

## Strategy and Cost

### A Gap in Our Military Decision-Making Process

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*Editorial Abstract: The current structure of the military decision-making process assumes that end-state goals have been determined and that strategy is developed in isolation from cost considerations. The author proposes revamping this system by having military strategists develop a menu of options for civilian policy makers. With cost considerations factored into planning, this approach would enable elected leaders to better navigate the many competing demands for public resources.*

The president and Congress are the ultimate arbiters of whether the United States goes to war and how the military conducts operations. Sometimes, civilian authorities entrust their military commanders with determining operational strategy (i.e., the selection of forces to employ, the way to employ them, and the timing and tempo of operations). Pres. George W. Bush, for example, is proud of saying that he will continue to defer critical decisions in Iraq to the judgment of the generals; indeed, the president frequently refers to the surge in Iraq as Gen David Petraeus's strategy rather than his own.<sup>1</sup> At other times, civilian leaders take a more controlling role in directing operations and rely on military professionals for advice. Either way, military officers play a large role in influencing policy options and shaping strategy.

Unfortunately, the structure of the current military decision-making process (MDMP) is deficient in at least two major respects as regards preparing military leaders to fulfill that role (i.e., the role of determining or advising appropriate courses of action). First, it assumes the existence of an established objective or clearly stated end, when in fact this is often unsettled. When evaluating a course of action (COA), the current MDMP often presupposes the very issue to be decided: what do we want to accomplish? Stated otherwise, it presupposes consensus and direction when the very issue to be decided is what the objective should be. Second, the structure of the current MDMP encourages war fighters to develop strategy in isolation from cost considerations. Because the current MDMP focuses primarily on how we can most effectively fulfill any given objective, war fighters produce robust plans without considering expense.

Civilian policy makers, however, are interested in knowing more than just the most effective military option. Because they must manage disparate interests that compete for limited financial resources, these policy makers are most concerned with evaluating efficiency and effectiveness trade-offs among various alternatives. They may opt for a less effective military option that provides better value for their investment, given other demands on public resources. Consequently, civilian policy makers need to know the likely cost before they set political objectives so they can better manage competing public interests. Our elected leaders would be better served by a new military decision-making approach that provides a range of options, including low-cost alternatives to strategic challenges.

### Why Neglecting Cost Is a Problem

Military planners consider financial factors when deliberating matters related to organizing, training, and equipping forces. But they ostensibly neglect the monetary cost of action when formulating strategy and employing military power. Simply stated, war fighters view cost-benefit and other financial analysis as budgetary tools rather than an integral part of force employment. Yet, the success of a campaign or war is often a function of economics. Even a nation as rich as ours has finite resources, and the public has a limited appetite for absorbing the costs of war.<sup>2</sup> In fact, the judicious use of resources becomes even more critical during long, expensive conflicts.

The administration's war-funding request of \$93 billion during fiscal year 2007 approached 20 percent of the total Department of Defense budget. The global war on terror (GWOT)—a conflict that President Bush and others believe will last a generation—is poised to eclipse the cost of the entire war in Vietnam. So far it has cost the United States more than \$672 billion.<sup>3</sup>

From an institutional perspective, the cost of the war has been staggering. The Air Force has been cutting personnel in an effort to fund both contingency operations and force modernization. Even with this manpower reduction, Air Force leaders expect to absorb another \$120 billion budget shortfall, roughly the equivalent of a full year's budget, over the next six years. Commenting on the service's budget crunch, Gen Ronald Keys, head of Air Combat Command, said, "I'm at a point when I can barely pay for meat and potatoes."<sup>4</sup> Similarly, Gen T. Michael Moseley, former Air Force chief of staff, remarked, "We face increasing financial challenges."<sup>5</sup>

In theory, defense budgets are built around valid requirements. In practice, however, Congress "come[s] up with an acceptable budget amount and expect[s] the armed forces to live within it."<sup>6</sup> Consequently, service budgets are squeezed in order to fund operations and the rising cost of other public services. Retired general Barry McCaffrey told Congress that "the monthly burn rate of \$9 billion a month in Iraq and \$[1] billion in Afghanistan has caused us to inadequately fund the modernization of the US Air Force and Navy by diverting funds (as much as \$55 billion) to support the on-going ground war."<sup>7</sup>

