

# The US Army War College Quarterly: Parameters

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Volume 37  
Number 4 *Parameters Winter 2007*

Article 11

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11-1-2007

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### Recommended Citation

David Szabo, "Disarming Rogues: Deterring First-Use of Weapons of Mass Destruction," *Parameters* 37, no. 4 (2007), doi:10.55540/0031-1723.2395.

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# Disarming Rogues: Deterring First-Use of Weapons of Mass Destruction

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The United States and its allies invaded Iraq in 2003 with the declared intention of removing Saddam Hussein's regime. Although it was determined after the war that Iraq did not possess weapons of mass destruction (WMD), removing a regime believed to be in possession of WMD raises the possibility that the post-9/11 US security policy is more willing than previously believed to tolerate the risk of precipitating a WMD exchange. In future crises, policymakers may conclude the risk of WMD use during a preemptive attack or disarming strike is lower than the risk of a terrorist attack utilizing such weapons.

This article will examine the potential for intra-conflict deterrence when a state confronts an enemy that possesses WMD—most likely chemical weapons (CW) or biological weapons (BW). It will contend that, despite creating an increased risk of a WMD attack, the invading state can take steps to reduce the likelihood of being met by a WMD response. It begins by exploring the relevant literature on deterrence and intra-war negotiation in an effort to develop a framework for deterrence while at the same time restraining conflict below a desired threshold. The case study of the 1991 Persian Gulf War is then analyzed in an attempt to draw lessons on whether, and if possible how, intra-conflict deterrence might work and implications for developing a theoretical understanding of likely deterrence scenarios. Finally, the article will consider lessons applicable to future conflict capable of lowering the likelihood of the use of such weapons.

The 2006 *National Security Strategy of the United States* (NSS)—reiterating what was first enunciated in the 2002 NSS—declares that the

United States is willing to preempt threats and accept risk in disarming the possessors of WMD:

The greater the threat, the greater is the risk of inaction—and the more compelling the case for taking anticipatory action to defend ourselves, even if uncertainty remains as to the time and place of the enemy's attack. There are few greater threats than a terrorist attack with WMD. To forestall or prevent such hostile acts by our adversaries, the United States will, if necessary, act preemptively in exercising our inherent right of self-defense.<sup>1</sup>

This declared policy has been followed by several efforts designed to aid the United States in responding to such threats. The George W. Bush Administration has affected a shift in nuclear policy by creating the New Triad of nuclear and nonnuclear strike forces, active and passive defenses, and revitalized defense infrastructure capabilities. It also developed several new diplomatic initiatives—the Proliferation Security Initiative, Global Initiative to Combat Nuclear Terrorism, negotiated disarmament of Libya, and a flexible approach to India's nuclear program—all designed to counter the actions of authoritarian states possessing WMD. Yet, despite these initiatives, the most attention has centered on the declared policies of preemption, regime change, and forceful disarmament.

Deterring first-use of WMD is one of the most challenging issues facing nations interested in confronting states that possess such a capability. There are a number of states that now possess, or claim to possess, an assortment of WMD—nuclear, CW, and BW. With the possible exception of North Korea, the United States has an inferred policy of taking action against such states prior to the completion of nuclear weapon programs. A number of these states also happen to be located in areas of conflict involving the US military. Building a theoretical understanding of the strategies most likely to deter first-use would be of obvious benefit to America's foreign policy objectives and global stability.

There are few examples of the United States taking military action against states possessing WMD. The 2003 war in Iraq presents an opportunity to examine US strategy related to possible WMD use by a regime that is aware it is being targeted. Unfortunately, the passage of time has not been sufficient to permit a full appreciation of US strategy nor the counter actions by Iraqi leaders. The Persian Gulf War does, however, provide a case study for exam-

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ining the possibility of deterring WMD use in an operational environment. In the Persian Gulf crisis, America decided to confront a state, Iraq, that invaded another, Kuwait. President George H. W. Bush concluded the presence of a large, aggressive military in the Middle East was against US and international interests. Iraq’s chemical and biological capabilities, combined with its previous use of chemical weapons, provided a test of whether another state could militarily confront the possessor of CW/BW without triggering a first-use scenario.

