Waging Deterrence in the Twenty-First Century

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In recent years many national security policy scholars and practitioners have questioned whether deterrence remains a relevant, reliable, and realistic national security concept in the twenty-first century. That is a fair question. New threats to American security posed by transnational terrorists, asymmetric military strategies and capabilities, and the proliferation of weapons of mass destruction (WMD) by adversaries who see the world in profoundly different ways than do we have called into question America's reliance on deterrence as a central tenet of our national security strategy. Some experts advocate a move away from deterrence—and particularly the nuclear element of our deterrent force—toward greater reliance on other approaches to provide for our security in a complex and dangerous environment.

In our judgment, deterrence should and will remain a core concept in our twenty-first-century national security policy, because the prevention of war is preferable to the waging of it and because the concept itself is just as relevant today as it was during the Cold War. But its continued relevance does not mean that we should continue to "wage deterrence" in the future in the same manner, and with the same means, as we did in the past. As a starting point, it is useful to reexamine the fundamentals of deterrence theory and how it can be applied successfully in the twenty-first century. Next we should consider how deterrence does—or does not—apply to emerging

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twenty-first-century forms of warfare. Finally, we should carefully consider the role that US nuclear forces should—or should not—play in twenty-first-century US deterrence strategy.

Reexamining Deterrence Theory and Practice

In 2004, Strategic Command was directed by the secretary of defense to develop a deterrence operations joint operating concept (DO JOC).[1] In response the command reexamined both the academic literature on deterrence theory and the history of deterrence strategy and practice. We concluded that deterrence theory is applicable to many of the twenty-first-century threats the United States will face, but the way we put the theory into practice, or "operationalize" it, needs to be advanced.

One insight gained from our research and analysis is that a number of the "general" deterrence lessons we thought we learned in the Cold War may, in retrospect, have been specific to the kind of deterrence relationship we had with the Soviet Union. For example, many argue that deliberate ambiguity about the nature and scope of our response to an adversary's attack enhances deterrence by complicating the adversary's calculations and planning. Arguably, this was the case vis-à-vis the Soviet leadership after the Cuban missile crisis. However, the impact of ambiguity on deterrence success is likely to be a function of the target decision makers' propensity to take risks in pursuit of gains or to avoid an expected loss. Risk-averse decision makers tend to see ambiguity about an enemy's response as increasing the risk associated with the action they are contemplating, thus such ambiguity tends to enhance deterrence. The deterrence impact of US ambiguity about our response to an attack by a *risk-acceptant* opponent, however, might be quite different. Risk-acceptant decision makers might well interpret such ambiguity as a sign of weakness and as an opportunity to exploit rather than as a risk to be avoided. Our deterrence strategies and operations need to take our potential opponent's risk-taking propensity into account.

A second difference from the Cold War experience is the potential for a lack of unity of command in certain twenty-first-century opponents (e.g., regimes with competing centers of power or transnational terrorist organizations). If there are multiple individuals in the political system capable of making and executing the decisions we seek to influence, our deterrence strategy will need to have multiple focal points and employ multiple

means of communicating a complex set of deterrence messages that in turn take into account the multiplicity of decision makers.

Throughout our Cold War deterrence relationship with the Soviet Union, the focus of US grand strategy was to contain Soviet expansionism, in part by frustrating Soviet efforts to overturn the international status quo by military or political means. However, in the twenty-first-century security environment, the United States may at times find it necessary to take the initiative to alter the international status quo in order to protect our vital interests. Deterring escalation while proactively pursuing objectives that may harm an opponent's perceived vital interests poses a different, more difficult kind of deterrence challenge. As Thomas Schelling noted, such circumstances may require a deterrence strategy that pairs promises of restraint with threats of severe cost-imposition.[2] For example, to deter Saddam Hussein from ordering the use of WMD during Operation Desert Storm in the first Gulf War, the United States issued a threat of devastating retaliation but also made clear that the coalition's war aim was limited to the liberation of Kuwait.

Finally, the United States and the Soviet Union each recognized that in an armed conflict between them, the impact on each side's vital interests would be high and symmetrical (i.e., the survival of both nations and their respective political systems and ideologies would be at stake). In the twenty-first century, the United States could face a crisis or conflict in which our opponents perceive they have a greater national interest in the outcome than does the United States. This circumstance has the potential to undermine the credibility of US deterrent threats, especially if opponents have the capability to inflict harm on US allies and/or interests that they believe exceeds our stake in the conflict. Thus, we must devise deterrence strategies and activities that effectively address such situations.

