

**Strategic Weapons in the 21<sup>st</sup> Century**  
**January 31, 2008**  
**Washington, D.C.**

**The Role of Deterrence, Assurance and Dissuasion in the Post-Cold War, Post-9/11 Era**

Elaine Bunn and Richard Mies<sup>1</sup>

The organizers commissioned this paper to provide a strategic framework for the discussion of the emerging security environment and the future roles of nuclear weapons. The authors were asked to explore the role of deterrence in a changing world. Finding our focus has taken considerable time and effort, not least because the assignment is so broad and the strategic landscape so uncertain. As we tried to set down a few key concepts, we found ourselves repeatedly looking back to the 2001 NPR, and then even further into the longer history of nuclear strategy. As we tried to be relevant to the potential concerns of the next Administration, we found ourselves looking forward to an agenda of substantive and policy concerns that seem likely to grow more complex while also expanding. With the hope of lending some clarity to this strategic landscape of the next Administration, the authors have settled on the following main arguments for discussion here. First, the innovation encompassed in the assurance, dissuasion, and deterrence (ADD) catechism of the 2001 NPR is sound; it should not be rejected by a new Administration seeking to put its own imprint on the U.S. strategic vocabulary. Second, successful assurance, dissuasion and deterrence require much more than military means; the integrated use of all tools of national power for those ends is a major challenge for the U.S. government. Third, the term “tailored deterrence” is a new label for an old idea; but tailoring is far easier said than done. Fourth, the role of U.S. nuclear weapons and U.S. nuclear deterrence must be addressed within a broader strategic context, but they must be addressed. And, finally, our conceptual framework for assurance, deterrence, and dissuasion must include a communication strategy for ADD.

**From Nuclear Deterrence to Strategic ADDD**

No discussion of deterrence strategy in the nuclear age can be meaningful without a clear understanding of how nuclear weapons have revolutionized and transformed warfare. In a small book written at the dawn of the nuclear age, a group of scholars drew some profound and prescient conclusions about the significance on human warfare of what they termed “the absolute weapon.” Many of the authors’ postulates, and the implications they drew from them, became the corner-

---

<sup>1</sup> Due to unforeseen circumstances, Elaine Bunn, who initially drafted a number of sections of this report, was unable to participate in the final stages of the paper’s production. Additionally she had virtually no involvement in the drafting of the sections involving nuclear weapons. Accordingly, Richard Mies accepts full responsibility for the final product while acknowledging Elaine’s significant contributions. Clark Murdock, a senior adviser at the Center for Strategic and International Studies and a consultant to LLNL, helped shepherd the paper through the final stages of production. Richard Mies greatly appreciates Clark’s significant assistance in bringing this paper to conclusion and thanks him for his openness and flexibility. He also expresses thanks to Brad Roberts for his comments, which were both timely and very helpful.

stone of US defense strategies and policies throughout the Cold War period. The authors recognized that the atom bomb was revolutionary and fundamentally different from conventional weaponry: pound for pound, nuclear weapons are several million times more potent; that no adequate defense against the bomb was known or foreseen to exist; and that some proliferation of nuclear weapon technology to other nations, barring international control, was inevitable.<sup>2</sup> One of the most insightful, fundamental conclusions they reached reflected the atom bomb's revolutionary nature:

“Thus far the chief purpose of our military establishment has been to win wars. From now on its principal purpose must be to avert them.”<sup>3</sup>

Nuclear weapons *extended* the potential of warfare to a level where classical warfare concepts ceased to have meaning -- to the *reductio ad absurdum*<sup>4</sup> of warfare. As a consequence, over time, and with the conceptual contributions of many others, the concept of *deterrence* took on special significance as the term became enshrined and accepted as virtually synonymous with nuclear weapon strategy. In parallel, nuclear weapons also came to be seen as different not just by their potency but “by convention - by an understanding, a tradition, a consensus, a shared willingness to see them as different.”<sup>5</sup> And this revolution in warfare - the virtually unlimited capacity to harm each other - is likely to be with us forever since the knowledge to build nuclear weapons cannot be disinvented.

Near the end of the 20<sup>th</sup> Century, a confluence of events in conjunction with the end of the Cold War - the proliferation of WMD and their means of delivery, the shift from bipolarity to multipolarity, an increase in the fluidity and unpredictability of the international security environment, and the rise of a wider range of more diverse threats including non-state actors, to mention a few - created a recognition that:

- U.S. nuclear doctrine and forces needed to have lower salience and a less adversarial character; most directly as a result of our changed relationship with Russia
- Deterrence was likely to be less reliable, particularly against non-state actors, although not necessarily less relevant;
- Other concepts of influence needed clearer articulation

Consequently, the 2001 Nuclear Posture Review (NPR) was conducted to fundamentally reassess the role of nuclear weapons in national security strategy and to reconcile US nuclear forces, doctrines, and policies to the profoundly changed post-Cold War security environment. It attempted to:

---

<sup>2</sup> Frederick S. Dunn, Bernard Brodie, Arnold Wolfers, Percy F. Corbett, and William T. R. Fox, *The Absolute Weapon* (New York, Harcourt, Brace and Co, 1946) pp 21-107

