagency. The typical workflow began with an effort to define and study critical issues. This work would feed into a briefing that captured key recommendations and teed up decisions for senior DOD officials. First draft briefing materials from the working groups would typically be reviewed by NPR Executive Director Elaine Bunn and then Carter's principal deputy, Frank Miller, before being passed up to Carter for his input and revisions. Following Les Aspin's resignation in early February 1994, William Perry was promoted to Secretary. He assigned his newly promoted Deputy Secretary of Defense John Deutch, along with Vice Chairman of the Joint Chiefs of Staff William Owens to oversee the Nuclear Posture Review. Therefore, as Carter's bosses Deutch and Owens had responsibility for reviewing and approving the NPR before it was passed to Clinton for review and approval, and subsequently briefed to Congress.²⁴

3.2) NPR Debates:

The beginning of the NPR opened the floodgates for a wide-ranging debate about operational, doctrinal and political questions about nuclear weapons and US policy that had not been rigorously scrutinized since the Eisenhower Administration. These kinds of debates were encouraged at an early stage by the NPR's leadership. From the start, Defense Secretary Aspin's NPR dictum was to 'let 1000 flowers bloom' throughout the process. Aspin was encouraging creative thinking about the future of US nuclear posture. Likewise, even after Aspin's resignation, Carter was known to frequently reinforce his own desire for a 'soup to nuts' review

²⁴ Interview with Elaine Bunn, October 22, 2018.

of nuclear posture. The clear message from the NPR's intellectual progenitors was that the floor for debate on US posture was wide open.

For example, one key debate centered on Russia's future. As the only state with nuclear forces that could rival the United States' this issue had more bearing than any other on the outcome of the Review. NPR participants therefore had to do their best to make informed judgments that would lead to sensible recommendations despite considerable uncertainty about the future. At the same time, perhaps encouraged by Aspin's and Carter's 'let 1000 flowers bloom soup to nuts' vision for the NPR, they did not automatically leap to conservative, worst case scenario assumptions. Rather, members of working group one—which had responsibility for this issue—devised a series of 'signposts' that might be used in future years to evaluate Russia's progress. Events like free and fair elections were positive markers. Decades or perhaps generations in the future, they acknowledged, a consistent track record of democratic elections coupled with durable market reforms could even help Russia move into the same category of state as the United Kingdom and France: nuclear armed, but non-threatening to the US. Alternatively, Russia could return to authoritarianism. In this case, its nuclear forces would remain a problem that the US would have to be prepared to deal with.²⁵ This combination of openness to a future of bonhomie, coupled with the realistic acknowledgment that US-Russian relations might deteriorate once again contributed to the initiation of the hedging mission.

Russia's future was not the only source of thoroughgoing study and debate in the Nuclear Posture Review. Other issues included the question of whether China should be re-added to the SIOP, or whether it was sufficient to simply retain enough warheads to cover the PRC target base

²⁵ Interview with Elaine Bunn, October 22, 2018. It is interesting to note that NPR participants were adherents of democratic peace theory.

in the submarine-based Secure Reserve Force (SRF); whether the US should use nuclear weapons to deter chemical and biological weapons use; whether the US should retain the option of nuclear testing; and whether any subsequent US nuclear arms reduction should be unilateral, designed solely to meet US needs, or negotiated with Russia so as to force their arsenal to shrink also.²⁶

3.3) NPR Brawls

These debates on underlying issues were an important and worthwhile feature of the Nuclear Posture Review. However, they were overshadowed by or subsumed within a bruising fight about the future character of the United States' post-Cold War nuclear forces. Two related issues were at stake. The first was whether the US should maintain the nuclear triad of ICBMs, SLBMs and bombers that it had relied upon since the early 1960s. The second was whether or not the US should continue to pursue the counterforce mission, or should instead switch to a MAD-type nuclear doctrine built on retaliation to enemy attack—presumably aimed at densely populated urban industrial centers.

For his part, Carter appears to have supported the elimination of at least the ICBM leg of the nuclear triad, as well as the move away from counterforce and towards delayed retaliation.²⁷

Though it is unclear how Carter arrived at these views, a number of common arguments may

²⁶ Interview with Franklin C. Miller, September 18, 2018; Interview with Elaine Bunn, October 22, 2018; Interview with anonymous NPR official, late October 2018.

²⁷ On elimination of the ICBM leg see Nolan, Janne. *An Elusive Consensus: Nuclear Weapons and American Security After the Cold War*. The Brookings Institution 1999, p. 47. Kristensen notes that a May 1994 article in *Inside the Air Force* asserted that Carter favored eliminating both ICBMs and nuclear-capable bombers. See Kristensen, Hans. "The 1994 Nuclear Posture Review." *The Nuclear Information Project*. July 8, 2005. <http://nukestrat.com/us/reviews/npr1994.htm>. Given the Air Force's stake in both ICBMs and bombers and the lack of other evidence pointing in this direction, it is likely that this was a distortion or an exaggeration of Carter's views.

have informed or comprised his pro-MAD thinking.²⁸ First, ICBMs are vulnerable fixed targets. Therefore, eliminating them may reduce the risk of nuclear attack on the US by depriving adversaries of a tempting target set. Second, taking steps like removing warheads from ICBMs and otherwise delaying SLBM launch capability was thought to reduce the risk of accidental or unauthorized launch. But these safety-enhancing steps could only be taken as part of a retaliatory strategy. They were incompatible with first strike counterforce. Third, these launch delaying steps could also reduce adversaries' fear of surprise attack, increasing strategic stability.²⁹

Behind these arguments lie at least five beliefs and assumptions about deterrence, adversary calculus, and acceptable risk tradeoffs that warrant scrutiny. First, the 'target removal' argument assumes that ICBMs' vulnerability really might tempt an adversary to attempt to destroy them in a crisis, despite the assured retaliatory capability resident in the SLBM and bomber legs of the triad. In other words, this argument assumes that deterrence is weak or adversaries risk acceptant. Second, a decision to purposively delay US nuclear employment by e.g., removing ICBM warheads and delaying SLBM launch assumes that adversaries would continue to be deterred by a recessed nuclear force. In other words, that the deterrent effects of a recessed nuclear force would be strong enough to prevent adversaries from viewing deeply de-alerted nuclear forces as attractive targets of opportunity. Third, this option also assumes that a future US president would

28 Carter declined multiple opportunities to be interviewed for this project. His recent memoir discusses his service in the Clinton administration only briefly, and does not touch on the 1994 NPR at all. See Carter, Ash. *Inside the Five Sided Box: Lessons from a Lifetime of Leadership in the Pentagon*. Dutton Press, 2019.

29 Nolan, Janne. *An Elusive Consensus: Nuclear Weapons and American Security After the Cold War*. The Brookings Institution 1999, p. 47. For consideration of this option see Deutch, John. "Briefing on the Results of the Nuclear Posture Review." Hearing before the Committee on Armed Services of the United States Senate, September, 22, 1994, p. 24. An anonymous NPR official argues that these options and others depicted on this slide were not seriously considered, except perhaps in an offhand way as they were the subject of discussion within the arms control community. This invites the questions 1) why does it appear that Carter, one of the NPR's intellectual leaders, appear interested in them? and 2) why were they presented as "initiatives considered" in testimony before the US Senate? Interview with anonymous NPR official, late October 2018.

not desire ready forces that could strike first to destroy or attrite an enemy's nuclear forces in a crisis or war—as all past US presidents in the nuclear age had. Fourth, it overlooks the important contribution that US first strike counterforce capabilities make to US non-proliferation efforts by obviating allies' need for independent nuclear forces. Fifth, and related, it also overlooks the risk that a presidential decision to generate US nuclear forces in a crisis, for example by re-mating ICBMs and warheads, would be seen as more threatening, escalatory and dangerous by adversaries than nuclear forces that are regularly but quietly postured for prompt launch as needed. Having to generate nuclear forces during times of tension could be riskier than keeping them perpetually at the ready.

Regardless of the precise details of Carter's reasoning, his views collided with those of the Joint Staff, Strategic Command, and post-Aspin NPR chief Deputy Secretary of Defense John Deutch—all of whom opposed the notion of accepting vulnerability to nuclear adversaries.

According to Janne Nolan, Carter began to advance his arguments for what would have been a very relaxed post-Cold War nuclear posture in January 1994. To help him develop and press his case, he brought two of his former Harvard University PhD students—Steve Fetter and Leo Mackay—into the Pentagon where they were speedily given clearance to access US war planning documents. Fetter and Mackay then “set about to construct alternative targeting strategies and force postures [...] They analyzed proposals for radical changes in detail, including, inter alia, postures operating with much smaller strategic forces, different targeting doctrines, a dyad [vice triad] with no land-based missiles [ICBMs], and the removal of remaining nuclear weapons from Europe.” Deutch and Owens received an initial briefing on this work sometime in March 1994.

A second briefing was scheduled for April 22, 1994. However, before it could take place a draft copy of Carter's briefing was leaked. This led the deputy chiefs for operations and plans from each service to write joint staff director Vice Admiral Richard McKay asking him to cancel the briefing. Their argument was that Carter's briefing contained options that had not been approved by any of the six NPR working groups. This amounted to freelance nuclear weapons policy-making. This letter to Macke leaked as well, causing Senator Strom Thurmond to ask STRATCOM chief Henry Chiles during a previously scheduled hearing whether or not he supported the elimination of ICBMs. Chiles testified that he did not. As the combatant commander responsible for US nuclear operations, Chiles' testimony foreclosed the possibility of an NPR that recommended elimination of ICBMs. Finally, four Republican Senators wrote to Clinton, expressing their opposition to what they saw as Carter's attempts to short-circuit the admittedly complex NPR process that he himself had designed. Regardless, the already scheduled April 22, 1994 briefing for Deutch and Owens went forward.

Accounts of this meeting vary. According to Nolan, "One participant claims that, during this session, Deutch found the case for eliminating ICBMs compelling." Others recall that the meeting was acrimonious, and/or terminated by Deutch before the briefing was complete. Subsequently, according to Nolan, Carter was dressed down by a series of military officials for having circumvented the NPR working groups that he had established. Reflecting on the overall NPR process, Kristensen quotes one NPR civilian participant stating that "The military officials knew the lay of the land, we didn't. Ash Carter set us up for disaster."³⁰

30 This section draws chiefly on Nolan, Janne. *An Elusive Consensus: Nuclear Weapons and American Security After the Cold War*. The Brookings Institution 1999, pp. 51-56; as well as Interview with Franklin C. Miller, September 18, 2018; Interview with Olya Olikier, September 20, 2018; Kristensen, Hans. "The 1994 Nuclear Posture Review." *The Nuclear Information Project*. July 8, 2005. <http://nukestrat.com/us/reviews/npr1994.htm>.

3.4) *An NPR Charade?*

The vast majority of the available evidence depicts the NPR as an earnest effort, led by Carter, to perform a thorough post-Cold War re-evaluation of the role of nuclear weapons in US national security and to implement whatever changes might be necessary—even radical ones like accepting MAD. However, an alternative argument suggests that the opposite was true. According to this perspective, the purpose of the Nuclear Posture Review was to rubber stamp a START II compliant version of the United States' late Cold War nuclear force structure, complete with the full triad and prompt counterforce capabilities. According to Janne Nolan, "In sharp contrast to numerous public and private accounts, another key participant has since disclaimed that there was ever any genuine intent to change US force posture or overall policy. According to this individual's current [circa 1999] recollection, there was consensus among top officials as early as late 1993 that the international climate precluded consideration of any significant changes in the nuclear force posture."³¹

Similarly, in a 2018 interview, an anonymous NPR official (perhaps the same individual Nolan references) made the same basic argument, asserting that simply ratifying the status quo trajectory of US nuclear posture was Les Aspin's explicit goal for the NPR. Aspin's successor William Perry, they assumed, probably shared the same goal. Thus according to this person the purpose of the NPR was to "fill the square" created by the Bottom Up Review. If the US was doing a conventional posture review, the absence of a corresponding nuclear posture review would have been conspicuous.³²

³¹ Nolan, Janne. *An Elusive Consensus: Nuclear Weapons and American Security After the Cold War*. The Brookings Institution 1999, pp. 56-57.

³² Interview with anonymous NPR official, late October 2018.

There are at least four reasons to reject this argument. First is Aspin's oft-repeated NPR dictum to 'let 1000 flowers bloom.' If Aspin had desired a rubber stamp NPR that would "fill the square" alongside the BUR, he may not have made this desire public. However, there is no reason to believe that in this case he would have repeatedly and publicly provided opposite guidance.

Second is the appointment of Carter. Though it is unclear how well Aspin knew Carter, or understood his nuclear policy preferences before Carter joined the defense department, it seems reasonable to assume that if he had wanted a rubber stamp NPR, Aspin would have selected someone else to run it. One does not typically hire an academic to preserve the nuclear posture status quo.

Third, it is unlikely that Perry also favored a rubber stamp NPR—as the anonymous NPR official asserted. By the time Perry became Secretary of Defense, Carter had made enough progress on the NPR that it would have been clear to Perry that his review was far reaching and that its recommendations might deviate from the status quo. Therefore, if Perry—who already knew Carter well—had wanted to quash this thorough review he could have fired or reassigned Carter upon his promotion, much as he did with Carter's Harvard colleague Graham Allison.³³

Fourth, the nature of the 'revolt' involving Carter, Fetter, McKay, STRATCOM chief Henry Chiles and four US senators suggests that there were many well-informed observers of the NPR who took seriously the idea that the NPR might recommend sweeping changes in US nuclear posture.³⁴ Thus, while the argument that the NPR was never supposed to be anything more than a

33 Barton, Gellman. "Perry Moves to Erase Aspin's Marks Upon Pentagon Organization." *The Washington Post*, February 17, 1994 p. A14.

34 When asked about this incident, the anonymous NPR official argued that because it is easy for senators to direct their staff to write letters on their behalf, I should not lend much weight to this account. In other words, the Carter 'revolt' appeared more heated and important than it was. Interview with anonymous NPR official, late October

rubber stamp is probably not a fabrication, at most it reflects a very narrow perspective that was not shared by the vast majority of NPR participants and observers.

3.5) *NPR Results*

Much about the history of the 1993/1994 Nuclear Posture Review process remains unclear or contested. Did it represent a bona fide opportunity to end the counterforce mission, embrace MAD, and fundamentally alter US nuclear posture? If so, what caused a smaller, hedged version of the Cold War status quo to prevail? Absence of presidential engagement or support for substantial changes? Top-down pressures from the Defense Department leadership? Bottom-up pressure from STRATCOM and the broader military establishment?³⁵ These lingering questions may be answered as more archival documents from this period become declassified.³⁶ Regardless, the outcome of this Nuclear Posture Review is quite clear.³⁷ It laid out a plan for US posture going forward that would ensure START II compliance, retain the broad outlines of late Cold War force structure, and add the hedging mission to the United States' portfolio of nuclear capabilities.³⁸

2018.

35 See e.g., Kristensen, Hans. "The 1994 Nuclear Posture Review." *The Nuclear Information Project*. July 8, 2005. <http://nukestrat.com/us/reviews/npr1994.htm> as well as Kristensen, Hans. "The Matrix of Deterrence: US Strategic Command Force Structure Studies." *The Nautilus Institute*, May 2001.

36 To his credit, Kristensen began filing FOIA applications on the 1994 Nuclear Posture Review in at least the early 2000s.

37 Unlike subsequent Nuclear Posture Reviews, the 1993/1994 NPR did not generate a final report. Deutch's Congressional testimony as well as associated slides and talking points thus constitute the full official record of the NPR's findings. Bunn recalls having written a draft NPR report over Labor Day weekend 1994. This draft was never finalized or disseminated. If it still exists it may be uncovered by future archival research. Interview with Elaine Bunn, October 22, 2018.

38 See e.g., R. Jeffrey Smith. "Clinton Decides to Retain Bush Nuclear Arms Policy." *The Washington Post*, September 22, 1991, p. A1.

Perhaps because of the NPR's emphasis on continuity, its results proved to be extremely durable. Twenty five years later, the NPR's recommendations as presented in 1994 remain a good general description of the nuclear force structure that the US relies on today.

With respect to long range or strategic nuclear forces, the main change from past practice recommended by the NPR was the addition of the hedging mission. The conceptual origins of this mission remain somewhat murky. Frank Miller reports that he developed the 'lead but hedge' vocabulary used in Deutch's NPR briefing to describe the linkage between hedging and the United States' desire to lead Russia towards START II ratification and a START III follow on treaty.³⁹ Hans Kristensen notes that at an earlier stage, STRATCOM reports that eventually fed into the NPR process argued for "Hedging as a strategy" for dealing with the possibility that former Soviet nuclear weapons might be "put to use by a government hostile to the United States and its allies."⁴⁰ This logic was reflected in Deutch's Congressional testimony on the NPR. Given concerns about the future of US-Russia relations, he argued, "it is extremely important for the security of this country to maintain a hedge which would allow you to recover, should matters not develop in the states of the former Soviet Union, and Russia in particular, as we currently hope and expect."⁴¹

39 Interview with Franklin C. Miller, September 18, 2018.

40 Nuclear Forces Post 1994. SAG paper to CINCSTRAT Henry Chiles, July 12, 1994. Obtained under FOIA by Hans Kristensen. https://nukestrat.com/us/stratcom/96-84h_STRATCOM071294.pdf. It is worth noting that Strategic Air Command's final force structure review prior to its replacement by STRATCOM, called the PHOENIX report, also discussed the importance of hedging. However, the intention seems to have been to guard against the risk of the systematic technical failure of a given class of weapons or leg of the triad, rather than against geopolitical uncertainty. See Strategic Air Command. "PHOENIX Force Structure Review," September 11, 1991. Obtained under FOIA by Hans Kristensen. <http://www.nukestrat.com/us/stratcom/phoenix.pdf>.

41 Deutch, John. "Briefing on the Results of the Nuclear Posture Review." Hearing before the Committee on Armed Services of the United States Senate, September, 22, 1994, p. 12. <http://nukestrat.com/us/reviews/sascnpr092294.pdf>.

Slides accompanying Deutch's testimony illustrated how hedging works. Depending on future developments, US force structure could take any number of alternative paths leading towards several different possible force sizes. This figure depicted the kind of arsenal size flexibility that the US acquired with the adoption of the hedging mission.⁴²

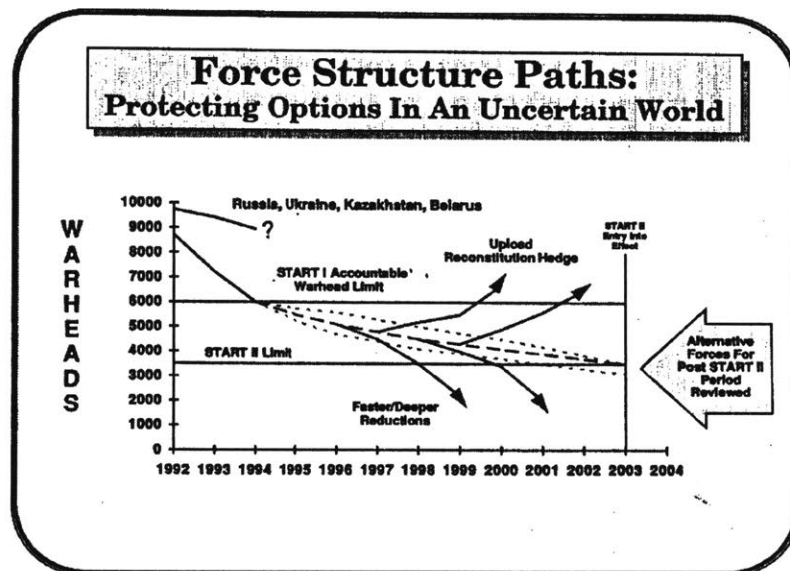


Figure 3. Deutch briefing slide illustrating hedging

Operationally, the hedging mission involved physically removing warheads from their delivery systems and placing them in secure storage locations, either nearby, or at separate bases. As Deutch explained, this made it possible to increase “the number of warheads per D-5 [SLBM] from five up to eight.”⁴³ Likewise Minuteman III ICBMs could be fitted with only one or two,

42 Deutch, John. “Briefing on the Results of the Nuclear Posture Review.” Hearing before the Committee on Armed Services of the United States Senate, September, 22, 1994, p. 12. <http://nukestrat.com/us/reviews/sascnpr092294.pdf>. Note that a subsequent slide on p. 14 depicting the size of the warhead upload hedge and its distribution across the ICBM, SLBM and bomber legs of the triad was redacted from the publicly released record of Deutch's testimony.