War fighters should not necessarily shy away from a strategy simply because institutional or other costs are high. Certainly, our nation would bear any burden to defend its survival. "No cost would have been too high if the United States faced an imminent threat from an Iraq armed with weapons of mass destruction, the war's stated justification," notes Martin Wolk, MSNBC's chief economics correspondent.<sup>8</sup> Even so, incorporating cost considerations when thinking through military action helps frame the desirability of various levels of effort. Additionally, identifying the costs of continued action may help decision makers reevaluate their initial political objectives, based on battlefield realities and the strategic situation.

The idea is not to suggest that we can monetarize all costs and benefits and therefore reduce the complexities of strategy into a simple mathematical ratio (i.e., select the COA with the lowest cost-benefit ratio). It is impossible, for example, to determine the dollar value of a democratic Iraq. Marine Corps Doctrinal Publication (MCDP) 1-1, Strategy, aptly points out that, "given the nature of war, however, such cost-benefit analysis is more easily described than accomplished. . . . [Furthermore,] it is often

difficult to perceive the point at which the cost of fighting exceeds the value of victory.”<sup>9</sup> Nevertheless, the challenge associated with valuing “victory” does not mean that war fighters should summarily dismiss or exclude cost considerations when developing strategy. Aaron L. Friedberg, a former deputy assistant for national security affairs and director of policy planning in the Office of the Vice President, emphatically writes, “The first and most fundamental task of any strategic planning operation is to develop alternative courses of action and to assist policymakers in conducting a systematic evaluation of their potential costs and benefits.”<sup>10</sup>

## **A Deficient Military Decision-Making Process**

Unfortunately, the current MDMP fails to capture cost considerations adequately. The process generally starts with the assumption that civilian leaders have established clear objectives and defined a desired end state. Then, strategy cells offer several alternative COAs for a combatant commander to consider that satisfy overarching political guidance. One problem with this approach is that it narrowly focuses on how to realize a given objective most effectively rather than provide policy makers with a menu of choices. If the cost of pursuing an objective is high, relative to other competing public interests, policy makers may decide that the objective is not worth pursuing or may opt to change the objective in search of an alternative COA that offers better value.

Current doctrine encourages commanders to mass all available combat power rather than explore less costly responses. For example, US Army Field Manual (FM) 3-0, Operations, states that “when the time comes to execute, all elements should have tasks to perform.”<sup>11</sup> This doctrinal mandate to employ all available forces is rooted in the Clausewitzian notion that unemployed resources are wasted in total war. According to Carl von Clausewitz, “If a segment of one’s force is located where it is not sufficiently busy with the enemy, or if troops are on the march—that is, idle—while the enemy is fighting, then these forces are being managed uneconomically. In this sense they are being wasted, which is even worse than using them inappropriately. When the time for action comes, the first requirement should be that all parts must act.”<sup>12</sup> When less-than-vital interests are at stake, though, sending a large contingent of forces into action may not be politically acceptable, and/or the cost may be prohibitive.

Citing a “requirement” for overwhelming force, commanders sometimes request more assets than needed, thereby limiting political options.<sup>13</sup> Mackubin Thomas Owens observes that “when the army did not want to do something—as in the Balkans in the 1990s—it would simply overstate the force requirements: ‘The answer is 350,000 soldiers. What’s the question?’”<sup>14</sup>

The current MDMP structures strategy development in such a way as to convert challenges to a force-allocation problem. Commanders are allotted assets for a campaign, and they will use those assets if they marginally contribute to the overall goal, regardless of whether the marginal return of using those assets exceeds the cost. The situation is analogous to how a factory in a command economy uses resources. The government allots the factory certain resources, and the factory will employ them even if the product does not add much value.