<sup>3</sup> *Ibid* p 76

<sup>4</sup> Michael Quinlan, *Thinking About Nuclear Weapons*, Whitehall Paper 41 (London, The Royal United Services Institute for Defence Studies, 1997) p 8

<sup>5</sup> Thomas C. Schelling, *Arms and Influence*, (New Haven, Yale University Press, 1967) p 134

- Transform US strategic capabilities by broadening the old nuclear Triad to a “New Triad”;<sup>6</sup>
- Better integrate nuclear and conventional security strategies into a more coherent whole while giving deterrence lower salience through a paradigm of assurance, dissuasion, deterrence, and defeat (ADDD)

In essence, by integrating nuclear and strategic non-nuclear forces and strategies, which had historically stood apart, into the New Triad, the 2001 NPR was really a Strategic Posture Review.

### **Thinking about 21<sup>st</sup> Century Deterrence, Dissuasion and Assurance**

The most recent official formulation for ADDD is provided in the March 2005 National Defense Strategy:

- We will provide assurance by demonstrating our resolve to fulfill our alliance and other defense commitments and help protect common interests.
- We will work to dissuade potential adversaries from adopting threatening capabilities, methods, and ambitions, particularly by sustaining and developing our own key military advantages;
- We will deter by maintaining capable and rapidly deployable military forces and, when necessary, demonstrating the will to resolve conflicts decisively on favorable terms.
- At the direction of the President, we will defeat adversaries at the time, place, and in the manner of our choosing – setting the conditions for further security.<sup>7</sup>

The concepts embodied in this new paradigm (as discussed below) have continued to evolve and are subject, of course, to further revision and refinement by other analysts and the next Administration. The basic concepts of assurance, dissuasion, and deterrence (ADD) are not hard to grasp; but, their application amidst the dynamics and complexities of international relations is the crux of the matter and certainly qualifies as a “wicked problem.”<sup>8</sup>

The concepts of ADD differ fundamentally from classical military strategy in that they deal with the exploitation of *potential* force rather than the application of force. They are intended to shape behavior and, as such, all share some common elements of inducements – of threats and/or promises, explicit or implicit – to either prevent or promote an action. Although *deterrence* took on special salience in a nuclear context during the Cold War, all of these concepts predate the advent of nuclear weapons and are fundamental to the management of human and international relationships. Thus, each of the concepts of ADD is a form of diplomacy – coercive diplomacy in some cases, but diplomacy nonetheless - and each depends upon all instruments of national power functioning in a complementary and interdependent way. Inevitably, there is a large amount of overlap and gray area

---

<sup>6</sup> Defined as including: conventional and nuclear strike; active and passive defenses; a responsive infrastructure including the industrial base, science, and human capital; and supporting command, control, communications, intelligence, surveillance, reconnaissance (C3ISR) and planning capabilities.

<sup>7</sup> *National Defense Strategy* (March 2005) pp 7-9.

<sup>8</sup> Wicked problems have incomplete, contradictory, and changing requirements; and solutions to them are often difficult to recognize as such because of complex interdependencies.

in differentiating among these and related concepts.<sup>9</sup> Thus, thinking about these strategies as a continuum working in concert with and mutually reinforcing each other is useful. What matters most to the practitioner is whether the desired behavior has been achieved, not necessarily understanding how each concept contributed. Additionally, thinking about application of these concepts in a continuum across the spectrum of peace through nuclear war is also useful. For example, if deterrence fails to prevent conflict, it would be an even greater failure if we did not try to extend deterrence into the conflict itself.

### *Deterrence*

Deterrence – the act or means of preventing someone from acting out of doubt or fear that the action will provoke a response with disadvantages that outweigh the advantages - is an enduring strategic concept, but one that needs to be constantly rethought and adapted to fit changing contexts and circumstances. Its primary purpose is to influence potential adversaries' intentions far more than their capabilities through two interrelated means – the power to hurt and the power to deny.<sup>10</sup> These powers are most successful when held in reserve and their *non-use*, their potential, exploited through diplomacy. The most successful threats are the ones that never have to be carried out.

Credible deterrence is a function of our capabilities and will as perceived by our potential adversaries. It depends upon:<sup>11</sup>

The *adversary's perception* of:

- The costs versus the benefits to him of taking the action we seek to deter;
- The benefits versus the costs to him of restraint (not taking the action we seek to deter);
- The probability that the contemplated action can be successfully completed versus the probability of failure.

Implicit in credible deterrence is the critical assumption that we have effectively “communicated” our capabilities and our will to our adversary.

The evolution of American thinking about *deterrence* in the 21<sup>st</sup> Century can be characterized, in broad terms, as moving from deterring one principal actor during the Cold War to multiple actors now; from an almost exclusive focus on deterrence to a more balanced focus on

---

<sup>9</sup> While “compellence” is not specifically part of the ADDD lexicon it certainly plays a role in strategies to influence behavior. As Thomas Schelling has observed, compellence is the converse of deterrence. They are at opposite ends of a continuum rather than totally separate and distinct. For example, was our adversary deterred from advancing or compelled to stop?

<sup>10</sup> See Schelling, *Ibid.* for a fuller discussion.