### ***Deterrence Theory and Escalation***

Before examining the possibilities for future intra-conflict deterrence, a framework for deterring and avoiding escalation through negotiations needs to be established. In developing this framework we will draw from existing studies related to deterrence, escalation, and negotiation.<sup>2</sup> Such a framework is necessary to establish the behavior that is likely to deter any initiation of WMD use by an opposing state.

#### *Deterrence*

Deterrence is the prevention of an action by a state through the threat of force or punishment by another. Robert Jervis has written, “One actor deters another by convincing him that the expected value of a certain action is outweighed by the expected punishment.”<sup>3</sup> Punishment is crucial to the strategy of deterrence, which Jervis describes as having two elements: “The perceived cost of the punishment that the actor can inflict and the perceived probabilities that he will inflict them.”<sup>4</sup> Thus, punishment—and through it deterrence—comes down to two factors: value (perceived cost) and credibility (perceived probabilities).

#### *Avoiding Escalation*

Moving beyond classic deterrence theory, negotiation during conflict has the potential to establish thresholds capable of preventing the introduction of WMD by leveraging the threat of escalation dominance. Intra-war and intra-conflict negotiations regarding what limits are acceptable to either side are cru-

cial components in deterring the opposition from escalating the crisis. It will be assumed that two parties to a conflict always have some mutual interest in negotiating how the conflict is conducted. Even with the difficulties associated with communication during a crisis, parties to a conflict can still create limits through tacit or explicit negotiations.<sup>5</sup> Establishing thresholds that would be crossed only at the cost of escalation is the first step in negotiating how a conflict might be conducted. Thomas Schelling defines thresholds as “conventional stopping places or dividing lines.”<sup>6</sup> Schelling also identifies thresholds that have been utilized throughout history. These thresholds may include classes of weapons (air, land, and nuclear), national borders, rivers, parallels of latitude and longitude, agreed upon boundaries, or the parties involved in a particular conflict.<sup>7</sup>

Schelling identifies two factors likely to impact whether thresholds have the ability to contain escalation. The first is whether the threshold applies to both sides.<sup>8</sup> The key question is whether one side can respond in kind to the actions of the other. For example, by the middle of the Cold War the United States and Soviet Union were both capable of responding to nuclear threats from the opposing side. If one party is capable of raising the level of conflict or war to a point the other is unable to match, the more capable side can set a higher threshold, thereby facilitating deterrence and possibly limiting the chance of escalation.

The second factor for setting a reasonable threshold is making it qualitative. Schelling writes, “Tacit agreements [thresholds] . . . require terms that are qualitatively distinguishable from the alternatives and cannot simply be a matter of degree.”<sup>9</sup> Schelling and others warn that it is best not to attempt to establish thresholds related to how much of something is acceptable. This often leads to misconceptions by one of the opposing sides. During World War II none of the parties used poison gas in combat. This prohibition was far easier to uphold than mustering varying limits on the amount of poison gas that could be used. Crossing a border creates a similar problem. How far into a country is an army willing to go once it enters? How long will it stay? Is its withdrawal negotiable or must it be repulsed?

Signaling is often used to communicate desired thresholds to the opposing side. Once the conflict has begun, signaling is dominated by actions on the battlefield. The targets hit, weapons used, boundaries crossed, obstacles implaced, willingness to negotiate, cities attacked or bypassed, and numerous other factors may signal an opponent’s desired level of violence. Once the war begins and armies are on the move, these actions help dictate the level of violence combat may reach.

A state’s reaction to aggressive signals or thresholds crossed will be determined, in part, by the signals sent during the pre-war phase of a given crisis. Schelling writes about the effect the period of signaling before a war can have on

how the war is conducted and (possibly) terminated: “The crisis that precedes the war would be an opportune time to get certain understandings across.”<sup>10</sup> Signals can be sent regarding the expected intensity of the conflict, what geographic boundaries will be respected, and what type of weaponry will be employed.

A state can optimally deter another by targeting high-value targets while at the same time signaling the opponent that threats against other valued targets are also credible. Creating credibility at the onset of a crisis is critical to the deterring state’s ability to convince the targeted one that its capabilities are sufficient to carry out any threatened action. In the most favorable scenario the deterring state would attempt to signal desired thresholds that indicate the intended level of violence. The pre-war phase of a conflict is the optimal period to signal to the opposing side what thresholds are acceptable or desired.

