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Air University
(334) 953-5836
Maxwell AFB, AL 36112

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LETHAL AIRPOWER AND INTERVENTION

BY

MARK A. BUCKNAM

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ABOUT THE AUTHOR

Major Mark A. Bucknam was commissioned through the Reserve Officer Training Corps, Virginia Polytechnic Institute and State University in 1981. Graduating from Euro-NATO Joint Jet Pilot Training in 1983, he went on to fly the A-10 at Royal Air Force Bentwaters, England, where he became an instructor pilot and an airshow demonstration pilot. He next served as an Air Staff Training Officer in the Air Force Inspector General's directorate at the Pentagon. From the fall of 1988 to the summer of 1991, Major Bucknam was an AT-38 instructor and flight commander at Lead-In Fighter Training at Holloman Air Force Base (AFB), New Mexico. He next flew the block-40 and 50 versions of the F-16 at Homestead AFB, Florida and Shaw AFB, South Carolina, serving as assistant operations officer for the 309th Fighter Squadron and commander of the current operations flight for the 20th Operations Support Squadron. Major Bucknam then attended Air Command and Staff College in 1994-95, and the School of Advanced Airpower Studies (SAAS) 1995-96. He holds a bachelor's degree in Physics with a minor in Mathematics, and a master's degree in Materials Engineering, from Virginia Tech. Major Bucknam will pursue a PhD in War Studies at King's College, University of London, following his graduation from SAAS.

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ABSTRACT

The end of the Cold War seems to have ushered in a new age of interventionism for the United States; using force to further foreign policy ends no longer carries the threat of superpower confrontation. If the dangers of intervening have declined, though, so too have the motivations for doing so. The zero-sum game with America's arch-rival is over, thus the relative importance of world events is no longer calculated by the same win-lose logic that dominated the Cold War. As American policy-makers grapple with the issues of whether and how to best intervene in the post-Cold War world, they may be tempted to call upon lethal forms of airpower. Airpower seems to offer the United States a quick, clean, and cheap means for employing force. In this study, the author explores various types of intervention, the American doctrine for when and how to employ military forces, and the capabilities and limitations of lethal airpower. He concludes that lethal airpower may indeed be the instrument of choice in many circumstances. However, airmen will likely be challenged to gain the freedom needed to employ airpower effectively whenever relatively unimportant national interests are at stake. Given the leeway to employ airpower as they see fit, airmen may find that the limitations of their tools present serious impediments to meeting the policy-makers' expectations. This study should be of some value, then, to strategists, air operations planners, and those individuals advising policy-makers on the options for employing military force.

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CHAPTER 1

INTRODUCTION

What this means is that we have technology which has improved our ability to make air strikes with little, if any, loss of U.S. lives and with a minimum of collateral damage and loss of civilian lives on the other side. This is a big, big change.

But we've also become more sophisticated about targeting at a time when our adversaries have become more dependent on the kinds of things we can target. We can target communications nodes, power grids, and command and control assets. These things are the kinds of targets that national leadership and military commands hold dear.

—Congressman Les Aspin
21 September 1992

America possesses the most potent military forces in the world today, and it is prepared now, as in the past, to use those forces in defense of its vital interests. Since the end of the Cold War, though, the U.S. has been less inhibited in its ability and willingness to use military force in situations where less than vital national interests are at stake. Despite the increased interventionist tendency, the questions of when and how to use military force rank among the most important decisions confronting American political and military leaders today. With the advances in aerospace technology demonstrated since 1990, airpower may be becoming the instrument of choice for intervention—offering new possibilities, especially for compellence. This study examines both military intervention and lethal airpower in an effort to explain when and why airpower is most likely to succeed or fail in future intervention situations.

The ensuing study is concerned with military intervention without regard to other means for intervening, such as diplomacy, or economic sanctions or incentives.

Intervention and military intervention are used interchangeably to mean the use of force, or the threatened use of force, for achieving political objectives.

Similarly, this study looks at airpower in a narrow context, focusing on the use of force, and on situations where airpower is the principal method for delivering force.

Airpower and lethal airpower are treated synonymously on the following pages.

Furthermore, lethal airpower is meant to include all fixed-wing and rotary-wing aircraft, land-based and carrier-based, capable of putting conventional ordnance on a target.

Nuclear weapons will not be addressed.

Surface forces are not discussed here, except to highlight certain relative advantages or limitations of airpower. This study does not address the desirability of multilateral uses of force, nor are the relative merits of land-based airpower versus carrier-based airpower discussed.

The purpose of this study is to examine the utility of lethal airpower in U.S. military intervention. In chapter 2, the author explores several taxonomies of intervention, differentiating between the various types, and concluding with a list of a dozen separate forms of military intervention. The discussion in chapter 3 reviews the evolving doctrine and debate in the U.S. on when and how to use military force. Chapter 4 details the characteristics of airpower, and the capabilities and limitations of lethal airpower. The final chapter links the types of intervention, the considerations for using force, and lethal airpower through a series of propositions about the utility of airpower in intervention. The study concludes with a recommendation for further investigation into

airpower's role in conventional deterrence and compellence, and a caution regarding the airpower paradox—a concept presented in Chapter 5.

CHAPTER 2

INTERVENTION

Interventions differ in their scale, composition, duration, intensity, authority, and, above all, objective. They need not involve "shooting"; to the contrary, shooting is only one way to use military force.

—Richard N. Haass
Intervention

The term intervention can have a variety of meanings. As noted in the introduction, this study focuses on military intervention: the use or threatened use of force to achieve a political objective. The Department of Defense Dictionary of Military Terms defines military intervention as: "The deliberate act of a nation or a group of nations to introduce its military forces into the course of an existing controversy."¹ But, even when the discussion is confined to military intervention, there is no universal notion of what is meant. In a recent issue of the Army's professional journal, Parameters, William Lind, a long time critic of traditional military doctrine, wrote an article entitled "An Operational Doctrine for Intervention." Lind's article dealt solely with counterinsurgency and drew some novel lessons from the U.S. experience in Vietnam.² In contrast to this narrow concept of intervention as counterinsurgency, Richard N. Haass, the director of National Security Programs for the Council on Foreign Relations, lists eleven different types of military intervention without even mentioning counterinsurgency.³ The remainder of this chapter will address the different concepts of intervention in order to establish a framework for the chapters that follow. Interventions that do not involve the use or threat of force will be discarded, because they would be irrelevant to the later discussions on using lethal airpower. This chapter concludes with a

¹ Department of Defense, Dictionary of Military Terms (Novato, California: Presidio, 1990), 254.

² William S. Lind, "An Operational Doctrine for Intervention," Parameters 25, no. 2 (Summer 1995): 128-133.

³ Richard N. Haass, Intervention: The Use of American Military Force in the Post-Cold War World (Washington, Carnegie Endowment for International Peace, 1994), 49-65.

list of twelve types of military intervention differentiated according to the various purposes for intervening.

Haass's Eleven Types of Intervention.

Richard Haass, a National Security Council staff member under the Bush administration, classifies military interventions according to the purposes for conducting them. He sees the objective, or purpose, of intervention as its defining characteristic, and he describes eleven different types: deterrence, preventive attacks, compellence, punitive attacks, peacekeeping, war-fighting, peace-making, nation-building, interdiction, humanitarian assistance, and rescue.⁴ Haass's taxonomy, and his discussion of it, are useful and fairly comprehensive for defining the political ends served by intervention. Reviewing Haass's ideas on the subject will set the stage for exploring other views of intervention, and for the following chapters on the U.S. doctrine for using force, and on lethal airpower.

Deterrence. Haass borrows from Alexander George and Richard Smoke for his definition of deterrence: "the persuasion of one's opponent that the costs and/or risks of a given course of action he might take outweigh its benefits."⁵ Deterrence is concerned with maintaining the status quo. As Haass notes, it can require a long term commitment, "such as the U.S. military presence on the Korean Peninsula or in Europe since the end of World War II."⁶ Or, it might "take the form of a response to a specific or tactical situation that emerges suddenly, say, the perceived threat to shipping in the Gulf in the late 1980's when the United States decided to 'reflag' Kuwaiti vessels."⁷ Regardless of the circumstances, Haass correctly points out that, "the movement and use of military forces are obviously a critical component of a deterrence strategy."⁸

4. Ibid.

5. Richard N. Haass, "Military Intervention: A Taxonomy of Challenges and Responses," in The United States and the Use of Force in the Post-Cold War Era (Queenstown, Maryland: The Aspen Institute, 1995), 3-4.

6. Ibid.

7. Ibid., 4.

8. Ibid., 3.

Preventive Attacks. Preventive attacks involve the use of force to destroy a specific enemy capability before it can be brought to bear against oneself or one's friends. Counterproliferation strikes such as the one Israeli F-16s carried out against Iraq's Osirak nuclear reactor in 1981 exemplify preventive attacks. Haass goes on to differentiate between preventive and preemptive uses of force. A preemptive attack, such as the Israeli airstrikes aimed at achieving air superiority at the outset of the 1967 Six-Day War, is conducted in response to a tactical warning of imminent attack by an adversary.⁹ Preemptive attacks, then, are conducted as the first move in war-fighting (another type of intervention, discussed below), not as a stand alone intervention to forestall an enemy's future capability.

Compellent Use of Force. Thomas Schelling first coined the term compellence in Arms and Influence.¹⁰ Compellent uses of force are intended to influence a target group's decision-makers by destroying things that the target leadership values, or things they need for prosecuting their strategy. Compellence is the counterpart to deterrence and it is used to alter the status quo (recall that deterrence preserves the status quo). Compellence aims at forcing an adversary to desist in his actions or to give up something he has gained. Alexander George describes three types of compellence: Type A - persuade an opponent to stop short of his goal, Type B - persuade an opponent to undo his action, Type C - persuade an opponent to make changes in his government.¹¹ Obviously, convincing an opponent to relinquish what he has acquired is more demanding than simply convincing him to desist after he has partially achieved his goal. The third type of compellence is the most difficult to effect. The target leadership is not likely to surrender its hold on power, no matter how vigorously it is attacked, especially when relinquishing control could invite imprisonment or death.

9. Ibid., 5.

10. Thomas C. Schelling, Arms and Influence (New Haven: Yale, 1966), 71.

11. Alexander L. George and William E. Simons, The Limits of Coercive Diplomacy, 2d ed. (San Francisco: Westview, 1994), 8-9.

Giving in to any type of compellence weakens the target leadership, presenting potentially unbearable costs for the leaders. This is especially true when those leaders had to overcome opposition within their own organization to embark upon the course of action they are being compelled to call off. Conversely, the stakes for the U.S. will rarely be as high when it intervenes with compellent force. If the stakes were high for the U.S., it would likely use overwhelming force for war-fighting, rather than intervening with compellent force. When the U.S. embarks on a compellent intervention, then, the asymmetry in consequences for the loser implies an asymmetry in commitment between the competing sides. Normally the U.S. will have a lower commitment to its objective than its adversary will have for resisting the compellent use of force. This is not to suggest that compellence cannot succeed under such conditions, but relative commitment could be an important factor for the U.S., in deciding how to use force.

Haass points out that a successful compellent intervention involves an unambiguous defeat for the target: "As a result, successful compellence can require a complementary set of concessions, real or face-saving, to make it politically possible for the target of the effort to comply."¹²

Two more points are necessary to round out this discussion of compellence. First, and most importantly, compellence, like deterrence, "depends entirely upon the target of intervention. What is relevant is not the force used [or threatened] but the reaction to it."¹³ With compellence, the target gets to decide when he has had enough. The target determines whether or not the costs of U.S. attacks outweigh the costs of compliance.

A second and related aspect of compellence is the focus on the target's decision-making and not on the military effects of the intervention. If a target is physically driven from the battlefield or otherwise forced against his will into satisfying U.S. goals, he has been militarily defeated, not compelled. Compellent interventions are similar to, but

¹² Haass, "A Taxonomy," 6.

¹³ Ibid., 7.

distinct from, compellent strategies in war-fighting, where military victory is the goal. This distinction can become confusing, especially when the target of a compellent intervention values a military force or capability, and that becomes the focus of the compellent use of force. In the 1995 NATO airstrikes against Bosnian-Serb military equipment and infrastructure, known as OPERATION DELIBERATE FORCE, the Bosnian-Serb leaders were compelled to agree to cease-fire conditions. Had the airstrikes gone on much longer, the Bosnian-Serb forces could, conceivably, have been militarily defeated by the combined effects of the airstrikes and the Croat and Muslim ground offensives. With compellent interventions, any militarily significant effects accrued by using force are incidental to the goal of persuading one's opponent.

Punitive Attacks. Unlike compellence or deterrence, punitive uses of force do not attempt to influence the adversary's future behavior or decision-making. As Haas puts it, "punitive actions are quintessentially political in nature. They are designed to make a point, not change the situation created by the adversary's provocation."¹⁴ Punitive attacks may cause an adversary to alter his calculations and his future behavior, but these changes are not required to judge the punitive attack a success.

As with all foreign policy or military action, punitive attacks can influence any of three groups: the target, oneself, and third parties. The U.S. attack on Libya in 1986, OPERATION ELDORADO CANYON, launched in response to Libyan sponsorship of terrorism, illustrates a punitive attack and the potential to affect the three groups. The objective of ELDORADO CANYON was to impose a cost on Qaddafi—to make him pay. As Caspar Weinberger, then Secretary of Defense, put it: "The purpose of our plan was to teach Qaddafi and others the lesson that the practice of terrorism would not be free of cost to themselves; that indeed they would pay a terrible price for practicing it."¹⁵ The attack was popular with the majority of Americans who were thoroughly fed up with their

¹⁴ Ibid., 8.