<sup>11</sup> This is similar to the Deterrence Operations Joint Operating Concept (DO JOC), which states that the objective of deterrence operations is “to decisively influence the adversary’s decision-making calculus in order to prevent hostile actions against US vital interests...An adversary’s deterrence decision calculus focuses on their perception of three primary elements”: the benefits of a course of action; the costs of a course of action; and the consequences of restraint (i.e., costs and benefits of not taking the course of action we seek to deter).<sup>11</sup> (U.S. Strategic Command, “Deterrence Operations Joint Operating Concept,” Final Draft, Version 2.0, August 2006, available at [www.dtic.mil/futurejointwarfare/concepts/do\\_joc\\_v20.doc](http://www.dtic.mil/futurejointwarfare/concepts/do_joc_v20.doc), p. 5.) However, we would more explicitly emphasize the costs vs. benefits of restraint, as well as the probability of success of a specific course of action.

other elements of strategy including assurance and dissuasion; and from an *emphasis* on deterrence by threat of punishment (imposing costs) in the Cold War, to an emphasis today on deterrence by both threat of punishment and denial (denying the adversary's objectives). In the Cold War, the main target of U.S. deterrence was a single actor, the Soviet Union. American deterrence policy focused on increasing the costs of Soviet aggression primarily through the threat of punishment—and strategic deterrent forces were largely considered synonymous with nuclear weapons (although Cold War deterrence was actually more subtle and nuanced than that).<sup>12</sup> The position regarding the Soviet Union was a particular *application* of the theory of deterrence, not the theory itself. But that application to the main deterrence problem for 40 years—deterring all-out nuclear war by relying on nuclear weapons—became conflated with the underlying theory, skewing the understanding of deterrence.

The 2006 Quadrennial Defense Review (QDR) report stated that “senior civilian and military leaders of the Department of Defense” were shifting away “from ‘one size fits all’ deterrence” to “tailored deterrence for rogue powers, terrorist networks and near-term competitors.”<sup>13</sup> Although the term, “tailored deterrence,” is new, the concept of adjusting deterrence to a wide range of potential opponents, actions and situations is not new and has been evolving for some time.

Whether for terrorists, rogue states, or major powers, thinking about ADD extends well beyond the Cold War focus upon nuclear deterrence and, as the 2001 NPR states, includes all strategic capabilities. As stated earlier, the authors believe, however, believe that it is useful to include all instruments of national power - diplomatic, economic, and legal - as well in analyzing ADD. For example, U.S. diplomatic or economic sanctions can impose costs, while economic aid or diplomatic recognition in the context of an adversary *not* taking an action can reinforce the benefits of restraint.<sup>14</sup> Nonmilitary homeland security efforts, such as the ability to sustain economic activity, may reinforce deterrence by denying adversary objectives in attacks on the American economy or infrastructure. Diplomatic commitments to allies, embodied in treaties and agreements and reinforced by a web of economic and industrial relationships, can reinforce deterrence of aggression against allies by convincing adversaries that U.S. stakes are high. Legal capabilities, such as threats of war crimes prosecution for any commander involved in the use of weapons of mass destruction (WMD), may affect the decision-making calculus of lower-level adversary leaders.

<sup>12</sup> This is a simplified summary of Cold War deterrence. During the Cold War, there was a role for conventional weapons and forward-deployed forces in Europe (under the doctrine of flexible response) and Asia, in addition to nuclear weapons. Deterrence by denial (making clear to the Soviets they wouldn't accomplish what they hoped to accomplish in any aggression) through damage limitation doctrines and defenses also played a role in U.S. deterrence thinking. But deterrence by the threat of punishment via nuclear weapons dominated the analysis of Cold War deterrence. In addition, there were actually other potential deterrees during the Cold War – for example, deterring North Korea from a conventional invasion of South Korea, post-1952; and deterring China from attacking Taiwan. But the Soviet Union was by far the predominant direct object of U.S. deterrence efforts.

<sup>13</sup>, *Quadrennial Defense Review Report* (February, 6, 2006). p 6

<sup>14</sup> The December 2007 National Intelligence Estimate on Iran's nuclear program assessed that “Iran halted the program in 2003 primarily in response to international pressure” which “indicates Tehran's decisions are guided by a cost-benefit approach rather than a rush to a weapon irrespective of the political, economic or military costs.” The NIE further states that that this “suggests that some combination of threats of intensified international scrutiny and pressures, along with opportunities for Iran to achieve its security, prestige, an goals for regional influence in other ways, might—if perceived by Iran's leaders as credible—prompt Tehran to extend the current halt to its nuclear weapons program. It is difficult to specify what such a combination might be.”