### *The Persian Gulf Crisis*

The Persian Gulf crisis and the resulting war provide an excellent case study of whether an antagonist possessing large stockpiles of chemical and biological weapons along with the motivation to use them could be deterred. Establishing whether Iraq was deterred in 1991 provides valuable lessons related to how intra-conflict deterrence can be achieved. It is first necessary to examine what several authors have termed “expected punishment.” The credibility of the United States and its allies then needs to be examined. Next, the process of signaling desired thresholds to the Iraqis requires analysis in an effort to reach an understanding of how intra-conflict deterrence can be created. The Iraqi side of the ledger must also be considered along with the utility and credibility of Iraqi CW/BW. Finally, alternative rationale (beyond deterrence) for the non-use of these weapons will be examined.

#### *Expected Punishment*

The George H. W. Bush Administration decided the most capable threats to deter the Iraqi use of WMD were promises of massive retaliation and regime change.<sup>11</sup> The most direct, high-level attempt to deter the Iraqis was made on 9 January 1991 by Secretary of State James Baker during a meeting with Iraqi Foreign Minister Tariq Aziz in Vienna. Baker presented a letter that would later serve as the foundation for National Security Directive 54. Aziz read the letter, but refused to formally accept it or deliver it to Saddam Hussein. A copy of the letter was also presented to the Iraqi ambassador in Washington, D.C. Secretary Baker’s warning was direct; he promised retaliation and the removal of the current government in Baghdad:

If the conflict involves your use of chemical or biological weapons against our forces the American people will demand vengeance. We have the means to exact

it . . . . If there is any use of weapons like that, our objective won't be the liberation of Kuwait, but the elimination of the current Iraqi regime, and anyone responsible for using those weapons would be held accountable.<sup>12</sup>

The letter to Saddam sounded a similar tone. President Bush wrote:

The United States will not tolerate the use of chemical or biological weapons, support of any kind for terrorist actions, or the destruction of Kuwait's oilfields and installations. The American people would demand the strongest possible response. You and your country will pay a terrible price if you order unconscionable actions of this sort.<sup>13</sup>

Similar threats were delivered by representatives of the British government.

Aziz later expressed that these threats did a great deal to deter Iraq. His thoughts and words were later recounted by Rolf Ekeus, Chairman of the United Nations Special Commission (UNSCOM), to the US Senate: "He [Aziz] told me that the Iraqi side took it for granted that it [American threats] meant the use of maybe nuclear weapons against Baghdad, or something like that. And that threat was decisive for them not to use the weapons."<sup>14</sup> Ekeus, however, stresses this story should be treated with skepticism due to Aziz's frequent retelling of the episode. The important point of this statement is that the highest levels of the Iraqi leadership received and considered the warning.

The United States also took two additional steps to increase the credibility of its commitment to expel Iraq from Kuwait. The first was the quick deployment of forces to the region. This deployment immediately placed American prestige on the line. The second step was the early declaration by President Bush that the Iraqi invasion of Kuwait represented an opportunity to create a "new world order."<sup>15</sup> By declaring the current crisis different from previous crises, the United States could partially nullify any historical preconceptions Saddam may have had about the United States' willingness to commit combat forces in the Middle East. President Bush spoke of creating a new "international order," "a new partnership of nations," "a rare opportunity to move toward an historic period of cooperation," of how Iraq's invasion of Kuwait was "the first assault on the new world that we seek," and he emphasized that this was an opportunity for a fresh start by the United Nations.

American credibility depended on its ability to follow through on these warnings. The United States possessed three capabilities that Iraq did not have the ability to overcome: nuclear weapons, overwhelming conventional superiority, and air dominance. All three capabilities had the potential to assist in executing the threats of massive retaliation and regime change. During the Vienna meeting, Aziz claimed the Iraqis knew what forces were in the region and the capabilities of the weapons in the Coalition's arsenal.<sup>16</sup> The

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size and technical prowess of the Coalition force was certainly enough to give Saddam pause regarding the future of his regime. The risk of an attack aimed at his removal may have caused Saddam to reconsider any use of CW/BW.