Joint Publication (JP) 5-0, the document governing joint operation planning, largely neglects the issue of cost when it outlines steps in the joint planning process. JP 5-0 fails to include cost as a criterion of interest when commanders complete COA analysis and war gaming, COA comparison, and COA approval. Moreover, it fails to require planners to compare the relative costs associated with each COA. Instead, it urges commanders simply to select the “one [COA] with the highest probability of success.”<sup>15</sup> Commanders are encouraged to consider cost only as a subcriterion when evaluating the validity of a proposed plan. In that regard, a commander’s staff makes a binary judgment (i.e., yes or no) regarding whether a COA is “worth the expected costs” in terms of military effectiveness.<sup>16</sup> There is no recognition that civilian policy makers may choose to employ less optimal military action in favor of employing the nation’s limited capital elsewhere.<sup>17</sup>

Providing guidance similar to that of JP 5-0, the Chairman of the Joint Chiefs of Staff Manuals (CJCSM) that address joint planning—CJCSM 3122.01A, CJCSM 3122.02C, and CJCSM 3122.03C—fail to direct staffs to consider the relative costs of proposed actions.<sup>18</sup> Staff estimates, step three of the concept-development process, are meant to provide “key estimates” of the suitability of proposed actions, yet they do not require compilation or analysis of cost information. Likewise, the commander’s estimate, step four of the concept-development process, is supposed to compare the desirability of each proposed COA, yet it does not direct an evaluation of the cost of action. Moreover, the chairman’s manual prohibits the release of any estimates to other US government agencies.<sup>19</sup> This provision discourages cost transparency early in the concept-development process. The last step, the CJCS estimate review, asks key players to examine whether the proposed COA is “worth the expected costs,” but again, this is only in terms of its military effectiveness and calls only for a yes or no evaluation. Financial information is not included in any plan appendix, nor are the relative costs of alternative COAs presented for review.<sup>20</sup>

The limited consideration given to cost in the current MDMP is reflected in a number of other ways. Generic war plans contain 36 annexes, but none details the expected cost of executing these plans.<sup>21</sup> Financial officers are nowhere to be found in military strategy cells such as combined air operations centers. Air Force Operational Tactics, Techniques, and Procedures (AFOTTP) 2-3.2, the manual detailing AFOTTPs for air and space operations centers, fails to include any discussion on how cost factors should be included in strategy formulation. Giving planners only one tip when it comes to cost considerations for employing forces, AFOTTP 2-3.2 cautions that “Unmanned Aerial Vehicles do not have an aircrew onboard . . . [but] a fully equipped RQ-1 Predator air vehicle costs in excess of \$3.2 million, and an RQ-4A Global Hawk costs in excess of \$12 million . . . [so] high-risk mission taskings into heavily defended areas where loss of the air vehicle is very likely should be approved by the JFACC [joint force air component commander].”<sup>22</sup>

To battle insurgents in Iraq, directors of combined air operations centers authorized \$35 million F/A-18As flying from a carrier that costs \$2.5 billion to drop \$190,000 laser-guided weapons on the position of a single insurgent armed with an AK-47, while our enemy uses old artillery shells and a cell phone to build an improvised explosive device to destroy one of our Humvees, which cost \$150,000 apiece.<sup>23</sup>

Cost control during insurgencies or battles against terrorism is particularly important since the enemy can deliver effects disproportionate to the effort. Lawrence Freedman writes that “car bombs are stealth weapons that are a cheap and operationally straightforward way of getting explosives to a target, and they make enough noise that they cannot be ignored. For these reasons, they are the ultimate in asymmetry.”<sup>24</sup>

Defenses against improvised explosive devices and other asymmetrical attacks are costly. The terrorist attacks of 11 September 2001 cost between \$400,000 and \$500,000, yet the hijackers were able to inflict billions of dollars in direct damage and an exponentially larger amount in indirect damages.<sup>25</sup> Additionally, the attacks caused the United States to spend billions more on expensive homeland-defensive measures.

In Making Twenty-First-Century Strategy, Prof. Dennis Drew and Prof. Donald Snow worry that enemy strategists will devise asymmetrical ways to bleed the United States into expending economic resources at politically unacceptable levels.<sup>26</sup> Even though the “US economy is much larger and more vigorous than it has been in times

past, fewer of the government's economic resources are available for military purposes.<sup>27</sup> The military portion of the economic pie has shrunk, relative to the nonmilitary portions of the budget. And that trend will likely continue as Congress looks for ways to pay for skyrocketing entitlement payments, especially as the baby-boomer generation retires. The "discretionary" Defense Department budget will likely bear the brunt of future cuts.<sup>28</sup>

Our enemies today do not so much seek our military defeat as they do our internal political collapse and reluctance to continue the struggle. Unfortunately, our current MDMP's failure to take cost into account in determining strategy plays right into their hands.

