Building and Communicating a Compelling Rationale for U.S. Nuclear Weapons

This study tracks the changing rationale for U.S. nuclear weapons as it has evolved since the end of the Cold War and evaluates its effectiveness, particularly in terms of meeting the needs of the forces responsible for supporting and executing the U.S. nuclear mission. Over the course of the research effort, it became clear that the effectiveness of the rationale for U.S. nuclear weapons has only partially to do with the words used to articulate it. Feedback from the operational personnel themselves overwhelmingly points to the significant influence of other factors in determining whether the rationale reaches the forces clearly and precisely, with a real impact. The message matters, but the individuals who deliver the rationale, the means by which it is communicated, and the context in which it is received are also important. As such, this study came to ask four questions:

- 1. Is this the right rationale?
- 2. Is the rationale tailored to specific audiences with appropriate detail and specificity?
- 3. Is the rationale suitable but being improperly communicated?
- 4. Is the rationale communicated effectively within the mission but undermined outside of the mission?

In answering these questions, the study team identified a number of disconnects and challenges not only in the rationale for nuclear weapons over time, but in the way that narrative is perceived, internalized, and remembered over time in various audiences. These challenges naturally fall into six basic categories:

- 1. Message—Is the message clear, persuasive, and consistent?
- 2. Audience—Who comprises the audience for the rationale? Is the message tailored to them?
- 3. Messenger—Who is speaking this narrative and, just as important, who is not? Is the communicator clear, persuasive, and disciplined?
- 4. **Mechanism**—Is the message communicated effectively and appropriately through appropriate tools and forums that ensure that the message reaches its intended audience intact?

- 5. **Volume and Dissonance**—What is the volume of the message and how much noise must it overcome to be heard? Are competing voices and narratives crowding out the narrative?
- 6. **Context**—What is the context or environment in which the message is communicated? Does it reinforce or undermine the message?

MESSAGE

Is the message clear, persuasive, and consistent?

The existing U.S. nuclear narrative is complex, multilayered, and multifaceted

In trying to appeal to a large and highly distributed audience, reconcile competing viewpoints, distill highly technical information, and capture a wide variety of topics and issues, the rationale has understandably grown to be quite complicated. Referring to the 1994 Nuclear Posture Review, one senior official said:

We considered nonproliferation. We considered threat reduction with respect to reducing the number of nuclear weapons in nations of the former Soviet Union. We considered stockpile stewardship, how to maintain our nuclear weapons without nuclear testing. We considered declaratory policy associated with our nuclear posture. Of course, we considered important deterrence, commitments to allies, including the NATO alliance. And, very importantly, we considered the stability of the nuclear force structure we were proposing. . . . Those are the elements, the policy elements, that led us to the results of the Nuclear Posture Review [and] toward a smaller and safer force structure.¹

In many cases, U.S. nuclear weapons policy is described in highly sophisticated strategic logic that is not very accessible to the public or junior operators. It is rife with concepts and jargon that are not routinely defined and explained—"deterrence," "hedge," "strategic stability," "escalation," and so on. In speaking to officers during roundtables, it becomes evident that the tendency to mystify, overuse, or misuse "deterrence," a foundational concept, has taken its toll: one mid-grade nuclear command-and-control officer observed, "Talking about deterrence still works, but less than it used to."

That is in part because the nuclear cognoscenti have grown accustomed to talking to themselves and speaking their own language. In some cases, this has gone so far as to suggest a degree of intellectual elitism and exclusivity, perhaps best exemplified by the label "nuclear priesthood" to refer to those whose thoughts and writings dominate the American nuclear landscape. Invariably, however, this type of exclusivity prevents the development of a rationale that is persuasive and transmissible outside of nuclear policy circles. This challenge is amplified by divergent views held across the current nuclear policy community that often divides into competitive and contentious camps—U.S. nuclear policy and deterrence proponents, on the one hand, and nonproliferation

^{1.} *U.S. Nuclear Policy, Hearing before the House Committee on Foreign Affairs*, 103rd Cong. 2 (1994) (statement of John M. Deutch, deputy secretary of defense, U.S. Department of State).

and disarmament practitioners, on the other. Each camp co-opts and redefines the nuclear policy vocabulary in ways that support its arguments and distort its opponents'. In this environment, it is hardly surprising that other vitally important audiences—the operational military, the public, and even most of the Congress—tune out the discourse.

Not only is the message complex and highly nuanced, it is also heavily caveated

The narrative is sprinkled with words like "but," "except," and "in some cases." Consider some of these examples from the historical record:

- "Deterrence continues to be a relevant consideration for many states with regard to threats from other states, but reliance on nuclear weapons for this purpose is becoming increasingly hazardous and decreasingly effective as the prospect of nuclear proliferation grows increasingly ominous."²
- "Conventional forces, therefore, could and should and would assume a far larger share of the deterrent role. The administration concluded **nonetheless** that nuclear weapons continue to play a critical role in deterring aggression against the United States, its overseas forces, its allies and friends."³
- "Our primary reliance there should be on our conventional capability, **but** we will, in fact, have nuclear weapons for many, many years, and there will be what some have called an existential deterrent that they provide against people using or threatening chemical and biological attack against us if indeed we ever had to make use of those nuclear weapons. More important in my mind is that we should not through reliance on nuclear weapons use that as an excuse for failing to provide the kind of conventional capability that we ought to have to respond to chemical or biological threat."
- "While nuclear weapons will continue to play a role in United States defense policies, they will not be our primary form of deterrence." 5
- "So we are going to maintain an assured destruction capability as a hedge, as Bill might say, against the possibility—however remote it may be—that the Russians would engage in a strike against the United States, so as to deter them. **But** I think that that possibility is vastly remote."

^{2.} U.S. Nuclear Weapons Policy, Hearing before the House Subcommittee on Strategic Forces, 110th Cong. 8 (2007) (statement of Sidney Drell, professor emeritus, Stanford Linear Accelerator Center, Stanford University). Emphasis added.