The strategy of signaling to create boundaries that define a limited war during the crisis phase appears to have been exercised for the sole purpose of creating a major threshold: no use of WMD. This was accomplished by collapsing the separate levels of WMD—nuclear, chemical, and biological—into one broad category. By the use of a vague threat of massive retaliation in response to any use of WMD by Iraq, the Iraqi leadership was compelled to consider the possibility of American nuclear retaliation.<sup>17</sup>

#### *Expected Value*

In order to demonstrate deterrence, the utility of Saddam Hussein’s use of chemical and biological weapons needs to be established. It is necessary to consider the value to Saddam of using these weapons and analyzing any expected benefit. Would Saddam have used CW/BW if he did not expect retaliation? If one were to not answer this question in the affirmative, the possibility of actual deterrence would not exist because there would not have been anything to deter.

Saddam and the Iraqi leadership had ample motivation and opportunity to use CW/BW between August 1990 and February 1991. In developing this premise and throughout the entire article, two assumptions are made: (1) Saddam was a rational actor, and (2) Saddam would not have been persuaded to avoid first-use by the prospect of international condemnation alone.<sup>18</sup>

As several Coalition leaders have attested, the Iraqi army with a coordinated attack in the first few weeks of the buildup could have inflicted major damage on allied forces, possibly forcing a complete withdrawal. General H. Norman Schwarzkopf recalled the early days of the American deployment to Saudi Arabia: “My main worry was that a ground war would come to us . . . I knew that the Iraqis could overrun the Saudi oil region in a week . . . In an [Iraqi] attack their [the 82d Airborne Division’s] only option would be



to pull back to an enclave on the coast and hope we could either reinforce them or get them out.”<sup>19</sup> Many logistical targets were also within Iraqi missile range and could have easily been targeted for terrorist-type strikes.

Moving to disrupt the buildup of forces would have had major military and political impacts on the coalition coalescing to confront Saddam. Saddam’s strategy appears to have been to seize Kuwait and then convince other countries it was not in their national interest to attempt to force his withdrawal. A CW/BW attack would probably have caused each of these nations, including the United States, to reconsider whether it would be worth committing additional forces in such a high-risk environment.

Once the war began, the use of CW/BW would have been even more difficult, but still possible. Iraq had developed offensive and defensive doctrines for the use of chemical weapons and had in fact employed them during the Iran-Iraq War.<sup>20</sup> The use of these weapons was, of course, against a much slower and less protected enemy, but the fact that a doctrine existed for their use demonstrates that Iraq had not only a plan for their use, but also experience in how best to utilize such weapons. Coalition strategy purposely tried to keep Saddam confused as to their actual war aims.<sup>21</sup> In all their initial planning Coalition forces believed that pure desperation from fear of losing his regime was the one motivating factor likely to cause Saddam to order the use of CW/BW.

The Coalition was at the same time attempting to influence Saddam by means of a deception campaign designed to convince him that America’s chemical and biological defenses were impenetrable.<sup>22</sup> Even if they had not suffered a single casualty as the result of a CW/BW attack, Coalition forces would still have had to move more slowly and exercise extreme caution. Saddam would have found this slow-moving enemy to his advantage when planning for the withdrawal of his army from Kuwait or when targeting attacking forces.

#### *The Non-Use of CW/BW*

There are several reasons offered for why Saddam did not use the weapons at his disposal. By analyzing each of these, it can readily be concluded there is only one plausible explanation, Saddam was truly deterred.

Another alternative explanation often heard for this non-use is that Iraq did not possess CW/BW pure enough to cause significant damage or they were not in a deliverable form. Iraq had in fact stockpiled tons of chemical and biological munitions in various forms and had a number of delivery methods available. Following the war, UNSCOM weapons inspectors found 46,000 pieces of chemical-filled munitions.<sup>23</sup> Iraq’s biological program, as of January 1991, was summarized by UNSCOM’s Chairman Rolf Ekeus as having “produced a large

amount of biological warfare agents. They had placed them in missile warheads. The warheads had been moved out to the active missile force. So it was fully deployed for use.”<sup>24</sup> Between 150 and 200 aerial bombs were also available, deployed, and on alert.<sup>25</sup> Iraq admitted to filling 191 warheads with biological agent and having “an aerial spraying system designed to spray 2,000 liters of agent over a given target.”<sup>26</sup> Additionally, Iraq was also found to have filled numerous missile warheads with VX (nerve gas).<sup>27</sup> Ambassador Ekeus discovered that sarin-filled warheads had also been placed on Scud missiles.<sup>28</sup> UNSCOM found Iraq in possession of more than 800 of these Russian-style Scud missiles, with an even greater indigenous missile capability.<sup>29</sup>