### **A Better Approach**

Civilian policy makers, who must arbitrate among competing public interests, would be better served if they had an improved understanding of costs before they set political objectives. To support this construct, military strategists need to be prepared to offer a strong mix of policy options, including inexpensive responses as well as more robust alternatives. This construct involves varying both the objective and desired end state as well as the potential responses. In essence, this new approach would provide policy makers with a larger menu of choices.

War fighters should frame for civilian policy makers what various military options "buy" in terms of relative returns. What will the country get in return for its sacrifices and expenditures? At what risk? The key lies in varying the scale of effort and outlining the associated cost of action so that civilian policy makers can choose the best value. In other words, war fighters should identify and outline efficiency and effectiveness trade-offs among various alternative actions. For an estimated cost of X in terms of men, money, and materiel, we can expect to achieve certain effects. For a cost of Y, we expect to deliver different effects. We may be able to achieve a 90 percent solution for 10 percent of the cost. For instance, the price tag for a democratic, well-functioning Iraq may be astronomical, whereas a secure, relatively stable Iraq may be possible at a fraction of the cost. The United States may be able to keep the country from imploding for a tenth of the cost and commitment of other plans.

Strategic guidance is not static. The president may choose to change his goals, based on opportunities or limiting factors that emerge after first contact with the enemy. Strategy formulation is an iterative process with the goal of creating a plan for continuing advantage.<sup>29</sup> Decision makers need to remain mindful of costs before they set initial objectives; they also need cost visibility to evaluate whether to continue with their initial strategic vector or modify the objective and select an alternate game plan. Accordingly, war fighters should explicitly include cost considerations when thinking through the COA comparison-and-selection steps in the MDMP. Unfortunately, many commanders are neither trained nor interested in the economics of action. Yet, cost during long wars such as the GWOT is particularly important since it affects sustainability of action and public support.

### **Learning from Churchill**

During World War II, Winston Churchill famously remarked, "We shall defend our Island, whatever the cost may be."<sup>30</sup> Earlier in his career, though, when the stakes were less vital, he recognized that the price tag (i.e., the cost in terms of men and materiel) for proposed operations was more than just a secondary consideration. After World War I, England struggled to maintain its colonial empire at a time when its treasury was more or less broke. Then serving as the war minister, Churchill had to devise cheap, innovative strategies to maintain control of England's overseas territories.

In 1919 the emir of Afghanistan declared jihad against Britain's forces in the Northwest Frontier Province. The British sent a single Handley Page biplane bomber to Karachi. The aircraft dropped four 112-pound and 16 20-pound bombs on Kabul, causing the emir to sue for peace shortly thereafter. Basil Liddell Hart, a military historian and strategist, declared that "this aeroplane seems to have achieved more than 60,000 men did."<sup>31</sup>

A year later, Mohammed bin Abdullah Hassan, the "Mad Mullah" of Somaliland, reemerged as a threat to British interests in the region. The fanatical mullah had been a thorn in the side of the British for decades. Previously, the British sent four expeditions, the last of which involved 15,000 troops, to Somaliland; all four failed. The mullah was able to regroup his forces and terrorize local tribesmen who had accepted British rule. Ultimately, he slaughtered a third of the territory's inhabitants.<sup>32</sup>

The English parliament balked at repeating the expensive ground invasion, so Churchill sent six small aircraft to East Africa. They bombed the mullah's fort for two days and brought the immediate crisis in Somaliland to a conclusion. Churchill boasted that the previous land expedition had cost the treasury £6 million—about £120 million (\$220 million) in today's money—but the Royal Air Force did the job for £77,000.<sup>33</sup>