¹⁵ Caspar W. Weinberger, *Fighting for Peace: Seven Critical Years in the Pentagon* (New York: Warner Books, 1990), 189.

nation's Gulliver like impotence in the face of repeated terrorist attacks.¹⁶ State sponsors of terrorism, other than Libya, were probably deterred from directly supporting attacks against U.S. targets for a year or more following the airstrikes. While the incidence of international terrorism continued to climb, Americans were subject to markedly fewer attacks, at least until the bombing of Pan Am flight 103 in December of 1988.¹⁷ Syria, a known sponsor of international terrorism, was, allegedly, especially influenced by the strikes.¹⁸ America's European allies also coalesced in a more firm and unified stand against state sponsors of terrorism following ELDORADO CANYON.¹⁹ Whether the attack influenced Qaddafi's support for terrorism has been debated, but it is also irrelevant in judging the success of the punitive raid. Success was achieved simply by effectively attacking Libya and making Qaddafi pay for his actions. Haass alludes to the variety of effects a punitive attack can cause when he notes, "public presentation of the purposes behind a punitive attack becomes most important and can be the only thing that differentiates a punitive from a compellent use of force."²⁰

Peacekeeping. True peacekeeping should not involve the use, or threatened use, of force. Peacekeeping involves monitoring of agreements and separation of the parties in a dispute. Parties recently in conflict with one another are unlikely to trust their erstwhile adversaries to impartially oversee the often delicate separation of warring factions, the withdrawal of forces, and the post-conflict terms of their cease-fire. A

16 In a report on the raid, Major Gregory Trebon noted: "A Gallup Poll, taken three days later...[found that] 71 percent approved of the raid. Sixty-eight percent supported the action even if it turned out the raid did not deter future terrorism. Americans also supported future raids by an 8-to-1 margin." "American's Sanction More Raids if Libyan Terrorism Continues," *The Gallup Report* (April, 1986, Report No. 247), 2, cited in Major Gregory L. Trebon, USAF, "Libyan State Sponsored Terrorism—What Did Operation El Dorado Canyon Accomplish?" (Student Report, Air Command and Staff College, 1988), 32, ACSC 88-2600.

17 Department of State, *Patterns of Global Terrorism: 1988*, Department of State Publication 9705 (Washington: Department of State, March 1989), 4-5.

18 According to the U.S. State Department's *Patterns of Global Terrorism: 1987*, "In a radical change from Syria's previous close involvement in supporting international terrorism, we detected only one terrorist operation in 1987...in which...Syria was implicated, compared with six in 1986 and 34 in 1985." The State Department publication goes on to point out high visibility steps Syria's President Assad took to distance Syria from terrorist groups, in order to alleviate his country's diplomatic and economic isolation. Department of State, *Patterns of Global Terrorism: 1988*, Department of State Publication 9705 (Washington: Department of State, March 1989), 38. It is not possible to demonstrate the connection between the airstrikes on Libya and the change in Syrian behavior. Perhaps it is coincidental. Effective deterrence cannot be proved unless the target admits to having been deterred, and Assad was under diplomatic and economic international pressure to cease his sponsorship of terrorism.

19 Charles R. Marineau, Jr., "The 1986 U.S. Airstrikes on Libya: A Prototype for Future Military Action Against Terrorism?" Paper submitted to Naval War College, Newport, Rhode Island, 16 February 1988, DTIC, AD-B122 055, 16-18, and Major Gregory L. Trebon, USAF, "Libyan State Sponsored Terrorism—What Did Operation El Dorado Canyon Accomplish?" (Student Report, Air Command and Staff College, 1988), 43, ACSC 88-2600.

20 Haass, "A Taxonomy," 9.

peacekeeping force, then, serves as an honest broker to supervise the post-conflict conditions to which the former belligerents have agreed. Peacekeepers are normally unarmed or, perhaps, lightly armed for self defense against renegade groups seeking to spoil the peace.

Neutrality of the peacekeepers and the proscription against using force except for self defense are the defining characteristics of peacekeeping, and, of course, there must be a peace to keep. Peace-making, on the other hand, is needed when one or more parties to a dispute prefer continued fighting over peace. Peace-making and related operations are treated later in this study. Because true peacekeeping does not require the use or threat of force beyond pure self defense, it will not be discussed further.

War-fighting. Haass includes warfighting as a form of intervention, noting: "This is the high end of intervention and involves full-fledged combat operations...what distinguishes war-fighting is that it brings to bear whatever forces are available and deemed necessary to dominate the confrontation."²¹ The Gulf War is the best, recent example of this type of intervention.

Peace-making. Haass describes peace-making as those uses of force that fall between peacekeeping and war-fighting. In peace-making, the use of force is normally circumscribed because the goal is to dampen the level of violence and effect a peacekeeping situation. Furthermore, "peace-making assumes the opposition of at least one of the principal protagonists to the status quo, opposition to the presence of outsiders, or both. As a result...peace-makers must be heavily armed."²²

Haass does not distinguish between peace-making and peace enforcement. In his taxonomy, the term peace-making apparently applies to both types of activity. The trouble with peace-making, or any of the other equivalent terms, is that actual peace-making is more closely related to war-fighting than peacekeeping. As Haass puts it:

²¹ Ibid., 11.

²² Ibid.

Peace-making is an imprecise and misleading term probably because it is associated with both peace and peacekeeping when in fact it has little to do with either. Indeed, some observers have suggested the whole notion be jettisoned because it creates a perception so at variance with reality.²³

In his discussion on peace-making, Haass introduces the related concept of policing:

Police missions involve the deployment of forces in a quasi-hostile environment in which terrorism and small arms are the essential threats. It does not require consent on the part of any party or parties, nor does it require a peace to keep, enforce, or make. What the British are doing in Northern Ireland is the best example. Policing is a damage-limiting operation, one designed neither to defeat opposition nor to solve underlying causes. As a result, it tends to be open-ended in that it seeks to place a ceiling on violence to provide a constructive backdrop or environment in which diplomacy can operate or at least in which daily life is made tolerable for most of the inhabitants.²⁴

The distinction between peace-making and policing is valuable, but Haass's emphasis on terrorism and small arms imposes unnecessary limitations on the concept of policing. The U.S. has been conducting aerial policing operations for years over Bosnia, and over northern and southern Iraq. The environments are quasi-hostile. The missions do not require the consent of the parties involved, and they are essentially aimed at damage limitation. The objective in each case has been to place a ceiling on violence, without addressing the underlying causes of the conflict. Creating no-fly zones, and enforcing heavy weapons free zones from the air, amounts to aerial policing. Policing is sufficiently different from peace-making to warrant its inclusion in this study as a separate form of intervention.

Nation-building. Nation-building is one of Haass's types of intervention, and it will normally involve military personnel. It does not, however, require the use or threat of military force. Nation-building will usually take place in a setting of peace-making, policing, counterinsurgency, or some other use of military force. But, nation-building, per se, involves political, social, and economic development, and military training, not

²³ Ibid., 10.

²⁴ Ibid., 12.

the application or threatened use of force. Therefore, nation-building will not be discussed further.

Interdiction. Haass defines interdiction as "a discrete use of force to prevent specified equipment, resources, goods or persons from reaching a battlefield, port, or terminal."²⁵ There are essentially two types of interdiction one must consider when discussing intervention: one involves a high degree of freedom to use force for interdicting all, or at least easily identifiable, types of materiel or personnel; the other requires inspection or investigation and decision-making to separate permissible from proscribed goods or people. Interdiction of illicit drugs into the U.S. typifies the latter inspect-and-decide form of interdiction. Interdicting tanks and artillery in demilitarized zones, or cutting the flow of all military equipment and guerrillas across an international border exemplify interdiction where the use of force will be more permissive.

Humanitarian Operations. Humanitarian operations have long been a mission for U.S. military forces. These operations involve the saving of lives and the delivery of food, water, shelter, medicine, or other basic necessities. Haass describes two types of humanitarian intervention: "consensual (requiring unarmed or lightly armed personnel) or imposed (requiring heavily armed troops)."²⁶ Of the two types, this study will focus on imposed humanitarian interventions because they require the use or threat of force.

The role of military forces in imposed humanitarian operations is to protect those providing assistance, be they from the UN, U.S. military or civilian government agencies, or private volunteer organizations. In some cases, this will entail the mere presence of armed forces to deter attacks on the relief providers. In other situations, the forces might need to actively defend against attacks, disarm potentially hostile parties, or conduct limited offensive operations in order to establish safe havens. Unlike deterrence or peace-making interventions, where the goal is to effect a desired political outcome,

²⁵ Ibid., 13.

²⁶ Ibid.

imposed humanitarian interventions are not concerned with changing the political or military situation. Instead, the use of force in humanitarian operations is aimed at producing an environment for safely providing humanitarian relief.

Rescue. Non-combatant evacuation operations (NEO) and hostage rescue are two types of intervention that differ in terms of the situation of the people being rescued. In a NEO, such as the rescue of American citizens from the embassy in Liberia in August of 1990, or again in April of 1996, the military environment is uncertain or, potentially, hostile, and the people to be rescued have not been captured. Hostage situations are decidedly hostile and the personnel to be rescued are held captive. The failed attempt to rescue the American hostages from Iran in 1979 exemplifies this second, more difficult type of intervention.

Indirect Uses of Force. Haass addresses one final form of military intervention under the rubric of indirect uses of force.

An indirect use of force involves providing military assistance in the form of training, arms, intelligence, etc., to another party so that it may employ force directly for its own purposes. An indirect use of force involves military instruments, but it is not a military intervention per se, although it can quickly lead to such intervention. The Nixon and Reagan doctrines emphasized this approach, which reduces the need for the United States to intervene directly. (There was an important difference, however. The Nixon Doctrine provided a basis for assisting friendly governments facing hostile neighbors; the Reagan Doctrine provided a rationale for aiding friendly groups opposing hostile governments.) Normal security assistance is a routine example of the indirect approach. U.S. assistance to resistance fighters in Afghanistan and Nicaragua were perhaps the most dramatic examples of "covert" indirect use of force.²⁷

This category potentially encompasses four different military, or military related, activities: support for insurgencies, support for governments battling internal opposition (i.e., counterinsurgencies), routine provision of arms and training (e.g., security assistance for Egypt and Saudi Arabia), emergency assistance for governments confronted with external aggression (e.g., supplies rushed to Israel in the 1973 Yom Kippur War). Of these indirect uses of force, one, support for counterinsurgencies, is most likely to involve

²⁷ Haass, *Intervention*, 64.

direct U.S. intervention in the form of lethal airpower. This will be discussed in greater detail later in this chapter. The other indirect uses of force do not involve lethal airpower and will not be discussed further.

Haass's taxonomy is useful for this study because he addresses the purposes for intervention and he illustrates each type using recent examples of U.S. military activity. This manner of classification will be helpful later for analyzing the potential utility of airpower in intervention situations. However, several other sources of ideas on intervention warrant review before this study turns to the subject of deciding when and how to intervene.

Maynes on the Use of Force.

Charles William Maynes, editor of Foreign Policy magazine, lists seven distinct categories for the possible use of force by the United States: meeting alliance obligations, promoting counterproliferation, protecting key allies threatened with internal disorder, protecting individual Americans, supporting democracies abroad, interdicting drugs and countering terrorism, and, finally, assisting peacekeeping and peace enforcement.²⁸

Maynes's scheme of classification is less helpful for the purpose of this study than Haass's, because Maynes tends to mix the motivations or triggers for intervening (e.g., meeting alliance obligations, supporting democracies abroad) with the purposes military forces are supposed to serve (e.g., interdicting drugs, peace enforcement). Furthermore, Maynes explains why the cases requiring military force are extremely unlikely, or why military force will not be useful, instead of addressing how the U.S. might use force in the various situations he describes. He bemoans the apparent reluctance, evinced by the White House and the U.S. Congress, to use U.S. forces for peace operations. The Foreign Policy editor does, however, provide a focus on intrastate conflict that Haass treats rather sparingly in his discussion of indirect uses of force. Maynes's categories of protecting

²⁸ Charles William Maynes, "Relearning Intervention," Foreign Policy 98 (Spring 1995): 101.

allies from internal disorder, and supporting democracies abroad, hint at counterinsurgency operations, though, like Haass, he never uses the term counterinsurgency. For some, however, intervention equates to counterinsurgency.

In "An Operational Doctrine for Intervention," published in Parameters, William Lind implies military intervention is synonymous with counterinsurgency. Beginning with four lessons he derived from America's experience in Vietnam, Lind prescribes a doctrine of using light infantry for winning any future counterinsurgency in a three month period. Lind's novel prescription is of no use here, but it is worthwhile to take note of what Lind's article suggests implicitly—intervention means counterinsurgency.

Counterinsurgency.

Counterinsurgency was once a major branch of low intensity conflict (LIC), which the DoD Dictionary of Military Terms defines as:

low intensity conflict—(DOD) Political-military confrontation between contending states or groups below conventional war and above the routine, peaceful competition among states. It frequently involves protracted struggles of competing principles and ideologies. **Low intensity conflict** ranges from subversion to the use of armed force. It is waged by a combination of means employing political, economic, informational, and military instruments. **Low intensity conflicts** are often localized, generally in the Third World, but contain regional and global security implications. Also called **LIC**. [emphasis in original]²⁹

In their book Low Intensity Conflict: Old Threats in a New World, Edwin G. Corr and Stephen Sloan point out that: "For the Department of Defense, doctrinally, LIC includes insurgency and counterinsurgency, combating terrorism (including narco terrorism), peacekeeping, and contingency operations."³⁰

Corr and Sloan's book, despite its name, focuses almost entirely on insurgency and counterinsurgency case studies. Each case study is analyzed according to a paradigm or model, called the Manwaring paradigm, developed by Max G. Manwaring.