^{3.} The Future of Nuclear Deterrence, Hearing before the Senate Subcommittee on International Security, Proliferation, and Federal Services, 105th Cong. 6 (1997) (statement of Walter B. Slocombe). Emphasis added.

^{4.} Ibid., 28 (statement of Gen. Andrew J. Goodpaster, U.S. Army [Ret.], cochair, Atlantic Council of the United States). Emphasis added.

^{5.} Examining the Nuclear Posture Review, Hearing before the Senate Committee on Foreign Relations, 107th Cong. 4 (2002) (statement of Senator Richard Lugar). Emphasis added.

^{6.} Report of the Congressional Commission on the Strategic Posture of the United States, Hearing before the House Committee on Armed Services, 111th Cong. 25–26 (2009) (statement of James R. Schlesinger, vice chairman, the Congressional Commission on the Strategic Posture of the United States). Emphasis added.

Nuance, clarity, and specificity are important aspects of a rationale for nuclear weapons. But overreliance on caveats can lead to a highly defensive narrative designed to counter critics rather than build support for and encourage the operational force.

Throughout the three eras, the U.S. rationale and narrative for nuclear weapons suffer from another challenge—negative framing

In other words, the rationale has tended to focus on what nuclear weapons will not do and is dominated by descriptions of decline, reduction, and diminishment. When reflecting positive results—saving money, reducing costs, eliminating threats—this approach has been a positive for the public and the policy community. For the communities responsible for managing and operating the U.S. nuclear deterrent, however, such negative framing fails to provide the affirmative case for the nuclear arsenal that remains, and it sparks anxiety about their mission and their future. Consider these examples from the historical record:

- "The role of nuclear weapons in our defense posture has diminished dramatically. We in the Department of Defense welcome this trend and expect it will continue in the future." 7
- "The addition of nonnuclear strike forces—including conventional strike and information operations—means that the U.S. will be **less** dependent than it has been in the past on nuclear forces to provide its offensive deterrent capability."8
- "Our policy is to **reduce** the role of nuclear weapons in our nation's security strategy and to seek the peace and security of a world without nuclear weapons. We'll continue to do both, but that doesn't diminish our responsibilities."9

In fact, this review found few examples of an affirmative case for the role of U.S. nuclear weapons in U.S. national security across the time period from 1989 to the present. The only positive rationale that emerged during this time frame was the important role the U.S. arsenal plays in assuring partners and allies. The emphasis, which is reinforced by the dramatic drop in the size of the U.S. nuclear arsenal, has been and continues to be on reducing the role of U.S. nuclear weapons in U.S. nuclear security.

This is not to say that there should never be any talk of reduction or decline. But too little effort has been made to state positively the critical, albeit more limited, role of nuclear deterrence, and the personnel responsible for supporting and executing the mission have taken note of this absence. During a roundtable interview, a mid-grade missileer attributed the nuclear forces' "identity crisis" to the poor messaging: "There's a divide between why and how. The Air Force is good at teaching how. We make proficient missile officers. But the why provides meaning and context, and we are completely lacking that."

^{7.} The Future of Nuclear Deterrence, Hearing before the Senate Subcommittee on International Security, Proliferation, and Federal Services, 4 (statement of Walter B. Slocombe). Emphasis added.

^{8.} U.S. Department of Defense, "2002 Nuclear Posture Review [Excerpts]," January 8, 2002, available at http://web.stanford.edu/class/polisci211z/2.6/NPR2001leaked.pdf. Emphasis added.

^{9.} Chuck Hagel, "Statement on the Nuclear Enterprise Review and Reforms" (speech, Pentagon Press Briefing Room, Arlington, VA, November 14, 2014), http://www.defense.gov/News/Speeches/Speech-View/Article/606634. Emphasis added.

Negative framing reflects policy, not politics

Complex, caveated, and negatively framed rationales are remarkably consistent across all three eras: the role of nuclear weapons is declining; such decline should be encouraged; a world without nuclear weapons is preferable, but as long as any other state possesses them, so will the United States. While some interviewees hold strongly to the notion that such narratives can be attributed to certain leaders, administrations, or time frames, the review of the historical record found no such correlation. These narrative challenges are bipartisan. Examples from across the political spectrum in this time frame are as follows:

- "Nuclear weapons are playing a smaller role in U.S. security than at any other time in the nuclear age. Nevertheless, the United States must maintain a nuclear force of sufficient size and capability to hold at risk a broad range of assets valued by potentially hostile political and military leaders."¹⁰
- "The United States will continue to reduce the role of nuclear weapons in deterring non-nuclear attack. However, nuclear forces continue to play a limited but critical role in the nation's strategy to address threats posed by states that possess nuclear weapons and states that are not in compliance with their nuclear nonproliferation obligations."¹¹
- "While nuclear weapons will continue to play a role in United States defense policies, they will not be our primary form of deterrence. We must continue to move the world, while we exercise necessary care and prudence, away from nuclear-dependent deterrence." 12
- "I don't believe there is an urgent problem, and it certainly is much reduced from what it was five years ago. Our policy is to have a deterrent posture to ensure that that is the case in the future. I am not saying we have an eminent nuclear threat today. It is significantly reduced from what it was five years ago. I would like to ensure we have a posture that maintains that reduced threat in the future."¹³
- "The end of the Cold War and, particularly, the collapse of the Soviet Union/Warsaw Pact, along with the substantial edge that the United States has now developed in conventional military capabilities have permitted this country sharply to reduce our reliance on nuclear weapons, radically to reduce our nuclear forces, and to move away from a doctrine of nuclear initiation to a new stance of nuclear response only under extreme circumstances of major attack on the United States or its allies." 14

^{10.} National Security Implications of U.S. Ratification of the Strategic Arms Reduction Treaty—START II, Hearing before the Senate Committee on Armed Services, 104th Cong. 16 (1995) (statement of Walter B. Slocombe, Under Secretary of Defense for Policy), 16.