43 Deutch, John. “Briefing on the Results of the Nuclear Posture Review.” Hearing before the Committee on Armed Services of the United States Senate, September, 22, 1994, p. 14.

instead of a full three warheads. Nor was this warhead upload capability a mere abstraction. It was an operational capability that the armed forces exercised. For example, “twice a year, Navy selects an attack submarine and conducts a regeneration exercise that demonstrates and appraises the capability to redeploy nuclear-armed cruise missiles on each submarine. This exercise tests the ability of the submarine and crew to re-establish nuclear weapons capability in a relatively short time.”⁴⁴ Similar exercises took place within other platform communities across the Navy and Air Force at regular intervals.

The addition of the hedging mission in 1994 marked the transition to the Adaptable Posture. From then until now, US offensive nuclear forces have grown smaller, but steadily more capable as a result of incremental improvements in weapons systems and war planning. Yet the overall structure of the offensive forces was and remains on the trajectory set by President Bush before he left office. That force structure is still centered on the strategic nuclear triad of submarines, bombers and ICBMs that have formed the backbone of US nuclear force structure since the early 1960s.

The 1993/1994 Nuclear Posture Review recommended that the submarine leg of this triad be based on 14 Ohio Class ballistic missile submarines. All of these—including boats already built—would be fitted or back-fitted with the new Trident II D-5 SLBM. While the D-5’s improved accuracy over the older C-4 missile was surely beneficial, it appears that the decision to take this counterforce-enhancing step was driven in large measure by the desire to stretch the production timeline for the D-5 missile, preserving the industrial base⁴⁵ The 14 SSBNs were to be divided

44 Cohen, William S. “Nuclear Weapons Sustainment Programs.” *Office of the Secretary of Defense*, May 1997. <https://fas.org/nuke/guide/usa/doctrine/dod/sustain/document.html#TOC>.

45 Deutch, John. “Briefing on the Results of the Nuclear Posture Review.” Hearing before the Committee on Armed Services of the United States Senate, September, 22, 1994, pp. 13-14. <http://nukestrat.com/us/reviews/sascnpr092294.pdf>. The D-5 backfitting process was completed in 2008. See Woolf,

between two bases: Kings Bay GA, in the Atlantic, and Bangor WA, in the Pacific. NPR participants had discussed closing the Bangor WA base, but eventually chose not to. This would become significant in the early 2000s when the US ‘rebalanced’ its SSBN force to place 9 submarines in the Pacific, leaving only 5 in the Atlantic. This move improved target coverage in Asia, as well as trajectory flexibility—the ability to select weapons and launch positions that enable the destruction of targets in one country, without overflying the territory of others.⁴⁶ The NPR-recommended fleet of 14 Ohio Class SSBNs with D-5 missiles remains in service as the submarine-based leg of the nuclear triad today.

Turning to the bomber leg of the triad, the NPR both ratified reductions announced by Bush, and laid out a plan to implement them. For example, the NPR re-stated Bush’s decision to halt B-2 bomber production at 20, and to reduce the B-52 force to 66. It also stated that the B-1B bomber fleet would be rendered conventional-only as a way of fulfilling Bush’s January 1992 State of the Union commitment to reduce the United States’ inventory of nuclear-capable strategic bombers.⁴⁷ Today the B-1B is a strictly non-nuclear bomber, the B-2 fleet stands at 20, with 21 planes having been eventually produced and one lost in a crash, and the nuclear capable B-52H fleet stands at 46.⁴⁸

Amy. “US Strategic Nuclear Forces: Background, Developments and Issues.” *Congressional Research Service*, March 2016, pp. 19-20.

46 Interview with anonymous NPR official, late October 2018; Deutch, John. “Briefing on the Results of the Nuclear Posture Review.” Hearing before the Committee on Armed Services of the United States Senate, September, 22, 1994, p. 13, <http://nukestrat.com/us/reviews/sascnpr092294.pdf>; Woolf, Amy. “US Strategic Nuclear Forces: Background, Developments and Issues.” *Congressional Research Service*, March 2016, p. 20. This rebalancing took place between 2002 and 2005.

47 Deutch, John. “Briefing on the Results of the Nuclear Posture Review.” Hearing before the Committee on Armed Services of the United States Senate, September, 22, 1994, pp. 13-14. <http://nukestrat.com/us/reviews/sascnpr092294.pdf>.

48 See US Air Force, “B-1B Lancer.” Fact Sheet, December 16, 2015. <https://www.af.mil/About-Us/Fact-Sheets/Display/Article/104500/b-1b-lancer/>; “B-2 Spirit,” Globalsecurity.org, <https://www.globalsecurity.org/wmd/systems/b-2.htm>; Department of Defense, “America’s Nuclear Triad,” <https://www.defense.gov/Experience/Americas-Nuclear-Triad/>. Note that according to this DOD source not all of the B-52Hs in the Air Force’s inventory remain nuclear capable.

Likewise, the Nuclear Posture Review carried forward President Bush's START I commitment to eliminate the Minuteman II ICBM, while retaining between 450 and 500 of the more modern, higher accuracy Minuteman IIIs.⁴⁹ The US ICBM force today has shrunk modestly to 400 of these Minuteman III ICBMs.

Finally, the NPR also addressed theater forces. While acknowledging that "the military requirement [for non-strategic nuclear forces in Europe] has disappeared," theater forces, the NPR concluded, also had a political purpose, which was to "maintain within the alliance shared responsibility for nuclear forces and [to] make sure the Europeans know that they can rely in a serious way on our nuclear forces as well as our conventional forces."⁵⁰ In operational terms, this meant that the US would retain a small number of nuclear gravity bombs, as well as dual capable fighter bomber aircraft (DCA) in Europe. Their military utility was probably limited, but their political utility in terms of signaling commitment was significant. These DCA and a small number of nuclear gravity bombs remain in Europe today.⁵¹

President Clinton was briefed on the Nuclear Posture Review, and signed Presidential Decision Directive (PDD) 30 approving its recommendations in September 1994 before it was briefed to Congress.⁵² However, on the whole his engagement with US nuclear posture issues had been, and would remain quite limited throughout his two terms.

49 Deutch, John. "Briefing on the Results of the Nuclear Posture Review." Hearing before the Committee on Armed Services of the United States Senate, September, 22, 1994, p. 14.

50 Deutch, John. "Briefing on the Results of the Nuclear Posture Review." Hearing before the Committee on Armed Services of the United States Senate, September, 22, 1994, p. 16.

51 Kristensen and Norris estimated that the US had approximately 150 nuclear gravity bombs in Europe in 2016. Hans M. Kristensen & Robert S. Norris. "United States nuclear forces, 2017," *Bulletin of the Atomic Scientists* 2017, v. 73 n. 1. pp. 48-57.

52 Ritchie, Nick. *US Nuclear Weapons Policy after the Cold War: Russians, "Rogues" and Domestic Division*. Routledge Global Security Studies 7. London ; New York: Routledge, 2009, p. 36.

4) Evolution Within the Adaptable Posture

Clinton was not alone in his disengagement from nuclear strategy and posture. The 1990s marked the nadir of academic and public interest in this field. For most everyone in the post-Cold War era—including Clinton—nuclear weapons were old business. As a result, a series of subtle but important improvements in US nuclear capabilities that emerged during the 1990s and early 2000s went all-but unnoticed. The 1994 Nuclear Posture Review ratified and implemented President Bush's planned nuclear arms reductions—made possible in part through hedging. Seemingly minor changes in US nuclear capabilities in the following years helped make this smaller force more flexible and more capable.

Five developments were particularly salient. Three centered on weapons system improvements, while two related to targeting. First was the continued production and backfitting of the high-accuracy, counterforce capable Trident II D-5 SLBM. Second, and related was the 1998 decision to improve the W76 SLBM warhead. The production run of the high-yield, highly counterforce capable W88 warhead for Trident had been truncated under President Bush. This left the lower-yield W76 as the mainstay warhead in the US SSBN fleet. Therefore, as part of this weapon's life extension program (LEP) it was fitted with a new Arming Fuzing and Firing (AF&F) system that would permit it to explode at or near ground-level. This improved their hard target kill capability and substantially improved the counterforce capabilities of this comparatively lower-yield weapon that comprised the bulk of the US submarine-based nuclear force. New W76-1s began to hit the fleet in 2007.⁵³

53 Interview with Franklin C. Miller, September 18, 2018; Kristensen, Hans. "Administration Increases Submarine Nuclear Warhead Production Plan." *Federation of American Scientists*, August 30, 2007. https://fas.org/blogs/security/2007/08/us_tripplis_submarine_warhead/.

The third Clinton era nuclear capability improvement aimed to strengthen a particular element of the counterforce mission: the ability to destroy deeply buried hardened bunkers. Since at least the 1980s the USSR had been constructing deeply buried facilities that could protect Soviet leaders and their families, and act as nuclear command and control centers. The fact that the Soviet leadership was building elaborate bunkers at great cost to protect themselves and their families signaled that they attached a great deal of value to their own survival. In keeping with the deterrent logic that threats must be tailored to hold at risk that which the enemy values, the existence of these facilities suggested a new US nuclear targeting requirement. The US needed to be able to threaten these bunkers and the privileged Russian elites they were built to protect.

Unfortunately, Russia's leadership bunkers could potentially withstand attack even by the accurate, high-yield Trident II D-5/W88 combination. According to DOD official Frank Miller, he raised the issue of this capability gap in 1995. As a result, the physics packages, or nuclear explosive cores of some 50 to 100 B61-7 nuclear gravity bombs were fitted into newly built hardened bomb casings. Presumably they were also given new fuzes to permit detonation after, rather than upon impact so that the nuclear detonation would occur under ground, causing more damage. These newly modified B61-11 nuclear bombs began to enter the stockpile in 1997.⁵⁴

The final two post-NPR Clinton-era nuclear capability updates centered on nuclear targeting. Arguably most importantly, US nuclear war planning and targeting became more flexible. The NPR presaged this development. However, it was in many ways the latest step in a long march towards increased nuclear employment flexibility dating back to at least the 1974 Schlesinger

⁵⁴ Interview with Franklin C. Miller, September 18, 2018; Kristensen, Hans. "The Birth of a Nuclear Bomb: B61-11." The Nuclear Information Project. <http://nukestrat.com/us/afn/B61-11.htm> Updated July 14, 2005; Trevithick, Joseph. "Get to Know America's Long-Serving B61 Family of Nuclear Bombs." *The War Zone* March 15, 2018. <http://www.thedrive.com/the-war-zone/19263/get-to-know-americas-long-serving-b61-family-of-nuclear-bombs>.

Doctrine. While the US did retain the overall SIOP war planning framework until 2003, that framework now included, according to Deutch's Congressional testimony, "many options to give the President of the United States a much richer menu of options."⁵⁵ Moreover, even the nature of these options could be changed as needed to suit the unforeseeable peculiarities of an evolving crisis. In other words, the President was no longer totally constrained by a fixed menu of pre-planned options; new options could be generated as needed within hours or days.

Within the ICBM force, this new capability manifested itself in the DIRECT and REACT systems—both rolled out in 1996. The Defense Improved Emergency Message Automatic Transmission System Replacement Command and Control Terminal System, (DIRECT), was a terminal that looked like an early 2000s vintage desktop PC. Its purpose was to send and receive war orders to use nuclear weapons.⁵⁶ DIRECT was coupled with REACT, the Rapid Execution and Combat Targeting system. It permitted Minuteman III ICBMs to be retargeted in as little as 12 minutes.⁵⁷ Because these missiles were no longer tethered to discrete pre-programmed targets, each one was, in principle, capable of holding at risk any target that it had the range and yield to destroy. This in turn allowed the US to derive greater deterrent benefits from a smaller force.

These technical capabilities were backstopped by an improved war planning apparatus. During his tenure as head of SAC and later STRATCOM, General Lee Butler had initiated an effort to produce new algorithms and software that would enable flexible nuclear targeting, and

55 Deutch, John. "Briefing on the Results of the Nuclear Posture Review." Hearing before the Committee on Armed Services of the United States Senate, September, 22, 1994, p. 13.

<http://nukestrat.com/us/reviews/sascnpr092294.pdf>.

56 Schloser, Eric. *Command and Control: Nuclear Weapons, the Damascus Accident and the Illusion of Safety*. Penguin Books, 2013 pp. 474-475.

57 Long, Austin, and Brendan Rittenhouse Green. "Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy." *Journal of Strategic Studies* 38, no. 1-2 (January 2, 2015): 55-56 and fn.

reported that “success was assured” in this effort by the time he retired in 1994.⁵⁸ Just a few years later, periodic exercises like the Global Archer series were designed to “validate and test battle staff, transition to war, and adaptive planning procedures.”⁵⁹ In other words, systems to enable flexible targeting at the level of individual weapons were backed by war planning apparatus and personnel who trained to leverage this new flexibility. Consequently, the US was better postured than it had been to address unforeseen threats from WMD-armed despots, rogue Russian ICBM commanders and other contingencies.⁶⁰

The final important Clinton era update to US nuclear posture had to do with presidential nuclear weapons employment guidance. The last major update to this guidance was, surprisingly, NSDD-13, signed by Ronald Reagan in 1981. The fact that NSDD-13 seemed outdated in the post-Cold War world, coupled with two contemporaneous developments, resulted in its replacement. President Clinton signed this replacement document, PDD-60, in November 1997.

According to then Assistant Secretary of Defense for International Security Frank Miller—PDD-60’s main author—there were two principle drivers behind the new policy. The first was a push to reduce the size of the US nuclear arsenal below START II levels. This effort was led by Secretary of State Madeline Albright and then Deputy National Security Advisor Sandy Berger in a series of NSC meetings held through 1996. However, neither the US nor Russia had thus far

58 Butler, George Lee. *Uncommon Cause : A Life at Odds with Convention*. Denver, Colorado : Outskirts Press, 2016 v. 2 pp. 140, 161.

59 Cohen, William S. “Nuclear Weapons Sustainment Programs.” *Office of the Secretary of Defense*, May 1997. <https://fas.org/nuke/guide/usa/doctrine/dod/sustain/document.html#TOC>.

60 Interview with Franklin C. Miller, September 18, 2018. Miler emphasized that while the Russian nuclear arsenal was in many ways the pacing threat for US nuclear capabilities, it was concern about unforeseeable rogue state threats that drove the desire to move away from strict reliance on pre-planned nuclear employment options. For rogue Russian ICBM commander concerns see e.g., *Crimson Tide*, Directed by Tony Scott, Hollywood Pictures, 1995, as well as Memorandum of Conversation, "Private Dinner with Russian President Yeltsin: Middle East, China, Iran, Nuclear Control," 21 March 1997, Confidential. National Security Archive. <https://nsarchive2.gwu.edu//dc.html?doc=4941248-Document-2-Memorandum-of-Conversation-Private>.

ratified START II. Correspondingly, the Russian target base remained large enough to prevent further unilateral arsenal reductions under then-current NSDD-13 guidance. In other words, further reductions would render the military unable to “prevail” in a nuclear war, as required by the Reagan era guidance.⁶¹ One way to circumvent this problem then, was to revise the existing guidance in order to soften some of the more strident language and lay out new goals that were more realistic than nuclear war victory.⁶²

The second major event driving PDD-60 was the 1996 Taiwan Straits Crisis. Tensions between the US and China had grown as a result of what China believed were inappropriate contacts between the US and Taiwan’s President. In a show of both force and resolve, President Clinton ordered two carrier battle groups to the region around Taiwan. One sailed through the narrow Taiwan Strait between Taiwan and China. According to Miller, in the aftermath of the crisis, a Chinese general made a public statement questioning the strength of the US commitment to Taiwan. Borrowing a Cold War formula typically applied to Europe and NATO, he reportedly posited that the US would never trade Taipei, Taiwan’s capital, for Los Angeles. This statement, in the context of the broader political and military tensions surrounding Taiwan, struck a nerve in the Defense Department, and contributed to the PDD-60 guidance directing China’s re-inclusion in the SIOP.⁶³

Both of these events therefore informed the content of the new PDD-60 nuclear weapons employment guidance that Clinton signed in November 1997. First, the new guidance removed discussion of prevailing in a nuclear war that had marked its Reagan-era predecessor. Second,

61 National Security Decision Directive 13, “Nuclear Weapons Employment Policy.”
<https://fas.org/irp/offdocs/nsdd/nsdd-13.pdf>.

62 Interview with Franklin C. Miller, September 18, 2018.

63 Interview with Franklin C. Miller, September 18, 2018.

China was re-added to the SIOP for the first time since the normalization of US-China relations under President Carter. In operational terms, this meant that the US would now have pre-planned options for destroying part or all of the China target base. Previously, this China target base had just informed the size of the United States' secure reserve force. An exceptionally insightful newspaper article on PDD-60 explains that "Since the late 1970s, for example, the military has had a special targeting plan for China that required U.S. weapons to be held in reserve for possible strikes against Beijing's handful of strategic warheads, its leadership, its petroleum supply and its electrical power system. The aim of the plan was to ensure that China could not become the world's most powerful nation following a general nuclear war between Russia and the United States."⁶⁴ Finally, and more ambiguously, PDD-60 also acknowledged both the rogue state threat and the United States' new sensitivity to chemical and biological weapons threats, with an NSC spokesman explaining to a reporter that "if any nation uses weapons of mass destruction against the United States, it may 'forfeit' its protection from U.S. nuclear attack."⁶⁵

5) Conclusion

The Clinton presidency was exceptional in at least four ways. First, Clinton was the United States' only post-War president who did not engage with US nuclear policy in a serious way. Clearly, presidential attention to nuclear matters has varied across and within administrations.

64 R. Jeffrey Smith. "Clinton Directive Changes Strategy on Nuclear Arms." *The Washington Post*, December 7, 1997. <https://www.washingtonpost.com/archive/politics/1997/12/07/clinton-directive-changes-strategy-on-nuclear-arms>.

65 Ibid. The alignment between Miller's account of PDD-60 and the Smith article, and the White House reaction to Smith's reporting recorded in the article, suggests that this overall characterization of PDD-60 and its origins is probably reasonably accurate.

Even so, no other president to date has delegated as much responsibility for nuclear policy as Clinton did.