²⁹ DoD Dictionary, 236.

³⁰ Edwin G. Corr and Stephen Sloan, Low Intensity Conflict: Old Threats in a New World (San Francisco: Westview, 1992), 24.

Understanding the Manwaring paradigm helps one appreciate the role of military force in counterinsurgency operations. As Corr and Sloan explain:

The underlying premise of the Manwaring paradigm is that 'the ultimate outcome of any counterinsurgency effort is not primarily determined by skillful manipulation of violence in...many military battles.' Rather, the outcome will be determined by (1) legitimacy of the government, (2) organization for unity of effort, (3) type and consistency of support for the targeted government, (4) ability to reduce outside aid to the insurgents, (5) intelligence (or action against subversion), and (6) discipline and capability of a government's armed forces. These elements can be applied in understanding LIC environments that transcend different regions or stages of political economic development. Testing of the paradigm has shown that each of these dimensions is of the utmost importance in determining the effectiveness of responses to a LIC situation.³¹

The main point to be gathered from the DoD definition of LIC and the Manwaring paradigm is the highly politicized nature of LIC in general, and of counterinsurgency in particular. Former Air Force Chief of Staff, General Larry D. Welch, put it this way:

To define the kind of war represented by LIC, one finds that the most useful distinction may be the primacy of political [as opposed to military] considerations in both the purpose and execution of operations—whatever their size and scope. Furthermore, a country may wage LIC without employing military force, relying—at least for a time—on political, economic, and diplomatic means, as well as the coercive power of the threat of military force. [bracketed statement added]³²

The U.S. Army and Air Force jointly published a LIC manual in 1990: FM 100-20/AFP 3-20, Military Operations in Low Intensity Conflict. The manual emphasized "the minimum use of violence," as one of the principles governing counterinsurgency operations.³³ In addressing direct use of force by the U.S. military, the publication decrees:

Tactical operations by US forces against insurgents will be an unusual occurrence resulting from unique circumstances. Direct actions will be rare, and focus, for example, on interdicting support from out of country sources, conducting security screens so that the host nation's forces can regain the initiative...thus freeing the host nation's forces to reassume complete responsibility for combat operations.³⁴

31 Ibid., 12.

32 General Larry D. Welch, USAF (Retired), "Air Power in Low- and Midintensity Conflict," in The Future of Air Power in the Aftermath of the Gulf War, ed. Richard H. Shultz, Jr. and Robert L. Pfaltzgraff, Jr. (Maxwell AFB, Alabama: Air University Press, 1992), 143-144.

33 FM 100-20/AFP 3-20, Military Operations in Low Intensity Conflict, 5 December 1990, 2-10.

34 Ibid., 2-24.

Furthermore, "if the situation requires US forces to take the initiative from the host nation, then the transition to warfighting has begun."³⁵ The most proactive prescription regarding tactical operations states: "US forces may conduct strike operations to disrupt and destroy the insurgents' combat formations or to interdict their external support."³⁶

Low intensity conflict, as a DoD term, has given way to the broader category of Military Operations Other than War (MOOTW). A draft version of the joint doctrine for MOOTW was printed in April 1993 as "Draft Final Pub, Joint Pub 3-07, Joint Doctrine for Military Operations Other Than War. Joint Pub 3-07 retained the basic structure of its predecessor, the LIC manual, but it has expanded some sections and added new chapters on planning and logistics in LIC. The Joint Pub is, if anything, more circumspect than the LIC manual in its treatment of the role of force in counterinsurgency operations. The doctrine for MOOTW states that tactical operations by U.S. forces should be used to help provide security for the host nation, buying it needed "time and space for local forces to regain the initiative."³⁷ As with the LIC manual, Joint Pub 3-07 allows that: "Tactical operations may be conducted to limit external support to the insurgents and to protect US interests."³⁸

The discussions in both the LIC manual and the MOOTW publication demonstrate the U.S. military's appreciation for the primacy of government legitimacy within the host nation as the key to successful counterinsurgency operations. Both publications address the potential negative effects of even a perception that the U.S. military might be taking over for the host government in fighting the insurgents. This sensitivity suggests military doctrine is consistent with the position of Corr and Sloan when they write: "For the target government, the fight for legitimacy is the most critical factor for lasting success. It also becomes the primary concern for external power

35 Ibid.

36 Ibid.

37 Joint Pub 3-07, Draft Final Pub, Joint Doctrine for Military Operations Other than War, April 1993, II-30.

38 Ibid.

supporting the target government."³⁹ The appropriate role for airpower in a counterinsurgency will normally be to interdict the insurgents external sources of supply and, when possible, to attack concentrations of insurgents and their equipment.

The collapse of the Soviet Union and the concomitant termination of support for numerous insurgencies around the world probably may have diminished the importance of counterinsurgency as a form of U.S. military intervention. But, future counterinsurgency operations may still require the U.S. to intervene with military force, including lethal airpower.

Freedom of Navigation. Another category for the use of force, discussed in Joint Pub 3-07, but not covered by any of the other authors considered so far, is freedom of navigation (FON) operations. The 1982 UN Law of the Sea Convention established international limits to claims of sovereignty over maritime areas. According to Secretary of Defense Perry, claims in excess of these limits are objectionable to the U.S. because "they impair freedoms of navigation and overflight...The United States also believes that unchallenged excessive maritime claims may, in time, become valid through acquiescence."⁴⁰ Joint Pub 3-07 describes FON operations as a maritime mission, but similar issues have risen, and might arise again, over the freedom to use airspace or space (e.g., use of the Berlin air corridors, sovereignty over geosynchronous orbits).⁴¹ In any case, ensuring freedom of navigation constitutes a distinct and important form of U.S. military intervention.

Conclusion.

³⁹ Corr and Sloan, 12.

⁴⁰ William J. Perry, Secretary of Defense, *Annual Report to the President and the Congress* (Washington: GPO, February 1995), I-1.

⁴¹ Someday, transatmospheric vehicles, akin to the experimental DC-XA and X-33 research vehicles currently under exploration by the McDonnell Douglas Corporation, could avoid airspace overflight problems by going through space to reach their targets. Operations with these vehicles may raise the now dormant disputes over the altitude at which a state's airspace sovereignty gives way to the free rights of passage through space. The fact that in 1976 eight equatorial states claimed sovereignty to geosynchronous orbits above their territory suggests the potential seriousness of such disputes. Once nations possess the means to interfere with U.S. satellites, they may act on their claims of sovereignty. With the current U.S. dependence on space systems, and the relative vulnerability of satellites in low earth orbit, it is definitely in the America's best interest to preserve the internationally agreed upon right of free passage through space. AU-18, *Space Handbook: A War Fighter's Guide to Space, Vol. I* (Maxwell AFB, Alabama, December 1993), 54, 149-151

In concluding this discussion on the types of military intervention, a modified version of Haass's taxonomy is proposed. Peacekeeping, nation-building, and consensual humanitarian assistance will be excluded from the list, because such interventions employ military forces, but they do not, per se, involve the use of military force. Policing, counterinsurgency, and FON operations need to be added to Haass's list as separate types of intervention. As the study now turns to U.S. doctrine and the debate over when and how to use force, the list of intervention types stands at twelve: (1) punitive attacks (2) preventive attacks, (3) interdiction, (4) war-fighting, (5) policing, (6) peace-making, (7) imposed humanitarian operations, (8) rescue, (9) counterinsurgency, (10) freedom of navigation, (11) deterrence, and, finally, (12) compellence.

Even though the use or threat of military force is necessary in each of the twelve types of intervention discussed above, force is not equally appropriate or useful among them. There is a spectrum of appropriateness for using force, with war-fighting clearly at the high end, and imposed humanitarian operations probably at the low end. Attempts to construct an authoritative scale, or even a logical rank ordering, between the ends of the spectrum founder, because the appropriateness of using force will depend more on the circumstances unique to a given intervention than on the purpose for the intervention. An understanding of both the purpose to be achieved by intervening, and the appropriateness of using force, is necessary for determining the utility of lethal airpower in an intervention. Having established the purposes for intervening (i.e., the types of intervention), this study now turns to the issue of how and when to use force.

CHAPTER 3

WHEN AND HOW TO USE FORCE

The question of whether to use force can never be divorced from the question of how to use it effectively. If there is no satisfactory answer to the latter question, there can be no commitment to the former.

—Richard N. Haas
Intervention

The questions of how and when to use force are of fundamental importance to the United States, for each situation calling for military force is pregnant with opportunity and risk. This chapter will examine the evolving debate in the U.S. on the use of military force, beginning with the Weinberger Doctrine, first enunciated in November of 1984, and progressing up to the most recent position of the Clinton administration, as spelled out in the 1996 National Security Strategy of Engagement and Enlargement (NSS). Despite criticism of both the Weinberger and Powell doctrines by the Clinton administration's first Secretary of Defense, Les Aspin, current NSS policy for using U.S. forces bears more similarity than difference to the positions they advocated. These similarities suggest that the U.S. has developed a doctrine for when and how it would prefer to intervene militarily. In addition to these official prescriptions, this chapter explores the informal rules for employing force, based on the observations of two former, senior National Security Council staff directors. The chapter concludes with some propositions on the main tenets of U.S. doctrine for using force, and the suggestion that most types of intervention will not engage America's vital interests.

Weinberger Doctrine. Caspar Weinberger's ideas regarding appropriate and inappropriate uses of American armed forces stem from his knowledge of history and his interpretations of events during the Korean and Vietnam Wars. Thus, even before the suicide car bombing of the Marine barracks in Beirut, Lebanon, on 23 October 1983, Secretary Weinberger believed that U.S. forces should only be used in situations where the U.S. had vital national interests at stake, and where the military and political objectives were clearly defined and compatible with one another.⁴² Furthermore, his preference for using overwhelming force, when force was to be employed, seems to predate his tenure as Secretary of Defense. Whatever the origins of Weinberger's thinking, the seemingly senseless and avoidable deaths of 241 servicemen in Lebanon was the catalyst for his now famous doctrine. In a speech before the National Press Club, on 28 November 1984, Caspar Weinberger laid out his criteria for the use of force. As he summarized them:

Those six tests, in brief, are:

1. Our vital interests must be at stake.
2. The issues involved are so important for the future of the United States and our allies that we are prepared to commit enough forces to win.
3. We have clearly defined political and military objectives, which we must secure.
4. We have sized our forces to achieve our objectives.
5. We have some reasonable assurance of the support of the American people.
6. U.S. forces are committed to combat only as a last resort.⁴³

Other versions of the list cite, "reassessment and adjustment of committed forces to meet combat requirements,"⁴⁴ as part of the fourth criterion, and Congress is often included in criterion number five.⁴⁵ The text of Weinberger's speech supports inclusion of these conditions, as well as a warning against a "gradualist incremental approach [to using force] which almost always means the use of insufficient force."⁴⁶

42. Caspar Weinberger, Fighting for Peace: Seven Critical Years in the Pentagon (New York: Warner Books, 1990), 152, 159.

43. *Ibid.*, 402.

44. General Larry D. Welch, USAF (Retired), "Air Power in Low- and Midintensity Conflict," in The Future of Air Power in the Aftermath of the Gulf War, ed. Richard H. Shultz, Jr. and Robert L. Pfaltzgraff, Jr. (Maxwell AFB, Alabama: Air University Press, 1992), 149.

45. *Ibid.*; and Colonel Gerald R. Volloy, USAF, The War Exchange: Political-Military Interaction in Developing Military Strategy, Research Report No. AU-ARI-86-6 (Maxwell AFB, Air University Press, August 1986), 11.

46. Weinberger, 444.

Secretary Weinberger's actions while in office, and the full text of his speech, suggest his final criterion, committing forces to combat as a last resort, is a poor articulation of what he must have meant. An oft-heard criticism of Weinberger's "last resort" criterion is that military force may be most effective early in a conflict, and virtually useless if the intervention comes too late. This criticism may be unfair. Weinberger strongly supported the U.S. intervention in Grenada in 1983, before diplomatic or economic instruments of power were applied. Similarly, at the end of his tenure, he was quick to support the reflagging of Kuwaiti tankers and the use of U.S. naval forces to preclude untoward developments in the Persian Gulf. In his National Press Club speech, Weinberger stated that early opposition to Hitler's remilitarization of the Rhineland with "small combat forces then could perhaps have prevented the holocaust of World War II."⁴⁷ Finally, and most significantly, in the same speech he remarked that: "We must also be farsighted enough to sense when immediate and strong reactions to apparently small events can prevent lion-like responses that may be required later."⁴⁸ A restatement of the "last resort" criterion to better match the Secretary's speech and actions might read as follows: America should not approach a potential conflict situation with the presumption that military force is the best or only option. The U.S. should at least consider, and, whenever possible, attempt to use, all non-military options before deciding to use force.

Weinberger's criterion for requiring the support of the American people is also often misinterpreted. Some critics have suggested this part of the doctrine would necessitate polling the U.S. public and obtaining majority support before deciding to intervene. A review of the full text of his speech indicates the Defense Secretary believed public support stemmed from an understanding of the national interests at stake, and from strong, decisive executive and congressional leadership.⁴⁹ Suggesting that the Weinberger

⁴⁷ Ibid., 441.