Another argument related to Iraq’s inability to deliver these weapons is that Iraqi officers might have refused orders to use chemical and biological weapons. This is highly unlikely; by 1990 Baathist purges had created a military leadership loyal to Saddam and specifically selected so as to not pose a threat.<sup>30</sup>

A subsequent argument is that Saddam and his generals believed the defensive systems of the Coalition forces were impervious to his weapons. As previously mentioned, even assuming a strong US defense against these weapons and their delivery systems, there was still much to gain from their use against this well-defended enemy. Assuming Iraq believed America’s claims of invulnerability, they must have been aware of what might be gained by the use of CW/BW.<sup>31</sup> Regardless of the level of Coalition defenses, using CW/BW would have given Iraq the opportunity to assume the initiative and cause the opposition to be more cautious. Coalition commanders were already incorporating into their planning processes considerations of when, where, and how Iraq was likely to introduce such weapons.<sup>32</sup>

Another possible reason Iraq refrained from use of WMD is that such use would have strengthened the Coalition. Contrary to this line of reasoning, the chaos and potential for casualties would have placed the fragile Coalition in an even more stressful political situation. The Coalition was being underpinned by the sometime frantic hosting of the Saudi monarchy.<sup>33</sup> The United States military was thousands of miles from home fighting for the hope of a “new world order” and the stability of a distant region with few historical ties to America. Saddam was certainly aware of just how tenuous the Coalition actually was.

Saddam’s political trump card was believed to be a WMD attack on the state of Israel, precipitating a response in kind. Such an attack and response would have placed the Coalition in the untenable position of having Arab states on the same side as Israel while the latter was attacking Iraq. Saddam seems to have acknowledged this logic. He developed a strategy based on the belief that his Scud attacks on Israeli cities would force Israel into a conventional response, thereby avoiding any possibility of nuclear retaliation, and still benefiting from splitting the Coalition.

A final reason often heard as to why Saddam may not have used his CW/BW capabilities is that Coalition bombing and disruption made such use impossible. Iraq was certainly a chaotic place during the initial phases of the war, but this argument is implausible for two reasons. First, it dismisses the potential for Iraqi WMD use before the Coalition air campaign began in January 1991. Second, following the war, information from UNSCOM inspectors made it possible to compare the locations bombed with the weapons storage areas discovered. It is clear that Coalition bombing did very little to disrupt Iraqi biological weapons capabilities and only marginally disrupted or destroyed chemical weapons. In fact, the Coalition did not have knowledge of all the Iraqi chemical sites, and several were left untouched.<sup>34</sup> The Department of Defense estimated that following the war 75 percent of Iraq's chemical production capability was destroyed, but that survey did not address how much of Iraq's stockpiled weapons were destroyed.<sup>35</sup>

The Coalition's mission to prevent Scud missile launches against Israel and Saudi Arabia provides vivid insight regarding attempts to thwart the enemy's planning. Iraq's effort to launch their Scuds from mobile or protected launchers made it extremely difficult for Coalition forces to respond. Iraq was successful in launching Scuds throughout the war even though the United States made countering these attacks a top priority; mainly in an attempt to prevent Israel from responding.<sup>36</sup>

Iraqi orders to use CW/BW would almost certainly have reached commanders in the field. Iraq had built redundancies into its communication systems. One of the Coalition's main accomplishments was forcing Iraq to use communication capabilities that were vulnerable to eavesdropping. This was also the reason for Coalition forces not destroying all the Iraqi means of communication.<sup>37</sup>

## ***Lessons Learned and Implications***

### *Theory of Intra-Conflict Deterrence*

The current or a future US administration may decide it is necessary to take preemptive action against states possessing weapons of mass destruction or that support terrorism. As demonstrated by the 2003 invasion of Iraq, such preemptive action may also include the declared policy of regime change. When regime change is the declared intention, the targeted regime gains incentive for its first-use of WMD. Today's volatile international environment would certainly benefit from a strategy built on a framework for deterring the first-use of WMD in times of crisis. There are four basic strategies that proved useful during the Persian Gulf crisis that may well be applicable to future military operations against states possessing WMD.