Second, Clinton was the first post-Cold War president of the nuclear age. That by itself makes his administration special, and its nuclear policy decisions worthy of additional study.

Third, and related, the 1994 Nuclear Posture Review was the first in a series of such reviews. It was a thorough post-Cold War re-evaluation of US nuclear posture and the role of nuclear forces in US foreign and security policy. As part of this review, a MAD-acceptant retaliation only policy seems to have been given some serious consideration—at least in some quarters. The fact that this option was roundly rejected despite the demise of the Soviet Union suggests something about the expanding scope of US security concerns and ambitions after the Cold War, even if bureaucratic politics played a role in this outcome as well.

Fourth, despite the significant differences between Clinton and the Bushes who preceded and succeeded him, the continuities in their nuclear posture decisions were strong—especially with respect to offensive nuclear forces. Presidents and enemies may change, but US foreign and security policy goals remain consistently ambitious. Viewed in that light aggressive posture seems practically overdetermined.

Chapter 12) Don't Mess With Texas: US Posture and the Audacity of Preemption under George W. Bush¹

1) Introduction

The core argument of this project has been that presidents choose aggressive nuclear postures to support their ambitious foreign and security policy goals. This connection between ambitious goals and aggressive posture was hypertrophied in the George W. Bush Administration. President Bush and his executive team—many of them like Vice President Dick Cheney, Secretary of State Colin Powell and National Security Advisor and later Secretary of State Condoleezza Rice veterans of the George H.W. Bush administration—brought back to the White House the same basic vision of permanent American hegemony through military strength captured in the controversial 1992 Defense Planning Guidance. Permanent hegemony would allow the US to defend its homeland against attack; maintain its presence and influence in Europe and Asia; and halt proliferation efforts before they could succeed.

This muscular concept implied several constituent policy positions, including willingness to act unilaterally, rejection of constraining treaties, and a belief that preventive war against potential proliferators could guarantee American security. These were the building blocks of the George W. Bush Administration's combative foreign policy.

Combative and ambitious, but not completely unrealistic. First, with the USSR dead the United States remaining rivals—rogue states—were small and weak in comparison. Second, through the 1990s steadily improving conventional and nuclear capabilities, as well as some movement towards national-scale ballistic missile defenses sharpened Washington's military edge. As a result, the Bush team entered the White House with a firm, shared belief that limits

¹ My thanks to Cullen G. Nutt for thoughtful comments that have improved this chapter. Errors are mine.

and compromises in the pursuit of American security were neither desirable nor necessary. The 9/11 attacks only reinforced this perspective.

In military terms, the end goal was clear, ambitious and familiar: Protect the US by denying adversaries the capability to attack. From counterterrorism to counterforce, this was the basic strategy. It drove the Strategic Combined Arms Posture shift.

President Bush ordered two changes that led to this new Posture. First, the US fielded conventional hit-to-kill interceptors that by roughly 2008 provided the US with a limited defense against a small ballistic missile attack. Second, STRATCOM took on responsibility not only for US nuclear forces, but for a range of nuclear relevant conventional, space and cyber capabilities as well. The idea was that a strategic combined arms approach could allow the strengths of one kind of weapon to mitigate the weaknesses of others—much as Army commanders combine infantry, armor and artillery on the conventional battlefield. These increasingly integrated strategic capabilities were aimed at deterring, coercing or preempting rogue states and the WMDs or WMD programs they supposedly harbored—before they could ever threaten the US.

In some ways these steps were a reconstitution of the Maximal Posture's counterforce-defense damage limitation combination. However, non-nuclear strategic capabilities could make this capability more usable. If a nuclear first strike is unthinkable except in extreme uncton, a non-nuclear attack might be more palatable. This was doubly true after roughly 2008, when the newly reconstituted defense mission—this time oriented against ballistic missiles, rather than bombers—might have been able to degrade adversary attempts at retaliation. This in turn meant that the US could potentially strike first even earlier—not just against a nuclear threat in a crisis, but against any potential WMD proliferator looming on the horizon.

The United States' long-standing concerns about defending the homeland against attack and nuclear proliferation were exacerbated—especially after 9/11, but even under Clinton—by the perceived WMD-armed rogue state or terrorist threat to the US. Few great powers in history have felt as vulnerable to small, weak, distant rivals as the US did under George W. Bush.

Bush and his executive team entered office with ambitious foreign and security policy goals. Their desire to advance the core US objectives of homeland defense and non-proliferation hypertrophied after 9/11. As a result, Bush made two basic posture decisions that resulted in the shift from the Adaptable to the Strategic Combined Arms Posture. The US arsenal was now smaller, but every bit as aggressive towards the United States' main rivals—now rogue states—as the maximal posture had been towards the Soviets.

1.1) President Bush's Perception of Threats and Non-Threats

President Bush's mental account of the threats facing the US had two features that bore on his posture decisions leading into the Strategic Combined Arms Posture. First, Bush was the first president in over sixty years who was firmly convinced that Russia was not a threat to the US. While Moscow and Washington did not see eye to eye on all issues, President Bush's view was that the two nuclear-armed states were no longer rivals. This was a departure from the Clinton Administration's guiding belief that Russia's future was unknowable, and that the US should pursue continued comity while hedging against the possibility of renewed competition. Bush's views were at least partially informed by Russia's profound conventional weakness throughout the 1990s. The USSR's collapse made it incredibly easy for the US to defend Europe and maintain influence there. For Bush, hostile US-Russia relations were a thing of the past.

This had important follow-on implications for other areas of his foreign policy and Nuclear Security Theory. The lack of a nuclear-armed great power rival massively increased the President's freedom of action in such spheres as arms control, arsenal reductions and missile defense. If Russia was now a friend, rather than a rival, then its nuclear forces, as well as its objections to US unilateralism and missile defense policy could be discounted.

The second key feature of President Bush and his team's threat perception was its focus on the prospective emergence of combined threats involving rogue states, terrorists and WMDs. September 11 occurred less than nine months into President Bush's term. It was a searing day, made all the more so in hindsight by the belief that the attacks might have been averted by 'connecting the dots.' The fear that a terrorist group and a rogue state might team up to stage an even grander attack involving WMDs therefore became the Bush team's deepest fear and driving obsession for the next seven years. It catalyzed President Bush's support of an aggressive preemption doctrine and the Strategic Combined Arms Posture that would back it. Given the known challenges of counterterrorism, the surest way to defend the homeland against devastating WMD terror, the Bush team reasoned, was to prohibit WMD proliferation programs and the regimes that harbored them from existing in the first place.

1.2) Opportunities

Two opportunities animated President George W. Bush's Nuclear Security Theory. First was the opportunity for significant nuclear force reductions flowing from the President's belief that Russia was no longer a rival. Therefore, early in his administration the President began pursuing nuclear arms reductions. These were eventually enshrined in the Strategic Offensive Reduction

Treaty (SORT) or Moscow Treaty. In part because of the Bush team's antipathy to binding international agreements, this was a loose treaty that borrowed characteristics from the early 1990s Presidential Nuclear Initiatives. It would cut US and Russian nuclear forces to between 1,700 and 2,200 deployed strategic warheads on December 31, 2012.

Second was the opportunity to continue pursuing primacy as the path to American security. At the end of the elder Bush Administration, the 1992 Defense Planning Guidance (DPG) outlined a plan to leverage America's unprecedented post-Cold War power to prevent the rise of rivals who might threaten the US or its allies in Europe or Asia, obtain nuclear weapons, or otherwise threaten core US goals. The Clinton Administration never developed a coherent alternative foreign policy. Consequently, when the elder Bush's son entered the White House in January 2001 surrounded by veterans of his father's administration, there was no need for a radical foreign policy course correction. Rather, the new administration picked up the old torch while doubling down on themes like democracy promotion, intolerance for rogue states, antipathy towards constraining international agreements and organizations, unilateralism and a willingness to use force preemptively. Even before the 9/11 attacks and the subsequent invasions of Afghanistan and Iraq cast these ideas in sharp relief, they added up to an enormously expansive conception of national security.

1.3) Nuclear Inheritance

The nuclear force structure that President George W. Bush inherited from his predecessor flowed from his father's late Cold War decisions and the 1994 Nuclear Posture Review. The US retained a triad of strategic nuclear forces—bombers, ICBMs and SLBMs—as well as a few

hundred nuclear gravity bombs forward deployed in Europe. The total arsenal still included some 8,700 deployed warheads as well as well as roughly 2,500 non-deployed warheads that were either awaiting dismantlement or kept ready for upload as part of the hedging mission. This smaller arsenal was backed by increasingly flexible adaptive war planning capabilities.

Outside the military, President Bush inherited a nuclear weapons complex that was showing its age. Now run by the National Nuclear Security Administration, a semi-autonomous Department of Energy component, this nuclear complex includes weapons design laboratories and nuclear weapons production and maintenance facilities spread across the country. Some of the physical infrastructure within the nuclear complex dates to the Manhattan Project. Moreover, the end of the Cold War, uncertainty about the continued relevance of nuclear weapons, the end of nuclear weapons testing and restrictions on new warhead design contributed to brain drain within the complex. For newly minted PhDs in physics, chemistry, engineering and other fields, working at a weapons lab was perceived as less prestigious, less rewarding and less stimulating than it had been during the Cold War. Consequently, the overall technical capabilities of the US nuclear weapons complex were beginning to atrophy precisely when they were becoming increasingly important. First because older warheads were becoming more challenging to maintain. Second because as the nuclear arsenal shrunk the importance of ensuring that each remaining warhead was absolutely safe and reliable was only growing. Third, and related, because this work of ensuring warhead safety and reliability was incredibly difficult given the prohibition on nuclear testing. Thus, President Bush inherited a veritable mandate to invest in the long-term physical and intellectual health of the DOE/NNSA-operated nuclear weapons complex.

1.4) "W's" Nuclear Security Theory

President Bush's Nuclear Security Theory flowed from the threats and opportunities he saw in the world, and the aggressive approach to national security that they implied. This Nuclear Security Theory informed his posture decisions which led to the Adaptable – Strategic Combined Arms Posture shift.

Bush's view was that WMD-armed rogue states, not Russia or China, were the main nuclear threats to the US. This was true before 9/11. But after 9/11 fear of another, grander, attack carried about by a WMD-armed rogue or a state-supported terrorist group catalyzed the Bush team's adoption of a strategy of preemption. During the Cold War the counterforce mission provided the option of striking first to prevent or limit Soviet nuclear attack. Why should US strategy towards weak-state dictators with WMD aspirations be any less forceful? From this perspective the doctrine of preemption that was so central to the Bush team's foreign policy was simply an expanded application of the logic of counterforce.

The 2003 invasion of Iraq was the most consequential manifestation of preemption. But the Bush team's basic assumption seems to have been that Iraq might be the first of several preemptive wars in a larger campaign against the so-called Axis of Evil. The desire to counter rogue states that had, or sought WMDs before they could threaten the US was central to Bush's Nuclear Security Theory.

The preemptive logic behind this NST was not new. The possibility of attacking the Soviet Union while the US still had nuclear superiority had been a serious topic of discussion under Eisenhower—as evidenced by that administration's ubiquitous time-charts. Likewise the idea that defenses coupled with good counterforce capabilities could limit damage to the US,

potentially making preemptive war less risky also dates to the Maximal Posture. Thus, the Strategic Combined Arms Posture was a departure from the past in degree, not in kind. It involved an expanded array of strategic capabilities—nuclear, conventional, space and cyber. It directed those capabilities principally against states whose only potential source of real military strength was WMDs. These rogue states were puny compared to the Soviet Union.

Finally the thinking behind this new Posture pushed the timeline of preemption against these weak states backwards. The idea was not necessarily to wait until a crisis was brewing to strike first—though that remained an option. Ideally the capabilities in the Strategic Combined Arms Posture would allow the US to strike before adversary WMD programs bore fruit. Rogue states did not need WMDs to be possible targets of preemption. They only needed to want them.

Stepping back, what seems clear is that more than sixty years after the start of the Cold War and over a decade into the post-Cold War era, the basic set of goals that the US was trying to pursue was unchanged: defend the US; defend European and Asian allies—in part to preserve US influence there; and inhibit proliferation. But under President George W. Bush, given the perceived scale of the rogue-state WMD threat, the manifest weakness of the countries from which it originated, and overwhelming US conventional and nuclear power, the only thing that had changed was the tenacity with which Washington pursued those goals.

2) The Bush Approach to National and Nuclear Security

President Bush and his executive team entered the White House with a clear, shared vision for advancing the United States' core foreign and security policy goals. This had two important implications for our understanding of American foreign policy in the early 2000s. First, as much

as 9/11 was a tragic turning point in US history, it did not drive a major change in the Bush Administration's basic approach to foreign policy. The three core goals that had animated much of US post-War foreign and security policy remained central—the only change was in how administration officials understood the threats and opportunities that bore on them. Bush team beliefs about the value of unilateralism, the necessity of preemption and the desirability of American primacy that came to define America's response to 9/11 were present in the White House well before the attacks.

Second, the Bush team's shared foreign policy views contributed to the production of a corpus of top-level policy and strategy documents that clearly presented the Administration's approach to world affairs. These are valuable and insightful documents. However, their main purpose appears to have been to communicate or document policy, rather than to develop it. Decisions sometimes preceded, rather than flowed from the corresponding policy statements.

In the nuclear policy realm, this meant that President Bush and his executive team did not have to wait until key documents were completed in late 2001 and 2002 before starting to move towards the Strategic Combined Arms Posture.

2.1) The National Security Strategy and the National Strategy to Combat Weapons of Mass Destruction

The September 2002 National Security Strategy (NSS) was the Bush administration's most influential top-level foreign document. Drafted principally by National Security Advisor Condoleezza Rice and her colleague Philip Zelikow, the 2002 NSS was intended as an epoch-defining successor to Paul Nitze's NSC-68. Just as NSC-68 laid out a muscular US strategy for

what promised to be a decades-long Cold War, the 2002 National Security Strategy was the Bush executive team's plan for long-term success against terrorists and rogue states. How could the United States prevent them from acquiring nuclear weapons, or other WMDs and using them to attack the homeland?

Preemptive war was an important element of this plan. "The gravest danger our Nation faces," it argued, "lies at the crossroads of radicalism and technology. Our enemies have openly declared that they are seeking weapons of mass destruction, and evidence indicates that they are doing so with determination." The longstanding goals of homeland defense and inhibiting proliferation were both of paramount importance. Therefore, "Given the goals of rogue states and terrorists, the United States can no longer solely rely on a reactive posture as we have in the past. [...] We cannot let our enemies strike first."² Because of the enormous potential cost of a WMD attack on the US, the benefits of preemption would increasingly outweigh the costs. This was doubly true now that US conventional military superiority might permit non-nuclear preemption. The first strike thinking that had long been a feature of the counterforce nuclear mission was being stretched to cover more potential adversaries, including some that might not yet pose a real threat. This new national security strategy was aggressive and ambitious, but neither the underlying logic nor the goals it sought to advance were entirely novel.

Three months later, in December 2002, a companion to the NSS emerged: The National Strategy to Combat Weapons of Mass Destruction. Cut from the same cloth as the NSS, it provided more detailed guidance on how the US planned to aggressively pursue its goals.

² Rice, Condoleezza. *No Higher Honor: A Memoir of My Years in Washington*. Crown Publishers, New York, 2011. pp. 152-156; On the executive team's centrality, Rice emphasizes "The document had previously been a largely bottom-up bureaucratic procedure that had produced an unwieldy tome of several hundred pages. [...] But this time we decided that the national security strategy would be different and consequential." For text see National Security Strategy of the United States. September 2002. <https://www.state.gov/documents/organization/63562.pdf>.

“Because deterrence may not succeed, and because of the potentially devastating consequences of WMD use [...] US military forces and appropriate civilian agencies must have the capability to defend against WMD-armed adversaries, including in appropriate cases through preemptive measures.”³ The Bush White House was signaling its profound concern about rogue state nuclear and other WMD threats. Consequently, it was working to develop integrated nuclear and conventional ways to preempt those threats. Greater reliance on strategically-useful non-nuclear forces within a new strategic combined arms posture would lower the downside risks of preemption, making it a more attractive and usable means of protecting the homeland by countering adversary proliferation than a counterforce nuclear strike had ever been.

2.2) The 2001 Nuclear Posture Review

The 2001 Nuclear Posture Review preceded both the National Security Strategy and the National Strategy to Combat Weapons of Mass Destruction. However, a primary function of these documents seems to have been articulating, rather than developing basic national security policy. Therefore, even though the NPR came first, its recommendations connected the threat perceptions and corresponding strategies that these forthcoming policy statements would outline with the specific changes in US Posture they would imply.

One important driver of the NPR’s outcome was President Bush’s belief that Russia was a non-threat. While Moscow still retained a formidable nuclear arsenal, its conventional forces were emaciated. They posed no threat to Europe. This allowed the US to adopt a new ‘capabilities-based’ nuclear force sizing approach that would enable reductions to the 1,700-

³ National Strategy to Combat Weapons of Mass Destruction. December 2002.
<https://www.armscontrol.org/print/1184>.

2,2000 warhead level—even unilaterally. It also articulated plans to reconstitute the defense mission, and to integrate it with conventional, nuclear, space and cyber capabilities within STRATCOM—all while attempting to counter atrophy within the DOE/NNSA nuclear complex. The net effect of these changes moved the US towards the Strategic Combined Arms Posture that advanced core US goals via the Bush team’s chosen strategy.

This NPR drafting process was markedly different from that of its 1994 predecessor. It was never a ‘let 1000 flowers bloom soup to nuts’ study. Rather, its main purpose seems to have been organizing and communicating White House and senior-level DOD nuclear posture preferences. Correspondingly, many of these desires—including the President’s desire to withdraw from the ABM Treaty, field national ballistic missile defenses and make deep cuts in the arsenal—were already being advanced before the Review was undertaken.⁴

What nuclear posture changes or objectives did the 2001 NPR lay out? Overall, it articulated a broad conception of nuclear-relevant strategic capabilities which it sought to integrate within a “New Triad.” This New Triad was to include “Offensive strike systems (both nuclear and non-nuclear; defenses (both active and passive); and a revitalized defense infrastructure that will provide new capabilities in a timely fashion to meet emerging threats.”⁵ While this New Triad tag has the feel of a marketing slogan that never really caught on, it did capture the Bush Administration’s basic posture goals. These included integrating nuclear and advanced

4 Interview with Franklin C. Miller, September 18, 2018. For specific reference to presidential guidance and deployed arsenal size see Statement of Admiral James O. Ellis, USN, Commander in Chief, United States Strategic Command, Before the Senate Armed Services Committee on the Nuclear Posture Review. February 14, 2002, p. 5. https://fas.org/irp/congress/2002_hr/021402ellis.pdf.

5 Nuclear Posture Review Report: Foreword. December 31, 2001. <https://fas.org/sgp/news/2002/01/npr-foreword.html>. The Federation of American Scientists notes that this is “the Foreword to the otherwise classified Nuclear Posture Review Report that was submitted to Congress on December 31, 2002. It was released by the Pentagon on January 9, 2002.”

conventional capabilities, reconstituting the defense mission, and re-investing in the DOE/NNSA complex of weapons labs and associated facilities.⁶

Within this overarching New Triad concept, the 2001 NPR highlighted three ongoing or planned changes in US nuclear capabilities that are worth noting. All of these changes either flowed from earlier concrete presidential decisions, or were consonant with goals that he and his team had outlined.