*Near-peer Competitors.* Although many are starting to rethink the U.S.-Russian relationship in light of Russia's evolving strategic persona under President Vladimir Putin, China has been the subject of much analysis within the ADD conceptual framework. The overall US-China relationship is complex, ambiguous and not easily characterized, because it is multifaceted: we are trying to deter, dissuade, engage (perhaps even assure in some areas), compete and cooperate all at the same time in various arenas. As the former Administrator of the National Nuclear Security Administration (NNSA), Ambassador Linton Brooks has observed, the internal debate over whether China is a "small Russia" or a "big rogue state" is unresolved. For example, is the US willing to consciously accept a deterrence relationship with China (as it has with Russia) whereby the U.S. accepts that China will have the capability to hold the US at risk with survivable second strike capabilities or does the U.S. want to *try*—through a combination of offensive and defensive capabilities—to deny the Chinese leadership the *confidence* that they can do so. As Ambassador Brooks has noted, the debate should be about "what relationship with China best serves U.S. interests," rather than "is China a rogue or not." In the case of Russia, it's in the U.S. interest to accept a strategic relationship based on mutual vulnerability, because we have a well established relationship that is a fact of life. In the case of the rogues, it's in the U.S. interest not to accept a mutually vulnerable relationship, because their rogue behaviors may compel us to take action as a guarantor state. Where does China fit in?<sup>15</sup>

The next Administration will need to reach a consensus on this critical issue because it will affect both the nature of the relationship the U.S. seeks with China and many programmatic decisions (on national missile defense, prompt global conventional strike, space and cyber capabilities, etc.). As the next Administration grapples with this critical issue, it needs to recognize the interactive nature of U.S. hedging strategies and its assurance of China, which communicates to China the limits of U.S. programs, plans (e.g., in the robustness of its national missile defenses) and capability areas the U.S. deliberately keeps its options, even if it spurs rather than dissuades Chinese plans and actions.

*WMD-Armed Regional States.* Beginning in the early to mid-1990s, deterrence of WMD-armed regional adversaries was added to the agenda. "Rogue states" or "States of Concern" would try to deter U.S. intervention in their region, intimidate U.S. allies, and make intrawar threats to limit American aims in case of war. Regional deterrence is more problematic for the United States for several reasons: regional adversaries may be less predictable and less risk-averse, and they may have considerable resolve because crises often involve their core interests, whereas U.S. interests are peripheral (sometimes referred to as the asymmetry of stakes versus asymmetry of power).

*Non-State Actors.* After September 11, 2001, another set of players was added to the debate about ADD: non-state actors or terrorists. Initially, conventional wisdom held that terrorists were undeterrable. However, that view also is evolving. Focusing on the components and enablers of a terrorist network—operatives, leaders, financiers, state supporters, the general populace—may provide insights about where costs can be imposed, or benefits denied, in order to establish credible deterrence. The tenets of deterrence almost certainly apply to state sponsors of terrorism. Even terrorists with suicidal inclinations want to die to *accomplish* something, and deterrence by denial—that is, denying them the effects or the *benefits* of their actions—may, over time, be the more

---

<sup>15</sup> Brad Roberts deserves credit for many of the insights on how we should think about China.

effective way to think about deterring terrorists.<sup>16</sup> As Brad Roberts has observed, “terrorists” are a “network of actors, encompassing foot soldiers, professionals, leaders, enablers, sponsors, etc.” and “[h]istory amply demonstrates the utility of BOTH deterrence by denial and deterrence by threat of punishment in inducing restraint by those various actors.”<sup>17</sup>

As stated earlier, deterrence is not just a crisis concept although many tend to think of deterrence as what happens when we take actions in times of rising tension or conflict. We need to look at deterrence over a timeline continuum – from day-to-day (peacetime) to rising tension to crisis to conflict, and even intra-conflict (including deterring escalation). The Department of Defense (DOD) has attempted to apply the 2006 QDR construct of “steady-state” (that is, “activities that the Department conducts continuously”) and “surge” (that is, activities “it conducts episodically”)<sup>18</sup> to deterrence, but with mixed results. Deterrence, however, is even more nuanced than this binary, off-on-switch analogy would suggest and, in the view of the authors, is best thought of as a continuum.

### *Dissuasion*

Dissuasion – the act or means of preventing someone from acting or causing someone to discontinue an undesired course of action – is closely related to deterrence, and, for that reason, is the least understood and fleshed out concept in the trilogy of assurance/dissuasion/deterrence. Some believe it applies only to discouraging the *acquisition* of capabilities; others would apply it to discouraging *intentions* as well. In any event, it focuses on a preventing a specific threat from emerging. Some argue it is a subset of deterrence (deterrence of *acquisition* of capabilities or *intentions* of concern instead of deterrence of hostile *actions*). In addition, some analysts argue that dissuasion is an overly ambitious target, because it is unrealistic to believe that the United States can dissuade potential adversaries or competitors from all paths that may concern us; as a consequence we need to choose where to focus our dissuasion efforts.<sup>19</sup>

All these are challenges, but the authors believe the concept merits continued exploration. Dissuasion does capture the positive aspects of what the Clinton Administration used to refer to as “shaping” as part of influencing the emerging security environment in manner that reduces the potential for future challenges. Dissuasion also captures the negative aspects of “hedging,” as part of the Clinton Administration’s strategy of “prepare now” to meet future challenges, which suggests a dual-track, “carrot/stick” strategy – that is, work toward the outcome we’d like to see, but prepare

<sup>16</sup> See, for example, the Center for Global Security Research (CGSR), Lawrence Livermore Laboratory, “Whither Deterrence?” Final Report of the 2001 Futures Project,” May 2002. The CGSR report states:

The conventional wisdom is that we certainly cannot deter terrorists in the traditional way, but we may be able to deter the *supporters* of terrorism in traditional ways. It has been suggested that we might deter terrorists by threatening their families. However, our working group thinks that a more productive way of deterring terrorists is a robust defense in combination with an effective campaign against terrorism. A good example is the case in which our military campaign in Afghanistan succeeds (or is perceived to succeed), and we develop an effective homeland defense. Such success will not fully deter terrorists, and most terrorists will not be deterred by the threat of their destruction, but it is not clear that they are prepared to fail... As our defenses become more robust, they may find it increasingly difficult to find any way to get through. In this way, effective defenses can indeed serve as a deterrent.