^{11.} U.S. Department of Defense, 2014 Quadrennial Defense Review, 14, http://archive.defense.gov/pubs/2014 _Quadrennial_Defense_Review.pdf.

^{12.} Examining the Nuclear Posture Review, before the Senate Committee on Foreign Relations, 4 (statement of Senator Richard Lugar).

^{13.} U.S. Nuclear Policy, Hearing before the House Committee on Foreign Affairs, 7 (statement of John M. Deutch).

^{14.} Report of the Congressional Commission on the Strategic Posture of the United States, Hearing before the House Committee on Armed Services, 9 (statement of James R. Schlesinger).

It is easy to look back now with the gift of hindsight and reexamine words written 20 years ago, as though to imply that they were somehow inadequate or incommensurate with the time in which they were said. But it is in reflecting on the narrative that it becomes clear that reduction, complexity, and caveating in the narrative have largely been a result of their historical context. The words have in fact generally been appropriate, and perhaps unsurprising, for their contemporary circumstances, which have allowed for a topline message that has remained much the same. Nonetheless, it is also clear that this rationale, while truthful to a security environment that has curtailed the role of U.S. nuclear weapons, now lags behind in reacting to a rise in nation-state competition that has the role of nuclear capabilities trending upward. The nuclear narrative must evolve—and it must be not only appropriate for the present, but also clear, positive, and accessible.

It becomes important, then, that the articulation of the rationale not be improved to only then be undermined or distorted by the means through which it is communicated. The message must reach all of the necessary audiences, through the best communicators and mediums, and in the ideal contexts. There is more to do than just finding the "right" words: building a compelling rationale for U.S. nuclear weapons in the twenty-first century also means building an overall messaging strategy.

AUDIENCE

Who comprises the audience for the rationale? Is the message tailored to them?

Successfully communicating a compelling rationale depends first and foremost on an understanding of the intended audience, as well as an ability to reach that group with a message that suits its specific requirements. The audience for the rationale, however, is both vast and comprised of numerous communities with varying levels of interest in and familiarity with nuclear weapons. It includes those in the services who execute the nuclear mission, inclusive of the mid-level commanders, the junior officers, and the enlisted. It also encompasses their conventional counterparts, their families and friends, other members of the general public, the scientific community and broader nuclear enterprise, and Congress.

The narrative in years past has not been adapted to speak to such distinct groups. Instead, it exists in two extremes and seeks either to be everything to everyone all at once or to capture only a small subset of the population that is actively engaged, day in and day out, in nuclear weapons policy. The existing narrative has been developed by and for the members of this latter group, without enough inclination to translate its concepts for others somewhere in the middle who must also be engaged in policy development but who do not share the same degree of expertise. Roundtable interviews at the junior personnel level indicate that some communities within the nuclear forces want access to such concepts and strategic thinking at an early stage of human capital development; other communities do not. But across the board, they want appeals that dig deeper than cookie-cutter language and that speak to their specific roles and why they are important, without being so mired in the weeds that they become unapproachable. The narrative has yet to meet these sometimes-contradictory needs.

These differences create an imperative for a rationale that is self-sufficient and persuasive in itself and yet also flexible enough to be tailored specifically to the needs and capabilities of each of these audiences. While the words may therefore vary, the essential underlying narrative must be consistent across the forms that it may take. There cannot be any substantive discrepancies or contradictory messaging.

The rationale must reach diverse communities throughout and beyond the operational forces

In each roundtable with junior and mid-grade officers, participants emphasized the need to explain the role and value of U.S. nuclear weapons not just to the operational forces. The junior and mid-grade officers stressed the importance of also reaching the people in their lives who have a direct influence on how they understand and feel about their jobs on a day-to-day basis. That first includes their families—their parents, spouses, and children—because, as one mid-grade officer commented, "It hurts us a lot that they can't see what we do." But that also includes their neighbors and their surrounding communities and those who might not have exposure at all to the nuclear field but who read the news and use social media and see the occasional headline about the nuclear forces. Nuclear personnel perceive those headlines as usually negative and critical, rather than reflective of the positive changes that have been made in the last few years. Several roundtable participants independently commented on the image of the nuclear community in the media. One mid-grade officer, during a roundtable, asked, "When's the last time you read a positive story [about the nuclear forces]?"

It is not enough to direct the message at the nuclear workforce alone. At times, the most important messages with the most lasting impressions are those that reach these personnel indirectly and that reflect positive standing and appreciation in their families and communities.

A compelling rationale must reach and resonate across the total force, not just the nuclear operational community

Among those whose opinions hold outsize influence on the nuclear personnel's perception of their role are the conventional forces. Despite their impact, however, as a senior civilian official said during his interview: "Officers that are not in the nuclear business aren't being told anything about nuclear weapons and their role in national security. We need to look at what is being said and is not being said." This sentiment is shared widely by the junior officers who, in several separate instances, wondered whether enough was being done to—in one such officer's words—"teach nukes to nonnuke people," such as the pilot who "didn't understand how I played into his life."

The nuclear forces do not exist as a self-contained community within the services. They are in constant contact with their conventional counterparts. They want to know not only that they are contributing something of value to the broader strategic mission as the conventional forces are, but also that their brethren know as well and have at least some awareness of what the nuclear forces do to support them in protecting and defending the United States. As a former senior civilian said, "I think a lot of the problem [that is, loss of morale in the nuclear force] comes from what is being said to the rest of the force about the nuclear mission." This concern speaks to a cultural need within the nuclear forces to believe that their mission is important and respected across the military. That is, if the nuclear mission is truly important, the conventional forces should

have at least a minimal level of conversancy or literacy in the concept of nuclear deterrence and the role of the U.S. nuclear arsenal.