First was the shift from traditional threat-based force sizing to a new capabilities-based approach that enabled deep cuts in US nuclear forces. Until 2001, US nuclear force structure planning had been geared towards maintaining nuclear forces capable of holding at risk certain target sets. The old “Bravo,” “Delta” and “Romeo” target classes were early examples of threat-centric force planning that informed arsenal size. Decades later, specific threats continued to drive US planning. The late Cold War SIOP Review described earlier was also inherently threat-centric. The goal was to revise the National Strategic Target List and then recommend a force sized to threaten that target list. As the Cold War was ending, the Strategic Air Command’s September 1991 PHOENIX study argued that “For the near term the Soviet Union remains the only nation capable of destroying our society.” Therefore, “Handle the Soviet Union and you can deter all other potential threats.”⁷ Even after the Cold War, the central question in the 1994 Nuclear Posture Review was ‘to what extent, if any, will the US need to retain the ability to threaten the Russian strategic forces target set in the future?’ This was another example of threat-

⁶ On elevating the role of the nuclear complex in overall US nuclear security see Statement of John A. Gordon, Under Secretary for Nuclear Security and Administrator, National Nuclear Security Administration, US Department of Energy, Before the Committee on Armed Services, US Senate. February 14, 2002.

https://fas.org/irp/congress/2002_hr/021402gordon.pdf.

⁷ Strategic Air Command. “PHOENIX Force Structure Review,” September 11, 1991. Obtained under FOIA by Hans Kristensen. <http://www.nukestrat.com/us/stratcom/phoenix.pdf>.

based planning. Decisions about the size of US nuclear forces had long been informed by specific threats and the need to hold at risk corresponding targets.

In contrast, the 2001 NPR heralded a shift to a capabilities-based approach to US strategic force planning. This was driven both by the Bush team's belief that Russia was no longer a threat, as well as their uncertainty about which rogue states might threaten the US in the future. Alluding to the WMD-armed rogue-state threat, Undersecretary of Defense for Policy Douglas Feith explained that "US planning can no longer be so 'threat-based' because, in an era of uncertainty, the precise source of 'the threat' is unpredictable. [...] A capabilities-based approach to defense planning will look more at the broad range of capabilities and contingencies that the United States may confront in the future, as opposed to planning against a fixed set of opponents identified as the threat."⁸ According to this approach US strategic forces would resemble a Mahanian 'fleet in being.' By virtue of its power and flexibility, such a force is capable of holding at risk a wide array of targets. Consequently, it can deter many adversaries even if it cannot defeat all of them simultaneously. In practice, this meant that the US would no longer seek to maintain a nuclear arsenal large enough to cover the entire Sino-Russian target base.⁹ This sharp departure from past force structure planning practice reflected the President's beliefs about the US-Russia relationship, his decision to use this new relationship as an opportunity for stockpile reductions, as well as the United States' growing adaptive nuclear planning capabilities.

The second major feature of the 2001 NPR was the inclusion of the soon-to-be-reconstituted defense mission. As part of the Maximal Posture, the defense mission once centered on using nuclear weapons to destroy incoming Soviet bombers. By the early 2000s improved sensors,

⁸ Statement of the Honorable Douglas J. Feith Undersecretary of Defense for Policy Senate Armed Services Hearing on the Nuclear Posture Review. February 14, 2002, p.3. https://fas.org/irp/congress/2002_hr/021402feith.pdf.

⁹ Interview with Franklin C. Miller, September 18, 2018.

computers and guidance systems opened the possibility of defending against missiles. In the new approach a non-nuclear interceptor missile would hit and destroy an incoming warhead well before it could detonate. Typically described as ‘hitting a bullet with another bullet,’ making this new technology work promised to be a challenging feat.

The 2001 NPR followed President Bush’s announcement that the US would withdraw from the ABM Treaty and reinforced his desire to integrate US defenses with nuclear and other non-nuclear capabilities within STRATCOM. Referencing Bush’s desire to transcend the constraints imposed by the counterforce mission’s reliance on nuclear first strike, Undersecretary of Defense for Policy Douglas Feith explained that “during the Cold War, one of the President’s only options to limit damage to the United States was to strike the enemy’s offensive weapons, raising the stakes in any confrontation. Defenses will offer the ability to limit damage to the United States without requiring America to ‘fire the first shot.’”¹⁰ Left unsaid was the fact that defenses could also reduce the cost of an imperfect first strike. If the US failed to destroy a few enemy missiles, perhaps defenses could ‘mop them up.’

The first of Ground-based Mid-course Defense (GMD) interceptors were fielded in Alaska and California by late 2004. By roughly 2008 they probably had some nominal capability to defend the US against small nuclear attacks, accidental launches, or uncoordinated retaliation.

Third, and finally, the 2001 NPR outlined the Bush Administration’s plans to integrate nuclear and non-nuclear strategic force planning. As US conventional capabilities continued to improve, the argument went, they would be increasingly able to augment existing nuclear capabilities.

Therefore, it made sense to begin integrating conventional and nuclear strategic capabilities

¹⁰ Statement of the Honorable Douglas J. Feith Undersecretary of Defense for Policy Senate Armed Services Hearing on the Nuclear Posture Review. February 14, 2002, p.7.
https://fas.org/irp/congress/2002_hr/021402feith.pdf.

within STRATCOM.¹¹ In subsequent years this effort would result in the SIOP series war plans being replaced by new contingency and operational plans (CONPLANS and OPLANS). By the end of President Bush's time in office the United States' main nuclear war plan, OPLAN 8010-08, was no longer a rigid nuclear plan, but rather a flexible 'plan to make a plan' to use nuclear and conventional weapons in world-wide as well as regional crises and wars.

The 2001 Nuclear Posture Review preceded the 2002 National Security Strategy and National Strategy to Combat WMD. However, because the Bush team's overall strategy for advancing the two core goals they deemed most pressing—homeland defense and counterproliferation—was coherent, the NPR was fully consonant with the higher level policy documents that followed it. Its recommendations would take some years to implement, and are discussed further below. However, it presented a clear outline of how Bush and his advisors planned to update US Posture to aggressively advance their ambitious goals.

3) ABM Treaty? Nope. Moscow Treaty? Yup.

President Bush and his executive team took on a leading role in managing the US-Russia arms control relationship from the administration's earliest days. Presidential guidance on how to approach this relationship reflected his preference for unilateralism and his opposition to constraining treaties even before these and other elements of his foreign policy world view became sharper and clearer after 9/11. Moreover, even before the NSS, National Strategy to Combat Weapons of Mass Destruction and the Nuclear Posture Review were completed, the

¹¹ Statement of Admiral James O. Ellis, USN, Commander in Chief, United States Strategic Command, Before the Senate Armed Services Committee on the Nuclear Posture Review. February 14, 2002, pp. 5-6. https://fas.org/irp/congress/2002_hr/021402ellis.pdf.

President's initial arms control decisions informed and anticipated the contents of those top-level policy documents.

3.1) Towards National Missile Defense

President Bush's decision to withdraw from the ABM Treaty and reconstitute the defense mission was driven by his fear of WMD-armed rogue states, catalyzed by 9/11 and enabled by his belief that Russia was no longer a threat. Clearly, homeland defense was a core US goal. If rogue states pursuing WMDs were a major threat, Bush's view was that the US should try to defend itself against them. During the Cold War, the US sought security in deterrence by punishment. With Russia's massive arsenal no longer a concern, missile defense against small, weak states seemed more technologically feasible than ever before. The US could now pursue deterrence by denial.

This was Bush's basic line of thinking. However, his ABM withdrawal decision was also taken against a background of persistent if low-level Congressional Republican support for national ballistic missile defenses throughout the 1990s.¹² This support began to grow in 1997. That year the National Defense Authorization Act (NDAA) included a requirement that DOD produce a report on the ballistic missile threat to the United States. From this low-profile Congressional directive emerged a high profile commission, chaired by former White House Chief of Staff and George W. Bush's future Defense Secretary Donald Rumsfeld. Perhaps unsurprisingly given its mandate, the Rumsfeld Commission concluded that there was, in fact, a

¹² See e.g., S.564 – Missile Defense Act of 1991. <https://www.congress.gov/bill/102nd-congress/senate-bill/564>; H.R.3144 – Defend America Act of 1996; S. 1635 – Defend America Act of 1996. Neither bill passed. This suggests that GOP support for missile defense remained tepid and may have been motivated in part by an interest in portraying then President Clinton as weak on defense for supporting only ABM-compliant theater missile defenses.

growing ballistic missile threat to the US. Its July 15, 1998 final report argued in part that “Concerted efforts by a number of overtly or potentially hostile nations to acquire ballistic missiles with biological or nuclear payloads pose a growing threat to the United States, its deployed forces and its friends and allies.” Even more alarmingly, “The threat to the U.S. posed by these emerging capabilities is broader, more mature and evolving more rapidly than has been reported in estimates and reports by the Intelligence Community.” The commission made no concrete policy recommendations, but its underlying message was clear: Given these new threats, why should the decades-old ABM Treaty concluded with a vanquished foe stop the US from defending itself against bad guys with ballistic missiles?¹³

One year and one week later, the Republican controlled Congress passed the National Missile Defense Act of 1999. In strident language it declared that “It is the policy of the United States to deploy as soon as is technologically possible an effective National Missile Defense system capable of defending the territory of the United States against limited ballistic missile attack [...]” However, it included no funding to support this ambitious goal. Congressional Republicans advocated for missile defense, but were not yet ready to pay for it.¹⁴ Regardless, in later years the Rumsfeld Commission and the 1999 law would provide the Bush Administration’s subsequent missile defense efforts with a veneer of analytical rigor, as well as apparent Congressional legitimization.¹⁵

13 Executive Summary of the Report of the Commission to Assess the Ballistic Missile Threat to the United States. July 15, 1998. <https://fas.org/irp/threat/bm-threat.htm>.

14 Public Law 106-38. National Missile Defense Act of 1999. July 22, 1999.

<https://www.congress.gov/106/plaws/publ38/PLAW-106publ38.pdf>. Arms control expert Greg Thielmann observes the disconnect between the bill’s language and funding. See Thielmann, Greg. “The National Missile Defense Act of 1999.” *Arms Control Today*, July 2, 2009. https://www.armscontrol.org/act/2009_07-08/lookingback.

15 See e.g., Gaffney, Frank. “Bush, Missile Defense, and the Critics.” *Commentary*, February 2001 pp. 29-36.

3.2) 9/11, US-Russia Relations and ABM Withdrawal

Never passionate about international affairs, by the end of his administration, President Clinton's foreign policy was adrift. In no issue area was this more evident than missile defense. As Hal Brands argues, "The degree to which the basic principles and control of foreign policy were now at stake was most evident in the debate over national missile defense (NMD) and the Anti-Ballistic Missile (ABM) Treaty [...] When Clinton's opponents triumphed in [the presidential election of] 2000, it was clear that the White House no longer controlled the direction of US policy."¹⁶

Yet even before the election, Clinton's influence and interest in the swirling missile defense debate was ebbing. For most of his presidency, Clinton had staved off national missile defense supporters by lending rhetorical support to far more modest, ABM compliant theater missile defenses.¹⁷ However, by the end of his second term even this modicum of resistance to national-scale defenses had evaporated. In a landmark September 2000 speech at Georgetown University, Clinton announced that he would defer any decision about future missile defenses to his successor—either Vice President Al Gore or his Republican opponent George W. Bush.¹⁸

By this point in the ongoing presidential campaign it was clear that if Bush won the US would reconstitute the defense mission. On one hand, Bush pledged significant nuclear arms reductions as well as a redefined strategic relationship with Russia. On the other hand, he also pledged to pursue national missile defenses despite Russian objections and the ABM Treaty's restrictions.

¹⁶ Brands, Hal. *From Berlin to Baghdad: America's Search for Purpose in the Post-Cold War World*. University of Kentucky Press 2008, pp. 256-257.

¹⁷ Brands, *ibid*, p. 261; Talbott, Strobe. *The Russia Hand: A Memoir of Presidential Diplomacy*. Random House, New York 2002. pp. 376-378; Annual Report to the President and the Congress. Department of Defense, January 1994 p. xv. Author's personal collection courtesy of Steve Van Evera.

¹⁸ Clinton, William J. "Remarks at Georgetown University," September 1, 2000, *Public Papers of William J. Clinton, June 27-October 11, 2000* Government Printing Office pp. 1746-1747.
<https://www.govinfo.gov/content/pkg/PPP-2000-book2/pdf/PPP-2000-book2.pdf>.

According to Clinton's top Russia advisor, Strobe Talbott, "As a campaign tactic, Bush's move was clever. He had, in a single stroke, positioned himself to the administration's right on an anti-missile system ('we'll do whatever is necessary to defend America') and to its left on disarmament."¹⁹ Clever though it might have been, however, Bush was not merely making empty promises. His campaign rhetoric faithfully anticipated the policies that he would later pursue in the White House.

Correspondingly, it surprised no one when, in May 2001, Bush announced that he would likely pull the US out of the ABM Treaty in the coming months. In a National Defense University speech President Bush connected his desire for missile defenses to the rogue-state threat to the US homeland, as well as his beliefs about the new US-Russia relationship. He argued that "Today's Russia is not yesterday's Soviet Union. [...] Today's Russia is not our enemy [...] Yet it is still a dangerous world, a less certain, less predictable one. More nations have nuclear weapons and still more have nuclear aspirations." To meet these novel and evolving threats, Bush posited that "We need new concepts of deterrence that rely on both offensive and defensive forces." Evoking the concept of deterrence by denial, rather than by punishment, he explained that "Deterrence can no longer be based solely on the threat of nuclear retaliation. Defenses can strengthen deterrence by reducing the incentive for proliferation." Pursing this framework, however, meant moving "beyond the constraints of the 30-year old ABM Treaty." Reinforcing this view later that summer and evoking his staunch unilateralism, Bush asserted to reporters that the US would "withdraw from the ABM Treaty on our timetable," even as discussions with Russia about renegotiating or appending the treaty continued.²⁰ Well before the

¹⁹Talbott, Strobe. *The Russia Hand: A Memoir of Presidential Diplomacy*. Random House, New York 2002. p. 389.

²⁰Goldstein, Amy and Alan Sipress. "ABM Withdrawal Likely, But Not Set, Bush Says." *The Washington Post*, August 24, 2001. <https://www.washingtonpost.com/archive/politics/2001/08/24/abm-withdrawal-likely-but-not-set->

September 11 attacks President Bush was on his way to directing his willing defense secretary, Donald Rumsfeld, to reconstitute the defense mission.

Less than one week after September 11, it became clear that the attacks had not altered this policy trajectory. According to one anonymously quoted US official, “If anything, the likelihood of unilateral withdrawal has increased,” in the aftermath of the 9/11 attacks.²¹ The defense mission was about protecting the homeland. 9/11 only reinforced the Bush team’s belief in the necessity of pursuing that mission. Thus, these attacks catalyzed, but did not alter, Bush’s decision-making about US nuclear posture.

Throughout Fall 2001 the senior levels of the Bush team continued laying the groundwork for ABM withdrawal. Days before a planned meeting between President Bush and his Russian counterpart Vladimir Putin, National Security Advisor Condoleezza Rice and Secretary of State Colin Powell met with Russian Foreign Minister Sergei Ivanov on the margins of a UN General Assembly meeting. Rice was reportedly “as blunt as she could be,” about the United States’ intention to pursue missile defense testing without restrictions.²² Despite the burgeoning bromance between President Bush and his “newly minted close buddy” Russian President Vladimir Putin, the two leaders failed to reach an agreement on modifying or appending the ABM Treaty.²³

bush-says.

21 Glasser, Susan B. “US to Pursue Withdrawal from ABM Pact,” *The Washington Post* September 17, 2001. <https://www.washingtonpost.com/archive/politics/2001/09/17/us-to-pursue-withdrawal-from-abm-pact>.

22 Mufson, Steven and Sharon LaFraniere. “ABM Withdrawal a Turning Point in Arms Control,” *The Washington Post*, December 13, 2001. <https://www.washingtonpost.com/archive/politics/2001/12/13/abm-withdrawal-a-turning-point-in-arms-control>.

23 Baker, Peter. “‘I’m Thrilled He’s Here,’ Bush Says as Putin Visits His Texas Ranch.” *The Washington Post*, November 15, 2001. <https://www.washingtonpost.com/archive/politics/2001/11/15/im-thrilled-hes-here-bush-says-as-putin-visits-his-texas-ranch>.

Within a month, on December 13, 2001, Bush announced that he had “given formal notice to Russia, in accordance with the treaty, that the United States of America is withdrawing from this almost 30-year-old [ABM] treaty.” Locating his thinking within the context of the recent terrorist attacks and underscoring his views on US-Russia relations, Bush explained that “as the events of September 11th made all too clear, the greatest threats to both of our countries [the US and Russia] come not from each other or other big powers in the world, but from terrorists who strike without warning or rogue states who seek weapons of mass destruction.” Therefore, he went on to say, “I cannot and will not allow the United States to remain in a treaty that prevents us from developing effective defenses.”²⁴ In keeping with the ABM Treaty’s withdrawal provisions, the final withdrawal took place six months later in June 2002.²⁵

President Bush entered office with a plan to reconstitute the defense mission, either by withdrawing from or renegotiating the ABM Treaty. This was a product of his concern about the WMD/rogue state/terror threat, preference for unilateralism and opposition to constraining treaties—all of which factored into his Nuclear Security Theory. The September 11 attacks therefore catalyzed his efforts and clarified his foreign policy positions, but they did not substantially alter their overall direction. Movement towards the new Strategic Combined Arms Posture began in the Administration’s earliest days.

24 “Transcript: Bush Withdraws from ABM Treaty,” December 13, 2001. https://www.washingtonpost.com/wp-srv/onpolitics/transcripts/bush_text121301.html?noredirect=on.

25 Ritchie, Nick. *US Nuclear Weapons Policy after the Cold War: Russians, “Rogues” and Domestic Division*. Routledge, London ; New York: Routledge, 2009, pp. 79-80.

3.3) *The Moscow Treaty; A Formal Treaty With PNI Characteristics*

President Bush's fear of rogue state and/or terrorist WMD threats drove his pursuit of ballistic missile defenses. In contrast, his non-concern about Russia drove his desire for significant cuts in the size of the US nuclear arsenal. Yet both the size of the US nuclear arsenal and ABM restrictions had been central to the US-Russian arms control relationship since the 1970s. Therefore, while Bush's interest in missile defenses and arsenal reductions stemmed from different sources, in practice the two issues had to be handled together. US-Russian talks on altering the ABM Treaty failed, but out of them sprang the May 2002 Strategic Offensive Reduction Treaty, (SORT) also called the Moscow Treaty. This treaty locked in significant cuts in the US and Russian nuclear arsenals. However, in keeping with the Bush team's unilateralist bent, the US was prepared to make these same cuts on its own. Thus SORT was a formal arms control treaty informed by the 'unilateral but reciprocal' approach that had characterized the elder Bush's Presidential Nuclear Initiatives.