<sup>17</sup> Brad Roberts, *Deterrence and WMD Terrorism: Calculating its Potential Contributions to Risk Reduction* (Institute for Defense Analyses, June 2007)

<sup>18</sup> *Quadrennial Defense Review Report* (February 6, 2006). p 37

<sup>19</sup> See Chyba and Crouch. pp 2-3

in case the future does not turn out that way. Dissuasion, shaping and hedging, or preparing now for an uncertain future are all concepts that encourage decision makers to make future-oriented decisions, particularly when they involve infrastructure and science and technology. And in a system that tends to short-change the future for the immediate, the future-oriented concepts of dissuasion/shaping/hedging/preparing – however they are expressed – are a prism through which we should explicitly examine our decisions.

### *Assurance*

Assurance – the act or means of providing confidence to others (including adversaries) to encourage them to not take actions contrary to one’s interests – is a familiar concept which encompasses the concept of *extended deterrence*. During the Cold War, deterrence theorists and practitioners were focused primarily on how the U.S. could extend its “nuclear umbrella” to its allies, although most recognized that extended deterrence clearly included the “coupling” of all military means of U.S. security to the security of its allies. The purpose of extended deterrence, of course, was to deter Soviet bloc aggression as part of the West’s containment strategy. Today, the extended deterrence calculus is considerably more complex and less predictable than the experience of the bipolar Cold War era, since the United States is trying both to deter threats against its “allies and friends” (a more diverse group of recipients than the Cold War allies) and to persuade its friends and allies that they can rely upon the U.S. rather than acquire their own independent military means. Einhorn and Joseph observe that “[a]ssurances to allies and friends around the world that the U.S. is committed to their security have often been critical in reducing their incentives to acquire nuclear deterrents of their own.”<sup>20</sup> Much as deterrence is now viewed more broadly than during the Cold War era, *assurance* also involves all the elements of national power and goes beyond the Cold War focus on military (especially nuclear) means. The following statement by Einhorn and Joseph is illustrative:

If U.S. security assurances, and particularly the U.S. extended nuclear deterrent, remain credible (and U.S. nuclear forces remain reliable, effective, and safe), the probability of those countries going nuclear or even seeking a hedging capability will be substantially reduced. But if their confidence in the reliability of the U.S. as a security partner erodes, the likelihood of their deciding to pursue their own nuclear capability will dramatically increase.<sup>21</sup>

The act of “assuring” someone’s security is both broader and more pro-active than “extending” one’s deterrent to another party, since *assurance* more accurately captures the nature of the relationship between those providing and those receiving security assurances, the authors believe that assurance should be retained with deterrence in the lexicon of strategic concepts.

Assurance, like deterrence and dissuasion, is in the eye of the beholder. A key difference, though, is that while we cannot just ask potential adversaries, “What will it take to deter or dissuade you?” we can determine, through interaction and genuine dialogue with allies and friends sustained over time, what assures them and what factors are most important to their remaining non-nuclear

<sup>20</sup> See Robert J. Einhorn and Robert G. Joseph (January 31, 2008), “Proliferation Motivations and Dynamics,” Washington, DC: SW21 Conference. p 8

<sup>21</sup> *Ibid.* pp 8-9



states, even when they face potential adversaries who are, or are on the road to being, nuclear-armed. From an even broader perspective, it is the overall security relationship between the U.S. and its ally or friend that is at stake. Assurance, which usually involves *reassuring* allies and friends since relationships never remain static, depends on the confidence that allies and friends have in American judgment, competence and reliability – if this confidence is lacking, the specific military capabilities possessed by the U.S. will not really matter very much.

### **The Reality – Is ADD Really addD?**

Regrettably, and in spite of the rhetoric of the NPR and the National Defense Strategy, there has been a paucity of senior-level Administration thinking on the role of the New Triad, and particularly the role of nuclear weapons in the 21<sup>st</sup> century. There are many reasons given for this (e.g., the Global War on Terror, operations in Afghanistan and Iraq, the unchallenged US conventional superiority, etc.). Nevertheless, the result is a glaring mismatch between the rhetoric of national strategy and the resources committed to the strategy objectives. The failure to follow up on the NPR – to engage Congress in a meaningful debate and flesh out the concept and build a national consensus on the meaning of a New Triad – has resulted in little progress to achieve the stated NPR goals. As examples:

- There is no clear agreement on the meaning of a “responsive infrastructure” and few resources have been committed to improving its present capabilities;
- In large measure, the non-nuclear defense community continues to focus on classical warfighting concepts with little attention to war prevention. The requirements and acquisition processes and metrics (i.e. JCIDS) value the “fourth D” of ADDD, namely defeat, and give little weight to capabilities associated with assurance, dissuasion, and deterrence.
- The curriculums of military educational institutions devote little attention to the concepts of ADD.
- There is little, if any, programmatic advocacy within OSD, the Joint Staff, and the Military Services for the New Triad.