Junior and mid-grade officers are linchpin communicators, required to understand and recommunicate a compelling rationale, in speaking to these various audiences

Senior leadership cannot totally shoulder the onus of reaching these disparate audiences—and, in fact, they should not, given that junior and mid-grade officers are even more ideally suited to delivering a resonant, personal message to their families, communities, and colleagues about why they do what they do. When the audience is so diverse, the rationale must also come from the nuclear personnel themselves, whose views sometimes hold more weight than messages delivered from on high. The role of senior leaders, then, is to make that possible so that junior and mid-grade officers feel supported, prepared, and eager to tell the people in their lives what it means to them to be a part of the nation's nuclear forces.

MESSENGER

Who is speaking this narrative and, just as important, who is not? Is the communicator clear, persuasive, and disciplined?

Who talks matters

Clear statements from the highest possible echelons of policymaking—the president, the secretary of defense, the secretaries of state and energy—carry a weight all their own, especially in terms of priority and strategic vision. What senior leadership says matters, of course, because they set the tone for the conversation. But what they do not say also matters. Silence can be deafening.

Multiple junior officers from both the Air Force and the Navy noted in their roundtable interviews that even presidential-level messages can be undercut if other key communicators in the chain of command undermine, dismiss, disregard, or censor them—if, that is, the message "gets distorted as it goes down the hierarchy," as a former senior civilian official observed during his interview. The roundtable interviews make clear that it is those closest to the nuclear personnel who are most responsible and thus accountable for communicating the rationale for U.S. nuclear weapons. The message will not get through to them if someone in the chain of command just one or two levels above in seniority decides the personnel do not need to hear it. They are the ones who must "make good" on the words from senior leadership. As another former senior civilian and military official remarked, "The head of an organization can do a lot, but the lower-level managers can quickly undo that."

Junior officers are not just an audience—they are essential communicators

Junior officers, who begin as message receivers, quickly become messengers themselves in training the next generation of nuclear personnel. Distorted messages and misperceptions thus unfortunately live on, past the influence of any single individual, as they are passed down through the ranks.

In some instances in which junior officers lacked sufficient guidance from their immediate supervisors, they found themselves left to their own devices in coming to an understanding of the

nuclear mission so that they would be able to convey this sense of purpose to their subordinates. Absent clear direction from his leadership, a junior officer thought through the mission himself: "I had to redefine my mission. My purpose was to make sure that there was a safe, secure, and effective warhead on alert. I had to redefine my scope and scope the deterrence mission." It was not uncommon, in speaking to junior and mid-grade officers, to find that they had devised their own explanations for the role of nuclear weapons in U.S. national security strategy. During a roundtable, for example, a mid-grade officer stated, "You couldn't fly an F-15 in another country without extended deterrence." Another in a separate discussion said, "An F-15 pilot can fly over to Syria because of us." Some of the reasonings were more valid, and some more overstated, than others. But the fact that junior personnel feel the need to create their own such rationalizations points to an underlying desire to know where the nuclear forces fit in the bigger picture of U.S. national security strategy.

In addition, concerns about classification surfaced in every roundtable discussion. Junior officers and the enlisted personnel with whom they serve are acutely aware of the sensitivity and importance of their mission, many aspects of which are highly classified. Many parts of the community are extremely cautious (sometimes even overly cautious) about discussing their mission and the role of the U.S. nuclear arsenal in U.S. national security. For this audience, a compelling (and usable) rationale must not only be unclassified, it should be clearly designated and reiterated as such so that the nuclear workforce can use and draw from it without concern that they could release sensitive information accidentally.

It should not be so difficult for the nuclear personnel to find guidance in understanding their roles and conveying that understanding to the officers below them. Of course, senior leaders must make every effort to encourage and facilitate consistent and compatible messages at all levels. But when that is impossible, they must at the very least foster those officers who take the initiative to self-educate and self-motivate, especially those in that critical level of seniority who are now transitioning into leadership positions themselves, and provide them with the right tools and resources to help instill that initiative in others. Junior and mid-grade officers, who are charged with distilling complex policy statements and translating them into a sense of purpose and mission for individual operators, need targeted and refined messages coupled with resources, materials, training, and support. The success of current efforts will depend on whether they are properly equipped to execute their role as re-messengers. They will be the heart and soul of either the problem or the solution.

MECHANISM

Is the message communicated effectively through appropriate tools and forums that ensure that the message reaches its intended audience intact?

Relying on traditional "trickle-down" approaches often results in message distortion—or the telephone effect

Speeches, congressional testimony, media statements, and official documents, strategies, and reviews are the traditional mechanisms for establishing and communicating the nuclear narrative

and for helping the "inside the beltway" policy elites, congressional members and staff, and highlevel media and international audiences communicate with each other. Policymakers generally assume that messages disseminated through these means will slowly make their way down to the personnel in the field.

But nuclear messaging suffers the same distortions experienced in the childhood game of telephone, in which a group of people sit in a circle and the first person whispers a sentence to the individual to his or her left and everyone laughs when an entirely different sentence comes back on the right. Trickle-down approaches are most effective when the narrative is short and simple, based on clear, declarative statements. If the secretary of defense says that the nuclear deterrent is "the DoD's number-one, highest priority mission" and that "no other capability we have is more important,"15 then chances are that the message will get through intact. But the detailed and caveated rationales to explain the role of nuclear weapons, the trade-offs between competing priorities, the complexities of deterrence in the post-Cold War era, or even the priority military services put on the nuclear mission are a high-risk gamble to translate through trickle-down methods.

Interviewees pointed to one such case of distorted messaging that is now nearly infamous in nuclear circles. General Lance Lord (Air Force Space commander from April 2002 to April 2006 and the top-ranked officer for 13S career field of space and missile officers) once said, "If you are not in space, you are not in the race." When told by a member of the CSIS study team that Lord had actually not been talking about promotion rates when he made his infamous statement, a senior military interviewee said, "That doesn't matter. Everybody believes he was talking about promotional opportunities in the Air Force, and it's the perception that matters."