How Deterrence Works—Achieving Decisive Influence over Competitor Decision Making

Deterrence is ultimately about decisively influencing decision making. Achieving such decisive influence requires altering or reinforcing decision makers' perceptions of key factors they must weigh in deciding whether to act counter to US vital interests or to exercise restraint. This "decision calculus" consists of four primary variables: the perceived benefits and

costs of taking the action we seek to deter and the perceived benefits and costs of continued restraint.

Understanding how these factors interact is essential to determining how best to influence the decision making of our competitors. Successful deterrence is not solely a function of ensuring that foreign decision makers believe the costs of a given course of action will outweigh the benefits, as it is often described. Rather, such decision makers weigh the perceived benefits and costs of a given course of action *in the context of* their perception of how they will fare if they *do not* act. Thus, deterrence can fail even when competitors believe the costs of acting will outweigh the benefits of acting—if they *also* believe that the costs of continued restraint would be higher still.

Our deterrence activities must focus on convincing competitors that if they attack our vital interests, they will be denied the benefits they seek and will incur costs they find intolerable. It also emphasizes encouraging continued restraint by convincing them that such restraint will result in a more acceptable—though not necessarily favorable—outcome. The concept itself is fairly simple, but its implementation in a complex, uncertain, and continuously changing security environment is not. What, then, is required to implement this concept in the twenty-first century?

The Need for "Tailored Deterrence" Campaigns

Effectively influencing a competitor's decision calculus requires continuous, proactive activities conducted in the form of deterrence campaigns tailored to specific competitors. Competitors have different identities, interests, perceptions, and decision-making processes, and we may seek to deter each competitor from taking specific actions under varied circumstances.

One of the most important aspects of tailored deterrence campaigns is to focus much of our effort on peacetime (or "Phase 0") activities. There are several reasons for this. Peacetime activities can make use of deterrent means that take time to have their desired effects or that require repetition to be effective. They expand the range of deterrence options at our disposal. Conducting activities in peacetime also allows time to assess carefully the impact of our deterrence efforts and to adjust if they are ineffective or have unintended consequences. Most importantly, conducting deterrence activities in peacetime may prevent the crisis from developing in the first place or reduce the risk of waiting until we are in crisis to take deterrent action. By the time indications and warning of potential competitor activity alert us

to the fact that we are in a crisis, some of the decisions we hope to influence may have already been made, the options available to us may have narrowed significantly, and our deterrence messages may not reach the relevant decision makers.

Deterrence campaigns start in peacetime and are intended to preserve the peace, but our campaign planning should enable deterrence activities through all phases of crisis and conflict. A campaign approach to deterrence activities in crisis and conflict is necessary because, as a crisis or conflict unfolds, the content and character of a foreign leadership's decision calculus can change significantly. What mattered to a foreign leadership when its forces were on the offensive will likely be irrelevant when the tide has turned, and wholly new factors will enter its decision making. Without a broad and dynamic deterrence campaign plan, we risk discovering that what deterred successfully early will fail later because the competitor's decision calculus has shifted from under our static deterrence strategy and posture.

Conducting multiple competitor-specific deterrence campaigns simultaneously poses a difficult challenge. Targeting a deterrence activity on a single competitor does not mean that other competitors—and our friends and allies—are not watching and being influenced as well. Thus, we need to deconflict our competitor-specific deterrence campaigns to avoid as best we can undesirable second- and third-order effects. The nature of this task requires new analytic capabilities and new planning and execution processes, while the level of effort required means some additional resources must be allocated to the deterrence campaign.

Finally, there is an opportunity presented by the conduct of multiple competitor-specific deterrence campaigns. We may discover that there is a common set of factors that influence the decision calculus of multiple competitors. If true, this would enable the United States to exercise economy of force and effort, addressing those factors with the greatest influence over multiple actors with a common set of deterrence activities.

The Need to Bring All Elements of National Power to Bear

The decisions our deterrence activities are meant to influence are primarily political-military decisions, made most often by political rather than military decision makers. The factors influencing those decisions

usually extend far beyond purely military considerations to encompass political, ideological, economic, and, in some cases, theological affairs. Clearly, a purely military approach to planning and conducting deterrence campaigns is inadequate. Deterrence is inherently a whole-of-government enterprise.