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***“Negotiation during conflict has the potential to establish thresholds capable of preventing the introduction of WMD by leveraging the threat of escalation dominance.”***

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First, establishing the expectation that one of the basic premises in the deterrence equation is that of targeting the most highly valued targets in a deterred state was responsible for the Iraqi leadership reconsidering its offensive intentions. This is also a different type of threat or strategy than those utilized in the past. Threatening the regime of the deterred state with removal is the ultimate punishment; by combining that threat with the possibility of massive retaliation and an acknowledged nuclear capability, an enormous disincentive for the first-use of WMD is created. The ability to change regimes is more possible today than during any period cited in deterrence literature. Today, the military dominance of the United States and the isolation of various rogue regimes makes the American threat of regime change even more credible. Similarly, no political alliance would likely defend a targeted state the way the Soviet Union did its clients during the Cold War. This proposition strengthens one’s ability to deter states from WMD first-use. If the initial aim of a military campaign is to disarm a state of its WMD capability, then regime change can appropriately be threatened as punishment.

Second, the chance of deterrence apparently is strengthened when early in a crisis a state signals the thresholds it does not want crossed. The threshold of no WMD use—with all forms of WMD placed under one threshold—created a line not to be crossed in the case of the Persian Gulf crisis and resulting war. This one-threshold strategy provides simplicity and efficiency. Having a single threshold makes it easier to signal to an opposing state. Avoiding moves up the escalation ladder also eases the possibility of losing credibility. If lesser thresholds are created below that of WMD use a perception may be created that those lesser thresholds can be crossed. Such a strategy weakens the potency of the single threshold and creates an environment for escalation. Establishing the single-threshold strategy early in a crisis permits both sides to conduct the conflict with any conventional strategy they choose, while minimizing the opportunities for escalation based upon knowledge of the consequences associated with crossing the major threshold.

The ability to create a new situation, from which an opponent cannot draw historical parallels, and the possession of escalation dominance are the final parts of this new framework or strategy. The strategy of placing the prestige of the United States on the line in defense of a “new world order” in 1990 provided credibility to back up the threatened punishment. If the new situation is not defended in some test early on, then the benefits of creating the situation will be lost. Defending the situation provides credibility and an incentive for the deterring state to follow through on threats because it has placed its prestige on the line. There are two steps that can enhance the probability of a new situation convincing the targeted state that the deterring state’s threats are credible. First, efforts can be made to strengthen the global norms associated with the use or possession of WMD. Second, emphasizing that the post-9/11 period is a new era provides the opportunity for creating a credible understanding that the United States and its allies are determined to prevent the proliferation of WMD and any associated terrorist activities.

New nonproliferation efforts—such as the Proliferation Security Initiative (PSI) and the Global Initiative to Combat Nuclear Terrorism—help create a historical context providing the United States with increased credibility in response to threats of WMD proliferation or use. Created after 9/11, the Proliferation Security Initiative demonstrates the urgency the United States places on preventing the transfer of WMD to terrorist organizations. The ad hoc, informal nature of PSI makes it possible to exercise aggressive new measures that may cause rogue states to reconsider their possession of WMD.

### ***Conclusion***

Building an understanding of intra-conflict deterrence regarding the first-use of WMD is critical to the global security environment. The strategic location of states believed to possess WMD makes it imperative that America confront any possessor state if they act aggressively. Several states considered adversarial by the United States currently possess chemical and biological weapons, others may even be considering the development of nuclear programs. If the United States remains engaged in the Middle East while continuing to prosecute the war against Islamic extremism, it may eventually be drawn into some form of conflict with one or more of these states.

Several aspects related to the theory of deterrence stand out and warrant further consideration. One of the most obvious is the prospect that promised or expected punishment to a deterred state should be credible. Another factor relates to deciding what targets are most valuable in the state to be deterred; this assessment is critical to determining whether deterrence is likely to succeed. Each state, in varying degrees, values its possessions and the lives of its citizens. The utility of threatening regime change is also wor-

thy of study. Eliminating the ruling regime is the harshest punishment a targeted nation can face. Establishing the credibility of such threats is also critical. The one-threshold strategy and the prospects for creating new situations also appear to have value in enhancing deterrence and increasing US credibility.