Couple this perspective with the fact that most of the personnel that comprise the operational nuclear force are between the ages of 25 to 34^{16} —and it becomes easy to understand how messages are lost to time, distance, and countless layers in the chain of command. The young airmen and sailors, much like their peers, are not watching C-SPAN or searching for hearing transcripts. They are instead accustomed to receiving news and information in highly personalized ways, such as blogs, personalized news alerts or feeds, and social media. But the initial messengers at the beginning of the chain have yet to adapt their methods of communication to such formats. As a mid-grade officer said: "With social media, we're losing the battle." Key messages are reaching the operational forces third- or fourth-hand at best, via communicators who may not be highly knowledgeable on the issues.

^{15.} Hagel, "Statement on the Nuclear Enterprise Review and Reforms."

^{16.} As of February 2016, 10.2 percent of officers in Air Force Global Strike Command are between the ages of 17 and 24, and 58.7 percent are between the ages of 25 and 34. See U.S. Air Force, "Air Force Personnel Center: IDEAS Report," accessed February 11, 2016, http://access.afpc.af.mil/vbinDMZ/broker.exe?_program=ideaspub.IDEAS_Step1 .sas&_service=pZ1pub1&_debug=0.

VOLUME AND DISSONANCE

What is the volume of the message and how much noise must it overcome to be heard? Are competing voices and narratives crowding out the narrative?

The problems with the mechanisms by which the rationale is conveyed to the nuclear forces are compounded by an oversaturated information landscape. The United States does not articulate a rationale for nuclear weapons in a vacuum—which means that the nuclear narrative may often be either overpowered by other events and priorities, such as the 9/11 attacks, or amplified by them, such as with the Russian invasion of Crimea.

Other missions, events, and priorities can drown out the nuclear conversation

Often—in fact, most of the time—the strategic narrative for nuclear deterrence is not the only conversation going on. It is hard to hear if there are too many conversations occurring at once and other leaders are speaking loudly as well. This figured prominently during the second era when, after 9/11, the president and his national security leadership were consumed with terrorism and the wars in Iraq and Afghanistan. Defense and military leaders were advocating for missions, force structure, and capabilities in high-priority areas outside the nuclear mission space, such as special operations capability, cyber, and other conventional forces and systems. Senior leaders inevitably focus on near-term, urgent missions or requirements such as Middle East conflicts or the rise of ISIL at the expense of longer-term concerns. Throughout all three eras, the nuclear message has often been left to the nuclear community, which then struggles to make its voices heard while leaders from outside the nuclear community dismiss the role of nuclear weapons or see them as competing for "more urgent" priorities.

Multiple interviews and working groups pointed out the importance of not talking inside a nuclear silo without listening to what is being said or is left unsaid by and to the rest of the force. Synergies can and should be found across virtually every geographic region. When global terrorism has dominated the security landscape, such as throughout the second era, then such synergies have been hard. But in Asia—with a modernizing China, the India-Pakistan competition, and a bellicose North Korea—and, increasingly, in Europe, the messages and the messengers should be more aligned.

Countervailing narratives can contest and undermine the preferred rationale

The nuclear policy community, both within the United States and internationally, is diverse and divided. The rationale for the U.S. nuclear deterrent is controversial and contested. Activists, non-governmental organizations, and nonproliferation and arms-control advocates often do not share the same rationale for nuclear weapons or necessarily even agree that such a rationale exists. Countervailing narratives from the doomsday clock to the "Global Zero" campaign question the fundamental purpose and morality for the existence of the U.S. nuclear enterprise, let alone its size, shape, posture, and budget. In some cases, these voices can be louder in the public discourse than those supporting the U.S. arsenal. Several times during roundtable discussions, interviewees expressed concern that the American public only hears negative news about the U.S. nuclear arsenal and thus comes away with a false perception of the state of the nation's nuclear forces.

"We exercise no effort to control the narrative," one mid-grade officer said. "We deflect when it gets really bad and ignore the rest. The best we can hope for is that [the public] didn't read it."

In the lead-up to and immediate aftermath from President Obama's Prague speech, these alternative narratives seemed to dominate. Multiple interviewees expressed frustration that the president's balanced approach—between seeking a world without nuclear weapons and ensuring a safe, secure, and effective nuclear deterrent until that was possible—has been co-opted and distorted by others. As one senior civilian official observed, the "yin" and the "yang" of the NPR and the Prague speech—modernization balanced with working toward zero—are not always equally conveyed: "Down at the operator level, the dominating narrative that operators hear is that we want to get rid of the nuclear arsenal. . . . How many times did we have people talking about the 'safe, secure, and effective' part of the narrative versus the 'reduction to zero' part?"

Following a brief period of relative quiet and consensus, especially with regard to the nuclear modernization program, these countervailing narratives seem to be getting stronger in recent months—both as the debate over nuclear modernization intensifies on Capitol Hill, especially with regard to the long-range standoff weapon (LRSO), and as the Obama administration considers additional executive actions to implement the April 2009 Prague Agenda.

Competing narratives, even within the nuclear mission space, can lead to a crowded message board

Not only can there be strong countervailing primary narratives, there can be varying degrees of consensus within the overall narrative on a range of secondary issues and themes. At some times, such as during the first era following the collapse of the Soviet Union, the degree of consensus within the narrative was fairly strong. Even so, far less consensus existed during that period on issues such as nuclear testing and stockpile stewardship, the applicability of nuclear deterrence to chemical and biological threats, or the utility of hedging. During the second era, the rationale for nuclear weapons existed in a more polarized and ideologically driven policy environment that challenged the perception of consensus on issues such as deterring terrorism, whether the U.S. deterrent helps or hinders nonproliferation, and the balance between conventional and nuclear capabilities in an effective deterrence posture. The third era, meanwhile, is marked on the one hand by growing consensus on the importance of restoring focus and senior attention on the nuclear mission and on the criticality of modernization and recapitalization of the nuclear enterprise. On the other hand, the narrative is still currently evolving, with prominent countervailing narratives competing against others.

CONTEXT

What is the context or environment in which the message is communicated? Does it reinforce or undermine the message?