Interagency collaboration is difficult to do well, particularly in the non-crisis atmosphere of peacetime activities—precisely the time that multiple agencies have the most to offer in a deterrence campaign. So how can we ensure that our deterrence campaigns leverage all the elements of American national power, both "hard" and "soft"?[3]

We must find a practical way to involve relevant government agencies in mission analysis, campaign planning, decision making and execution, and assessment of results. An innovative process is needed to consider and include interagency deterrence courses of action, to make whole-of-government decisions on what courses of action to implement, and to coordinate their execution upon selection.

The Need to Bring Our Friends' and Allies' Capabilities to Bear

US friends and allies share our interest in deterrence success. Because of their different perspectives, different military capabilities, and different means of communication at their disposal, they offer much that can refine and improve our deterrence strategies and enhance the effectiveness of our deterrence activities. It is to our advantage (and theirs) to involve them more actively in "waging deterrence" in the twenty-first century.

One of the most important contributions that our friends and allies can make to our deterrence campaigns is to provide alternative assessments of competitors' perceptions. Allied insights into how American deterrence activities may be perceived by both intended and unintended audiences can help us formulate more effective plans. Allied suggestions for alternative approaches to achieving key deterrence effects, including actions they would take in support of—or instead of—US actions, may prove invaluable. As in the case of interagency collaboration, we need to develop innovative processes for collaborating with our friends and allies to enhance deterrence.

The Need to "Wage Deterrence" Against Emerging Forms of Warfare

At its most fundamental level, deterrence functions in the same way regardless of the kind of action we seek to prevent. Convincing a competitor that the perceived benefits of its attack will be outweighed by the perceived costs and that restraint offers an acceptable outcome remains the way to achieve decisive influence over competitor decision making. Nevertheless, the form of warfare we seek to deter can alter both the nature and the difficulty of the task at hand. Three emerging forms of twenty-first-century warfare pose particularly tough challenges for deterrence strategists, policy makers, and practitioners.

Deterring Transnational Terrorism

The continued application by transnational terrorists of catastrophic attacks on civilians by suicidal attackers suggests that our deterrence concept may have little utility against this form of warfare. How can one successfully deter attackers who see their own death as the ultimate (spiritual) gain, who have little they hold dear that we can threaten retaliation against, and who perceive continued restraint as the violation of what they see as a religious duty to alter an unacceptable status quo through violence? The question is a good one. Answering it requires a closer examination of how the nature of transnational terrorism, and the nonstate actors that practice it, create deterrence challenges not posed by most state actors. While there are many differences between deterring state actors and nonstate actors, two pose particularly important challenges.

First, the task of identifying the key decision makers we seek to influence is more difficult when deterring nonstate actors. For example, al-Qaeda's shift to a more distributed network of terrorist cells in the wake of Operation Enduring Freedom has made "decision makers" out of regional and local operatives. This distributed nature of transnational terrorist networks complicates the conduct of an effective deterrence campaign, but it also offers additional opportunities. A recent Institute for Defense Analyses report highlighted that there are multiple components of the global terrorist network that we can seek to influence in a deterrence campaign.

> These components include the following: jihadi foot soldiers, terrorist professionals who provide training and other logistical guidance and support, the leaders of al Qaeda, groups affiliated by knowledge and aspiration (so-called franchises),

operational enablers (i.e., financiers), moral legitimizers, state sponsors, and passive state enablers.[4]

Thus, deterrence could play an important role in the broader campaign against transnational terrorists if it were able to constrain the participation of key components of a movement and undermine support within a movement for the most catastrophic kinds of attacks.

Second, the nature of transnational terrorist movements results in these adversaries valuing and fearing profoundly different things than their state-actor counterparts. Transnational terrorists need to spread their ideology; raise and distribute funds; motivate, recruit, and train new operatives; and gain public acquiescence to (if not active support for) their presence and operations, all while remaining hidden from their enemies. This creates a potentially rich new set of perceptions to influence through deterrence activities, but affecting those perceptions is likely to require the creative development of new means of doing so.