For decades, Russia's nuclear arsenal had been the pacing threat against which the US judged its own posture. This premise had been a key factor in the outcome of the 1994 Nuclear Posture Review. In accordance with its recommendations, as well as the fact that the START II Treaty was never ratified, at the start of the George W. Bush Administration the US owned some 8,700 deployed warheads spread across all three legs of the triad as well as 2,500 non-deployed warheads that were either available for upload or awaiting dismantlement.²⁶ Bush's belief that Russia was no longer a rival drove his desire for arsenal reductions, and enabled the post-2001 NPR shift to capabilities based force structure planning. Why should the US maintain an arsenal

²⁶ Ritchie, Nick. *US Nuclear Weapons Policy after the Cold War: Russians, "Rogues" and Domestic Division*. Routledge, London ; New York: Routledge, 2009, p. 68.

capable of holding at risk the entire Russian target base if Russia was benign? This logic caused Bush to demand US nuclear arsenal cuts from the earliest days of his presidency.²⁷

Bush's views on US-Russia relations generally also informed the process behind these planned cuts. According to Russia expert and then Bush National Security Advisor Condoleezza Rice, the US-Russia arms control relationship had become an important symbol of "equality between the Kremlin and the White House." Unilaterally withdrawing from the ABM Treaty would therefore harm the good US-Russia relations that Bush so valued. At the same time, national missile defenses were central to Bush's NST. Therefore, in order to simultaneously advance his missile defense goals while mitigating the harm that ABM withdrawal would do to US-Russia relations, Bush Administration statements on missile defenses were regularly mixed with calls for a new bilateral arms control treaty. Intent on taking away the ABM agreement, this new treaty was offered to Russia as a sort of "talisman against decline" or symbol of equality.²⁸ Crucially, the treaty agreement itself seems to have been the main benefit that the US was willing to provide Russia. The contents of the treaty in terms of the size of the cuts and verification arrangements went not one step further than the US would have been willing to go unilaterally.

Days before his November 2001 Texas meeting with Putin, President Bush declared his intention to reduce the US strategic arsenal to 1,700-2,200 warheads within ten years.²⁹ Secretary

27 Interview with Franklin C. Miller, September 18, 2018. Specifically, Miller, who was then NSC Director for Defense Policy and Arms Control, recalled that National Security Advisor Condoleezza Rice and her Deputy, Stephen Hadley communicated to him the President's desire to find ways to cut the US arsenal. In response to a follow up question, Miller agreed that there was a cause-effect relationship between the President's perception that Russia was no longer a threat and his desire for arsenal reductions. In operational terms, this meant that 1) following planned reductions there may have been more targets in the overall Russia-China target base than warheads and 2) this was not considered problematic.

28 Rice, Condoleezza. *No Higher Honor: A Memoir of My Years in Washington*. Crown Publishers, New York, 2011. p. 60.

29 Baker, Peter. " 'I'm Thrilled He's Here,' Bush Says as Putin Visits His Texas Ranch." *The Washington Post*, November 15, 2001. https://www.washingtonpost.com/archive/politics/2001/11/15/im-thrilled-hes-here-bush-says-as-putin-visits-his-texas-ranch/d9928257-b7e4-428c-9d44-865a1ce6e5f5/?utm_term=.97e5fbd2bee5.

of State Colin Powell reiterated this position in Moscow in December, as unnamed US officials “reasoned [that an arms cut agreement] would give Putin something to boast about, help assuage Russia’s military establishment and keep the two countries talking about cooperation on nuclear weapons.”³⁰ As if to solidify the conceptual connection between good US-Russia relations, the US missile defense plans, and arms reductions, President Bush closed his ABM withdrawal speech by reiterating “our pledge to reduce our own nuclear arsenal [to] between 1,700 and 2,200 operationally deployed strategic nuclear weapons.”³¹ The timing and tone of these statements suggests that the US was open to a bilateral arms control agreement if Russia wanted one, but either way Bush would cut the US nuclear arsenal.

The Moscow Treaty was negotiated and signed during the six months between Bush’s announcement that the US intended to pull out of the ABM Treaty and the formal withdrawal. For a major arms control agreement, this was warp speed. Its swift conclusion reflected the fact that it was negotiated with a non-adversary. Details that would have taken months to parse in the SALT talks were non-issues in SORT. Moreover, SORT borrowed certain elements of the elder Bush’s approach to the late Cold War Presidential Nuclear Initiatives (PNIs). For example, in a nod to the ‘unilateral but reciprocal approach’ to the earlier PNIs, President George W. Bush’s letter transmitting SORT to the Senate for ratification averred that between 1,700 and 2,200 warheads “were sufficient to maintain the security of the United States.” Therefore, while “it would be preferable for the United States to make such reductions on a reciprocal basis with Russia, [...] the United States would be prepared to proceed unilaterally.”

30 Mufson, Steven and Sharon LaFraniere. “ABM Withdrawal a Turning Point in Arms Control,” *The Washington Post*, December 13, 2001. <https://www.washingtonpost.com/archive/politics/2001/12/13/abm-withdrawal-a-turning-point-in-arms-control>.

31 “Transcript: Bush Withdraws from ABM Treaty,” December 13, 2001. https://www.washingtonpost.com/wp-srv/onpolitics/transcripts/bush_text121301.html?noredirect=on.

Likewise, as in the earlier PNIs the Moscow Treaty text was extremely loose in describing the details of the planned reductions. Both sides agreed to reduce their strategic arsenals to 1,700 to 2,200 warheads. At such low numbers this uncertainty range could have been viewed as extremely significant—it certainly would have been in earlier arms negotiations. But given good US-Russia relations and Bush’s desire for arsenal cuts, ‘what’s 500 warheads between friends?’ was the prevailing attitude.

Finally, like the PNIs SORT included no standalone verification provisions. Instead, it leaned on the existing verification provisions in the existing START Treaty. However, because the START Treaty was slated to expire in 2009 and the SORT Treaty would be in effect for one day only—December 31, 2012—it was unclear whether or how either side would verify the others’ compliance ten years hence.³²

This loose approach to strategic arms control stood in stark contrast to the baroque arguments and Talmudic scrutiny that characterized earlier strategic arms control treaties. What accounts for it? First was the legacy of the Presidential Nuclear Initiatives. In 1991 the idea of unverified unilateral but reciprocal arms reductions was novel. By 2001, given their apparent success, they were a familiar part of the arms control toolkit. Thus, it was no stretch to negotiate a formal arms control treaty that borrowed important ideas and characteristics from the PNIs. Second, and more importantly, President Bush and his team had decided to cut the US nuclear arsenal to the 1,700-2,200 deployed warhead level before they ever began negotiating the Moscow Treaty. That was going to be the size of the US nuclear force whether the Russians matched it or not.

Consequently the details of the treaty agreement became less important to the US. Moscow was

³² US Department of State. Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions (The Moscow Treaty) and supporting documents. May 24, 2002. “<https://www.state.gov/t/avc/trty/127129.htm>.”

not an adversary, so there was no need for strict verification or jockeying about counting rules and weapons category limits and sub-limits. Indeed, that sort of adversarial process would undermine Bush's basic goal of preserving US-Russian good will despite his determination to reconstitute the defense mission.

4) Reconstituting the Defense Mission

Within days of his December 2001 ABM Treaty withdrawal announcement President Bush signed National Security Presidential Directive (NSPD) 23. It called for the deployment of a Ground-based Mid-course Defense (GMD) system to shoot down ICBMs aimed at the continental US by 2004. In addition to providing a limited defense capability, this initial deployment, according to Bush's directive, was to serve as a full-scale missile defense test bed. The idea was to both deploy and continuously improve US ICBM defenses through an aggressive program of increasingly realistic testing and adaptation. As Defense Secretary Donald Rumsfeld argued, "In the case of missile defense, I think we need to get something out there, in the ground, at sea, and in a way that we can test it, we can look at it, we can develop it, we can evolve it, and find out—learn from experimentation with it."³³

Over the next three years the Defense Department's Missile Defense Agency, (MDA) the Army and various contractors worked feverishly to stand up the GMD system. In Alaska, the once-shuttered Fort Greely was re-opened as home to the 49th Missile Defense Battalion. The first GMD interceptor was placed in its silo there on July 22, 2004. In California, Vandenberg Air Force Base became the second GMD interceptor site that December. By September 2004 a

³³ Kenney, Laura D. Major, USA. "Past, Present and Future of GMD." *Fires* March-April 2008 p. 28. Rumsfeld quote in Spinardi, Graham. "Ballistic Missile Defense and the Politics of Testing: The Case of the US Ground-Based Midcourse Defense." *Science and Public Policy* v. 35 no. 10, December 2008 p. 708.

modestly expanded force of 6 interceptors in Alaska and California along with associated radars, satellite-based sensors and fire control systems undertook Limited Defensive Operations (LDO).³⁴ This was an early step towards a limited national missile defense.

Sometime thereafter, as interceptors were added and systems honed, the GMD system crossed the invisible threshold of capability beyond which it provided a militarily useful defense. Exactly when this occurred is unclear. It may have been in 2006. After North Korea launched an ultimately unsuccessful ICBM test on July 4, that year President Bush declared that “If it headed to the United States, we’ve got a missile defense system that will defend our country.” Reflecting on the incident some months later, MDA Deputy Director Brigadier General Patrick O’Reilly stated that “We are confident that the ballistic missile defense system would have operated as designed had the Taepo Dong-2 [North Korea ICBM] threatened the US.” It may have been two years later. By November 2, 2008, when asked about the threat of one or two ICBMs launched from North Korea, MDA Director Lt. Gen. Henry Obering averred that “I have very high confidence we could defend the United States against that threat.”³⁵ Two years after that, the invisible threshold had almost certainly been surpassed. Even after President Bush left office, the 2010 Ballistic Missile Defense Review Report—a cousin to the NPR—stated that “The United States is currently protected against the threat of limited ICBM attack, as a result of investments made over the past decade in a system based on Ground-based Midcourse Defense.”³⁶ This study

34 Kenney, Laura D. Major, USA. “Past, Present and Future of GMD.” *Fires* March-April 2008 p. 29. Spinardi, Graham. “Ballistic Missile Defense and the Politics of Testing: The Case of the US Ground-Based Midcourse Defense.” *Science and Public Policy* v. 35 no. 10, December 2008 p. 709.

35 Sankaran, Jaganath. “Updated List of Claims about GMD Effectiveness (May 31, 2018)” *MostlyMissileDefense*. <https://mostlymissiledefense.com/2018/05/31/updated-list-of-claims-about-gmd-effectiveness-may-31-2018/>.

36 Department of Defense. “Ballistic Missile Defense Review Report,” February 2010, p. 15. http://archive.defense.gov/bmdr/docs/BMDR%20as%20of%2026JAN10%200630_for%20web.pdf.

locates the likely start of GMD effectiveness sometime in 2008. However, it acknowledges uncertainty around this date.

Earnest, regular and confident assertions about GMD's effectiveness—like those above—from well-informed senior officials are extremely common. They are probably not lies. However, they elide well-founded skepticism from non-governmental experts. The Bush team's plan was to quickly field an initial defense capability, then improve it through continuous testing and experimentation. As then MDA Director Lieutenant General Ronald Kadish explained in 2001 “We expect steady progress toward success, even though we anticipate we will have test failures [...] Indeed, from my standpoint, if we do not fail occasionally, we are not pushing the envelope sufficiently.”³⁷

However, in the fifteen years since the system began Limited Defensive Operations it has only performed eleven intercept tests, of which only five have been successful.³⁸ Moreover, most of these tests do not appear to have replicated plausible adversary capabilities and tactics that would decrease the odds of a successful GMD intercept. For instance, they have not involved decoys designed to confuse the Exo-atmospheric Kill Vehicle's (EKV's) infrared seeker by mimicking an actual warhead. Nor have they taken place when either darkness or glare from the sun would cause the most interference with the infrared seeker. According to Graham Spinardi, the fact that post-deployment tests which are nominally geared towards evaluating and improving the system's performance are also de facto capability demonstrations or “public

37 Quoted in Spinardi, Graham. “Ballistic Missile Defense and the Politics of Testing: The Case of the US Ground-Based Midcourse Defense.” *Science and Public Policy* v. 35 no. 10, December 2008 p. 709.

38 Sankaran, Jaganath. “Updated Tables of Intercept Test (November 30, 2018) (Updated December 11, 2018). *MostlyMissileDefense*. <https://mostlymissiledefense.com/2018/11/30/updated-tables-of-intercept-test-november-302018/>; Judson, Jen. “Homeland Missile Defense System Takes Out ICBM Threat in Historic Salvo Test.” *Defense News*, March 26, 2019. <https://www.defensenews.com/land/2019/03/25/homeland-missile-defense-system-takes-out-icbm-threat-in-historic-salvo-test/>.

experiments” reduces incentives to conduct realistic, and therefore challenging tests. “The more that the GMD system was portrayed as a deployed, operational system,” he observed, “the less tolerant the public and Congress would be of test failures.”³⁹

Because of uncertainty about GMD’s actual ability to defend the US against ICBMs, the reconstituted defense mission defies simple summary. On one hand, the US is clearly very serious in its pursuit of this mission. GMD has been manned 24/7 continuously ready for use since late 2004 at a total cost of more than \$67 billion. It is the Defense Department’s fourth most expensive program after the F-35 fighter jet, Arleigh Burke class destroyers and Virginia class attack submarines.⁴⁰ And despite serious doubts about its military utility, the defense mission has political effects. At minimum it has long been a source of tension between the US and Russia. It may also influence the calculus of the US and adversaries like North Korea and perhaps China. That is, whatever its military efficacy, its budgetary and political effects are very real.

On the other hand, GMD’s success rate in intercept tests and the fact that countermeasures like decoys would be relatively cheap for an adversary to field is not confidence inspiring. It might be said that the defense mission is to the strategic combined arms posture what counterforce was to the offensive missile posture: centrally important, presidentially driven and intended to advance core foreign policy goals—but ultimately of uncertain political and military utility. Regardless, President Bush’s view was that the WMD-armed rogue state threat was sufficiently great that it could not be deterred in the traditional way. His ambitious goal of

39 Spinardi, Graham. “Ballistic Missile Defense and the Politics of Testing: The Case of the US Ground-Based Midcourse Defense.” *Science and Public Policy* v. 35 no. 10, December 2008, pp. 710-714.

40 Government Accountability Office. “Missile Defense: The Warfighter and Decision Makers Would Benefit from Better Communication about the System’s Capabilities and Limitations. GAO-18-324, May 2018, p. 68-74. <https://www.gao.gov/assets/700/692136.pdf>.

actively defending the homeland against this threat, rather than simply deterring it, required him to reconstitute the defense mission.

5) So Long SIOP, Hello Strategic Combined Arms

The reconstituted defense mission was a key element of the Bush executive team's plan to update US posture to support their ambitious goal of protecting the US homeland by denying attackers the chance to strike, rather than by simply deterring them. The other main component of that plan was to integrate missile defenses with increasingly flexible offensive nuclear forces, and conventional, cyber and space capabilities. By flexibly and cleverly orchestrating these strategic combined arms—much as an Army commander integrates armor, infantry and artillery in land warfare—the idea was to give future presidents a range of options for countering emerging rogue state/WMD terror threats. Abandoning the Cold War legacy SIOP was an important step towards this goal.

Since 1961 US nuclear war planning had been centered on the SIOP. What began as a *Single Integrated Operational Plan* evolved, albeit slowly, towards increasing flexibility. By the mid-1970s as a result of the so-called Schlesinger doctrine the SIOP came to include a menu of Major Attack Options, Selected Attack Options and Regional Attack Options (MAOs, SAOs and RAOs). Presidents now had a handful of nuclear employment options to choose from. However, these options remained pre-planned and could not be adjusted at short notice. The President's menu for Armageddon allowed no substitutions.

Only by the mid-1990s did uncertainty about the identity of America's future adversaries coupled with improving technology open the door to truly adaptable war planning. By March

2003, these adaptive nuclear planning capabilities had become sufficiently flexible, and sufficiently intertwined with conventional capabilities that it became time to discard the SIOP and replace it with a new family of strategic combined arms war plans.

5.1) OPLAN 8044 and CONPLAN 8022

One month after releasing its December 2002 National Strategy to Combat Weapons of Mass Destruction, the Bush Executive Team's top-level strategy pronouncements began to drive changes in nuclear and conventional war planning. The President's fear of rogue state WMD threats, his support for missile defenses, and his belief in the potential benefits of preemption were having operational effects. Aggressive pursuit of security generated demand for better warfighting capabilities.

A January 2003 update to the Unified Command Plan that delineated combatant command responsibilities ordered a major expansion of STRATCOM's duties. No longer just the SAC successor charged with operating US nuclear forces, STRATCOM would now be in charge of nuclear and conventional global strike, missile defense integration, global information operations and global command, control, communications intelligence, surveillance and reconnaissance.⁴¹ Lines between nuclear forces, conventional forces, and enabling capabilities like command and control and intelligence were being smudged. A single combatant commander could now combine these strategic capabilities. Consequently, within two months the SIOP was dead.

⁴¹ Kristensen, Hans. "US Strategic War Planning After 9/11." *Nonproliferation Review* v 14 no. 2 (July 2007), pp. 374; Ritchie, Nick. *US Nuclear Weapons Policy after the Cold War: Russians, 'Rogues' and Domestic Division*. Routedledge, 2009. p. 64. Note that an earlier change in the unified command plan dated October 2002 gave STRATCOM responsibility for US space operations and related computer networks. Ritchie Ibid.

The final version of the SIOP was called SIOP-03 change 3. It was replaced on March 1, 2003 by Operational Plan (OPLAN) 8044 revision 3. Like the more recent SIOP iterations, OPLAN 8044 was a “family of plans” for nuclear as well as potentially non-nuclear global strike. According to nuclear weapons expert Hans Kristensen, “the range of capabilities pursued under Global Strike is very broad, spanning from cyber attacks to the use of nuclear weapons.” Soon after, in November 2003, OPLAN 8044 was joined by Concept Plan (CONPLAN) 8022. Details remain murky, but it may be the case that CONPLAN 8022 was something of a successor to the SIOP’s pre-planned nuclear attack options, while OPLAN 8044 was geared towards providing flexible, adaptable global strike options in a range of scenarios. The overall effect of these changes in both US national security strategy and war planning, Kristensen argues, was “to create near invulnerability for the United States by forcing total vulnerability upon any potential adversary.”⁴²

5.2) OPLAN 8010-08: Global Deterrence and Strike

STRATCOM war plans continued to evolve throughout the Bush presidency. A partially redacted declassified copy of what was likely among the last significant war plan updates of the Bush Administration provides insights into the state of US nuclear and conventional global strike planning at the end of the Bush presidency and the beginning of the Obama Administration. Five features of this February 1, 2008 document, “OPLAN 8010-08: Global Strike and Deterrence,” are especially illuminating.⁴³

⁴²Kristensen, Hans. “US Strategic War Planning After 9/11.” *Nonproliferation Review* v 14 no. 2 (July 2007), p. 376.