The importance of how well the context in which a message is received "fits" the message itself cannot be overstated. On several occasions, junior officers pointed out that the message, no matter how "right" the words or the means of delivery may be, will only be received and

internalized in a positive environment—one of sufficiently supportive command leadership, educational opportunities and training support, and investment of time and resources—that encourages such strategic thinking.

Most important, the operational community looks closely at the alignment of words and deeds to determine if the narrative is credible, sustainable, and persuasive. Several reviews, both external and internal, have highlighted the "say-do gap," a finding that is reinforced by this study. This say-do gap creates the impression that the words are hollow, which undermines the credibility of the narrative and fosters cynicism and low morale. Again and again, interviewees pointed to the gap between words (rationale) and deeds (funding, leadership attention, and personnel practices) as a fundamental problem with the rationale for nuclear weapons. "Actions speak louder than words" is the obviously applicable adage here. But the problem is worse than the adage suggests. The failure to act—to redress problems and fulfill promises—is deeply demoralizing and fosters skepticism and even contempt.

Overcoming perceptions that the message is not reflected in actions will take patience: it will require creating an affirmative context for the rationale, undoing and remedying the various pieces of the say-do gap, and doing so in a continuous, sustained effort that conveys to the nuclear workforce that this commitment is lasting.

The command climate needs to better encourage the development of strategic thinkers

Feedback from the operators' roundtable interviews also suggests that a strategic understanding of "why" their job is essential to national security and "how" it contributes is not currently part of their daily experiences—not because they are unwilling to learn, but because, as a mid-grade officer said, "nobody knows where to look, so nobody looks."

This can be at least partially attributed to command and work environments in which junior personnel are often expected to do the job, but not necessarily understand the job. The roundtable discussions not only showed that to be true in some of the personnel's experiences, but also illustrated the extent to which such a "don't think, just do" culture can influence motivation and morale, which can in turn affect both job performance and the willingness to remain in the career field. A number of participants recalled instances in which they or others they knew felt demoralized by their immediate supervisors' attitudes toward the mission or else actively discouraged from pursuing their interest in broader strategic thinking—being told to simply "shut up and color," as one junior military officer put it.

- Mid-grade military officer: "In my missile command, the leadership didn't care about motivating the operations; I was told to just teach them to turn the key."
- Junior military officer: "I asked leadership about why we didn't learn more about our actual mission, and was told to 'read about it on your own."

Such an environment stifles an intellectual curiosity that directly informs how junior officers view their assignments, their careers, their community, and their mission.

Interviewees also underscored the effect that the inspections or compliance culture can have on their capacity to spend any of their time on broader strategic thinking. DoD and service leadership

have taken numerous steps to remedy the excessive testing and evaluation process and to review test-based performance standards, but it is nonetheless important to recognize that this problem, too, has implications for messaging: a unilateral standard of perfection across everything the operators do depletes their mental and physical bandwidth for receiving, processing, and understanding nuclear policy and strategy. A mid-grade missileer exemplified this takeaway, saying, "The efficacy of the message also depends on the ability of the audience to actually hear the message when it's being communicated....[My] headspace was so used up by the Air Force's standard of perfection, I could not have heard you even if you said the right message at that point." A workforce that is beaten down is also tuned out.

Educational and development opportunities must be more widely available and accessible, at an early stage of the junior operators' careers

Hurdling these, at times, localized or individualized challenges requires developmental and educational opportunities to, as one mid-grade officer explained it, "get outside the narrow pipeline quicker" and see the broader picture of where the nuclear forces fit in U.S. national security strategy. The unique role of nuclear weapons and their function of "always in operation but never in use" creates a special imperative for strategic awareness that should be fostered from an earlier stage of career development.

When asked how to best reach the nuclear workforce with a positive rationale, a junior officer replied, "If you open up the opportunity, it depends on the individual. They want to know if there's time and it's easily accessible." That officer pointed to his attending the U.S. Strategic Command Deterrence Symposium, his "first time interacting with any missileers," as a crucial learning experience. Another officer, who was able to attend an ICBM test launch with several colleagues, said, "That single event for people was the culmination to understand day-to-day that [deterrence] works." For those junior officers, and for others who were given assignments, such as STRATCOM, that afforded them a wider picture of their roles, these experiences were critical in showing them why they matter. Hearing a compelling rationale for the U.S. nuclear arsenal is critical, but living and experiencing it fosters belief and commitment in the mission.

The opportunities, however, according to junior and mid-grade officers, are currently difficult to find, depend on individual initiative, and receive uneven support from command leadership. They also pointed to a noticeable absence of nuclear weapons and deterrence information and training in the service academies and the early stages of professional education. One junior officer observed: "There is a disconnect between this [the Hagel statement on the nuclear mission being number one] and what actually gets priority at the [Air Force] Academy. . . . It looks great on paper, but if you said this to cadets at the Academy, they would think you are crazy and would not believe it." He elaborated further, noting that trainees in the Air Force Academy must memorize the various types of planes in the Air Force—"everyone would be able to tell the difference between an F-15 and an F-16"—but not many would be able to identify the different warheads in the nuclear force. Another junior officer noted that she had not even been informed that nuclear engineering was an option until she was assigned to the Air Force Technical Applications Center (AFTAC).

This challenge in developing an educational path that gives due weight to broader strategic thinking is not limited to the nuclear community. In the professional military education system, strategy and policy are not a focus of the curriculum until the senior service schools at the 05/06 level. The national laboratories face a similar version of this challenge: strategic and policy knowledge does not seem to be cultivated or encouraged at the lower levels. Junior personnel are highly educated and possess advanced degrees, but are entirely focused on, and funded for, their scientific pursuits in their early career.