Within the New Triad, nuclear capabilities have fared even worse. The failure to clearly articulate an overarching rationale on the role of nuclear weapons in U.S. national security strategy<sup>22</sup>, the failure to correct a misperception that a preemption strategy was closely associated with nuclear forces, the poor presentation of a robust nuclear earth penetrator to the public and Congress, the failure to develop and administer a coherent and compelling position on the need for a replacement warhead, and the lack of senior leadership attention to nuclear weapon issues across the Administration have resulted in public confusion, Congressional distrust, and a serious erosion of advocacy, expertise, and proficiency in our nuclear forces.<sup>23</sup>

---

<sup>22</sup> In contrast to the United States, both France and the United Kingdom have made comparatively strong public statements on the role of nuclear forces in their national security.

<sup>23</sup> Over the past decade, a significant number of reports, including several Defense Science Board reports, have expressed concern over the lack of senior level attention to the nuclear enterprise. The recent nuclear weapons incident involving a B-52 aircraft is reflective of a systemic problem rather than an isolated incident.

## The Role of U.S. Nuclear Forces and Nuclear Deterrence in the 21<sup>st</sup> Century<sup>24</sup>

Because of their revolutionary nature, nuclear weapons are, first and foremost, instruments of national policy as opposed to instruments of military operations. They are primarily weapons of war prevention vice war fighting although, as discussed below, the two cannot be totally disassociated. The deterrent strategies which evolved during the Cold War recognized that the greatest utility of nuclear weapons is in their *non-use* - in the diplomacy derived from the threat of their use. In that sense, nuclear weapons were used every day. And because nuclear weapons were primarily designed for war aversion, nuclear deterrence is seen to ultimately depend on the threat of retaliation - not on our capability to strike first, but on the assurance we always have the capability to strike second.

There is a common fallacy about deterrence that holds that nuclear weapons deter only nuclear weapons. To accept that, one has to accept that nuclear weapons have played no role in the remarkable peace among the nuclear powers during the past six decades, despite periods of significant tension and East-West confrontation. And it would be equally fallacious to assume, that without some fundamental change in the political configuration of the world, nuclear weapons have no relevance for the future.

Deterrence is about preventing all major wars, not just nuclear ones, since major war is the most likely road to nuclear war. The great paradox of nuclear weapons is that they deter conflict by the possibility of their use, and the more a potential adversary perceives the credibility of our capabilities and will, the less likely he is to challenge their use. The converse of that proposition is also true. To be credible, capabilities and plans have been developed since the early 1960s to provide the President with as broad a range of options as considered prudent to enable him to respond with the *minimum use of force* sufficient to deny an adversary's objective. This has been the nature of "flexible response" and the core of US and NATO targeting doctrines.<sup>25</sup> To argue that this has made nuclear weapons more useable is to ignore the central paradox and their fundamental difference from conventional weapons. To allow nuclear weapon use to become incredible would increase, not lessen, the risk of war. From a war fighting perspective, nuclear weapons should be regarded as the Nation's ultimate insurance policy - *de facto* weapons of last resort - the least preferred option, short of surrender, to protect vital national interests.

None of the foregoing is intended to discourage reductions in our nuclear arsenal which promote greater stability, but to recognize that the journey is far more important than the destination and the overriding goal is avoidance of war. As we reduce our nuclear forces to lower levels consistent with our national security needs, at some points, we will inevitably encounter several risks related to ADD:

- First, the robustness and flexibility inherent in a moderately sized arsenal (a few thousand as compared to a few hundred) will be diminished. Stability – the

<sup>24</sup> Michael Quinlan's *Thinking About Nuclear Weapons, Ibid.* provides a more detailed, comprehensive argument on many of the issues surrounding nuclear weapons covered herein.

<sup>25</sup> Mutual assured destruction is neither US nor NATO doctrine. It is, at the extreme end of nuclear warfare, a fact of life.

assurance against being caught by surprise, the safety in waiting – will be challenged. Greater stress will be placed on the reliability and survivability of our remaining forces. The range of flexible response options designed to provide minimum use of force will be reduced.

- Second, the credibility of our extended nuclear deterrent may fall into serious question by some of our allies. Instead of promoting non-proliferation, our reductions may have the perverse, opposite effect.
- Third, below certain levels, potential adversaries may be encouraged to challenge us.
- Finally, below a certain level, to remain credible our targeting doctrine and policies would have to shift away from flexible response and counter-force targets to counter-population targets – a transition that is counter to our historical practice, politically less tolerable, and morally repugnant.

One thing seems clear: Our nation must always maintain the strategies and capabilities to convince potential aggressors to choose peace rather than war, restraint rather than escalation, and conflict termination rather than continuation.