⁴⁸ Ibid., 443.

⁴⁹ Ibid., 444.

Doctrine puts obtaining public support before executive leadership and decision-making reverses his argument.

Divorced from the context of the Press Club speech, and from the historical record of Secretary Weinberger's actions, the distilled one or two line criteria quickly become caricatures of what was, after all, a sensible Cold War doctrine. A firm understanding of the Weinberger Doctrine is vital to the following discussion on the evolution of U.S. policy for when and how to use military force. Former Chairman of the Joint Chiefs of Staff (CJCS), General Colin Powell was the next individual to meaningfully shape the debate on using military force. General Powell was Weinberger's military assistant in the early 1980s and served as CJCS during the transitional period, from Cold War, to post-Cold War.

Colin Powell. Toward the end of his tenure as Chairman of the JCS, General Powell laid out his thoughts on the use of military force in an article for Foreign Affairs titled, "U.S. Forces: Challenges Ahead." In the article, Powell seems to distance himself from the Weinberger Doctrine writing:

To help with the complex issue of the use of "violent" force, some have turned to a set of principles or a when-to-go-to-war doctrine. "Follow these directions and you can't go wrong." There is, however, no fixed set of rules for the use of military force. To set one up is dangerous.⁵⁰

In place of principles or rules, General Powell offers six questions, which, perhaps ironically, reflect a line of thinking similar to the Weinberger Doctrine. Powell recommends that:

When a "fire" starts that might require committing armed forces, we need to evaluate the circumstances. Relevant questions include: Is the political objective we seek to achieve important, clearly defined and understood? Have all other nonviolent policy means failed? Will military force achieve the objective? At what cost? Have the gains and risks been analyzed? How might the situation that we seek to alter, once it is altered by force, develop further and what might be the consequences?⁵¹

50. Colin L. Powell, "U.S. Forces: Challenges Ahead," Foreign Affairs 72, no. 5 (Winter 1992/93): 37-38.

51. *Ibid.*, 38.

Though Powell's doctrine is posed in question form, the linkage to the Weinberger criteria is evident. The General's first question meshes well with Weinberger's first and third criteria. Powell's second question is Weinberger's "last resort" criterion restated as a question. The last four questions broadly reflect the Defense Secretary's second and fourth criteria; though, General Powell's final question is helpful for anticipating necessary follow-on actions, while Weinberger's criteria seem a little more reactive. The six questions do not mention the need for public support, but elsewhere in the article Powell states: "I have every faith in the American people's ability to sense when and where we should draw the line [on whether or not to use force]."⁵² See Appendix 1 for a comparison of considerations for using force.

Like Weinberger, Powell derides a gradualist approach to using military force. He maintains: "Decisive means and results are always to be preferred, even if they are not always possible."⁵³ The General goes on to argue that military force can be employed in situations other than those where "the victory of American arms will be resounding, swift and overwhelming."⁵⁴ General Powell clearly expresses his preference for winning decisively, but then adds, "if our objective is something short of winning...we should see our objective clearly, then achieve it swiftly and efficiently."⁵⁵ Feeding starving Somalis in 1992-3 and the airstrikes on Libya in 1986 illustrate situations where the U.S. pursued objectives short of winning. According to Powell, if one must intervene without seeking to fix the underlying problem at hand, then the operation should be quick, clean, and cheap.

Les Aspin. Powell is, justly or unjustly, associated with a philosophy that eschews the use of military force unless one is prepared to employ overwhelming force in pursuit of decisive political ends. His critics accuse him of setting the bar too high for the

52 Ibid., 40-41.

53 Powell, 40.

54 Ibid.

55 Ibid.

use of force. One of Powell's critics was Les Aspin who, before the 1992 presidential election, labeled what he saw as the predominant military mind-set the "all-or-nothing" school of thought. On 21 September 1992, in a speech before the Jewish Institute for National Security Affairs in Washington, then Chairman of the House Armed Services Committee, Les Aspin identified four tenets he ascribed to this all-or-nothing approach to intervention.

NUMBER ONE Force should only be used as a last resort. Diplomatic and economic solutions should be tried first.

NUMBER TWO Military force should only be used when there is a clear-cut military objective. We should not send military forces to achieve vague political goals.

NUMBER THREE Military forces should be used only when we can measure that the military objective has been achieved. In other words, we need to know when we can bring the troops back home.

NUMBER FOUR Probably the most important. Military force should be used only in an overwhelming fashion. We should get it done quickly and with little loss of life, and therefore, with overwhelming force.

What all this reveals is that there is a substantial block of very expert opinion that says this is the way to go...We can call this the "all-or-nothing" school. If you want a name associated with it, it would be Colin Powell...he is a believer in this. This school says if you aren't willing to put the pedal to the floor, don't start the engine.

This school would also say that this checklist avoids the problem of maintaining public support. It allows the troops to go in, get the job done and get out quickly. And because it is done with overwhelming force you don't run into the problem of public support.⁵⁶

Aspin acknowledged, "these criteria...have served us extraordinarily well."⁵⁷ He then went to some length to establish that the tenets he associated with the prevalent military mind-set constituted a rigid formula, a checklist, for decision making. This rigid formula, he argued, had been overcome by the turbulent events of the dynamic post-Cold War world. To prove his point, he cited four contemporary uses of military forces that fail to meet the "all-or-nothing" criteria: the no-fly zone over southern Iraq, the imposed

⁵⁶ Richard N. Haass, Intervention: The Use of American Military Force in the Post-Cold War World (Washington, Carnegie Endowment for International Peace, 1994), 184-185.

⁵⁷ *Ibid.*, 185.

humanitarian assistance in Bosnia, imposed humanitarian operations in Somalia, and the hurricane relief operations in Florida, Louisiana, and Hawaii.⁵⁸

In contrast to the "all-or-nothing" school, Aspin posed the "limited objectives" school, which he identified with former British Prime Minister Margaret Thatcher. The people in the "limited objectives" school were "unwilling to accept the notion that military force can't be used prudently short of all out war."⁵⁹ Framed as a positive statement, the "limited objectives" school believed that military force could be used prudently in situations short of all out war. Furthermore, according to Aspin's interpretation, the "limited objectives" school saw military force as a tool for deterrence rather than for frequent intervention. "This limited objectives camp says the military will become, in fact, very much like the nuclear weapons during the Cold War—important, expensive but not useful."⁶⁰ The Congressman then questioned "the willingness of the American people to pay \$250 billion or even \$200 billion a year for a military that is not very useful."⁶¹

Congressman Aspin tended to side with the limited objectives school, though he did not accept its notions about military forces becoming less useful. To the contrary, the dissolution of the Soviet Union and technological advances, especially in stealth aircraft and precision guided munitions (PGMs), led Aspin to envision an increasing role for the use of compelling military force. In his words: "Airpower is the heart of this limited objectives argument."⁶² And,

What this means is that we have technology which has improved our ability to make air strikes with little, if any, loss of U.S. lives and with a minimum of collateral damage and loss of civilian lives on the other side. This is a big, big change.

But we've also become more sophisticated about targeting at a time when our adversaries have become more dependent on the kinds of things we can target. We can target

58 . Ibid., 186.

59 . Ibid.

60 . Ibid., 187.

61 . Ibid.

62 . Ibid., 189.

communications nodes, power grids, and command and control assets. These things are the kinds of targets that national leadership and military commands hold dear.⁶³

Secretary Aspin passed up the opportunity to articulate his own criteria, questions, or considerations governing the use of force. Instead, he left us with the rather axiomatic stipulation that the decisions of when and how to use force were to be made on a case by case basis.⁶⁴ His speech in September of 1992, though, suggested he believed in lowering the barriers to the use of force. When Les Aspin later served as Secretary of Defense in the Clinton administration, his pro-intervention positions on Somalia, Iraq, and Bosnia tended to reinforce this interpretation of his philosophy for using military force.

Ironically, Les Aspin's downfall seemed to result from his failure to heed several tenets in the Weinberger and Powell doctrines, after he became the Secretary of Defense.⁶⁵ When the U.S. intervened in Somalia, no important national interest was at stake to warrant expanding the humanitarian mission, inherited from the Bush administration, into one of nation-building and peace-making. The costs and risks quickly exceeded the stakes for being in Somalia.

Aspin's views on intervention seemed to be out of step with those of other important administration officials, including, most notably, Warren Christopher's. Richard Haass informs us that:

Secretary of State Warren Christopher, testifying in April 1993 before the Senate Committee on Foreign Relations, provided four prerequisites for the use of military force by the United States: clearly articulated objectives, probable success, likelihood of popular and congressional support, and a clear exit strategy. Unlike the views of Congressman Aspin, but more similar to both Powell and Bush, Christopher was marshaling arguments that weighed against direct U.S. military intervention in Bosnia.⁶⁶

63. Ibid.

64. Ibid.

65. As Jonathan Stevenson points out in Losing Mogadishu, the failed intervention in Somalia that resulted in the death of 18 U.S. Rangers had much to do with Secretary Aspin's downfall. On 5 October 1993, two days after the debacle in Mogadishu, Secretary Aspin and Secretary of State Warren Christopher told a group of about two hundred Senators and House members that on the policy in Somalia they were without higher guidance and then asked the legislators "if anyone knew what the policy should be" (citation comes from a Sidney Blumenthal article in The New Yorker, not a direct quote from the Secretaries). Secretary Aspin failed to heed Weinberger's doctrine by failing to send enough force for the job, by not properly reviewing the changing nature of the mission in Somalia, and by failing to have a clear objective. Jonathan Stevenson, Losing Mogadishu, (Annapolis: Naval Institute Press, 1995), 95-97.

66. Ibid., 17.

In the evolution of ideas for when and how to use military force, the Clinton administration's policy statements seem to reflect the more cautious views of Powell and Weinberger than those of Les Aspin.

National Security Strategy, 1996. The most recent National Security Strategy (NSS) document published by the Clinton administration includes a page and a half of discussion titled "Deciding When and How to Employ U.S. Forces." The NSS reflects the same considerations for using force that Weinberger and Powell articulated. It describes and differentiates three categories of national interests: vital interests related to the "survival, security and vitality of our national entity;"⁶⁷ interests that are important but not vital, such as those at stake in Haiti and Bosnia; and humanitarian interests. This last category is deemed unsuitable for the use or threat of force. For humanitarian interventions, "our decisions focus on the resources we can bring to bear by using unique capabilities or our military rather than in the combat power of military force."⁶⁸ When and how to use military force, then, are questions primarily associated with America's vital interests and important but not vital interests.

When to Use Force. According to the NSS: "The question of whether or when to use force is therefore dictated first and foremost by our national interests." The U.S. is certainly prepared and willing to use force to defend vital national interests. For less than vital interests, the U.S. will be more selective; significant economic stakes and "substantial refugee flows into our nation or our allies"⁶⁹ exemplify instances when the U.S. is likely to intervene. "Second, in all cases, the costs and risks must be judged commensurate with the stakes involved."⁷⁰ The discussion on when to use force concludes with a series of questions reminiscent of General Powell's questions.

In every case, we will consider several critical questions before committing military force: Have we considered nonmilitary means that offer a reasonable chance of success?

67 . The White House, A National Security Strategy of Engagement and Enlargement (Washington: GPO, February 1996), 18.

68 . Ibid.

69 . Ibid.

70 . Ibid.

Is there a clearly defined, achievable mission? What is the environment of risk we are entering? What is needed to achieve our goals? What are the potential costs—both human and financial—of the engagement? Do we have a reasonable likelihood of support from the American people and their elected representatives? Do we have timelines and milestones that will reveal the extent of success or failure, and, in either case, do we have an exit strategy?⁷¹

How to Use Force. The NSS discussion of how to intervene, like the question of when, resembles a synthesis and rephrasing of the Weinberger and Powell doctrines (see Appendix 1). The NSS notes that “when we send American troops abroad, we will send them with a clear mission.”⁷² Where combat is anticipated, American troops will be given “the means to achieve their objectives decisively.” The primary questions to be considered before committing forces are: “What types of U.S. military capabilities should be brought to bear, and is the use of military force carefully matched to our political objectives?” The NSS document goes on to address the virtues of acting multilaterally (e.g., through the UN, a coalition, or with allies) while retaining the prerogative to act unilaterally. Finally, the NSS addresses the issue of public support, noting: “the United States cannot long sustain a fight without the support of the public, and close consultations with Congress are important to the effort.”⁷³

The current U.S. policy for when and how to employ force exhibits a number of obvious similarities with, and a few differences from, the Weinberger doctrine. The differences reflect, more than anything else, the changed geopolitical environment. When Weinberger crafted his criteria, the mission, of overwhelming importance to the U.S. military, was to deter global thermonuclear war with the Soviet Union. In the zero-sum contest with the Soviets, any military intervention could potentially bring the superpowers into direct confrontation. The risks associated with using force, especially outside the confines of North and South America, were always very high. Therefore, only the highest stakes (vital interests) would warrant taking the large risks inherent in a Cold War intervention. While there are no sharp, or universally accepted, lines dividing

71 Ibid., 18-19.

72 Ibid., 19.

73 Ibid., 19.

vital interests from important but not vital interests, it seems clear the demise of America's superpower rival, and the concomitant end to the nuclear balance of terror, have lowered the risks of intervening.