It is not yet clear how important deterrence may be in countering the threats posed to US vital interests by transnational terrorism. However, given that our conflict with these adversaries is likely a long-term one and that the potential benefits of successfully deterring certain kinds of catastrophic terrorist attacks (e.g., the use of weapons of mass destruction) far exceed the costs of attempting to do so, we should work more aggressively on adding deterrence to our counterterrorism repertoire.

Deterring Space Attack

The importance of military space capabilities to the effective functioning of modern armed forces will continue to increase throughout the twenty-first century. The development of counterspace capabilities is already underway in several nations, making active warfare in the space domain a real possibility. Deterring attacks on US and allied space assets poses several important challenges.

First, we must act overtly and consistently to convince competitors that they will reap little benefit from conducting space attacks against us or our allies. Those who might contemplate such attacks in a future conflict need to understand three things: their efforts to deny us access to our military space assets will likely fail, our military forces are ready and able to fight effectively and decisively without such access if necessary, and we possess the means and the will to ensure that they would pay a price incommensurate with any benefit they seek to attain through such attacks.

As made clear above, the threat of cost imposition is an important aspect of American space deterrence strategy. Our threatened responses to an attack on our space assets need not be limited to a response in kind. Our competitors must clearly understand that we consider our space assets as sovereign and important to our national security interests. Furthermore, the importance of maintaining space as a safe and secure global commons to all nations' future economic development may result in the United States treating the initiation of counterspace activities by a foreign power as a significant escalation of a future conflict. Regardless of our initial level of national interest in a given conflict, such an escalation could dramatically increase the US stake in the outcome. Our increased stake could alter our willingness to escalate the scope and level of violence of our military operations. In other words, an attack on US space assets as part of a regional conflict might be viewed as more than a regional issue by the United States and, therefore, elicit an escalated response.

Deterring Cyberspace Attack

Deterring cyberspace attack presents an even more complex challenge than deterring space attacks. As in the space domain, we must convince our competitors that the United States may see cyberspace attack as a serious escalation of a conflict and that we will respond accordingly (and not necessarily in kind). However, the nature of cyberspace operations poses additional challenges as well.

The most significant deterrence challenge posed by the threat of cyberspace attack is the perceived difficulty of attributing such attacks to a specific attacker, be it a state or nonstate actor. If competitors believe we cannot determine who is attacking us in cyberspace, they may convince themselves that such attacks involve little risk and significant gain. In addressing the attribution issue, US cyberspace deterrence strategy and activities must deal with the inherently thorny trade-off between demonstrating our ability to detect and attribute cyberspace attacks and providing intelligence about our capabilities to competitors that could help them pose a still greater cyberspace threat in the future.

Further complicating the deterrence of cyberspace attack is the lack of a known historical track record of US detection, attribution, and response. This lack of precedent could raise questions about the credibility of deterrent actions and could thus embolden potential attackers, who might convince themselves that the action they contemplate would not elicit

a response. Yet, establishing adequate precedents is made more difficult because few nations have defined publicly what they consider to be a cyberspace "attack," nor have they communicated to competitors the kinds of responses to such activities they might consider.

Cyberspace attacks involve significant potential for producing unexpected second- and third-order effects that might result in unintended and possibly undesired consequences. The deterrence impacts of such uncertainty over the potential impacts of a cyberspace attack would be a function of the nature of the attacker's goals and objectives. A competitor's concerns about unintended consequences could enhance the effects of our deterrence activities if it wishes to control escalation or fears blowback from its cyberspace operations. However, deterrence of a competitor whose primary goal is to create chaos could be undermined by the potential for unintended consequences. We need to carefully consider how to account for such possibilities in our deterrence strategy.

Secure the Continued Role of US Nuclear Forces in Twenty-First-Century Deterrence

We have saved discussion of the continued role of US nuclear forces in deterrence for the end of this article, not because it is less important than in the past, but because it is best understood in the context of the other aspects of twenty-first-century deterrence strategy and activities addressed above.

Many argue that the only legitimate role of nuclear weapons is to deter the use of nuclear weapons in a catastrophic attack against us or our allies. This is indeed their most important role. However, the deterrence roles of the US nuclear arsenal go well beyond deterrence of nuclear attack alone.