The Persian Gulf War demonstrated that it is possible to deter the first-use of chemical and biological weapons. This does not mean deterrence can always be accomplished by simply following the Persian Gulf War pattern. Likewise, it should not be assumed that states possessing WMD can be attacked with certainty in an attempt to deter first-use. The United States' emphatic commitment to stand strong, as demonstrated by deployment of forces, increased its credibility in the case of the Persian Gulf War and could serve as a model for countering future aggressors. Maintaining the three military capabilities that enhance escalation dominance—nuclear capability, conventional superiority, and airpower—will also assist in future attempts to deter the first-use of WMD.

Past deterrence theory still has value when applied in the contemporary international arena. Studying which part of this theory is still relevant and which parts need further evaluation provides an understanding of the strategies best suited to achieve intra-conflict deterrence for the future.

#### NOTES

1. George W. Bush, *The National Security Strategy of the United States of America* (Washington: The White House, March 2006), 18.

2. Bernard Brodie, *Escalation and the Nuclear Option* (Princeton, N.J.: Princeton Univ. Press, 1966); Alexander L. George, *Forceful Persuasion: Coercive Diplomacy as an Alternative to War* (Washington: USIP Press, 1992); Barry R. Posen, *Inadvertent Escalation: Conventional War and Nuclear Risk* (Ithaca, N.Y.: Cornell Univ. Press, 1991); Thomas C. Schelling, *Arms and Influence* (New Haven, Conn.: Yale Univ. Press, 1966); Thomas C. Schelling, *Choice and Consequence* (Cambridge, Mass.: Harvard Univ. Press, 1984); Thomas C. Schelling, *The Strategy of Conflict* (Cambridge, Mass.: Harvard Univ. Press, 1980); Richard Smoke, *War: Controlling Escalation* (Cambridge, Mass.: Harvard Univ. Press, 1977); and Robert Jervis, "Deterrence and Perception," *International Security*, 7 (Winter 1982/1983), 3-30.

3. Jervis, 4.

4. *Ibid.*, 4-5.

5. Schelling, *The Strategy of Conflict*, 53-80.

6. Schelling, *Arms and Influence*, 135.

7. *Ibid.*, 131-41.

8. *Ibid.*, 155.

9. Schelling, *The Strategy of Conflict*, 75.

10. Schelling, *Arms and Influence*, 220.

11. James Baker, *The Politics of Diplomacy: Revolution, War, and Peace, 1989-1992* (New York: G. P. Putnam's Sons, 1995), 359.

12. *Ibid.*

13. "Text of Letter from Bush to Hussein," *The New York Times*, 13 January 1991, A9.

14. Senate Committee on Governmental Affairs, *Global Proliferation of Weapons of Mass Destruction*, 104th Congress, 2d session, 20 March 1996, S. Hrg. 104-422, pt. 2, 92.

15. Quotations in this paragraph are from "Bush: 'Out of These Troubled Times . . . a New World Order,'" *The Washington Post*, 12 September 1990, A34.

16. Baker, 360.

17. Signaling only one major threshold had other advantages. It kept the matter simpler, more easily communicable, and more understandable. Also, in planning for the war, the United States was anxious to maintain flexibility and fight a fast, high-intensity war. This meant not allowing other conventional thresholds to be set. Conventional thresholds might have included, among others, whether the Coalition would enter Iraq, how far north the Coalition would bomb, and whether Baghdad and the Iraqi leadership would be targets. During military planning, the United States wanted to be able to fight aggressively, destroy a great part of the Iraqi military, and enter Iraq. See H. Norman Schwarzkopf, *It Doesn't Take a Hero* (New York: Bantam Books, 1992), 353-62.

18. For a concurring opinion from many distinguished international security scholars, see advertisement in *The New York Times* on 26 September 2002, A31 and John J. Mearsheimer and Steven M. Walt, "An Unnecessary War," *Foreign Policy*, 134 (January/February 2003), 51-59.