A perception of being able to intervene at lower costs has also served to reduce the stakes needed to provoke U.S. military intervention. If the U.S. intervened and failed during the Cold War, it undermined the perception of U.S. military and political strength. That was a cost the U.S. could ill afford then, but one that has far less significance today when the world is no longer divided into two hostile camps. When Weinberger formulated his doctrine, America's recent military experiences included Vietnam, the failed attempt in 1979 to rescue U.S. hostages in Iran, and the death of 241 Marines in Lebanon. Even where the U.S. managed to come away a winner (e.g., the Mayaguez incident, and Grenada) military operations were plagued with problems, and were relatively costly. Reorganization to enhance joint operations, and subsequent military successes in Libya (1986), Panama (1989), and the Gulf (1987-88 and 1991), have done much to lower the perceived costs of intervening. Technological advances in the form of stealthy aircraft married to precision guided munitions (PGMs) also seem to offer new possibilities for using force at low risk and low cost. These cost lowering factors together with new geopolitical realities appear to make military intervention a more attractive option in the late-1990s than it was in the mid-1980s.

As mentioned earlier, the 1996 NSS states that, "in all cases, the costs and risks of U.S. military involvement must be judged to be commensurate with the stakes involved."⁷⁴ The much lower costs and risks of intervening today permit U.S. military intervention when important, but not vital, national interests are at stake. The logic of intervention has not changed so much as have the environment and the implications of intervention.

⁷⁴ Ibid., 18.

In the post-Cold War world, the U.S. remains committed to defending its vital interests and it will usually employ overwhelming force to do so. For less-than-vital interests, overwhelming force may be inappropriate and politically unsustainable. If America's ability to intervene is less constrained today than it was during the Cold War, the decision to intervene is more complex.

Arnold Kanter. As a Special Assistant to President Bush for National Security Affairs, and, later, Undersecretary of State for Political Affairs, Arnold Kanter observed and participated in post-Cold War decisions on U.S. military interventions. In the spring of 1995, Kanter offered some observations about intervention decision-making in the Bush administration. His remarks were limited to interventions dealing with ethnic, nationalist and separatist conflicts (EN&SC), where the interests at stake were likely to be less than vital. Kanter explains,

Absent a Cold War calculus, U.S. interests perceived to be at stake in a given EN&SC typically are seen to be lower than they might have been during the Cold War: As the connection between strife in far-off places and U.S. national security or other vital interests has become more problematic, the case for U.S. intervention in any given situation has become less compelling.⁷⁵

So, the absence of the Cold War not only lowered the costs and risks of intervening, the end of the zero-sum game also lowered the stakes and impetus for intervening. For these interventions, on behalf of less-than-vital interests, Kanter asserted that the U.S. was coming to accept new, informal guidelines for intervention decision-making.

There has not been (and probably still is not) an orderly, formal, well-structured decision-making process that culminates in decisions about whether or not to intervene in the contingency at hand. The distinguishing features of the post-Cold War world, which tend to reduce both the stakes and the risks of most interventions, only add to the complications and confusion. **It also should be clear that the informal decision-making process that does exist reveals relatively stable characteristics, and that "learning" in the form of convergence on tacit decision guidelines and rules of thumb is occurring.** [emphasis added]⁷⁶

⁷⁵ Arnold Kanter, "Intervention Decision-making During the Bush Administration: Deciding Where to Go In and When to Get Out," *Special Warfare* 8, no. 2 (April 1995): 14.

⁷⁶ Ibid., 21.

Kanter's proposed guidelines reflect many of the points expressed formally in the NSS, but also include factors which would be too impolitic to state as written policy or doctrine (e.g., see his third guideline below). Kanter offers the following nine guidelines for intervention decision-making, which he observed during the Bush administration. He also suggests the Clinton administration has internalized these rules of thumb as it continues to learn from America's most recent intervention experiences.

1. Do not intervene—especially on the ground—absent high confidence that the intervention will be relatively brief and inexpensive and that it will cause minimal casualties and collateral damage.
2. Do not intervene unless there is a high probability of success.
3. Avoid congressional involvement in the decision-making process.
4. Minimize the need for political support and the risk of negative political consequences.
5. Insist that U.S. involvement is qualitatively different in political terms.
6. Avoid committing U.S. ground forces.
7. Retain operational control over U.S. combat forces, particularly ground forces.
8. Secure authorization by the U.N. or another international organization.
9. Obtain multilateral participation.⁷⁷

In the discussion of his guidelines, Kanter highlights "the growing importance of domestic political considerations in foreign policy."⁷⁸ In light of these concerns, and the less-than-vital interests at stake, Kanter concludes: "Quick, clean, and cheap interventions are more likely to be commensurate with the stakes and are unlikely to generate significant domestic political problems."⁷⁹ The pressure to make such interventions quick, clean, and cheap is a major factor in the bias against committing U.S. ground forces—Kanter's sixth guideline.

Congressional hearings into sending 25,000 U.S. soldiers to Bosnia for peacekeeping duties, after American airmen had patrolled the skies over Bosnia for several years, seem to support Kanter's proposition that there is a bias against using U.S. ground forces in intervention. The Senate Armed Services Committee hearings were typical of the various House and Senate hearings held in mid-October of 1995. The

⁷⁷ Ibid., 19-21.

⁷⁸ Ibid., 20.

⁷⁹ Ibid., 19.

potential for casualties, the military objectives, and the U.S. interests at stake in Bosnia were the focus of the committee hearings. The questions and comments of the committee members made it sound as though these were suddenly new concerns—unique to the introduction of ground forces.⁸⁰ Apparently, it is much easier to commit America's airpower or sea power to an intervention than it is to send U.S. ground forces abroad.

Edward N. Luttwak, a Senior Fellow at the Center for Strategic and International Studies expressed a similar sentiment in "Toward Post-Heroic Warfare," an article that appeared in the May/June 1995 issue of Foreign Affairs. According to Luttwak, the U.S. has justification for pursuing interventions "with modest purposes and casualty avoidance as the controlling norm."⁸¹ Luttwak's notion of post-heroic warfare is meant to cope with interventions where the stakes for the U.S. are low, "when doing more would be too costly in U.S. lives, and doing nothing is too damaging to world order and U.S. self-respect."⁸² For these types of interventions, Dr. Luttwak believes:

The risk of suffering casualties is routinely the decisive constraint, while the exposure to casualties for different kinds of forces varies quite drastically, from the minimum of offensive air power to the maximum of army and marine infantry.⁸³

Referring to the B-2 stealth bomber, Luttwak goes on to state that U.S. policy-makers have not yet learned to appreciate "the overall foreign policy value of acquiring a means

80 On 17 October 1995, the Senate Armed Services Committee (SASC) and the Senate Foreign Relations Committee held hearings with Secretary of State Warren Christopher, Secretary of Defense William Perry, and Chairman of the Joint Chiefs of Staff General John Shalikashvili. The following remark and question from SASC Chairman Senator Strom Thurmond is representative of the concerns voiced by many of the Senators, both Democrats and Republicans. "A great number of Americans and members of Congress do not feel that deploying U.S. forces in Bosnia to enforce a peace agreement to save the NATO alliance is of vital importance. Can you explain exactly what U.S. national security interests or vital interests warrant a U.S. commitment to deploy U.S. troops to enforce a peace agreement?" Later during the same hearing Senator James Inhofe pointedly addressed the issue of casualties. "Over in Somalia after our 18 rangers were killed and their corpses dragged through the streets of Mogadishu, the people of America demanded the end of the operation, Operation Restore Hope, in Somalia because those deaths could not be justified on the basis of American interest. Now if any one of you, I'd like to have any one of you tell me if we're going to have hundreds of young Americans dying over there, is the mission as you described it in your opening statement, justification for their deaths?" Congress, Senate, Senate Armed Services Committee, Hearings on Administration Policy in Bosnia Potential Use of U.S. Military Forces to Implement a Peace Agreement, 104th Cong., 1st Sess., 17 October 1995, 10:46 EST, 12:09 EST. The House National Security Committee also held hearings on the same subject on 17 and 18 October 1996.

81 Edward N. Luttwak, "Toward Post-Heroic Warfare," Foreign Affairs 74 no. 3 (May/June 1995), 110.

82 Ibid., 122.

83 Ibid., 122.

of casualty-free warfare by unescorted bomber, a weapon of circumscribed application but global reach."⁸⁴

Exploring the validity of recent claims of America's excessive sensitivity to casualties is beyond the scope of this study. It should suffice to note that Americans have long valued the worth of the individual, and they are sensitive to casualties. Whether that sensitivity is excessive, growing, or merely perceived to be excessive is not important for the purpose of this discussion. Casualties do weigh heavily on the cost side, when Americans check the scales balancing costs and risks against the national interests at stake.

Richard Haass. Richard Haass, a former Special Assistant to President Bush and a Senior Director on the National Security Council Staff, suggests that, "tolerance for costs reflects the interests at stake."⁸⁵ Administrations, past and present, have been prone to overstate the national interests at stake whenever they have sought support for interventions. To understate the stakes would be counterproductive and foolish. The best measure, then, of the U.S. interests at stake in an intervention is likely to be the tolerance for sustaining costs, especially casualties. Haass is fundamentally correct when he avers that:

There is an important relationship between interests and the ability to intervene successfully. The ability to sustain an intervention over time and, more importantly, despite human and financial costs, is linked directly to the perceived importance of the interests at stake. In the absence of widely perceived national interests, elite and popular tolerance of the costs of intervention is much diminished.⁸⁶

The attention given to casualties in low-stakes interventions apparently bears out Arnold Kanter's prescription for quick, clean, and cheap operations.

Collateral damage is another factor that weighs heavily on the cost side of the scales. Avoiding collateral damage—keeping the intervention clean—will usually be

⁸⁴ Ibid., 122.

⁸⁵ Haass, *Intervention*, 71.

⁸⁶ Ibid.

helpful in achieving U.S. objectives in an intervention, and it will be important for sustaining international, regional, and domestic political support for intervention. The following passage from a recent speech by Secretary of Defense William Perry highlights the concern for collateral damage.

We launched one of the most effective air campaigns that we've ever had. It was over 1,000 sorties. Every target that had been designated was destroyed, and there was zero collateral. This is a rare instance where, by a combination of exclusive use of precision-guided munitions and very strict rules of engagement, we conducted this massive campaign with no damage to civilians, no damage of collateral of any kind.⁸⁷

Low collateral damage is important in intervention, and, the lower the stakes, the greater the relative importance of collateral damage. After 204 Iraqi civilians were killed in the 13 February 1991 attack on the Al Firdos bunker in Baghdad, General Schwarzkopf demanded no targets in the Baghdad area could be struck without his first reviewing them.⁸⁸ The unintended civilian deaths led to restrictions on how the strategic bombing campaign was prosecuted from then on.⁸⁹ Collateral damage of similar proportions in Bosnia might have fatally undermined the NATO policy there, bringing an ignominious end to OPERATION DELIBERATE FORCE which Secretary Perry spoke of so glowingly.

Conclusion. The U.S. has a doctrine for when and how to use force. Part of the doctrine has been formalized and articulated in the NSS, and bears strong similarity to the Weinberger criteria. Other aspects of the doctrine remain informal and only half articulated, perhaps because it would be too impolitic to state them plainly. The principal items of the U.S. doctrine for when and how to use force pertinent to this study are as follows.

1. When U.S. vital interests are threatened, the U.S. is willing, if necessary, to respond with overwhelming force, and to win decisively. Going to war on behalf of vital

⁸⁷ William J. Perry, U.S. Secretary of Defense, Remarks to Adjutants General Association of the United States, Washington, 7 February 1996, reported in the Federal News Service, 8 February 1996, A1.

⁸⁸ Rick Atkinson, *Crusade: The Untold Story of the Persian Gulf War* (New York: Houghton Mifflin, 1993), 286, 290.

⁸⁹ Ibid., 290-296, and Thomas A. Keaney and Eliot A. Cohen, *Gulf War Air Power Survey Summary Report* (Washington: GPO, 1993), 68-69.

interests will normally entail bringing all available force to bear, in order to control the desired outcome.

2. When less-than-vital interests are threatened, U.S. objectives may fall short of winning. In such cases, if the U.S. chooses to intervene, it would like to conclude operations quickly, or at minimal costs and with minimal collateral damage (though important even in war-fighting, these conditions become paramount at the low end of the conflict spectrum).

3. The costs and risks of intervening must be commensurate with the U.S. interests at stake.

4. Tolerance for bearing costs reflects the interests at stake.

5. The potential costs and risks associated with using ground forces are viewed as being higher than with other forms of military power (i.e., airpower and sea power).

6. U.S. forces should be given clearly defined objectives.

Table 1 presents a graphic representation of how one might view intervention in a macro sense. The table is a model that attempts to depict, in a very idealized and general fashion, the relationships between national interests, tolerance for costs, desired outcomes or objectives, and the utility of force. It essentially illustrates the first four tenets of the U.S. doctrine for using force. The rapidity of decline in tolerance for costs is meant to show the U.S. propensity for eschewing intervention unless vital interests are at stake. Winning, or controlling the outcome, is desired when the U.S. intervenes on behalf of vital interests. When lesser interests are at stake, the U.S. will likely be less committed to the intervention, and it will pursue more limited objectives—influence instead of control. The utility of force, shown in the far right column, is not specified in the doctrine proposed above, but it is important to the issue of how and when to use force.