### **Providing Credible ADD and Effective Communications**

Assurance, dissuasion, and deterrence (ADD) are about shaping the perceptions as a means of influencing the decisions and actions of others. A more refined understanding of *each of the actors* that the United States is trying to assure, dissuade, or deter is essential. Not only will the requirements for deterrence differ with each party that the U.S. tries to deter, they may well differ in each circumstance or scenario as well. Ron Lehman has said that deterrence is “context specific and culturally sensitive,”<sup>26</sup> which applies equally to assurance and dissuasion. During the Cold War, the United States spent enormous amounts of time, energy, and resources in trying to understand how the Soviets thought and what might deter them. However, such knowledge was not obtained easily, and there often were differences of view about Soviet thinking. The U.S. needs to make a comparable investment in effort to expand its knowledge base and expertise about the actors it confronts in the post-9/11 era, to include regional WMD states, an evolving Russia and China, and terrorist groups.

Understanding the strategic cultures, leadership structures, decision-making processes, etc. of a diverse range of state and non-state actors is a Herculean effort that requires experts, outside as well as inside the Intelligence Community, knowledgeable about the particular country or group or leader. It is also useful to have the perspectives of a wide range of specialists; for example, anthropologists, psychologists, economists, linguists, or others who may have first-hand knowledge of a country, leader, or group through contact as part of a nongovernmental organization or business. It also requires strategy functionalists to provide an understating of how ADD “works” at the generic level.

---

<sup>26</sup> Ronald F. Lehman II, Director of the Center for Global Security Research at Lawrence Livermore National Laboratory, address at Institute for Foreign Policy Analysis–Fletcher Conference, December 14, 2005, available at <[www.ifpafletcherconference.com/oldtranscripts/2005/lehman.htm](http://www.ifpafletcherconference.com/oldtranscripts/2005/lehman.htm)>.

Providing the “tailored deterrence” called for in the 2006 QDR report will be a major challenge. During the Cold War, there was one client and many tailors; whereas now, there are many clients and few tailors. That is, during the Cold War, the focus fell primarily on one actor (the USSR) and many different institutions and individuals in many different countries were concerned with the problem of how to achieve reliable deterrence, whereas today the focus is diffused across many actors and the number of concerned institutions and individuals are far fewer. While there have been some scattered efforts inside and outside of government to assess the decision-making calculus of specific opponents, it falls well short of the large-scale, focused effort that ADD needs in the post-9/11 era. For example, U.S. Strategic Command (USSTRATCOM) has established a Strategic Deterrence Assessment Laboratory (SDAL) at its headquarters in Omaha to conduct country assessments and analysis in support of deterrence planning by all relevant combatant commands, but it is a small cell with only a few full-time professionals. In the Pentagon, however, offices in OSD, the Joint Staff and the Military Services that used to focus on deterrence issues have either lost organizational capacity and status or disappeared altogether.

Understanding how ADD “works,” of course, includes how the U.S. communicates. The messages the United States sends in its *words and actions*, and the ways those are perceived by opponents, can contribute to (or detract from) U.S. efforts to assure, dissuade, and deter. Given the multiple actors that the United States is now trying to influence, the policy community, both inside and outside of government, needs to think consciously about how words and actions are perceived, how they affect each adversary’s decision calculations, and how the United States might try to mitigate misperceptions that undermine ADD.

Messages can take the form of specific actions, sometimes referred to as *flexible deterrent options* - deploying forces in times of tension or mounting crisis to signal to an opponent that the United States is willing and able to take action to counter the action (for example, deploying a carrier battlegroup to the Taiwan Strait in 1996 when China fired missiles toward the island prior to its elections, or visibly deploying B-52s to Guam). ADD messaging almost always involves “words” — declaratory policy or official statements — but the credibility of those “words” depends upon other words and actions. For example, then-President George H.W. Bush’s letter to Saddam Hussein prior to the 1991 Gulf War stated that if Iraq used chemical or biological weapons, “you and your country will pay a terrible price.”<sup>27</sup> Many have credited that threat - interpreted as a threat to potentially use nuclear weapons - with deterring Saddam from using biological or chemical weapons during the first Gulf War.<sup>28</sup> There is no way to know for certain whether it did. However, such a threat in the future is likely to be less credible since a number of then-senior officials, including the Secretary of State, the Chairman of the Joint Chief of Staff, the NSC Advisor, and the President, said in subsequent published memoirs that they had no intention of using nuclear weapons.

---

<sup>27</sup> Marlin Fitzwater, statement on President George H.W. Bush’s letter to President Saddam Hussein of Iraq, January 12, 1991, available at <<http://bushlibrary.tamu.edu/papers/1991/91011201.html>>.

<sup>28</sup> For primary accounts attributing the lack of Iraqi WMD use to the fear of U.S. nuclear retaliation, see the 1996 interview with General Wafic al-Samarrai in “The Gulf War: An In-Depth Examination of the 1990–1991 Persian Gulf Crisis,” *Frontline*, Public Broadcasting Service, available at [www.pbs.org/wgbh/pages/frontline/gulf/oral/samarrai/3.html](http://www.pbs.org/wgbh/pages/frontline/gulf/oral/samarrai/3.html); or the recently released transcript of the United Nations Special Commission’s 1995 sensitive debriefing of General Hussein Kamal, available at <[www.globalsecurity.org/wmd/library/news/iraq/un/unscom-iaea\\_kamal-brief.htm](http://www.globalsecurity.org/wmd/library/news/iraq/un/unscom-iaea_kamal-brief.htm)>.