⁴³ United States Strategic Command. “CDRUSSTRATCOM OPLAN 8010-08 Global Deterrence and Strike.” 1 February 2008. Author’s personal collection. My thanks to Joseph Trevithick who received this document via a FOIA request and was generous enough to share it. For Trevithick’s original article on this document and its 2012

First is the document's low initial classification level. Throughout the Cold War and afterwards, SIOP war plans were classified top secret. To date, no SIOP has been declassified. The history of US nuclear war plans—including the history contained in this project—is therefore based on declassified materials *about* past SIOPs, like nuclear weapons employment guidance, memos, internal position papers, memoranda of conversation, and official histories. In contrast, OPLAN 8010-08 was only classified secret, and was largely declassified less than a decade after being written. Most likely these differences in original classification and subsequent declassification reflect underlying differences between Cold War SIOPs and more recent OPLANS. Cold War SIOPs were rigid plans that laid out in exquisite detail which targets were to be hit by which weapons. They contained high fidelity information on US nuclear capabilities that would have been useful to adversaries looking for vulnerabilities or weaknesses. OPLAN 8010-08, on the other hand, is not a detailed plan. Instead, it reads more like an outline of a planning process and considerations whose more detailed, higher classification appendices were kept separate and remained subject to change. The main document explains in general terms how STRATCOM approaches employment planning, covering topics such as “adversary-specific campaign planning,” and “risk/mitigation.” Detailed SIOP war plans appear to warrant high classification even decades after they have been superseded. ‘Plans to make plans’ like OPLAN 8010-08 require less protection.

Second, OPLAN 8010-08 emphasizes the rogue state WMD threat. In a summary of the “Political-Military Environment,” it posits that “Threats to the United States and its vital interests are diverse and cannot be fully predicted. Numerous nations and non-state actors are

successor see Trevithick, Joseph. “Here’s America’s Plan for Nuking Its Enemies, Including North Korea.” *The War Zone*. April 7, 2017. <http://www.thedrive.com/the-war-zone/9056/heres-americas-plan-for-nuking-its-enemies-including-north-korea>.

aggressively pursuing Weapons of Mass Destruction (WMD) and associated delivery systems as a means to advance their interests through intimidation and coercion.” Given President Bush’s NST which prioritized rogue WMD threats and identified Russia as a friend, this language is strong but unsurprisingly evidence of presidential influence on US nuclear planning.

Third, in keeping with its inherent flexibility and focus on a variety of potential rogue state threats, OPLAN 8010-08 focuses on “Adversary-specific campaign planning.” Building on the concept of tailored deterrence laid out in the 1978 Sloss Report, it states that “Plan objectives encompass a comprehensive range of effects-based options that are tailored to specific scenarios. [...] appendices translate strategic objectives into desired effects tailored to potential political/military contexts.” No longer was simply holding targets at risk the central goal of US nuclear war planning. Now the goal was to “shape adversary perceptions, intentions and actions” using conventional and nuclear weapons, as well as “an integrated communications campaign” to achieve strategic goals.⁴⁴

Fourth, there is reason to suspect that by 2008, if not earlier, the US had ceased planning to carry out the urban/industrial attack mission. While the size and flexibility of US nuclear forces meant that this mission could probably be reconstituted reasonably easily, OPLAN 8010-08 states that “legal review is required in the development of strike options and prior to option execution,” and further that “the use of any weapon, kinetic or non-kinetic, must satisfy the key principles of [the Law of Armed Conflict, LOAC]: military necessity, avoidance of unnecessary suffering, proportionality, and discrimination or distinction.” Though a thorough review of OPLAN 8010-08’s classified annexes would be required to disprove the existence of an

⁴⁴ For Sloss Report see memorandum from Leon Sloss to Director, Joint Staff et al, on Nuclear Targeting Policy Review, December 13, 1978. <https://www.archives.gov/files/declassification/iscap/pdf/2011-002-doc1.pdf>.

urban/industrial attack option, this language on legal considerations provides suggestive evidence that the US had abandoned this legacy nuclear mission by 2008.

Fifth, in a logical extension of its efforts to integrate conventional and nuclear forces as well as messaging to achieve strategic effects, OPLAN 8010-08 states that when circumstances dictate that the United States' objective must be "defeating attacks, particularly WMD attacks, by a discrete set of adversaries possessing the capability and intent to threaten US vital interests or those potential adversaries with capabilities so great that, regardless of their intent, planning must account for them. This objective also includes [two lines redacted] time sensitive scenarios. Defeat includes both offensive and defensive operations."

Peering through redactions and bureaucratise, the general idea is clear. The US was now done with the 'half throttle counterforce' that characterized the latter half of the offensive missile posture. The Strategic Combined Arms Posture provided, at least in theory, the capability to shoot first with conventional and/or nuclear forces and use defenses to defeat retaliation.

6) Conclusion

How well-founded were the beliefs that drove President George W. Bush's foreign and security policy? What changes in US nuclear posture did those ideas cause? These are the sorts of questions we must ask about the younger Bush Administration's nuclear posture decisions.

The basic ideas that comprised President Bush's foreign and security policy were brash and audacious. Even before 9/11 the President and his executive team believe that the recipe for durable American security—outlined in the 1992 Defense Planning Guidance—called for acting unilaterally, sidestepping constraining institutions, and preventing the rise of all possible rivals.

After 9/11 a strong emphasis on preemptive war only added to this already muscular policy perspective. To be sure, the Bush team's fear of rogue states with WMDs was earnest. It may have pre-dated the actual emergence of that threat, but perhaps this is understandable given the weight of the responsibility they felt to prevent another, more catastrophic set of attacks. If they were going to be incorrect in their assessment of a threat, wasn't it better to be more vigilant, rather than less? However sensible this perspective was in the post 9/11 context, it implied—to borrow Kristensen's turn of phrase—creating “near invulnerability for the United States by forcing total vulnerability upon any potential adversary.”

The central argument of this project is that presidents consistently and knowingly support aggressive nuclear postures in order to achieve their audacious foreign and security policy goals. That dynamic is clearly on display in this chapter. The Bush team's view was that given Russia's weakness, Europe was fairly secure. However, proliferation by rogue states seemed to pose an enormous threat to the US. This threat accounting translated directly into decisions about posture. President Bush wanted to withdraw from the ABM Treaty and reconstitute the defense mission in order to defeat, rather than deter attacks. He did. He wanted to reduce the US nuclear arsenal, unilaterally, or via a treaty with his “newly minted good buddy” Vladimir Putin of Russia. He did that too. He wanted this shrinking US nuclear force integrated with strategic conventional, cyber and space capabilities so as to reduce the costs and risks of preemptive attacks on rogue states possessing or pursuing WMDs. He asked and STRATCOM delivered.

Chapter 13) Thanks Obama: The Tragic Persistence of Nuclear Necessity

1) Introduction

Like George W. Bush, President Obama believed that nuclear terror and rogue state proliferation were the main nuclear threats facing the US. Unlike his predecessor, President Obama brought to the White House a long-standing skepticism of the nuclear orthodoxy. His view was that both nuclear terrorism and proliferation were ideally addressed through diplomacy and multilateral institutions—not with threats, preemptive war, and the arcane military mechanics of nuclear posture. Like Reagan, his view was that the United States' seventy-year reliance on the security foundation provided by nuclear weapons deserved to be rejected. Correspondingly, President Obama's central nuclear policy goal was to move towards a future in which nuclear weapons were marginalized in international politics. At the end of this road was nuclear disarmament.

This was a far-sighted and humane goal. Obama and his team pursued it with great skill. However, the return of great power competition, the challenges and tradeoffs inherent to multilateral diplomacy, the value of consistency and predictability in US nuclear policy and the relative decline in the United States' once overwhelming post-Cold War power all conspired to undermine President Obama's efforts. Many factors augured towards the tragic persistence of nuclear necessity.

1.1) President Obama's Opportunities

A key element of President Obama's overall foreign policy worldview was his staunch opposition to George W. Bush's unilateralism. Durable progress towards a safer world had to be a collective endeavor, he believed. This view drove his methodical, multilateral pursuit of nuclear arms reduction and eventual abolition. Eight years of brash, go-it-alone, 'with us or against us' policies, Obama believed, had alienated allies, provoked foes, and diminished America's global standing.

Restoring that standing was therefore among Obama's top goals. US interests, he believed, were best secured through diplomacy, cooperation, institution building and the cultivation of a stable liberal international order. Threats and military force might legitimately be used to support that order, but rules were its foundation—not force. This rules- and institutions-based approach, Obama believed, would more effectively protect the US against threats like proliferation and nuclear terrorism than would preemptive war, deterrent threats or sophisticated nuclear capabilities. In a stable rules-based order, raw strength—especially nuclear strength, would become less central in US foreign policy.

1.2) Obama's Threat Perception

Despite his rejection of the Bush administration's defining foreign policy approach, Obama accepted his predecessor's basic accounting of the main threats that the US faced. Highest on the list was nuclear terrorism. Even a single nuclear explosion in an American city would be devastating. Therefore preventing this nightmare scenario was a top priority. Second, and related, was the prevention of nuclear proliferation. Proliferation by rogue states was bad by itself. It

would weaken the non-proliferation regime, and could touch off regional proliferation cascades. Moreover, the more states that acquired nuclear weapons, the more places terrorists might find fissile material. While the results of the 2003 invasion of Iraq showed that there had not been, as Bush had feared, a rogue state proliferation-terrorist group nexus, that did not mean that one might not develop in the future. According to the Obama team, nuclear terrorism and proliferation were mutually reinforcing threats.

Similarly, President Obama initially accepted his predecessor's belief that Russia was not a threat to the US. When Obama took office, US-Russia relations were still tense following the 2008 Russo-Georgian War. From the Bush team's perspective, Russia's invasion of aspiring NATO member Georgia amounted to an effort to curtail US freedom to choose its own allies. For the incoming Obama team Russian aggression undermined Georgian sovereignty and eroded the norm against violence as a dispute resolution mechanism in post-War Europe. Regardless, Obama's starting view, like Bush's, was that whatever minor differences might emerge between the US and Russia, the two countries' interests overlapped more than they diverged. In non-proliferation, nuclear terrorism prevention, and nuclear arms reduction, Obama believed that Russia had to be a major US partner—not a rival.

1.3) President Obama's Nuclear Inheritance

President Obama's nuclear inheritance was twofold. On one hand, he inherited the formidable Strategic Combined Arms Posture. It encompassed flexible counterforce, improving defenses, hedging, some theater nuclear capabilities and a latent urban/industrial attack capability. US nuclear employment plans were more adaptable than ever before.

On the other hand, this rich nuclear inheritance was atrophying in both absolute and relative terms. In absolute terms, the US had neither built nor tested a new warhead since the end of the Cold War. Likewise the Minuteman III ICBM, Trident II D5 SLBM, and the Ohio Class submarines that carried them, as well as the B-2 and especially the 1950s vintage B-52 bombers were Cold War legacy delivery systems. All of them had already undergone extensive modernization and upgrades, but even so, they would eventually need to be replaced. No weapon or platform lasts forever. In relative terms, this aging, largely stagnant arsenal stood in contrast to Chinese and especially Russian nuclear modernization programs which picked up steam towards the end of the Obama administration. Great power competition returned on Obama's watch, and the United States' competitors were advancing while America stood still. Today's ongoing efforts to overcome these related challenges began under Obama.

1.4) President Obama's Nuclear Security Theory

Against this background, President Obama's Nuclear Security Theory sprang from three related beliefs. First was his deep skepticism—dating to his undergraduate years—of Cold War nuclear orthodoxy. While nuclear weapons might be necessary for ultimate deterrence—so long as they existed—beyond that they had little politico-military utility. Indeed, while he was no naive idealist, Obama's ultimate view was that the US and the world would be better off if nuclear weapons no longer existed.

This first idea was mutually reinforcing with the President's second central nuclear relevant belief: Given US conventional military prowess, and the fact that the main nuclear threats facing the US were nuclear terrorism and rogue state proliferation, sophisticated nuclear capabilities

and supple war plans were not especially useful. Bush may have believed that nuclear threats were useful for counterproliferation, but Obama did not. Indeed, his view was that emphasizing US nuclear capabilities in this way was counter-productive. Doing so would only make nuclear weapons appear more useful and desirable—increasing the risk of proliferation.

These twin beliefs dovetail with the third. Obama did not believe that advanced US nuclear capabilities could meet the proliferation and terror threats he prioritized. On the contrary, his view was that diplomacy, institution-building, leadership by example, and conventional military power were better solutions to these problems. The US was very strong. But not so strong that it could unilaterally thwart any and all threats in a complex world. Only international cooperation—slow and challenging though it was—could provide durable solutions to the world’s problems.

These causal beliefs: that weak actors could threaten the US with nuclear weapons; that US nuclear weapons could not protect against, and might even exacerbate these threats; and that the path to durable security involved diplomacy and institutions, all coalesced to form President Obama’s Nuclear Security Theory. The New START Treaty with Russia, the 2010 Nuclear Posture Review de-emphasizing the role of nuclear weapons in US security, the public diplomacy leading up to the 2010 NPT Review Conference, the multilateral Joint Comprehensive Plan of Action with Iran, and a series of Nuclear Security Summits involving heads of state from around the world were all concrete manifestations of this NST in action. President Obama’s goal—ambitious, humane, and tragically unfulfilled—was to advance toward an international system in which the US could eventually discard the elaborate, aggressive Postures that support our core security interests.

2) A Man...

President Obama's engagement with nuclear issues dates to at least his undergraduate years. As a Columbia University student in the early 1980s he wrote a course paper on US-Soviet arms control talks, for which he reportedly earned an A.¹ Outside of class, he wrote a feature on the then-vibrant local nuclear freeze advocacy movement for Columbia's student newspaper.

"Generally, the narrow focus of the Freeze movement" Obama wrote in spring 1983, "as well as the academic discussions of first versus second strike capabilities, suit the military-industrial interests, as they continue adding to their billion dollar erector sets. When Peter Tosh sings that 'everybody's asking for peace, but nobody's asking for justice,' [sic] one is forced to wonder whether disarmament or arms control issues, severed from economic or political issues, might be another instance of focusing on the symptoms of a problem, instead of the disease itself."²

In addition to the future president's correct appreciation of Peter Tosh's reggae, three features of this insightful passage warrant discussion. First is Obama's basic familiarity with the nuclear strategy concepts of first and second strike, as well as his apparent understanding of what each implied about US policy. A nuclear weapons expert he was not, but he was at least acquainted with the fundamentals. Second was his apparent skepticism of these employment planning concepts and the 'billion dollar erector sets' that together comprise nuclear posture. 'What concrete benefits did sophisticated, aggressively postured US nuclear forces provide, anyway?' he seemed to wonder. Third, in an observation that presaged one of the core arguments of this dissertation, the future president posited that nuclear policies are inherently connected to broader

1 Broad, William and David Sanger. "Obama's Youth Shaped His Nuclear Free Vision." *The New York Times*, July 4, 2009, <https://www.nytimes.com/2009/07/05/world/05nuclear.html>.

2 Obama, Barack. "Breaking the War Mentality." *Sundial*. March 10, 1983. Available at <https://www.nytimes.com/interactive/projects/documents/obama-s-1983-college-magazine-article#p=1>.

political and economic issues. If, normatively, one believes that US nuclear posture is a problem or a ‘symptom,’ then Obama was suggesting that the solution must be to correct the ‘diseased’ politics that drive it.

Twenty five years after publishing his college newspaper article, Obama was on the campaign trail. The world had changed a great deal. Obama’s thinking about nuclear weapons reflects these important changes. At the same time, his campaign speeches and subsequent nuclear posture decisions also reflect his enduring skepticism of nuclear weapons’ politico-military value, as well as his belief that politics drive nuclear policies, not vice versa.

In mid-June 2008, then Senator Obama illustrated some of the ways that his perspective on nuclear weapons had, and had not evolved in his first presidential campaign speech on foreign policy. Speaking at the Ronald Reagan building in Washington DC, Obama outlined his goal of “securing all nuclear weapons and materials from terrorists and rogue states,” stating that “One of the terrible ironies of the Iraq War is that President Bush used the threat of nuclear terrorism to invade a country that had no active nuclear program. But the fact that the President misled us into a misguided war doesn't diminish the threat of a terrorist with a weapon of mass destruction—in fact, it has only increased it.” While Obama was working to distance himself from Bush, in fact his fundamental assessment of the nuclear threats facing the US was closely aligned with his predecessor. Rogue states and terrorists were the concern—not Russia or China.

At longer range, Obama also began to lay out his vision of a nuclear free world, and his ideas for advancing toward it. “America seeks a world with no nuclear weapons,” he declared. However, “As long as nuclear weapons exist, we must retain a strong deterrent. But instead of threatening to kick them out of the G-8, we need to work with Russia to take US and Russian

ballistic missiles off hair-trigger alert; to dramatically reduce the stockpiles of our nuclear weapons and material; [...] By keeping our commitment under the Nuclear Non-Proliferation Treaty, we'll be in a better position to press nations like North Korea and Iran to keep theirs.”³ Eventual nuclear abolition was Obama’s desired end. Diplomacy, cooperation, multilateral treaties and institutions, and leadership by example were his preferred means.

Less than three months into his first term, Obama expanded on these views in the defining nuclear policy speech of his presidency. His April 5, 2009 Prague speech reinforced “clearly and with conviction America's commitment to seek the peace and security of a world without nuclear weapons” while allowing, pragmatically, that “This goal will not be reached quickly — perhaps not in my lifetime.”

Now, as President, Obama went further than he had as a candidate to outline the “concrete steps” that he intended to take towards this ultimate goal. First, the US would “put an end to Cold War thinking, we will reduce the role of nuclear weapons in our national security strategy, and urge others to do the same.” Second, “To reduce our warheads and stockpiles, we will negotiate a new Strategic Arms Reduction Treaty with the Russians this year. [...] And this will set the stage for further cuts, and we will seek to include all nuclear weapons states in this endeavor.” Flowing from his belief in leadership by example, Obama believed that bilateral arms control deals could snowball into multilateral agreements. Third, and related, Obama promised to “immediately and aggressively pursue U.S. ratification of the Comprehensive Test Ban Treaty.” Fourth, evincing the president’s belief in the value of international institutions, he pledged to “strengthen the Nuclear Non-Proliferation Treaty as a basis for cooperation.” by providing more

³ Full Text: Obama’s Foreign Policy Speech. *The Guardian*. July 16, 2008. <https://www.theguardian.com/world/2008/jul/16/uselections2008.barackobama>.

resources for inspections, harsher consequences for regime violators, and an international nuclear fuel bank that would obviate the need for countries like Iran to develop independent uranium enrichment capabilities.⁴

Thus, after less than three months in office, all of the elements of President Obama's nuclear security theory had been elaborated. His ultimate goal was to put an end to the era in which American security necessitated nuclear weapons. He had always been skeptical of Cold War era nuclear orthodoxy. Moreover, an aggressive nuclear posture seemed useless against the rogue state proliferation and nuclear terror threats he feared most. Indeed, it seemed to him that a muscular US foreign policy and corresponding nuclear posture might do more to inspire proliferation and terrorism than to hinder them. As a result, he sought to involve the US and the world in an overlapping set of cooperative agreements and institutions like the NPT, arms control deals, and Nuclear Security Summits that would collectively reduce the salience of nuclear weapons—"billion dollar erector sets"—in US security and in international politics. What remained to be seen, however, was how he would implement this NST, and how successful it might be.

3)...A Plan...