Table 1
Macro View of Intervention

INTERESTS AT STAKE	TOLERANCE FOR COSTS	DESIRED OBJECTIVE	UTILITY OF FORCE
VITAL	HIGH	WIN / CONTROL	HIGH (WAR)
MORE IMPORTANT	MODERATE	INFLUENCE POLITICAL SITUATION	
IMPORTANT	LOW		
LESS IMPORTANT	VERY LOW		
HUMANITARIAN	NEAR ZERO	SAVE LIVES AND PREVENT SUFFERING	LOW

The utility of force in intervention depends less on the U.S. interests at stake than it does on the situation at hand. Certainly, force is very useful in war-fighting interventions, which should only be conducted to defend vital interests. Conversely, using force in support of humanitarian interests seems inappropriate, if not counterproductive. In the area corresponding to important national interests, force could be very useful and appropriate, as in a compellent or punitive intervention. On the other hand, it might be of very limited use, as in a counterinsurgency. (Note: The gradations of national interests within the "important" category is not meant as a proposal for further stratification. It merely indicates the spectrum of importance that exists in reality.)

The inability to express a straightforward relationship between the utility of force and the other factors in the macro view of intervention suggests a potential for two types of mismatches. First, the U.S. might have a vital interest at stake, a high tolerance of costs, and a desire to control the outcome, yet find military force a poor tool for acting

(e.g., consider a counterinsurgency in Saudi Arabia). Second, America could have far less important interests at stake, with correspondingly modest aims and a low tolerance for costs, in a situation where a great deal of force is needed to intervene effectively (e.g., imagine attempting to prevent an Iranian military incursion, on behalf of persecuted Shiites, into southern Iraq). These mismatches could lead to misapplications of force in intervention, and, as it will be shown in Chapter 5, they have serious implications for the proper use of airpower.

America's potential enemies are unlikely to present direct challenges to vital U.S. interests, because the U.S. possesses, and has been willing to employ, a formidable military force and an unparalleled power projection capability. Therefore, the U.S. is most likely to face decisions about how and when to use force, when less-than-vital interests are at stake, and in situations where war-fighting would be inappropriate.

The U.S. doctrine for using force represents what is believed, in general, to work best. The doctrine is not an inviolable set of rules to be slavishly applied in every case, but it represents proven principles that are ignored at the peril of U.S. armed forces, America's military reputation and prestige, and, perhaps, the political fortunes of administrations. Having established both the doctrine for using force, and the various types of intervention, this study now moves on to explore the capabilities and limitations of airpower.

CHAPTER 4

AIRPOWER

Global Reach—Global Power illuminates airpower's inherent strengths—speed, range, flexibility, precision and lethality—to focus the Air Force on what is needed to preserve and enhance these strengths.

—Global Reach—Global Power

When addressing the fundamental nature of airpower, one is tempted to refer to well known airpower theorists, such as Douhet and Mitchell, in search of something truly profound and time worn. However, it should suffice to note that there have traditionally been two notions of airpower, one broad and one narrow. The broad vision of airpower includes civilian as well as military airpower, and, within the latter, both lethal and non-lethal airpower. It recognizes the full spectrum of capabilities a nation may derive from its "ability to do something in the air."⁹⁰ The narrower definition concerns the military aspects of airpower. Current Air Force doctrine, embodied in AFM 1-1, adopts this narrower focus, noting: "Aerospace power grows out of the ability to use a platform operating in or passing through the aerospace medium for military purposes."⁹¹ The "military purposes" referred to in AFM 1-1, obviously, includes the violent use of force. This lethal application of airpower is the focus of the following discussion.

This chapter's discussion proceeds on the assumption that the characteristics of airpower discussed in Air Force doctrine, and examined on the following pages, apply

⁹⁰ Billy Mitchell's definition of airpower for the preface of *Winged Defense*. William Mitchell, *Winged Defense*, (New York: G.P. Putnam's Sons, 1925; reprint, Mineola, New York: Dover, 1988), xii.

⁹¹ AFM 1-1, *Basic Aerospace Doctrine of the United States Air Force*, 1992, 5.

fully to lethal airpower. What is said to be true of airpower in general does not cease to be true in a discussion limited to lethal airpower. In addition, airpower, as used here, is synonymous with aerospace power, a term defined and used in Air Force doctrine. Aerospace power could include air breathing systems, ballistic missiles, or orbiting platforms. While most of what follows in this study applies to air breathing systems (aircraft, unmanned aerial vehicles, and cruise missiles) the author does not preclude emerging technologies, such as transatmospheric platforms capable of operating in both air and space, nor does he want to exclude future space-borne weapons delivery systems.

Airpower Characteristics and Advantages. The most obvious characteristic of airpower is its ability to operate above the earth's surface, thus adding a third dimension to warfare. According to Air Force doctrine:

Elevation above the earth's surface provides relative advantages over surface-bound forces. Elevation provides broader perspective, greater potential speed and range, and three-dimensional movement. The result is inherent flexibility and versatility based on greater mobility and responsiveness. Aerospace power's speed, range, flexibility, and versatility are its outstanding attributes.⁹²

By virtue of its mobility and responsiveness, "aerospace power can quickly concentrate on or above any point on the earth's surface."⁹³ This aspect of airpower is especially useful for applying force. Fleeting targets, and targets far from friendly surface forces, were once relatively safe from attack. Now, by virtue of its freedom of movement, "aerospace power can be brought to bear on an enemy's political, military, economic, and social structures simultaneously or separately."⁹⁴ Citing a military cliché, Eliot Cohen, Professor of Strategic Studies at the Paul H. Nitze School of Advanced International Studies, put it this way: "What can be seen...can be hit, and what can be hit can be destroyed."⁹⁵

92 Ibid., 8.

93 Ibid., 8.

94 Ibid., 5.

95 Eliot A. Cohen, "A Revolution in Warfare," *Foreign Affairs* 75, no. 2 (March/April 1996): 44.

These characteristics of airpower are not new. Forty years ago Air Force doctrine said essentially the same thing:

The predominant characteristics of air forces are: range, speed, mobility, flexibility, and penetrative ability...Operating in the medium of space, unrestricted by the definitive boundaries of land and sea, air forces are inherently capable of operating anywhere at anytime. This potential exposes the entire structure of other nations—both the material and social components—to the influence of air operations.”⁹⁶

In 1959, introducing the latest version of Air Force doctrine, Air Force Chief of Staff General Thomas D. White added “firepower delivery” to the list of airpower characteristics:

Range, mobility, flexibility, speed, penetration capability and firepower delivery—the characteristics that continue to make aerospace forces unique among military forces—must be developed to the maximum to guarantee national security.⁹⁷

In 1989, and again in 1992, the Air Force promulgated a white paper, Global Reach—Global Power, designed to highlight the service’s contributions to national security. Reflecting advances in technology and America’s recent Gulf War experience, the 1992 version of Global Reach—Global Power asserted that speed, range, flexibility, precision, and lethality are “the unique characteristics of aerospace forces.”⁹⁸

One of the unique capabilities of airpower, stemming from the combination of its characteristics, is the ability to launch aircraft from the U.S. and strike targets anywhere on the globe within hours. This gives the U.S. the potential to influence international situations without difficult, expensive, time-consuming, and often politically undesirable overseas deployments of military forces. Colonel David A. Deptula, a key planner in the Desert Storm air campaign, highlighted the benefits of this forceful aspect of global power when he wrote:

A recipient of a PGM does not know or care if the weapon came from near or far, or from what kind of platform, or from what kind of base. For military, political, and

96. AFM 1-2, Basic Air Force Doctrine, 1 April 1955, 4.

97. Robert Frank Futrell, Ideas, Concepts and Doctrine Vol I: Basic Thinking in the United States Air Force 1907-1960 (Maxwell AFB, Alabama: Air University Press, 1989), 10-11.

98. Air Force, Toward the Future: Global Reach—Global Power (Washington: GPO, 1992), 1.
Global Reach—Global Power, 20.

economic reasons the capability to project forces to achieve influence has immense advantages compared to deploying force for the same purpose.⁹⁹

Yet another aspect of airpower stemming from the combination of its characteristics is the ease with which it can be employed and then redirected or recalled. Writing for *Foreign Affairs*, Eliot Cohen explains: "Air power is an unusually seductive form of military strength, in part because, like modern courtship, it appears to offer gratification without commitment."¹⁰⁰ Because few, if any, nations possess the capability to respond in kind, the U.S. can engage in an air campaign, or conduct limited airstrikes, without fear of similar retaliation or significant opposition. Air forces are easier to deploy than surface forces, and can strike an enemy from far away. By contrast, surface forces engaged in an intervention must get closer to enemy forces, and are thus much more exposed to enemy ground and air attack. Furthermore, while the U.S. possesses an enormous airpower advantage over nearly all of its potential adversaries, many poorer and technologically unsophisticated states can still field formidable ground forces. Thus, the consequences of getting halfway through a land campaign, then quitting or disengaging, will usually be far more dangerous for the forces involved than would be the case with airpower. In general, it is much easier to get in and get out of an intervention with airpower than it is with surface forces.¹⁰¹ This explains, in part, the relative lack of debate concerning the use of U.S. aircraft over Bosnia compared to the acrimony prompted by plans to introduce ground forces into the war-torn region.¹⁰²

Modern airpower is survivable; it can be used in most intervention situations with little, if any, risk to American lives. Ballistic missiles, cruise missiles and unmanned aerial vehicles can operate in a hostile environment without risking U.S. casualties. Manned aircraft, on the other hand, depend on a combination of airpower's characteristics—avionics, tactics, and design features—for their survivability. Some

99 David A. Deptula, "Firing for Effect," *Defense Airpower Series* (Arlington, Virginia: Aerospace Education Foundation, 24 August 1995), 14.

100 Eliot A. Cohen, "The Mystique of U.S. Air Power" *Foreign Affairs* 73, no. 1 (January/February 1994): 108.

101 Naval surface operations are similar in this regard, but they will usually have less flexibility and capability than airpower for influencing events on the land (see also footnote 43).

102 See note 39 in Chapter 3.

aircraft, such as the A-10, the B-52, and the B-17 were designed to take extensive punishment and continue flying. Avoiding such punishment, though, is a far more effective way to ensure survival. Elevation above the earth's surface offers protection from the most ubiquitous, and historically the most dangerous, threat to airpower—unguided fire from small arms and anti-aircraft artillery (AAA). Technological improvements in aircraft systems and ordnance enable modern aircraft to accomplish their missions while staying above these low-altitude threats. Aircraft speed and maneuverability coupled with electronic warning systems and countermeasures allow modern combat aircraft to evade most of the threats that can reach beyond the range of AAA. American superiority in aircraft, aircrew training, tactics, and weaponry virtually ensures the U.S. an ability to achieve air superiority, and to suppress or destroy enemy surface to air systems wherever and whenever the U.S. intervenes.

The advent of stealth technology has, at least for the present, conferred a higher degree of survivability on airpower, than was previously possible; though, the vast majority of combat and combat support aircraft are not stealthy. Stealth is an extremely important characteristic in light of the perceived hyper-sensitivity to U.S. casualties among certain political and military leaders, and portions of American society. A former Air Force Chief of Staff stated unequivocally that the U.S. should not purchase another non-stealthy new aircraft. As the discussion in chapter 3 noted, for the purposes of this study it does not matter whether the U.S. sensitivity to casualties is excessive, growing, or merely perceived to be of heightened importance. Casualties, and the risk of casualties, will likely be the most significant costs and risks to be balanced against the stakes for which the U.S. might intervene. Whenever the U.S. chooses to intervene on behalf of modest interests, the costs of intervening (especially casualties) will have to be kept low. The more important casualty avoidance appears to U.S. policy-makers, the more attractive airpower, especially stealthy airpower, becomes.

The precision of modern airpower gives the U.S. a capability to limit collateral damage while simultaneously destroying a target with minimal effort. Collateral damage is important to avoid in war, but in lower levels of conflict, including most types of intervention, undesired death or destruction may become all-important, dictating whether or not the U.S. uses force at all. To varying degrees, the American public and their political leaders are sensitive to enemy casualties, especially civilian casualties, but, in some cases, military casualties, too. The perception of the near bloodless use of airpower in the Gulf War, and the reality of it in OPERATION DELIBERATE FORCE against Bosnian Serb forces, highlighted airpower's surgical precision and probably raised expectations for "clean" uses of lethal airpower in the future.¹⁰³

Airpower's precision, penetrative ability, and lethality, combined with America's overwhelming airpower advantage, suggest the U.S. might be able to intervene and achieve its desired political results quickly by using lethal airpower. In seeking to effect political ends, strategists must connect military actions and objectives to the desired political outcomes. Therefore, military planners look for an opponent's centers of gravity (COGs), those things vital to the adversary's ability and will to resist U.S. intervention. Clausewitz defined a center of gravity as: "the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed."¹⁰⁴ Because airpower can attack a multitude of operational and strategic COGs, nearly simultaneously, it is said to enable a new type of warfare—parallel war or *hyperwar*. Proponents of the concept suggest that only airpower can wage parallel warfare, because airpower alone possesses the ability to ignore surface forces, and strike COGs at will within an adversary's territory. Conversely, all surface forces are constrained to fighting a slower, more costly form of war, called serial warfare, where

¹⁰³ Though many Iraqi soldiers may have been killed in the Kuwaiti Theater of Operations, the television images of precision airstrikes in Baghdad depicted a relatively bloodless air campaign. During OPERATION DELIBERATE FORCE, over 1,000 strike sorties were flown, delivering over 1,000 bombs, with very few Bosnian Serb military casualties, and no civilian or friendly military casualties.