When the U.S. communicates ADD messages, it is addressing both multiple international actors (including potential adversaries as well as allies and friends) and its own public. A message sent to underscore resolve and willingness to inflict pain on an adversary - in order to deter - may come across as bellicose, repugnant, or immoral to the U.S. public and allies. For example, the American public would not likely accept its government threatening, as some have suggested, retaliating to a terrorist attack by attacking the terrorists' families or Islamic holy sites. Moreover, the ability of the US government to mount a sustained, large-scale deception campaign is questionable, given the openness of American society and the unfettered nature of its press. On the other hand, the American cacophony of voices saying diverse and contradictory things certainly creates uncertainty in the mind of potential aggressors about what the United States might do and complicates a potential adversary's decision calculus.

Understanding U.S. adversaries, competitors, allies and friends includes understanding how they perceive the credibility of ADD messages. Each nation's perception is shaped by its national and cultural attributes, as well as its unique history of dealing with and studying the United States. Furthermore, the perception of U.S. credibility shifts as each adversary reassesses America's standing and power in the world. For example, U.S. threats to take actions against states probably had more credibility in late 2002, before the Iraq war, than in mid-2006, when many perceived the United States as bogged down and overextended. The credibility and perception by others of our capabilities, words, and actions - and their contribution to assurance, dissuasion, and deterrence - will shift over time. And like deterrence during the Cold War - still the subject of impassioned debate among academics - assessing how ADD works in the post-9/11 era is inherently uncertain.

### **Implications and Recommendations**

During the Cold War, a change of Administration did not mean a change in fundamental U.S. strategic concepts - Republicans and Democrats did not argue over containment and deterrence per se, but over how they were applied. In the post-Cold War era, the lack of a sustained, national consensus on U.S. grand strategy has led to a lot more churn as a "New World Order" gives way to "Global Engagement" and "Democratic Enlargement," which, in turn, gives way a "Balance of Power that Favors Freedom." Similarly, strategic concepts like "shaping" are out and regional "CINCs" became Combatant Commanders with "theater security cooperation plans" instead of "theater engagement plans." The authors urge the next Administration to resist this impulse to change, if only for the sake of change, and to build upon the evolution of strategic thinking that has occurred with respect to assurance, dissuasion, and deterrence.

**Recommendation: Retain the Assurance, Deterrence and Dissuasion (ADD) conceptual framework as it has evolved since first expressed in the 2001 QDR and continue to mature and refine the concepts for the post-Cold War, post-9/11 era.**

A coordinated interagency effort in Washington is needed to bring together the Intelligence Community, Department of Defense (including the Office of the Secretary of Defense, the Joint Staff, and the combatant commands), the Department of State and other U.S. Government agencies—as well as outside experts. The current process for doing this is rife with problems. Efforts are dispersed; State-Defense integration is episodic at best, and typically focused on a few

high-profile problems; and coordination across the US government occurs on an ad hoc basis with no real integration of the tools of power. The result would seem to be that assurance, dissuasion, and deterrence outcomes are as much a result of good fortune as careful planning and policy execution. In a more complex world, the United States must do better.

**Recommendation: The National Security Council should take the lead in marshalling US government-wide analytic and planning activities to ensure a comprehensive, all-elements-of-national power approach to ADD, for both policy formulation and implementation.**

Theories and concepts abound on the political, strategic, and military significance of nuclear weapons but we should be mindful of their limitations. We lack sufficient hard evidence about the consequences of nuclear weapon *use*. After all, we only have one example of the actual use of nuclear weapons in conflict. In the words of an experienced practitioner:

The resulting limitations in our knowledge ought to instill in all who make predictive statements about these issues a degree of humility not always evident. . . . . There is no substitute for looking at the merits of what is said than the eminence of who said it. . . . . the means for creating a world without actual nuclear weapons would have to be of a basic political kind, not a matter of technical arms control. Secure nuclear abolition would be consequence, not cause; and in the journey it has to be cart, not horse. . . . . Better unquestionably, pending political transformation, to have nuclear weapons but not war than to have war but not nuclear weapons.<sup>29</sup>

**Recommendation: The next Administration must give greater thought and leadership attention to the role of nuclear weapons and nuclear deterrence in U.S. national security and work with Congress to build a sustainable consensus on the appropriate U.S. nuclear strategy, policy, posture and programs in the 21<sup>st</sup> century.**

The effectiveness of ADD messages depends not only on how well one understands the object (whether adversary, competitor, ally or friend) of the message, but on how well one communicates that message. Actions may speak louder than words, but words also matter, often greatly. As part of its re-thinking of US national security strategy upon taking office, the new Administration must start thinking strategically about how the U.S. communicates to its multiple and diverse audiences, both international and domestic. It might not be called “strategic communications,” but there is no doubt that the United States needs an effective communications strategy for its overall national security strategy, including the concepts embodied in ADD.

**Recommendation: The National Security Council should take the lead in building a more refined and systematic process for gauging and assessing the effectiveness of its ADD messages and adapting them to evolving situations.**

---

<sup>29</sup> Quinlan, *Ibid.* pp 5 and 41