Churchill also managed to maintain British influence in Mesopotamia and other lands in the Middle East and Southwest Asia using similarly cheap methods. In August 1919, he warned Parliament that England's large Mesopotamian garrison was prohibitively expensive, and he advocated drastic cuts. Churchill suggested that British power could be maintained if he replaced some mechanized forces with fewer foot soldiers. By early 1920, the previously 25,000-strong British garrison was cut nearly in half. Even so, sustaining this reduced force required £18 million a year, a sum the War Office could ill afford to continue to pay. "Driven by a financial imperative [to cut costs], Churchill now began to think along more radical military lines," notes David Omissi in *Air Power and Colonial Control*. "Churchill persisted in his attempts to find cheaper methods of holding Mesopotamia."<sup>34</sup> He mostly relied on a strategy that leveraged the promise of airpower and employed a combined-arms approach. In Iraq, Churchill "chose to save cash by running the country through a puppet ruler," installing Faisal I as king in 1921.<sup>35</sup> Churchill's efforts helped maintain the power of the Arab kingdoms in Mesopotamia and dominate other populations under British sway.

The point of chronicling these historical events is not to argue the merits of air policing. On the contrary, British political hopes for the region were never entirely fulfilled. The Mad Mullah, for example, was never captured, and 700 of his followers escaped to fight another day. Rather, the intent is to show how Churchill incorporated cost considerations into his strategy development and was able to construct politically feasible and fiscally sustainable COAs successfully.

### **Conclusion**

Instead of planning to employ all available combat power automatically, war fighters should explore ways of making our armed response less costly and more efficient. All too often, commanders limit their aim to ensuring "overwhelming combat power" and devoting "maximum effort" towards achieving primary objectives.<sup>36</sup> This is too one dimensional. War fighters should focus more on the "judicious employment and distribution of forces."<sup>37</sup>

In *Carnage and Culture*, Victor Davis Hanson states that "ultimately, war is a question of economics, in which the options of all states are confined by their ability to produce goods and services; thus every armed force calibrates the greatest military power for the least cost. Armies in the Dark Ages and medieval era, like their classical predecessors, were not immune from such constraints, and so learned quickly that man for man, infantry could be provided for at a tenth of the expense of mounted

troops.”<sup>38</sup> But incorporating cost considerations into strategy goes beyond simply tinkering with the force mix.

While helping to preserve the British Empire, Churchill employed a combined-arms team to reduce cost. More importantly, he elevated cost considerations beyond an ancillary concern and presented policy makers with a range of employment options. Since civilian policy makers are most interested in advancing and managing broader notions of public interests, military strategists need to present alternatives that do more than just offer robust operational solutions. That is, they should provide a menu of choices, including low-cost options that may produce a range of politically acceptable outcomes, so that our elected leaders can better arbitrate among competing demands for public resources. This approach does not necessarily demand that commanders employ their resources stingily, but it does require them to have a firm grasp of cost fundamentals, a willingness to think beyond narrow operational concerns, and the courage to propose a broad range of measured applications of power.