President Obama's nuclear policies, like his broader foreign and security policy approach, was thoughtful, nuanced and ambitious. "Obama's grand strategy might thus be summarized—at least in the president's own view—as preserving US leadership of an eminently favorable international order, but doing so at reduced costs, via more supple and energetic diplomacy, and

⁴ Remarks by President Barack Obama In Prague As Delivered. The White House, April 5, 2009. <https://obamawhitehouse.archives.gov/the-press-office/remarks-president-barack-obama-prague-delivered>.

in ways that better reflected the shifting landscape of global power.”⁵ Yet however carefully he laid out these ideas on the campaign trail and during his first year in office, he had yet to implement them. Referring to Obama’s 2009 foreign policy speech series, journalist James Mann observed that “In one sense, Obama’s speeches seemed unusual, even premature. He was holding forth on foreign policy, often with admirable complexity, but he was doing so before he and his administration had a chance to get their feet dirty in a messy world.”⁶

In nuclear weapons policy, 2010 was the year that the Obama administration started to get its feet dirty. That winter and spring a Ballistic Missile Defense Review; Nuclear Posture Review that sought to reduce the salience of nuclear weapons in US security; and a New START arms reduction treaty with Russia set the stage for a successful NPT Review Conference as well as the first ever Nuclear Security Summit on fissile material protection.

This whole line up of events—perfectly coordinated and choreographed by the president’s executive team—was a bold attempt to test the president’s belief that US leadership, diplomacy, and international institutions could reduce nuclear dangers more effectively than ‘billion dollar erector sets.’ Yet historian Hal Brands’ observation about the Obama administration’s overall foreign policy applies to its nuclear weapons policies as well: “The mere existence of a grand strategy does not ensure its success, however, and here the administration’s record has been more ambiguous than either defenders or detractors claimed.”⁷

5 Brands, Hal. “Barack Obama and the Dilemmas of American Grand Strategy.” *The Washington Quarterly*, Vol. 39 No. 4 (Winter 2017) p. 102.

6 Mann, James. *The Obamians: The Struggle Inside The White House to Redefine American Power*. Penguin Books, 2012. p. 149.

7 Brands, Hal. “Barack Obama and the Dilemmas of American Grand Strategy.” *The Washington Quarterly*, Vol. 39 No. 4 (Winter 2017) p. 102.

3.1) The First Ballistic Missile Defense Review

Of the winter-spring 2010 activities leading up to the Nuclear Security Summit and NPT Review Conference, the February release of the first ever Ballistic Missile Defense Review Report (BMDR) was least noticed, but arguably most consequential. The BMDR was a congressionally mandated cousin to the Nuclear Posture Review, which the Obama team would release in April. Led by the Defense Department but following presidential guidance, it assessed the ballistic missile threats to the US and its allies, and outlined a plan for meeting them. Its most significant aspect was therefore its first conclusion. “Following guidance from the President, this review has set the following policy priorities: 1. The United States will continue to defend the homeland against the threat of limited ballistic missile attack.”⁸

If ever President Obama had contemplated ending the newly reconstituted defense mission, the 2010 BMDR would have been his opportunity to marshal support for that decision. His administration could have argued against BMD on the grounds of cost, effectiveness, strategic stability, and US-Russia relations. Instead, President Obama chose to accept the defense mission, and with it, the Strategic Combined Arms Posture. Now that missile defenses have been continuously embraced by presidents of both parties for nearly two decades, it appears likely that the defense mission will remain a permanent component of US nuclear Posture.

3.2) The 2010 Nuclear Posture Review

The second element of the Obama administration’s winter-spring 2010 nuclear policy extravaganza was the Nuclear Posture Review. Like the BMDR, it was congressionally mandated

⁸ US Department of Defense. “Ballistic Missile Defense Review Report.” February 2010.
https://archive.defense.gov/bmdr/docs/BMDR%20as%20of%2026JAN10%200630_for%20web.pdf.

and prepared by the Defense Department according to presidential guidance. Unlike all other previous NPRs, it was unclassified and widely circulated. The 2010 NPR was a review of US nuclear posture with an added public diplomacy component.

In the military dimension, the NPR largely perpetuated the status quo. It placed “the prevention of nuclear terrorism and proliferation at the top of the US policy agenda.” However, because of the President’s belief that the solution to these problems was not principally nuclear it directed few substantial changes to US posture. Looking ahead to the arms reduction treaty then being finalized with Russia, it reassured readers that “The U.S. nuclear Triad of ICBMs, SLBMs, and nuclear-capable heavy bombers will be maintained under New START” At the same time, Obama also sought to clear a path towards further arms reductions. Thus, building on the Bush administration’s efforts to reinvigorate the US nuclear weapons complex, the NPR “asked for nearly \$5 billion to be transferred from the Department of Defense to the Department of Energy over the next several years...” Explaining that “[This] will also enable further arms reductions by allowing us to hedge against future threats without the need for a large non-deployed stockpile.” Through increased spending on the weapons complex, the Obama team hoped to facilitate a reduction in the arsenal.

It was in the NPR’s public diplomacy dimension that it was most dynamic. First, the NPR neatly outlined how the president believed his nuclear policies would cause security for the US. If there was no nuclear solution to the proliferation and terrorism problems, then it made sense to “reduce the role and numbers of nuclear weapons,” to lead by example. “By reducing the role and numbers of U.S. nuclear weapons – meeting our NPT Article VI obligation to make progress toward nuclear disarmament” the NPR explained, “we can put ourselves in a much stronger

position to persuade our NPT partners to join with us in adopting the measures needed to reinvigorate the non-proliferation regime and secure nuclear materials worldwide.” Diplomacy, institutions, and leading by example, Obama believed, were the best ways to reduce the twin risks of nuclear proliferation and terrorism.

Second, this line of logic implied a re-evaluation of US declaratory policy—what we say about when and why we might use nuclear weapons. If the US sought to deemphasize the role of nuclear weapons in its security, then surely it should stop threatening to use them first. Yet this would have meant declaring the end of the counterforce mission which, in turn, deterred aggression against US allies and obviated the need for allies to proliferate on their own. Thus there was a tension between Obama’s non-proliferation goals, and his desire for the US to lead the world away from reliance on nuclear weapons for security.

Pivotal language in the NPR tried to resolve this tension—but it was awkward. “There remains a narrow range of contingencies in which U.S. nuclear weapons may still play a role in deterring a conventional or CBW [chemical or biological weapon] attack against the United States or its allies and partners,” it explained. “The United States is therefore not prepared at the present time to adopt a universal policy that deterring nuclear attack is the sole purpose of nuclear weapons, but will work to establish conditions under which such a policy could be safely adopted.” Like so many of his predecessors, Obama was uncomfortable with the idea of threatening nuclear first use. In particular, for Obama, leveling this threat diminished his ability to use moral suasion to build international consensus around strengthening the NPT and protecting fissile materials from terrorists. Yet as a pragmatist, he also realized that departing from nearly sixty years of precedent by making a no first use pledge would come with major

costs as well. Consequently, the final language in the NPR sought to paper over an inherent tension in US foreign and nuclear policy that remains unresolved.⁹

3.3) *The New START Treaty*

As the NPR was being rolled out in April 2010, the administration was simultaneously finalizing a major new arms reduction treaty with Russia—New START. Work towards this treaty began early in the Obama presidency. As its name suggests, it was part of a wider effort to cultivate US-Russian partnership in arms control, non-proliferation, and fissile material security following the chill in relations caused by Russia's 2008 invasion of Georgia.

Soon after taking office, in February 2009, President Obama began to engage with Russian President Dmitry Medvedev. In a letter that addressed two of the thorniest issues in US-Russian relations, Obama offered a path forward. US plans to deploy ballistic missile defenses in Europe, Obama explained, were directed towards a prospective Iranian missile threat—not towards Russia. Therefore, if Russia ceased its support for Iran, including by canceling or reneging on its contract to sell Iran sophisticated S-300 air defense systems that could protect its nuclear facilities, Obama suggested that US concerns about Iranian proliferation would be mitigated. This in turn might obviate the need for the US to deploy the ballistic missile interceptors in Europe that so concerned Russia.¹⁰ Obama's letter was the start of an effort to spark US-Russian

⁹ All quotations this section from US Department of Defense. "Nuclear Posture Review Report." April 2010. https://dod.defense.gov/Portals/1/features/defenseReviews/NPR/2010_Nuclear_Posture_Review_Report.pdf. For Obama's belief in the value of nuclear policy continuity, see Roberts, Brad. "On Creating the Conditions for Nuclear Disarmament," *The Washington Quarterly*, vol. 42 no. 2, (2019) p. 10.

¹⁰ Baker, Peter. "Obama Offered Deal to Russia in Secret Letter." *The New York Times*, March 2, 2009. <https://www.nytimes.com/2009/03/03/washington/03prexy.html>.

cooperation in a variety of areas of mutual concern, ranging from Iranian proliferation, to arms reduction, to fissile material security.

The following month, the administration's opening overtures towards Russia continued. In a memorable gaffe, Secretary of State Hillary Clinton presented her Russian counterpart, Sergey Lavrov, with a red 'reset button.' The gag gift was intended to signal a reset in US-Russian relations that would permit fruitful cooperation, especially on arms control and non-proliferation. However, in an embarrassing misstep for the usually crisp Obama team, the word 'reset' was mistranslated into Russian as 'overcharged.' The joke was lost in translation, but in any case, the new administration's goals were clear. These March 2009 Clinton-Lavrov talks set the stage for the US-Russian arms control talks that would culminate in the New START treaty just over one year later.¹¹

New START was signed on April 8, 2010, and entered into force on February 5, 2011. Unlike Bush's Moscow Treaty, which it supplanted, New START contained specific, negotiated arms reduction requirements as well as strict verification provisions. It was not a loose quasi-PNI. On both sides the treaty allowed for aggregate limits of 700 deployed ICBMs, SLBMs, and nuclear capable heavy bombers, as well as sub-limits of 1550 warheads on deployed ICBMs, SLBMs and bombers (with each bomber counting, for treaty purposes, as one warhead) and 800 deployed and non-deployed ICBM launchers, SLBM launchers, and nuclear capable heavy bombers. One noteworthy aspect of the treaty was that its language was written to accommodate the United States hedging mission. The treaty's verification regime combined "appropriate elements of the 1991 START Treaty with new elements tailored to the limitations and structure of this treaty." In

¹¹ Landler, Mark. "Lost in Translation: A US Gift to Russia." *The New York Times*, March 6, 2009. <https://www.nytimes.com/2009/03/07/world/europe/07diplo.html>.

practical terms, this meant that US and Russian inspectors would be allowed to not only count missiles and bombers, but would be allowed to peer inside missiles' nosecones to verify the number of warheads were mated to deployed ICBMs and SLBMs.¹²

Signed in Prague a year after President Obama's landmark speech there, New START, like the NPR, was arguably more important to the administration for its symbolism and diplomatic effects than it was for its effects on US and Russian nuclear posture. As journalist James Mann explains, "On the surface, the New START treaty was merely another arms control agreement between Washington and Moscow; a follow-up to the ones negotiated during the Cold War. But there was a difference. [...] This time, two decades after the end of the Cold War, the New START treaty was prompted less by fear of war between the United States and Russia and much more as a part of a broader effort to stop the development of nuclear weapons in other countries." It did this by improving US-Russian relations, which Obama hoped would result in Russian support for isolating Iran; as well as by strengthening America's moral position in the upcoming NPT Review Conference and Nuclear Security Summit. Only if the US was working to reduce the size of its nuclear arsenal, the logic went, could it legitimately tell other countries to support the NPT, oppose proliferation, and secure their fissile materials.¹³

3.4) Save the Best For Last: NSS and NPT Revcon

In most administrations, initiatives like the BMDR, NPR, and New START might have been ends in themselves. Each had a potential role to play in aligning US posture with presidential goals. However, President Obama harbored a long-standing skepticism of the military utility of

¹² New START. US Department of State. <https://www.state.gov/t/avc/newstart/index.htm>.

¹³ Mann, James. *The Obamians: The Struggle Inside The White House to Redefine American Power*. Penguin Books, 2012. pp 207-208.

nuclear weapons and was focused on proliferation and nuclear terror threats that he believed could not be addressed with posture. For Obama and his team, the nuclear policy action of winter-spring 2010 was not aimed primarily at adjusting US posture. Rather, it was an extended public relations campaign aimed at causing success in two large, multilateral diplomatic endeavors that were intimately connected to the proliferation and terror threats that Obama prioritized.

The first of these major diplomatic endeavors was the 2010 Nuclear Security Summit. Held April 12-13, 2010 in Washington DC, the Summit's purpose was to enhance the security of dangerous nuclear material worldwide. Protecting or eliminating this material—for example, nuclear fuel in university research reactors—could reduce the risk that it would be stolen by terrorists.

Important though this goal was, it was also complex and often technical in nature. There was no such thing as a one size fits all solution to global nuclear material security. Rather, President Obama believed that achieving meaningful improvements in nuclear material security would require national leaders to focus their attention on granular details that they might typically overlook. This belief informed the nature and conduct of the NSS in two ways.

First, the NSS was conceived as a summit for heads of state—not their underlings. By making the NSS an exclusive, high-profile event led by President Obama, the administration secured the participation of 47 heads of state. Second, and related, the NSS was an occasion to press participating states to take specific steps to enhance their nuclear security. Among US NSS planners, these steps came to be called 'house gifts.' As Obama nuclear policy advisor Laura Holgate explains, "the leaders don't want to show up at something like that [NSS] either ignorant

or empty handed.” Therefore, “For all of the [participating] countries we did a very deep analysis within the US government and asked; ‘what would be the most impactful thing that this country could do to contribute to the nuclear security mission?’ And sometimes it was a treaty ratification. Sometimes it was resources for the IAEA. Many times it was dealing with their own materials. [...] Each country had its own characteristics.”¹⁴ Crucially, recent US progress on New START and the reduction of the role of nuclear weapons in US security via the NPR facilitated many of these asks by making the US a visible leader in nuclear risk reduction. As a result, at the 2010 NSS 32 countries made over 70 commitments to take concrete steps to enhance nuclear security.¹⁵ Subsequent Nuclear Security Summits held biannually through the rest of President Obama’s time in office aimed to build on the success of the first.

On the heels of the Nuclear Security Summit in Washington, the 2010 NPT Review Conference (RevCon) convened at the UN in New York in early May. Held every five years, RevCons give states party to the NPT the opportunity to review the status of the treaty and the strength of the non-proliferation regime. Unfortunately, the previous NPT RevCon in 2005 had been a disaster. According to Article VI of the NPT, the five treaty recognized Nuclear Weapons States (NWS) have an obligation to “pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament...”¹⁶ At the 2005 RevCon—as well as earlier—the treaty’s Non-Nuclear Weapons States (NNWS) roundly castigated the NWS for failing to meet this obligation. Whereas the 2005 conference concluded with no consensus among participants about the treaty’s status, the 2010 conference

14 Tatsujiro Suzuki. “Nuclear Security Policy of the Obama Administration –Its Achievements and Issues Left Behind: An Interview with Laura Holgate.” *Journal for Peace and Nuclear Disarmament*, Vol. 1 No. 1 pp. 490-491.

15 “Nuclear Security Summit, Washington DC, 2016.” <https://www.nss2016.org/past-summits/2010>.

16 “The Treaty on the Non-Proliferation of Nuclear Weapons.” United Nations Office for Disarmament Affairs. <https://www.un.org/disarmament/wmd/nuclear/npt/text/>.

was judged a qualified success.¹⁷ This was largely the result of the Obama administration's aggressive diplomacy, backstopped by 'house gifts' of its own, in the form of the NPR and New START Treaty. Thus, the Obama Administration's winter-spring 2010 nuclear policy cavalcade was designed to armor the US against these NNWS arguments, strengthening overall support for the non-proliferation regime.

4) ...No Plan Survives First Contact With the Enemy.

Historian Hal Brands has argued that while President Obama had a coherent grand strategy, that strategy was not fully successful. In the nuclear sphere, this was certainly not the result of flawed execution. On the contrary, it is difficult to overstate how complex the administration's winter-spring 2010 build up to the Nuclear Security Summit and NPT RevCon was, or how masterfully it was choreographed across the interagency. Even so, President Obama's plan to move away from the world of nuclear necessity through US leadership by example, multilateral diplomacy, and institution building did not progress very far. The reason? His adversaries got a vote.

4.1) Follow-Up to New START

Negotiating and signing a major new arms control treaty in just a year—and just in time for the Nuclear Security Summit and NPT RevCon—was a major coup for the Obama administration. It demonstrated that the president was taking concrete steps to follow through on

¹⁷ See e.g., Choubey, Deepti, "Restoring the NPT: Essential Steps for 2010" *Carnegie Endowment for International Peace* 2009. https://carnegieendowment.org/files/restoring_the_npt.pdf; Choubey, Deepti. "Understanding the 2010 NPT Review Conference" *Carnegie Endowment for International Peace*, June 3, 2010. <https://carnegieendowment.org/2010/06/03/understanding-2010-npt-review-conference/4rcg#2>.

his ambitious Prague agenda. However, this first, major foray into nuclear arms control was also Obama's last.

Two factors combined to hinder further progress. First were the Senate Republicans, and especially Arizona Republican Jon Kyl. For New START to go into effect, it would have to be ratified by the Senate, and on this issue, Senator Kyl was the bellwether. However he voted, Republican Senators would fall into line behind him, determining the treaty's fate.

Concerned about the size of the cuts called for by the treaty, as well as about America's aging nuclear arsenal, Kyl extracted from Obama a pledge to spend an additional \$85 billion on nuclear modernization over the next ten years. If the arsenal was going to shrink under New START, the argument went, it had to be modernized to ensure that the remaining weapons were effective and reliable. Sensible though this argument was in principle, it had the effect of tarnishing the administration's pro-disarmament credentials somewhat. Modernization was the antithesis of disarmament.

The Senate did vote to ratify New START and it entered into force on February 5, 2011. However, its ratification ordeal suggested that any follow on agreement after New START would be even tougher to ratify.¹⁸

The second impediment to further arms control progress turned out to be Russia. Following an internal review of US employment strategy and force structure in 2013, "the President has determined that we can ensure the security of the United States and our Allies and partners and

18 Baker, Peter. "Senate Support Builds for Pact on Arms Control." *The New York Times*, December 20, 2010. <https://www.nytimes.com/2010/12/21/world/europe/21start.html>. Note that Obama nuclear policy advisor Jon Wolfsthal has asserted that Kyl's demand for investment in nuclear modernization was welcome and was therefore not a loss or challenge for the Obama administration. Additional research is needed to substantiate this argument. See Kurokawa, Tomoko. "Determinants of the Nuclear Policy Options in the Obama Administration: An Interview with Jon Wolfsthal." *Journal For Peace and Nuclear Disarmament*, Vol. 1 No. 2, pp. 497-528.

maintain a strong and credible strategic deterrent while safely pursuing up to a one-third reduction in deployed nuclear weapons from the level established in the New START Treaty. The US intent is to seek negotiated cuts with Russia so that we can continue to move beyond Cold War nuclear postures.”¹⁹ Thus, as far as Obama was concerned, the door was open to another round of strategic arms reductions with Russia building on New START.

To initiate progress towards this goal, the President made a landmark speech at Berlin’s Brandenburg Gate on June 19, 2013. There he invoked his Prague Agenda, and called for talks to reduce the US and Russian deployed strategic arsenals by thirty percent. Going a step further, he also pledged to “work with our NATO allies to seek bold reductions in U.S. and Russian tactical weapons in Europe.”²⁰ With the sole exception of the INF Treaty, theater nuclear forces had never before been the subject of a US-Russian arms control deal.