The good news is that the same hierarchical system that contributes to the problem can also solve it by encouraging—indeed, requiring—knowledge, competency, and communication of nuclear strategy and policy at the tactical level. Junior officers recognize the changes, including a nuclear minor at the Air Force Academy, currently being made in this area. By providing education in nuclear policy and strategy at lower levels of command, military leaders not only communicate a sense of priority for the nuclear mission to the entire force, they also cultivate young officers and enlisted personnel with some of the basic education and training necessary to absorb, process, and think critically about nuclear weapons and their role in the United States' security. Explaining the rationale and importance of U.S. nuclear weapons is not just a speech to the operational personnel; it is a conversation with them.

The perceived "say-do gap" severely undermines the rationale

The dearth of educational and developmental opportunities for the junior officers who participated in the roundtables fell within the say-do gap identified by the external and internal reviews—and exemplifies an absence of follow-through in spite of words that stress the importance of the nuclear mission. This say-do gap was described by many of the interviewees, with several underscoring its importance as particularly acute when it came to investment of resources into properly equipping the nuclear operators and those who support them for their daily jobs. As one senior military official said, "You can't tell people in the field that [the nuclear mission] is the most important mission that we have and give them 40-year-old equipment to do it."

- Mid-grade military officer: "There's always a say-do gap, but come on! Men and women
 on alert using a bucket because you can't get money to fix the toilets. And this went on for
 six months!"
- Mid-grade military officer, when told that B-2 pilots sat alert in Federal Emergency Management Agency (FEMA) trailers: "I would kill for that trailer."
- Current government official: "If Tier 1 flag officers and SES's [Senior Executive Service] don't bring the fight [for modernization and priority] to the Joint Staff, nothing happens. Helicopters [are] a major concern for the safety and security of nuclear forces. Yet, we still don't have new helicopters."
- Mid-grade military officer: "Are they really taking care of infrastructure? Are they really going to modernize or are they going to put it on the chopping block when they see the price tag?"
- A former senior military official reported an anecdote concerning the bomber pilots from Minot AFB who were temporarily moved to where the conventional-only B-1s were based: When they "saw the better facilities . . . and overall quality of life," he said, "the nuclear

bomber pilots were dismayed that this was for conventional bombers—they expected this at an F-35 base, but not at a bomber base."

The "say-do gap" includes lack of attention and motivation from leadership

The "say-do gap," the contradictory environment that it creates for a positive rationale, and the lasting effects it has on morale are similarly evident when it comes to the issue of attention and focus from leadership across all levels. Both the public record and interview data suggest that one must be careful about not overgeneralizing about senior or mid-grade leadership as homogenous blocs. The senior leadership comprises individuals from the Office of the Secretary of Defense, the combatant commands, the services, and other organizations within the interagency who speak in their own name and voice even when speaking on behalf of the DoD or the administration; the mid-grade officers are similarly diverse in background and personality. The data also suggests, nonetheless, that the absence of sustained attention and focus from the individuals who represent these two groups to the personnel below them corrodes confidence in the message.

When senior and mid-grade leaders send messages seen as conflicting with the rationale, junior officers deftly perceive the hypocrisy and remember it. Negative statements, as well as the complete absence of public interest, are noted as such. Junior officers take stock of not only the unenthusiastic mid-grade officers—the group commander, for example, who said to a junior officer in an off-hand comment, "I don't want you to get a speeding ticket. Why are you going so fast anyway? You're just going on alert"—but also the senior leaders who say nothing about the nuclear workforce. One former senior civilian official observed, "As report after report says, the nuclear mission needs high-level interest and visibility; public leadership from the top."

The implications are clear: finding a compelling rationale is necessary but not sufficient; it is also important to identify the deeds that matter in reinforcing the rationale. As one former senior military official stated: "Yes, we need a compelling rationale [for the nuclear mission], but without the right context [in terms of senior-level attention, funding, etc.], they are just words. And young people are very quick to see that."

The "nuclear inferiority complex" raises barriers to communication

The say-do gap exacerbates long-standing and deeply rooted perceptions, particularly in the Air Force and acutely among the ICBM community, that the nuclear mission is not truly valued. The seeming difference between actions and words, if allowed to fester in a nuclear mission that is already internally sensitive to its own sense of "inferiority," further raises the barriers to effective and persuasive messages.

Interviews and roundtables give evidence to the existence of such a cultural inferiority complex:

• Former military official: "The Air Force has dual-capable fighters and bombers, but really would like to get out of the DCA [dual-capable aircraft] business. You can see it in how they spend money—no investments in MUNs [munitions squadrons] in Europe, pushing the F-35A mod [the Block 4B software for nuclear capability] out until FY2019–20, putting off nuclear certification for the LRS-B [long-range strike bomber], et cetera. Plus, pilots are only

- rewarded for conventional missions. No one wanted to be known as a 'nuke guy.' There was no goodness in passing surety inspections; just punishment for failing them."
- A former senior civilian official, who was "most concerned about the Air Force and their tendency to not give the enterprise the attention it needs," elaborated: "The ICBM community doesn't get the cream of the crop of those coming out of the [Air Force] Academy, because the cream of the crop don't want to choose the ICBM role; the system does a poor job of showing a clear career path for ICBMers."
- Former senior-level military official: "Could never get crew [rotational] cycle fixed. Crews viewed it as punishment, rather than consensual, to go to nuclear duty. [It was] difficult to keep [nuclear] bomber crews motivated when conventional guys were flying, deployed. This was exacerbated by deficiencies on the material side."
- A junior officer, with a nuclear security background: "A senior guy comes in saying it's the number-one priority, and all of our vehicles are falling apart. . . . Very few people want to do nuclear security. People in my field want to go to CENTCOM [U.S. Central Command]."