¹⁰⁴ Carl von Clausewitz, *On War*, Edited and Translated by Michael Howard and Peter Paret, with Introductory Essays by Peter Paret, Michael Howard, and Bernard Brodie (Princeton, New Jersey: Princeton University Press, 1984), 595-596.

opposing forces and campaign objectives must be dealt with sequentially. With parallel warfare, the U.S. can quickly impose a state of strategic paralysis on its opponents, which, in turn, should lead to the achievement of U.S. political objectives.¹⁰⁵

OPERATION DESERT STORM against Iraq, and OPERATION DELIBERATE FORCE against Bosnian Serb forces exemplify the quick attainment of U.S. objectives with lethal airpower.

In considering whether, and how, airpower really can be used to achieve political results, one is forced to confront the limitations of airpower, the subject to which the discussion now turns.

On the left side of Table 2 is a list of airpower's positive characteristics. Opposite each positive trait is one or more limitations representing the disadvantages that accompany the advantages—the other side of the coin as it were. While advances in technology offer the potential to minimize these disadvantages, many of these limitations will likely persist for at least the next decade. If U.S. political and military leaders are to effectively employ lethal airpower in intervention, they must understand its limitations as well as its capabilities. The following discussion will explore the limitations listed in the table below.

Table 2
Lethal Airpower Advantages and Limitations

Advantages	Limitations
Perspective	Detail for Distinguishing, Discriminating
Precision	Weather, Intelligence
Penetrative Ability	Underrate Surface Forces Physical Presence and Control Difficult to Measure Progress
Lethality	COG Amenable to Bombing Too Lethal at Low End of Conflict Spectrum
Global Reach—Global Power	Tempo

¹⁰⁵ For a more complete discussion of the concept see: Colonel John A. Warden, USAF, "Employing Air Power in the Twenty-first Century," in *The Future of Air Power in the Aftermath of the Gulf War*, ed. Richard H. Shultz, Jr. and Robert L. Pfaltzgraff, Jr. (Maxwell AFB, Alabama: Air University Press, 1992), 57-82. For a somewhat critical view of the concept see: Colonel Richard Szafranski, USAF, "Parallel War and Hyperwar: Is Every War a Weakness?" in *Battlefield of the Future*, ed. Barry R. Schneider and Lawrence E. Grinter (Maxwell AFB, Alabama: Air University Press, September 1995), 124-148.

Parallel War and Hyper War	Basing Rights and Overflight Rights
Ease of Commitment and Withdrawal	Inadequate Sign of Political Commitment
Flexibility	Persistence Political and Military Restraints & Constraints
Survivability and Stealth	Promotes Interventionist Tendency Visibility for Tactical Shows of Force

The Limitations of Airpower.

The great perspective that comes from elevation enables an aircrew or sensor to survey a large expanse of the surface below. However, the ability to step back and appreciate the whole forest, also makes it difficult to identify the individual trees. This handicaps airpower in two ways: reduced accuracy in aiming, and an inability to discriminate between friend and foe. The difficulty with aiming continues to receive a great deal of attention as the armed services pursue new and more effective precision guided munitions (PGMs), including weapons that guide to geographic coordinates rather than visual aim points. The second problem, identifying friend from foe, including discerning targets from surrounding civilian features, requires detailed pre-mission planning, operational procedures for deconfliction, and electronic means of identification. Though a good deal of research is currently going into automatic target recognition, it will be many years before technology comes close to matching the human ability to perceive, decide, and act in situations requiring the most discriminate and discreet uses of firepower. Employing force precisely, in a potentially confusing and dynamic environment (e.g., the streets of Mogadishu), without creating collateral damage, demands an accurate perception of details—details often lost with the increasingly broad perspective gained through elevation.

Precision airpower employment requires good weather and precise intelligence, or, at a minimum, precise information. In OPERATION DELIBERATE FORCE, over one third of the PGMs that missed their targets did so because of weather. This says nothing about how many sorties never even flew because of weather, nor does it account for

sorties flown where weather precluded an attempt to drop. Many missions refrained from expending ordnance, for example, Navy aviators, who flew fewer than half of the U.S. strike sorties, complained about the number of PGMs they were forced to jettison into the Adriatic Sea. While land-based aircraft had readier access to PGMs, and could usually land with unexpended ordnance,¹⁰⁶ naval airplanes, prevented by target area weather from dropping their bombs, often could not recover aboard the carriers with the ordnance still under their wings.¹⁰⁷ The Global Positioning System aided munitions currently under development will tremendously improve the U.S. ability to employ airpower in bad weather, but these systems will be too inaccurate to substitute for PGMs against targets requiring true precision. Millimeter wave technology and automatic target recognition developments may eventually allow precision strikes in poor weather, but those capabilities are likely to be several years away from maturation.

Without precision intelligence, the ability to strike targets in bad weather will hardly matter. Large, fixed targets, such as bridges or munitions factories do not present much of an intelligence challenge, but, for most types of intervention, the sort of targets likely to require destruction will present formidable intelligence problems. A great deal of time, energy, and resources are currently being applied to solve the difficulties associated with precisely targeting mobile systems, such as the SCUD missiles of Gulf War fame. Even attacks against some large, fixed targets require precise intelligence. The destruction of the Al Firdos bunker in the Gulf War that killed an estimated 204 civilians might have been attacked at a different time, in a different way, or not at all, had the U.S. known about the presence of civilians.¹⁰⁸ Unfortunately, the intelligence available in this case was not precise enough; precise intelligence means more than accurate target coordinates. A similar event in an intervention requiring a more restrained use of force might completely derail U.S. efforts, and bring an end to military

¹⁰⁶ Air Force aircraft recovering at Aviano Air Base in Italy, without expending their 2,000 pound Mk-84s, were also forced to jettison their bombs.

¹⁰⁷ Jon R. Anderson, "Rivalries on U.S. side emerged in airstrikes," *Air Force Times*, 9 October 1995, 6.

¹⁰⁸ Rick Atkinson, *Crusade: The Untold Story of the Persian Gulf War* (New York: Houghton Mifflin, 1993), 286.

operations.¹⁰⁹ If the current administration acts on its recent threats to prevent Libya from completing the Tarhunah chemical weapons plant, it will likely do so with a preventive airstrike—one that will require precision intelligence.¹¹⁰

The U.S. may desire to intervene in places where it lacks sources for human intelligence (HUMINT), and against targets for which HUMINT is likely to be the best, or only, source of useful information (e.g., North Korea's nuclear research facilities, Libya's Tarhunah chemical weapons plant). While airpower's precision is a valuable force multiplier for war-fighting, it demands precision intelligence. For interventions below the level of war-fighting, intelligence challenges will probably continue to constrain America's ability to employ lethal airpower.

The penetrative ability of airpower, that is the ability to go anywhere, anytime without first engaging and overcoming defending surface forces, has long been touted as its greatest asset; it allows airpower to directly affect enemy COGs at all levels—strategic, operational, and tactical. This ability, though, might cause airmen to underrate the importance of engaging and defeating an adversary's ground forces. Some leading airpower proponents in World War II hoped to end the war in Europe before a ground invasion was needed. One thing these airmen failed to appreciate was that the American and British political leaders did not want the Soviets to occupy all of Europe any more than they wanted Hitler to. But, without Anglo-American forces on the ground, the Soviets probably would have done just that. More recently, proponents of strategic bombardment developed a plan for using airpower to eject Saddam Hussein's army from Kuwait. The plan virtually dismissed that same army as a viable target. When Lieutenant General Chuck Horner, the man responsible for executing the air campaign, questioned the wisdom of the strategy, the plan's architect, Colonel John Warden,

¹⁰⁹ Rick Atkinson claims that this was precisely the case with OPERATION DELIBERATE FORCE in Bosnia. He states that: "Ryan knew that a single mistake--bombing a church, strafing a school bus--would cause public opinion to bring Deliberate Force to a dead stop. He personally selected each aim point, effectively painting the bull's-eye on every target." Rick Atkinson, "Air Assault Set Stage for Broader Role," The Washington Post, 15 November 1995, A20.

¹¹⁰ "Perry says Libyans must halt arms plant," The Montgomery Advertiser, 4 April 1996, 9A; and Steve Komarow, "U.S. builds bomb for underground strikes," The Washington Post, 25 April 1996, 30.

reportedly replied: "Ground forces aren't important to [the] campaign...I don't believe they can move under [our] air superiority."¹¹¹ Not everyone in the Air Force was as sanguine as Colonel Warden about the campaign's prospects for success, or the wisdom in neglecting to go after the Iraqi ground forces. As Colonel Edward Mann reports:

The TAC people thought it unrealistic that six to nine days of bombing in downtown Baghdad and other areas of Iraq (all the while ignoring the Iraqi army poised on the border of Saudi Arabia) would cause Saddam Hussein to withdraw or be overthrown. Nonetheless, that appeared to be what Warden and company were promising to Schwarzkopf and Powell.[parentetical comments in original]¹¹²

While there is no denying the value of the strategic aspects of the Gulf War air campaign, or Colonel Warden's immense contribution to the plan, portions of the Iraqi army were of vital importance to Saddam Hussein and deserved to be targeted. As the Gulf War Airpower Survey points out, military planners in Riyadh, "identified the Republican Guard as a center of gravity of the campaign and a priority target of the air campaign."¹¹³ Airpower's penetrative ability—the key to strategic bombardment—may lead air campaign planners to under-rate enemy surface forces.

Faith in the potential of airpower, and its ability to ignore an opponent's ground forces, might also cause political leaders to question the need to employ U.S. ground forces. In October of 1990, President George Bush, after being briefed on plans for both the air and ground campaigns for evicting the Iraqi army from Kuwait, asked the Chairman of the Joint Chiefs of Staff, General Colin Powell, if it would be possible to do the job with airpower. General Powell, recounting his advice to the President, wrote:

'The trouble with airpower,' I had warned the President, 'is that you leave the initiative in the hands of your enemy. He gets to decide when he's had enough.' We were planning a full campaign—air, land, sea, and space—to remove the decision from Saddam's hands.¹¹⁴

¹¹¹ Colonel Richard T. Reynolds, USAF, Heart of the Storm: The Genesis of the Air Campaign Against Iraq (Maxwell AFB, Alabama: Air University Press, January 1995), 128.

¹¹² Colonel Edward C. Mann, III, USAF, Thunder and Lightning: Desert Storm and the Airpower Debates (Maxwell AFB, Alabama: Air University Press, April 1995), 170.

¹¹³ Thomas A. Keaney and Eliot A. Cohen, Gulf War Air Power Survey Summary Report (Washington: GPO, 1993), 46-47.

¹¹⁴ Colin L. Powell with Joseph E. Persico, My American Journey (New York: Random House, 1995), 476.

Though airpower can often provide a strong compelling force to convince an opponent to comply with U.S. demands, it cannot physically take and hold terrain; it cannot control events on the ground. Except in war-fighting interventions, U.S. objectives and commitment will normally be limited, and the coercive threat, or use, of lethal airpower may be sufficient to achieve those limited objectives. But, as Admiral J. C. Wylie explains in his book Military Strategy: "if the strategist is forced to strive for final and ultimate control, he must establish or must present as an inevitable prospect, a man on the scene with a gun...He is control. He determines who wins."¹¹⁵

Another limitation of lethal airpower related to its penetrative ability is the difficulty in measuring its progress toward success. This is especially troublesome when airpower is used for compellence. How much bombing will it take to compel? How far the U.S. should go to find out, is likely to depend on the interests it has at stake. Martin P. Adams, a career Foreign Service Officer with the State Department, suggested, in an article for Strategic Review how this limitation could undermine public support for an intervention:

Sustaining popular support for longer-term military operations requires periodic demonstrations that success, if not obtained immediately, can at least be expected over the longer term...Absent such incremental dividends, public support for an operation, particularly one in which American lives are being lost, is apt to wither.¹¹⁶

Notwithstanding popular support, political and military considerations may demand some way of measuring success, as the U.S. was recently reminded in Bosnia. The DELIBERATE FORCE airstrikes had destroyed nearly all of the NATO-authorized targets by September 14, 1995, when the Bosnian Serb leaders finally agreed to UN and NATO demands.¹¹⁷ Had the Bosnian Serbs held out longer, NATO air planners would have had to halt the bombing, or gotten permission through NATO's Military Committee to

¹¹⁵ J.C. Wylie, Rear Admiral, USN (Retired), Military Strategy: A General Theory of Power Control, with an Introduction by John B. Hattendorf (New Brunswick, New Jersey: Rutgers University Press, 1967; reprint, Annapolis, Maryland: Naval Institute Press, 1989), 72.

¹¹⁶ Martin P. Adams, "Peace Enforcement Versus American Strategic Culture," Strategic Review 23, no. 1 (Winter 1995), 21.

¹¹⁷ Eric Schmitt, "NATO Commanders Face Grim Choices," The New York Times, 14 September 1995, A1.

escalate air operations, a questionable proposition at best. A front page story in The New York Times just one day before Bosnian Serb leaders acquiesced to UN demands illustrates the point well.