The assumption Saddam would not be affected by international condemnation following use of CW/BW stems from his use of CW during the Iran-Iraq War and against the Kurdish population in Iraq. It could be argued Saddam used CW when he felt the United States was on his side during the 1980s. Almost universal world opposition to the use of WMD in 1990-91 may have made a difference, some may argue. It is more probable that once a leader proves willing to use CW as freely as Saddam did in the Iran-Iraq War and is nearly certain the world will find out, there is no level of verbal condemnation that can make a difference.

19. Schwarzkopf, 310.

20. Iraq had extensive experience with CW during the Iran-Iraq War. Iraq targeted Iranian cities and troops. During Iranian offensives, Iraq used CW for defense against the waves of Iranian troops attacking in near-suicide assaults. By the end of the war, Iraq had developed an offensive doctrine for CW use, capturing Al Faw peninsula in 1987 with a coordinated CW assault. See Hero Dilip, *The Longest War: The Iran-Iraq Military Conflict* (London: Grafton Books, 1989), 201-03, 206-07.

21. Khaled Bin Sultan, *Desert Warrior: A Personal View of the Gulf War by the Joint Forces Commander* (New York: HarperCollins Publishers, 1995), 186-87.

22. On the deception campaign, see Albert J. Mauroni, *Chemical-Biological Defense: U.S. Military Policies and Decisions in the Gulf War* (Westport, Conn.: Praeger, 1998), 28-29. For lack of proper defenses and training on CW/BW defense techniques see Mauroni, 7-42 and R. Jeffrey Smith, "Report Withheld from Public Says GIs Were Poorly Equipped for Gas Attack," *The Washington Post*, 13 April 1991, A15.

23. United Nations Security Council document S/23165, "Report by the Executive Chairman of the Special Commission Established by the Secretary-General Pursuant to Paragraph 9(b)(i) of Security Council Resolution 687 (1991)," 25 October 1991, 5.

24. Senate Committee on Governmental Affairs, 91.

25. *Ibid.*

26. *Ibid.*, 325.

27. *Ibid.*, 337.

28. Frank J. Prial, "U.N. Team Finds Chemical Arms 4 Times Greater Than Iraq Claims," *The New York Times*, 31 July 1991, A1.

29. Senate Committee on Governmental Affairs, 93-94.

30. For more on the reforms to the Iraqi military see Mark A. Heller, "Iraq's Army: Military Weakness, Political Utility," in *Iraq's Road to War*, eds. Amatzia Baram and Barry Rubin (New York: St. Martin's Press, 1993), 44-48 and Frederick W. Axelgard, *A New Iraq? The Gulf War and Implications for U.S. Policy* (New York: Praeger Press, 1988), 48-55.

31. Smith, A15. A General Accounting Office (GAO) report surveyed 71 Army chemical specialists who believed more than half of exposed troops would be killed in a gas attack due to inadequate training. The GAO report also mentions an Army field manual which predicted 25 percent of US deaths in a chemical attack would come from "claustrophobia, apprehension, and panic." The GAO report also found the US military short of decontamination capabilities. Before the Persian Gulf crisis, troops had received less than the required training to prepare for CW/BW attacks and trained for unrealistic scenarios. Soldiers deployed to the Persian Gulf region for Operation Desert Shield were given an extra training course to attempt to prepare, however.

32. Schwarzkopf, 356, 439. Schwarzkopf was concerned his "left hook" plan to liberate Kuwait may have given the Iraqis an opportunity to attack the gathered forces with CW/BW or even possibly a nuclear weapon. Another major concern was how to deal with such threats on the Saudi Arabia/Kuwait border.

33. For an example of how Saudi Arabia reacted to minor Iraqi pressure, see Schwarzkopf, 424-26. In response to Iraq occupying an insignificant Saudi border town for one night, Saudi Arabia's King Fahd requested the Coalition send bombers to destroy the entire town.

34. Senate Committee on Governmental Affairs, 105-06.

35. Department of Defense, *Conduct of the Persian Gulf War: Final Report to Congress* (Washington: Government Printing Office, 1992), 155.

36. George H.W. Bush and Brent Scowcroft, *A World Transformed* (New York: Knopf, 1998), 451-56.

37. Information in this paragraph is from Department of Defense, 96, 137-38, 151-54.