Obama’s proposal was extremely ambitious—but it went nowhere. Whether because of concerns about US ballistic missile defenses, NATO expansion, the risks of making further arms cuts without involving China, or other reasons, Russia did not engage with Obama’s post-New START proposal. As a result he made no more progress on his arms reduction agenda after 2010.

4.2) Employment Policy

Nuclear war planning under Obama showed strong continuities with Bush administration policies, and was in line with the Strategic Combined Arms Posture. This is borne out by two

¹⁹ Report on Nuclear Employment Strategy of the United States Specified in Section 491 of 10 USC. June 12, 2013. <https://apps.dtic.mil/dtic/tr/fulltext/u2/a590745.pdf>. My thanks to Vince Manzo for drawing my attention to this useful document.

²⁰Remarks by President Obama at the Brandenburg Gate—Berlin, Germany. Jne 19, 2013. <https://obamawhitehouse.archives.gov/the-press-office/2013/06/19/remarks-president-obama-brandenburg-gate-berlin-germany>.

non-classified or declassified documents which together provide a good top-level view of Obama era nuclear employment policy.

First was OPLAN 8010-12. Developed by STRATCOM in response to presidential guidance, it was the successor to the Bush administration's OPLAN 8010-08. Like its predecessor, it was designed to counter both "Peer/Near Peer States" like Russia and China as well as "Regional States and Non-State Actors." And like its predecessor it was quite flexible. "USSTRATCOM" it explains, employs situation-appropriate mission area capabilities to deter adversaries from behavior that threatens our nation, its vital interests, or our allies and partners." Because OPLAN 8010-12 was not a detailed plan itself, but rather a high level 'plan to make a plan' it explained that "applicable annex content supports the full range of functionality (e.g., the means) designed to achieve desired plan objectives." Moreover it made clear US nuclear use would not necessarily look like a SIOP-type all or nothing nuclear release. Rather, "the goal of the application of force is to attack the appropriate enemy 'system' to eliminate the enemy's capability to continue to fight and influence key decision makers to cease hostilities. As a result, some adversary components may remain untouched but, because the resulting [sic] attack, cannot function as part of a cohesive whole."²¹ Implicit in this description was the fact that the US retained substantial counterforce capabilities, but that at least in theory a counterforce first strike—especially against a small regional adversary—need not necessarily be massive or indiscriminate to be effective.

²¹ United States Strategic Command. "USSTRATCOM OPLAN 8010-12 Strategic Deterrence and Force Employment." July 30, 2012. Author's personal collection. My thanks to Joseph Trevithick who received this document via a FOIA request and was generous enough to share it. For Trevithick's original article on this document and its 2008 predecessor see Trevithick, Joseph. "Here's America's Plan for Nuking Its Enemies, Including North Korea." *The War Zone*. April 7, 2017. <http://www.thedrive.com/the-war-zone/9056/heres-americas-plan-for-nuking-its-enemies-including-north-korea>.

The second salient document was the report that DOD submitted to Congress “on behalf of the President” to explain the new nuclear weapons employment guidance that he had issued, and which resulted in OPLAN 8010-12.²² According to this “Report on Nuclear Employment Strategy of the United States Specified in Section 491 of 10 USC,” in 2011 following the conclusion of the NPR, the President ordered a follow-on study to assess “what changes to nuclear employment strategy could best support” five core objectives outlined in the NPR. These included preventing proliferation and terrorism; and strengthening assurance for US allies. The post-NPR review also included a sixth objective that had been overlooked in the NPR: “achiev[ing] US and Allied objectives if deterrence fails.” To that end, the President’s new nuclear employment planning guidance required “the United States maintain significant counterforce capabilities against potential adversaries,” and stated that “the new guidance does not rely on a ‘counter-value’ or ‘minimum deterrence’ strategy.” Even so, it also directed “DoD to undertake concrete steps toward reducing the role of nuclear weapons in our national security strategy.” These steps were to include “deliberate planning for non-nuclear strike options.”²³

To a much greater extent than President Bush, President Obama was trying to reduce US reliance on nuclear weapons. In practice, however, this meant advancing the Strategic Combined Arms Posture that he inherited by integrating non-nuclear capabilities, including hit-to-kill ballistic missile defenses, and offensive conventional and cyber capabilities with existing nuclear forces and capabilities. Evolution and continuity were the orders of the day.

²² OPLAN 8010-12 is dated July 30, 2012, and the report to Congress is dated June 12, 2013, but states that it was issued before the new employment strategy went into effect. This could be the result of mistakes or typos, or divergence between drafting, dissemination and public release dates. Either way, the contents of the report to Congress describe the higher level policy process that predated the development of OPLAN 8010-12.

²³ Report on Nuclear Employment Strategy of the United States Specified in Section 491 of 10 USC. June 12, 2013. <https://apps.dtic.mil/dtic/tr/fulltext/u2/a590745.pdf>. My thanks to Vince Manzo for drawing my attention to this useful document.

4.4) *The Last Hurrah*

During his final months in office, President Obama appears to have undertaken a final deep look at several aspects of US nuclear posture, and nuclear policy more broadly. His goal was to see what, if any changes he might make before leaving office that could improve his successor's nuclear inheritance, and burnish his own legacy as champion of the Prague Agenda. Given the range of options on the table, this final look bore some resemblance to the 'bottom-up soup to nuts' 1994 NPR. At the same time, it was vastly different in two respects. First, it was being undertaken by senior officials—including 1994 NPR veteran and now Defense Secretary Ashton Carter—who were seasoned and experienced in manipulating the levers of power. Second, it commanded the attention of a president who, unlike Clinton, had a deep, long-standing interest in nuclear issues. All signs suggested that this might be a good opportunity to make significant changes to US nuclear weapons policy.

As a July 2016 *Washington Post* article reported, "In recent weeks, the national security Cabinet members known as the Principals Committee held two meetings to review options for executive actions on nuclear policy. Many of the options on the table are controversial, but by design none of them require formal congressional approval. No final decisions have been made, but Obama is expected to weigh in personally soon." Six options were up for discussion. They were 1) declaring a no first use policy; 2) seeking a UN Security Council resolution banning nuclear testing; 3) making Russia an offer to extend New START by five years; 4) eliminating or delaying the development of the new Long Range Stand Off (LRSO) nuclear capable cruise

missile; 5) de-alerting most US nuclear forces, so that they were no longer capable of prompt launch; and 6) scaling back US nuclear modernization plans.²⁴

Though the full record of what happened to all of these proposals and why is not yet available, the evidence suggests that each was considered carefully, but ultimately rejected for reasons that were sensible within the context of overall US foreign policy. For instance, the no-first-use proposal was judged unworkable due to a combination of alliance proliferation concerns, as well as growing Russian and Chinese assertiveness.

According to Obama nuclear policy advisor and NSC staffer Jon Wolfsthal, “When we, the National Security Council, wrote the paper for no-first-use and other changes in declaratory policy and we circulated it for comment to the agency. It leaked. This was the article that came out in *The Washington Post*: “The president is considering adopting no first use.” And we got a call from [Japanese] Prime Minister Abe’s office objecting to no-first use adoption.” And we said ‘we’re not adopting no first use. We’re looking at what our options are.’” Thus, the Obama team immediately received pushback from a key US ally whose non-nuclear status was only guaranteed by the United States’ apparent willingness to use nuclear weapons first on its behalf.²⁵ The challenge of keeping US allies non-nuclear in the context of a no-first-use commitment helped scuttle this proposal.

Likewise, alluding to the looming return of great power competition, “Defense Secretary Ashton B. Carter and Secretary of State John Kerry also expressed concern that new moves by Russia and China, from the Baltic to the South China Sea, made it the wrong time to issue the

24 Rogin, Josh. “Obama Plans Major Nuclear Policy Changes in His Final Months.” *The Washington Post*, July 10, 2016. <https://www.washingtonpost.com/opinions/global-opinions/obama-plans-major-nuclear-policy-changes-in-his-final-months/2016/07/10/>.

25 Kurokawa, Tomoko. “Determinants of the Nuclear Policy Options in the Obama Administration: An Interview with Jon Wolfsthal.” *Journal For Peace and Nuclear Disarmament*, Vol. 1 No. 2, p. 503.

declaration, according to senior aides in the Defense and State Departments.”²⁶ Again according to Wolfsthal, “by the end of summer of 2016, it was clear that we weren’t going to adopt a no-first-use policy.”

As for the other five proposals, they were rejected also. De-alerting US nuclear forces created the danger that “in a crisis, “re-alerting” the weapons could escalate a conflict.” Similarly—and ironically, given that reformed ICBM abolitionist Ashton Carter now led the Defense Department—the idea of eliminating a leg of the US nuclear triad was rejected because “the Pentagon argued strongly that the ground-based missiles were the part of the system with which they had the most assured communications, and that it was too risky to get rid of them.”²⁷ Thus, emerging great power competition, alliance concerns, and perhaps some bureaucratic intransigence convinced President Obama not to make any last-minuted changes. Summing up the administration’s nuclear policy progress in one of his last speeches as Vice President, Joe Biden observed understatedly that “we did not accomplish all that we hoped.”²⁸

Like so many of his predecessors dating back to Eisenhower, Obama was uncomfortable with relying on aggressive counterforce to advance US foreign and security policy goals. And like these same predecessors he was even more uncomfortable with the idea of giving it up. While presidents clearly have enormous discretion over US nuclear posture, the scope of US foreign policy ambitions makes aggressive posture practically overdetermined.

26 Sanger, David E., and William J. Broad. “Obama Unlikely to Vow No First Use of Nuclear Weapons.” *The New York Times*. September 5, 2016. <https://www.nytimes.com/2016/09/06/science/obama-unlikely-to-vow-no-first-use-of-nuclear-weapons.html>.

27 Sanger, David E., and William J. Broad. “Obama Unlikely to Vow No First Use of Nuclear Weapons.” *The New York Times*. September 5, 2016. <https://www.nytimes.com/2016/09/06/science/obama-unlikely-to-vow-no-first-use-of-nuclear-weapons.html>.

28 Biden, Joseph. “Remarks by the Vice President on Nuclear Security.” January 11, 2017.

<https://obamawhitehouse.archives.gov/the-press-office/2017/01/12/remarks-vice-president-nuclear-security>.

Chapter 14) Afterword

History does not repeat itself, but frequently it rhymes.

By the time Donald Trump entered the White House, US relations with Russia and China had deteriorated significantly. After a generation of respite, the United States faces great power competition once again. Tragically, President Obama's attempt to work towards reduced international tensions, nuclear disarmament, and a stronger non-proliferation regime through diplomacy and leadership by example had failed. The future he sought was a good one. But achieving it required a level of cooperation from our adversaries that was not forthcoming.

Though we lack the benefits of hindsight, the story of Trump's nuclear policy to-date appears to align with the basic argument of this dissertation: Presidents choose aggressive nuclear postures to advance their ambitious foreign and security policy goals. President Trump has at various times professed that countries like Iran, North Korea and China (but not Russia) pose a potential nuclear threat to the US. Moreover, like Nixon before him, he came to office with the simplistic belief that his predecessors had allowed America to become weak. Nixon's view was that nuclear strength gave the United States 'diplomatic wallop.' Referring to US military capabilities overall, the Trump Administration's National Security Strategy declares that "The United States must retain overmatch [...] Overmatch strengthens out diplomacy and permits us to shape the international environment to protect our interests."¹ 'Overmatch' is the new diplomatic wallop.

In the pursuit of nuclear overmatch, the Trump Administration's Nuclear Posture Review supports a series of steps to sustain and improve US nuclear capabilities. Many are simply

¹ The National Security Strategy of the United States of America. December 2017. <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>.

continuations of initiatives that the Obama Administration wrestled with, but ultimately chose to support. These include life extension and accuracy improvement programs for the B61 gravity bomb and W76 SLBM warhead, the B-21 bomber program, the Long-Range Standoff (LRSO) cruise missile program, the Columbia Class ballistic missile submarine, and the Ground-Based Strategic Deterrent (GBSD) program to replace the Minuteman III ICBM. Others truly are new, and will result in new US nuclear capabilities. These include scrapping earlier plans to retire the high yield B83 gravity bomb, and the decision to produce a the low-yield or tactical W76-2 SLBM warhead as well as a new conventionally-armed sea-launched cruise missile.² While these are non-trivial changes that warrant careful scrutiny and debate, it would be a mistake to claim that the Trump Administration's nuclear posture decisions are wildly divergent from President Obama's—even if the two men differ radically in their long-term nuclear policy goals, basic causal beliefs about nuclear weapons and foreign policy, and capacity for coherence.

What remains murky, however, is how US nuclear posture decisions are handled inside the Trump Administration. Is his engagement with these issues haphazard and unguided—like Carter's was? Or alternatively is it practically non-existent—like Clinton's? Does he have anyone in his orbit analogous to Henry Kissinger who is capable of transforming inchoate presidential desires into action items? Either way, history does not repeat itself, but frequently—sometimes lamentably—it rhymes.

² Department of Defense. "Nuclear Posture Review 2018." <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>.

Chapter 15) Conclusion

This dissertation has made a simple argument. US Presidents choose to pursue aggressive nuclear postures to advance their ambitious foreign and security policy goals. In advancing this argument it has done a few other things as well.

It disproves what I call Bureaucratic Pathology Theory—the notion that Pentagon bureaucrats and military services are the main drivers of US nuclear posture. These actors play some role in US posture, but as I have shown, presidents are far and away the most powerful players in the nuclear policy game.

It has also upended what I call MAD Pursuit Theory. MAD avoidance or escape—not the pursuit of MAD—has been the dominant theme in the nuclear posture history that I have covered. Finally, it has given readers what I hope is a good overview of how and why US nuclear posture has changed over time. I believe that these are all valuable contributions.

But what about the future? Does this dissertation have anything to say about that important topic? At least six insights stand out. These are not neatly packaged ‘lessons from history.’ The preceding chapters should have convinced readers that US nuclear posture is complex enough to resist such simplistic treatment. Rather, these are all ideas that readers who have made it this far may want to keep in mind as they watch—or perhaps help—presidents pursue political ends with nuclear means.

1) It matters who the president is. On those rare occasions when American enter the voting booth with nuclear weapons on their minds, they typically wonder which candidate, if any, they can trust with the proverbial red button. This is an important concern. But while few presidents have faced real nuclear crises, every nuclear age president to date has faced important decisions

about posture. What programs to initiate, continue or cancel? What arms control efforts to advance or scuttle? What employment options to demand? All of these decisions matter. They shape their successors' nuclear inheritance, alter the strategic balance, and inform what might happen in a future war. Therefore, when choosing our leaders it is wise to consider the full range of candidates' causal beliefs about nuclear weapons. What, if anything, have they said or written on this subject. It is not enough to worry only about what presidents might do in extreme unction. It also matters how they will steward the nuclear forces under their command.

2) Nuclear inheritance is important, but it is not destiny. Over the decades, the inertia of presidential nuclear inheritance has steadily increased. Costly, sophisticated delivery systems take longer and longer to develop and produce. The design and production of completely new nuclear weapons paused with the end of the Cold War. Opportunities for presidents to effect significant, rapid change in US nuclear posture have shrunk.

Yet this may not remain true forever. Recognizing these challenges—which are not unique to the nuclear enterprise—has triggered demand in the Department of Defense and the Department of Energy for change. In a world of dynamic great power competition, the ability to rapidly develop, field and continuously upgrade various weapons is increasingly desirable. If efforts to de-ossify the nuclear weapons acquisition process succeed, one might imagine—at the extreme—a return to something approaching the Eisenhower administration's frenetic pace of innovation and posture change. Under these circumstances, it will *really* matter who the president is.

3) Non-nuclear technology can have surprising effects on posture. During the Cold War, advances in ballistic missile technology and thermonuclear weapons had visible and obvious effects on US posture. In contrast, the effect of improvements in ballistic missile accuracy and

computer technologies were more subtle, but equally profound. Who would imagine that something as innocuous sounding as stellar inertial navigation could so massively improve the lethality of US nuclear forces? Similarly, who would guess that two computer systems called DIRECT and REACT would cause such a significant increase in the flexibility of the ICBMs?

Looking ahead, technologies like additive manufacturing or 3D printing, artificial intelligence, quantum computing, and others will not announce ‘this may impact US nuclear posture as follows...’ in flashing neon. Therefore, observers of US posture will need to keep their antennae up and their imaginations supple.

4) Technological dead ends can be as significant as successes. Operationally, the Sentinel, Safeguard and Strategic Defense Initiative were all dead ends. Because they were the products of presidential feints or surpassing presidential ambitions, none actually produced real ballistic missile defenses. Yet they took on a significance in international politics that belied their operational shortcomings. The faster US (and adversary) nuclear forces develop and change, the more common this phenomenon is likely to be. In the shadowy and convoluted world of nuclear strategy, where everything is filtered through the lenses of perception and misperception, sometimes weapons that are militarily useless can have powerful political effects.

5) Deterrence theory is (relatively) simple. Deterrence practice is not. There are at least two challenging aspects to deterrence practice. One is the narrow, but vitally important work of acquiring, operating and maintaining a credible nuclear deterrent force day in and day out, for decades. This is enormously complex and challenging, even for a rich powerful state like the US. The other is the much broader, trickier, more subjective policy work of goal setting, bargaining and threat making. The simple maxims of deterrence theory tell leaders to ensure that the costs of

aggression outweigh any benefits an aggressor might gain; that deterrent threats must be credible to work; and that deterrence succeeds or fails within the mind of the adversary. This is all true. At the same time, the breadth of American interests and the vagaries of presidential priorities, causal beliefs about nuclear weapons, and Nuclear Security Theories all conspire to muddy the linkage between these logical maxims and the observed pattern of continuity and change in US nuclear posture. There is no simple cookbook for American nuclear deterrent practice.

6) There are no easy posture-foreign policy tradeoffs. The absence of a simple cookbook for American deterrent practice, or nuclear posture implies a wide range of choices. Many Americans recoil from the choices that US presidents have so consistently made. Their concerns are sensible and humane. And in principle, they could be easily assuaged. Without invoking the straw man of a minimum deterrence posture, the US could easily adopt a less aggressive nuclear posture than it has, if it chose to. The benefits could be substantial. US non-proliferation credentials would be burnished, our nuclear posture would reflect our benevolent and peace-loving national self-image, and the risk of accidental nuclear use and nuclear war would arguably be reduced.

But the costs of such a radical posture shift would be great also. Uncertain of the credibility of US nuclear commitments, US allies might pursue their own nuclear forces. This could touch off regional proliferation cascades in Europe and Asia. Revisionist authoritarian foes like China and Russia could see the change in nuclear posture as an opportunity to press for advantage. At the extreme, the US might even find itself economically and politically isolated in the Western Hemisphere—just as President Truman feared at the dawn of the Cold War.

The goal here is not to argue for or against the status quo. Rather, it is to illustrate the tradeoffs that come with competing alternatives. Ask yourself which you prefer: an aggressive nuclear posture, or the possibility of proliferation cascades and nuclear blackmail? Which alternative is best? Least bad?

While this may be painting with a broad brush, these are the fundamental questions involved. With the return of great power competition, the stakes could hardly be any higher. Alongside global warming, over the next several decades nuclear weapons wielded by great powers, rogue states and possibly terrorists pose the single greatest potential threat to our American way of life. This fact is not reflected in contemporary political discourse—but it should be. Because even if you are not interested in nuclear weapons, nuclear weapons are interested in you.