US nuclear forces cast a long shadow over the decision calculations of anyone who would contemplate taking actions that threaten the vital interests of the United States or its allies, making it clear that the ultimate consequences of doing so may be truly disastrous and that the American president always has an option for which they have no effective counter. Even in circumstances in which a deliberate American nuclear response seems unlikely or incredible to foreign decision makers, US nuclear forces enhance deterrence by making unintended or uncontrolled catastrophic escalation a serious concern, posing what Thomas Schelling calls "the

threat that leaves something to chance."[5] These are deterrence dynamics that only nuclear forces provide.

As a result, US nuclear forces make an important contribution to deterring both symmetric and asymmetric forms of warfare in the twenty-first century. Our nuclear forces provide a hedge against attacks that could cripple our ability to wage conventional war because they would enable the United States to restore the military status quo ante, trump the adversary's escalation in a manner that improves the US position in the conflict, or promptly terminate the conflict.

For US nuclear forces to be effective in playing these vital deterrence roles, they must have certain key attributes. They must be sufficient in number and survivability to hold at risk those things our adversaries value most and to hedge against technical or geopolitical surprise. Both the delivery systems and warheads must be highly reliable, so that no one could ever rationally doubt their effectiveness or our willingness to use them in war. The warheads must be safe and secure, both to prevent accidents and to prevent anyone from ever being able to use an American nuclear weapon should they somehow get their hands on one. And they must be sufficiently diverse and operationally flexible to provide the president with the necessary range of options for their use and to hedge against the technological failure of any particular delivery system or warhead design.

Our forces have these attributes today, but we are rapidly approaching decision points that will determine the extent to which they continue to have them in the future. We are the only acknowledged nuclear weapons state that does not have an active nuclear weapons production program. Our nuclear weapons stockpile is aging, and we will not be able to maintain the reliability of our current nuclear warheads indefinitely. We will need to revitalize our nuclear weapons design and production infrastructure if we are to retain a viable nuclear arsenal in a rapidly changing and uncertain twenty-first-century security environment. Similarly, we face critical decisions regarding the modernization of our nuclear delivery systems, due not to their impending obsolescence—all will remain viable for at least a decade, some for two or three—but rather because of the long lead times involved in designing and building their replacements. If, through negotiations or unilateral decisions, we make a deliberate national decision to forego nuclear weapons in the future, we will have to reconsider our fundamental deterrence strategy, for it will no longer be built on the firm foundation that our nuclear arsenal provides.

Conclusion

Deterrence was an essential element of national security practice long before the Cold War and the introduction of nuclear arsenals into international affairs. For millennia, states have sought to convince one another that going to war with them was ill advised and counterproductive, and they sometimes responded to deterrence failures in a manner intended to send powerful deterrence messages to others in order to reestablish and enhance deterrence in the future. The advent of nuclear weapons did change the way states viewed warfare, however. The avoidance of nuclear war—or for that matter, conventional war on the scale of World War I or World War II—rather than its successful prosecution became the military's highest priority. This spurred a tremendous flurry of intellectual activity in the 1950s and 1960s that sought to develop a fully thought-out theory of deterrence as well as a massive national effort to put that theory into practice to deter (and contain) the Soviet Union.

Just as the beginning of the Cold War did not create the utility of deterrence as an element of national security strategy, the end of the Cold War did not eliminate it. As we move forward into the twenty-first century, it will be to the United States' advantage to lay the groundwork necessary to ensure that its deterrence strategies and activities are effective in the future. The concept of deterrence is sound, and we have the means necessary to implement it against the full range of threats that are reasonably susceptible to deterrence. The challenge that remains before us is to allocate the resources and create the processes necessary to proactively and successfully "wage deterrence" in the twenty-first century. It is a task that is nonpartisan in nature—one that can be sustained over the years through the commitment of the highest levels of our government. SSQ

Notes

1. *Deterrence Operations Joint Operating Concept Version 2.0*, US Department of Defense, December 2006.

2. Thomas Schelling, *The Strategy of Conflict* (Cambridge, MA: Harvard University Press, 1960), 131–34.

3. Joseph Nye, *Soft Power: The Means to Success in World Politics* (New York: Public Affairs Books, 2004), 5.

4. Brad Roberts, *Deterrence and WMD Terrorism: Calibrating Its Potential Contributions to Risk Reduction* (Alexandria, VA: Institute for Defense Analyses, June 2007), Abstract.

5. Thomas Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966), 121–22.