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## Notes

1. Editorial, “Hiding behind the General,” New York Times, 9 September 2007, <http://www.nytimes.com/2007/09/09/opinion/09sun1.html>. See also Lawrence Korb, “Bush Must Stop Blaming Military Leaders for Failed Strategy,” Huffington Post, 22 July 2007, [http://www.huffingtonpost.com/lawrence-korb/bush-must-stop-blaming-mi\\_b\\_57317.html](http://www.huffingtonpost.com/lawrence-korb/bush-must-stop-blaming-mi_b_57317.html).
2. Martin Wolk, “Cost of Iraq War Could Surpass \$1 Trillion,” MSNBC.com, 17 March 2006, <http://www.msnbc.msn.com/id/11880954>.
3. The cost of \$672 billion is based on a fiscal year (FY) 2006 Congressional Research Service estimate added to the cost of operations annotated in the FY 2007 federal budget. Ann Scott Tyson, “Bush’s Defense Budget Biggest since Reagan Era,” Washington Post, 6 February 2007, <http://www.washingtonpost.com/wp-dyn/content/article/2007/02/05/AR2007020501552.html>; and John A. Tirpak, “The \$120 Billion Cut,” Air Force Magazine 89, no. 10 (November 2006): 28–33, <http://www.afa.org/magazine/nov2006/1106cut.pdf>.
4. Quoted in Tirpak, “\$120 Billion Cut,” 33. Gen John Corley took the reins of Air Combat Command from General Keys on 2 October 2007.
5. Gen T. Michael Moseley, “The Future of Air and Space Power” (address, Air Force Association’s Air and Space Conference and Technology Exposition, Washington, DC, 27 September 2006), <http://www.af.mil/library/speeches/speech.asp?id=276>.
6. Robert S. Dudley, “Second Opinion,” Air Force Magazine 90, no. 1 (January 2007): 2, <http://www.afa.org/magazine/jan2007/0107edit.pdf>.
7. Senate, Testimony of General Barry R. McCaffrey (USA, Ret.), Adjunct Professor of International Relations, United States Military Academy, before the Senate Armed Services Committee, 110th Cong., 1st sess., 17 April 2007, 6, <http://armed-services.senate.gov/statemnt/2007/April/McCaffrey%2004-17-07.pdf>.
8. Wolk, “Cost of Iraq War.”
9. Marine Corps Doctrinal Publication 1-1, Strategy, 12 November 1997, 43, [http://www.dtic.mil/doctrine/jel/service\\_pubs/mcdp1\\_1.pdf](http://www.dtic.mil/doctrine/jel/service_pubs/mcdp1_1.pdf).
10. Aaron L. Friedberg, “Strengthening U.S. Strategic Planning,” Washington Quarterly 31, no. 1 (Winter 2007–8): 49, [http://www.twq.com/08winter/docs/08winter\\_friedberg.pdf](http://www.twq.com/08winter/docs/08winter_friedberg.pdf).
11. Field Manual 3-0, Operations, June 2001, 4-13, [http://www.dtic.mil/doctrine/jel/service\\_pubs/fm3\\_0a.pdf](http://www.dtic.mil/doctrine/jel/service_pubs/fm3_0a.pdf).
12. Carl von Clausewitz, On War, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1984), 213.
13. The Powell Doctrine, for example, demands that the United States use “every resource and tool” in the country’s inventory to employ “overwhelming force.” See also Michael Gordon, “A Nation Challenged: Military Analysis, a New Kind of War Plan,” New York Times, 7 October 2001, <http://query.nytimes.com/gst/fullpage.html?res=9C0CE0D7123CF934A35753C1A9679C8B63&sec=&spon=&pagewanted=print>.
14. Mackubin Thomas Owens, “Failure’s Many Fathers,” Foreign Affairs 86, no. 5 (September/October 2007): 149, <http://www.foreignaffairs.org/20070901faresponse86511/richard-b-myers-richard-h-kohn-mackubin-thomas-owens-lawrence-j-korb-michael-c-desch/salute-and-disobey.html>.
15. Joint Publication 5-0, Joint Operation Planning, 26 December 2006, III-33, [http://www.dtic.mil/doctrine/jel/new\\_pubs/jp5\\_0.pdf](http://www.dtic.mil/doctrine/jel/new_pubs/jp5_0.pdf).
16. Ibid., III-50.
17. When business leaders perform net present value (NPV) analysis to make long-term capital decisions, they do not pursue every opportunity that offers a positive NPV (i.e., opportunities that offer benefits that exceed estimated costs). Rather, they recognize that firm capital is limited and choose to pursue only projects that maximize value. Likewise, civilian policy makers do not necessarily make public policy decisions based on whether projected benefits exceed costs. Public resources as well as their own political capital are limited. Therefore, they ideally seek to pursue only those policies that maximize the collective good and/or their constituents’ interests.
18. Chairman of the Joint Chiefs of Staff Manual (CJCSM) 3122.01A, Joint Operation Planning and Execution System (JOPES), vol. 1 (Planning Policies and Procedures), 29 September 2006; CJCSM 3122.02C, Joint Operation Planning and Execution System (JOPES), vol. 3 (Crisis Action Time-Phased Force and Deployment Data Development and Deployment Execution), 19 June 2006; and CJCSM 3122.03C, Joint Operation Planning and Execution System, vol. 2 (Planning Formats and Guidance), 17 August 2007.
19. According to CJCSM 3122.01A, “Planning information is not authorized for release to other U.S. government agencies at this point in the process.” However, the manual does authorize the supported commander to “highlight issues for future interagency consultation, review or resolution” in order to present them eventually to the secretary of defense (C-9).