If the issues of culture, psychology, and identity are important throughout the Air Force nuclear enterprise, the challenges for those in the ICBM component of the mission are especially acute. Virtually every interviewee who addressed this issue agreed that the challenges associated with ICBMs were the greatest, in part because the results of the missileers' duties were intangible:

- Former senior military official: "[At Minot], it's a struggle to demonstrate the importance of the nuclear mission, particularly to the guy standing watch on missiles, which are weapons that we don't want to use. It's a challenge to keep that force occupied in an environment of deprivation—social, light, daily activity, weather, and so on. It's an extremely difficult environment, much like Alaska, and people don't appreciate how difficult it is to keep morale up."
- Senior civilian official: "An ICBMer commented on the fact that they do nothing 'mission useful' but 'sit in the silo.' With respect to the security ground teams and maintenance teams: 'At least they get to do something.'"
- A former senior military officer cited a colleague who "makes the argument that the 'triangle' of command is upside-down for ICBMers. In a flying wing, the triangle of maintainers, security, et cetera, flows upwards to the pilot, and a rated officer is the commander and everything flows down from him. In an ICBM, the triangle points downward to the ICBM watch officers, and the maintainers and security people are up on the surface running around, and the operational watch officers [the equivalent of a pilot] don't have a clue about what they are doing or how they are doing it. And what they [the watch officers] do every day is boring."

Some of the interviewees noted that this institutional "inferiority complex" appears to be less of a challenge in the Navy, and the roundtables do support this belief. Junior ballistic missile submarine (SSBN) officers were not unanimous in whether they believed that the nuclear mission is DoD's number-one priority. Yet it was still widely recognized that, as a former senior civilian and military official observed, "Submarines in the Navy are clearly a top-level priority and 'boomers' are at the top of Navy subs." Junior Navy officers in the roundtables, those on nuclear and nonnuclear subs

alike, noted that SSBNs come first when it comes to equipment, creating a dynamic—contrary to the experience of the ICBM community—in which "BNs [SSBNs] get everything they need, GNs [SSGNs, or guided-missile submarines] get second, and everyone else gets anything else." Additionally, there is no indication that service in the nuclear deterrence mission is any impediment to development and promotion in the Navy. To the contrary, a large number of the Navy's flag officers, including the current Chief of Naval Operations and his predecessor, have such experience. This roundtable feedback would suggest that, while creating a climate receptive to developing and encouraging strategic thinkers remains equally important in the Navy, there are fewer cultural biases and barriers to overcome in persuading that community that their mission is important and respected.

On the other hand, within the Air Force, the ICBM force may require special focus and attention. The demanding and unique challenges facing the ICBM forces lead to the conclusion that each community has its own metrics for measuring importance and its own set of "words" and "deeds" that would matter most. This further indicates that a compelling rationale for the role and value of nuclear weapons should include elements tailored to the ICBM community—ones that address not just "why U.S. nuclear weapons," but "why ICBMs." Of course, that would also necessitate similarly tailored rationales for each of the other components: submarine-launched ballistic missiles (SLBMs), bombers, and dual-capable tactical aircraft.

It's not just about the money—meaningful deeds may differ widely between and among different communities

In speaking with junior officers, it becomes clear that certain types of deeds—quality of life, developmental and promotional opportunities, and maintenance and mission support—are more important to many of the operators than overall funding. One mid-grade officer said it best: "The monetary benefit is short-lived . . . because it's throwing money at a problem that is not moneybased. Sure, [the personnel] like the money, but maybe the money goes away in a few years. Hopefully, [changes] become culture, because programs die out." This takeaway is especially interesting and evident in regards to the boomers—despite being a "land of plenty for parts" (as one junior SSBN officer put it), the junior officers still did not all perceive the nuclear mission as DoD's highest priority. Funding only goes so far. Money, while critical for solving many of the say-do gap" issues and creating a foundation for belief, cannot assuage all of the nuclear workforce's concerns.

Additionally, meaningful deeds vary from one community to the other. Senior nuclear insiders look to overall budgets and program acquisitions for nuclear enterprise first for evidence of message credibility. Junior officers and enlisted in the operational community, however, often see their say-do gap in areas that affect their lives more directly: quality of life, direct mission support and priority, professional development and promotion, and comparative perceptions with other operational communities. A deeper dive into the various communities that comprise the nuclear forces shows they also each have their own deeds that carry the most impact and meaning depending on their service culture, deployment location, and operational activity. Recognizing these differences between audiences is an essential part of a tailored approach to developing a compelling rationale and communicating it effectively.

Only sustained investment of time and resources will address the "say-do-believe" gap

The fact that senior officials need to speak out strongly, publicly, and at high levels with a reinforcing rationale for the U.S. nuclear arsenal is clear. The gap between what they say and what the organizations they lead actually do, however, is even more important. Over the past 12 to 18 months, the Air Force has taken many actions, ranging from the creation of a four-star command to measures aimed at improving quality of life, to address the nuclear workforce's concerns. But it is inevitable that these changes will take time to resonate across the force.

It takes time for words to translate to meaningful changes and concrete actions and for actions to translate into changed perceptions and beliefs—especially for deployed personnel in the field. Similarly, it takes sustained repetition and message consistency for new themes to take hold and penetrate through the force. Changes to culture, perception, and the "psychology" of the nuclear force will take even longer. The "say-do-believe" gap will only be bridged if DoD continues to take such significant steps to both speak and act differently about the nuclear mission. But it will take another 12 to 18 months before it will be evident if those efforts have been sustained and if those themes have taken hold throughout the nuclear force.

In the meantime, junior officers in roundtables have already seen a difference, and many of them agree that this is a "good time of transition of change." They note when senior leaders make the effort to publicly affirm the nuclear mission. They recognize efforts from their immediate supervisors to create an atmosphere of affirmation: for example, the chief of boat who established a qualification criteria on the historical background of nuclear deterrence, or the crew commander who told his junior officers, "Always take the time to say to enlisted and security, 'This is where you fit in.'" They are hopeful that these changes will persist. But they are also wary and remain only cautiously optimistic: one such junior officer represented this "wait and see" sentiment by saying, "I think we're in a good spot now. Will it stick? We'll see. I think we're heading [in] the right direction." Senior leaders must persist and be patient as they await recent efforts to be reflected in the workforce. They must, as a mid-grade officer expressed it, "have the institutional fortitude, the backbone, to say it's good for culture if we continue to invest."