20. Ibid.
21. Prior to the war in Iraq, the Congressional Budget Office (CBO) tried to inform the policy debate when it released a report on the expected cost of the war. But the report failed to link that cost to various strategies. The CBO report listed critical cost drivers such as “strategy employed” and “force size deployed” as “unknown.” “Estimated Costs of an Iraq War: War in Iraq Could Cost up to \$9 Billion Monthly, Says CBO,” About.com, n.d., <http://usgovinfo.about.com/library/weekly/aaIraqwarcost.htm>.
22. Air Force Operational Tactics, Techniques, and Procedures 2-3.2, Air and Space Operations Center, 13 December 2004, 4-41.
23. Thomas Lienhard, letter to the editor, “The Pentagon Crisis of 2015,” *American Legion Magazine* 163, no. 2 (August 2007): 5.
24. Lawrence D. Freedman, review of Buda’s *Wagon: A Brief History of the Car Bomb* by Mike Davis, *Foreign Affairs* 86, no. 3 (May/June 2007): 144, <http://www.foreignaffairs.org/20070501fabook86325/mike-davis/buda-s-wagon-a-brief-history-of-the-car-bomb.html>.
25. National Commission on Terrorist Attacks upon the United States, *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks upon the United States: Executive Summary* (Washington, DC: Government Printing Office, 2004), 14.
26. Dennis M. Drew and Donald M. Snow, *Making Twenty-First-Century Strategy: An Introduction to Modern National Security Processes and Problems* (Maxwell AFB, AL: Air University Press, 2006), 198, [http://aupress.maxwell.af.mil/Books/Drew\\_Snow/DrewSnow.pdf](http://aupress.maxwell.af.mil/Books/Drew_Snow/DrewSnow.pdf).
27. Ibid., 196–97.
28. “About 85 percent of all governmental expenditures were in three categories: entitlement programs (e.g., Medicare), national defense, and servicing (paying the interest on) the national debt. All other government functions comprised only 15 percent of the total. Entitlements are difficult to cut since they benefit a large number of constituents (voters) and are generally mandated by law. One cannot fail to pay the interest on the national debt because of the need to borrow in the future, and much of the ‘fat’ has been removed from the other 15 percent of the budget. That leaves the defense budget, which is particularly vulnerable because approximately two-thirds of it is appropriated annually and is somewhat easier to cut than expenditures that are made automatically (entitlements and debt service).” Ibid., 69.
29. Everett C. Dolman, *Pure Strategy: Power and Principle in the Space and Information Age* (London: Frank Cass, 2005), 6.
30. Winston Churchill, “We Shall Fight on the Beaches” (speech to the House of Commons, 4 June 1940), Churchill Centre, <http://www.winstonchurchill.org/i4a/pages/index.cfm?pageid=393>.
31. Quoted in “An Enduring Illusion,” *Economist* 380, no. 8492 (24 August 2006), [http://www.economist.com/world/displaystory.cfm?story\\_id=7826962](http://www.economist.com/world/displaystory.cfm?story_id=7826962).
32. Ibid. See also James S. Corum and Wray R. Johnson, *Airpower in Small Wars: Fighting Insurgents and Terrorists* (Lawrence: University Press of Kansas, 2003), 53.
33. Ibid.
34. David E. Omissi, *Air Power and Colonial Control: The Royal Air Force, 1919–1939* (Manchester, UK: Manchester University Press, 1990), 20.
35. “Meddling in Mesopotamia Was Always Risky,” *Telegraph*, 18 March 2003, <http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2003/03/18/widip218.xml>.
36. Air Force Doctrine Document 1, *Air Force Basic Doctrine*, 17 November 2003, 24, <http://www.au.af.mil/au/awc/awcgate/afdc/afdd1-chap3.pdf>.
37. Ibid.
38. Victor Davis Hanson, *Carnage and Culture: Landmark Battles in the Rise of Western Power* (New York: Doubleday, 2001), 165.

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