NATO commanders say that they are rapidly running out of military targets in southeastern Bosnia...The alliance's two-week bombing campaign has so far failed to force the Bosnian Serbs to withdraw their artillery around Sarajevo—a main condition to end the attacks—but Western officials are expressing doubts about how far to push the air strikes to meet that goal. Many Western diplomats are balking at expanding the air strikes for fear of harming civilians, undermining the American-led peace effort and weakening the Bosnian Serbs enough to influence the 40-month old war.¹¹⁸

The report went on to note that,

Allied warplanes today attacked more ammunition depots and command sites. But NATO commanders conceded that after 3,400 missions, including about 850 bombing raids, the air strikes have not budged General Mladic. "We're almost out of Schlitz as far as what we can do here," said a senior NATO commander. "We have done what the politicians have told us to do. It has not achieved the results we hoped it would with Mladic. Now it's time for the politicians to tell us what to do next."¹¹⁹

The next day Mladic agreed to withdraw his artillery from around Sarajevo, thus bringing an end to the airstrikes. Airpower's ability to penetrate deep into an opponent's territory is what enables it to attack his COGs, but it is difficult to measure its progress. This, coupled with airpower's inability to control events on the ground, may cause airmen to underrate both enemy and friendly ground forces, as noted earlier.

The lethality of modern airpower can likewise be a tremendous advantage in warfighting, but it can also create overkill or collateral damage in operations further down the conflict spectrum. Even AC-130s and helicopter gunships, which provide some of the most discriminate and discreet firepower from the air, may prove too lethal to be useful in situations such as those found on the streets of Mogadishu on 3 October 1993.¹²⁰ As one account of the battle noted:

¹¹⁸. Ibid

¹¹⁹. Ibid., A-10

¹²⁰. Patrick Sloyan claims "An estimated 300 Aided followers were killed and another 700 wounded. U.S. officials later conceded that a third of the 1,000 Somali casualties were women and children." Patrick J. Sloyan, "How the Warlord Outwitted Clinton's Spooks," The Washington Post, 3 April 1994, C3. Rick Atkinson cites similar casualty figures, but suggests that American forces who found themselves in buildings with civilians were reluctant to let them go for fear "that some might join Somali fighters, who already had numerous women and children in their ranks." The implication being that some of the casualties among the women and children may have been

Somalis began shooting their AK-47 rifles while a few others began engaging with 30-caliber machine guns. The 7.62 miniguns in the doors of the Blackhawks began to heat up as the exchange started to even.

"The Somalis were a curious bunch," remembers Goffena. "For every armed person, there were fifty unarmed just standing around, often right next to the guy firing at us."¹²¹

Air-delivered munitions designed for conventional war-fighting, and systems designed to provide high volumes of firepower, may be exactly what soldiers caught in a fire-fight need to save their own lives or the lives of their comrades. But, such lethal airpower does not offer a "clean" means for dealing with situations demanding the most discreet and discriminate uses of force.

The decision to use lethal airpower also presupposes that ordnance on target can be translated into a desirable political or military objective. Not every COG can be attacked directly, and military strategists must analyze an opponent in search of ways to influence his COG(s). For example, planners at NATO's Allied Air Forces Southern Europe (AIRSOUTH) determined that the Bosnian Serb fear of being dominated by either Muslims or Croats constituted their center of gravity. This COG, NATO air planners reasoned, could be affected by attacking the Bosnian Serbs' conventional military advantage. Deprived of this advantage, the Bosnian Serbs would be unable to oppose their numerically superior Muslim and Croat adversaries.¹²² When Bosnian Serb shelling of Sarajevo triggered OPERATION DELIBERATE FORCE, NATO airstrikes promptly decimated Bosnian Serb military infrastructure, munitions stores, and some military equipment—thus accelerating the prospects of Muslim or Croat domination.

Unfortunately, lethal airpower cannot always be used with equal facility. When, for example, the COG is popular support for the host government in a counterinsurgency situation, external military support for that government may undermine its legitimacy,

legitimate targets of U.S. fire. Still Atkinson describes a scene of indiscriminate fire where an MH-6 pilot "steadied the controls with his left hand and fired a machine gun with the right." Rick Atkinson, "Night of a Thousand Casualties," *The Washington Post*, 31 Jan 1994, A10-A11.

121. Kent DeLong and Steven Tuckey, *Mogadishu! Heroism and Tragedy*, with a Foreword by Ross Perot (Westport, Connecticut: Praeger, 1994), 15.

122. Lieutenant General Michael Ryan, USAF, "NATO Air Operations in Bosnia-Herzegovina: 'DELIBERATE FORCE,' 29 August - 14 September 1995," briefing at the School of Advanced Airpower Studies, 7 February 1996.

and, thus, prove counterproductive. As one military adage explains: "You cannot win the hearts and minds of a people with a bombing campaign."

In general, then, not all COGs are amenable to lethal air attack. The more circumscribed the role of force, the more complex the rules of engagement, and the more discriminating one must be in employing force, then the more challenging it becomes to employ lethal airpower effectively. This logic applies to all forms of lethal force, not just airpower. However, the same ground forces that can judiciously employ discriminate firepower, at the low end of the conflict spectrum, also possess a capability to provide humanitarian aid, perform nation building functions, and gather HUMINT. While airpower is exceptionally well suited for employing force, that force must serve a purpose. Some forms of intervention may call for less force and more human involvement than lethal airpower can provide. The success of U.S. ground forces in OPERATION UPHOLD DEMOCRACY in Haiti, and the unsuitability, in that situation, for lethal airpower, illustrates this point well.

A limitation imposed by long range employment of lethal airpower is that the ability to revisit a target area decreases as the range increases. As an example, A-10s operating from King Fahd air base during the Gulf War would land at King Khalid Military City (KKMC) near the Saudi-Iraqi border to rearm and refuel after their first and second sorties. The shorter distance between KKMC and the A-10s' targets allowed pilots to fly three missions in nine hours instead of the eleven hours required for three round trips to King Fahd. More importantly, A-10s flying from KKMC were only fifteen minutes from their target areas, while it took an hour to reach the same targets from King Fahd. The closer proximity equated to quicker response times, greater ability to loiter in the target area, higher sortie rates and reduced stress on the pilots. Obviously, manned bombers flying from the U.S. to a far off theater of operations will not be able to return frequently, compared to aircraft operating from bases in-theater.¹²³ This suggests

¹²³ Major Arden Dahl, USAF, interview by author, Dayton, Ohio, 22 April 1996.

that "global power" comes at the expense of being able to mount the sort of high tempo operations exemplified by DESERT STORM and DELIBERATE FORCE.

Parallel warfare and hyperwar will require bases in the theater of operations, and may require overflight rights from third-party states that lie between those bases and the target state. The coalition air campaign against Iraq would have been impossible without air bases in Saudi Arabia. As AFM 1-1 notes, "the effectiveness of aerospace forces depends on base availability and operability."¹²⁴ Aircraft carriers can be extremely useful for operating in areas where the U.S. lacks bases, and they have historically been employed to signal U.S. interest and resolve around the world. Unfortunately, when it comes to high intensity operations, carriers generate relatively little striking power compared to land-based airpower. Because of the short range of Navy strike aircraft, and the Navy's limited air refueling capability, carrier airpower cannot independently conduct sustained, high-tempo operations far inland.¹²⁵ Furthermore, at present the Navy does not possess a stealth aircraft.¹²⁶ Clearly, the U.S. could not conduct high intensity air operations akin to Desert Storm solely from carriers. Overseas basing rights will continue to shape where and how the U.S. can employ its tremendous airpower advantage.

In its 1986 strike on Libya, the U.S. was reminded of the importance of overflight rights when the French refused to allow UK-based F-111s to fly through their airspace. Flying around, rather than through, French airspace, the F-111s missions were stretched to thirteen hours—twice as long as it would have taken to fly over France.¹²⁷ The extra distance required additional tanker support, may have diminished the element of surprise, undoubtedly took its toll on aircrew effectiveness, and caused several of the F-111s to be

¹²⁴ AFM 1-1, Vol. 1, 6.

¹²⁵ These limitations have been magnified since the Navy retired its A-6 long range strike aircraft. The Tomahawk land attack missile, the Navy's version of the cruise missile, helps to increase a carrier task force's striking power, thus offsetting, somewhat, the loss of the A-6s.

¹²⁶ Ernest Blazar, "Navy wants F-117s, too," *Air Force Times*, 2 October 1995, ²⁸.

¹²⁷ Information about the causes for the ineffective missions was obtained from Colonel Arnold L. Franklin, USAF, a squadron commander, mission planner, and flight leader for OPERATION ELDORADO CANYON. Colonel Arnold L. Franklin, USAF, telephone interview by author, 19 April 1996, Maxwell Air Force Base, Alabama.

ineffective due to various aircraft systems failures.¹²⁸ All of these effects degraded the results on this one-time raid. Obviously conducting sustained operations without nearby bases, or overflight rights would be impractical. In addition, some nations may not be accessible to American airpower unless third-party states grant the U.S. permission to transit their airspace, or unless the U.S. is willing to violate a neutral country's sovereign airspace.¹²⁹ For the foreseeable future, basing rights and overflight rights will affect the U.S. ability to employ airpower most effectively.

Ground forces, as noted in Chapter 3, are the most difficult form of military power to commit to an intervention, because of the potential costs and risks involved. Naval forces, on the other hand, are easiest to send to a region of potential U.S. intervention, and they are most easily withdrawn.¹³⁰ Land-based airpower falls between the two extremes. Precisely because it is so difficult to commit ground forces, U.S. willingness to do so signals a high degree of U.S. resolve (which should, but does not always, correspond to a high national interest at stake). U.S. ground forces were apparently a necessary part of the equation when the Dayton Peace Accord was signed. As a front page story in the Washington Post reported:

[Secretary of Defense] Perry foreshadowed President Clinton's expected national address on Bosnia...when he argued that the peace agreement recently negotiated in Ohio "will simply be nullified if the United States is not part of this [NATO] force."¹³¹

128 Franklin interview; and Richard B. Hoyes, "Eldorado Canyon _ Countering State-sponsored Terrorism from the Air," (Research report, Air War College, Maxwell Air Force Base, Alabama, March 1995), 43.

129 Someday, transatmospheric vehicles, akin to the experimental DC-XA and X-33 research vehicles currently under exploration by the McDonnell Douglas Corporation, could avoid airspace overflight problems by going through space to reach their targets. On the other hand, they may raise the now dormant disputes over the altitude at which a state's airspace sovereignty gives way to the free rights of passage through space. The fact that in 1976 eight equatorial states claimed sovereignty to geosynchronous orbits above their territory suggests the potential seriousness of such disputes. Once nations have the means to interfere with U.S. satellites, they may act on their claims of sovereignty. With the current U.S. dependence on space systems, and the relative vulnerability of satellites in low earth orbit, it is definitely in the America's best interest to preserve the internationally agreed upon right of free passage through space. Transatmospheric vehicles are at least a decade away, and militarized systems are probably even further in the future. For the near future, then, the U.S. will need to consider overflight rights in intervention. AU-18, Space Handbook: A War Fighter's Guide to Space, Vol. I (Maxwell AFB, Alabama, December 1993), 54, 149-151.

130 In support of this rather intuitive observation, Blechman and Kaplan reached the same conclusion in their study involving 215 interventions occurring between 1 January 1946, and 31 December 1975. Barry M. Blechman and Stephen Kaplan, Force Without War: U.S. Armed Forces as a Political Instrument (Washington: Brookings, 1978), 529-530.

131 Rick Atkinson, "Perry Declares U.S. Troops Bosnia Ready," The Washington Post, 25 November 1995, A1 and A18.

Apparently the substantial U.S. air and sea presence in the region were insufficient contributions for the pending peacekeeping effort. Though U.S. ground troops, no doubt, bring certain unique capabilities to an intervention, the repeated administration emphasis on U.S. leadership in NATO suggests there was more psychological than material in the need for U.S. ground forces.¹³²

Flexibility is the key to airpower. That axiom is well-worn but accurate. The potential problem with flexibility is it can undermine planning, and lead to a lack of persistence. The flexibility inherent in airpower allows the focus of an air campaign to be shifted rapidly to new geographical regions, new target sets, and new missions. Moving large ground combat formations, on the other hand, is a ponderous, logistically intensive undertaking. A misguided offensive on the ground cannot easily be redirected. Therefore, the opportunity costs of attacking in the wrong place, or at the wrong time, on land are likely to be extreme compared to similar miscalculations with airpower. As a consequence, the imperative to plan meticulously, and to get it right the first time, that exists when employing soldiers in combat, is not as strong with airpower. Also, as World War II strategic bombing efforts amply illustrated, lethal airpower can be redirected so easily, that when planners do get it right, political or military pressures may conspire to refocus the effort before the desired results can be achieved. The following citation from Hitler's Minister for Armaments, Albert Speer, is illustrative:

At the beginning of April 1944, however, the attacks on the ball-bearing industry ceased abruptly. Thus, the Allies threw away success when it was already in their hands. Had they continued the attacks of March and April with the same energy, we would quickly have been at our last gasp.¹³³

Unfortunately for the Allies, competing air strategies kept the focus of air attacks shifting among industrial production, petroleum, cities, and transportation targets. Airpower's

¹³² Secretary Perry, in his statements before the Senate Foreign Relations Committee, asserted that, "NATO cannot undertake this role without US participation, because the engine of NATO is US leadership." Furthermore: "The IFOR mission will not include reconstruction, resettlement, humanitarian relief, election monitoring, and other non-security efforts that will need to be undertaken in Bosnia." Senate, Committee on Foreign Relations, Testimony by William J. Perry Hearings on Peace Process in Bosnia, 104th Cong., 1st Sess., 17 October 1995. FDCH, LEXIS/NEXIS.

¹³³ Albert Speer, *Inside the Third Reich* (New York: Macmillan, 1970), 286.

flexibility can lead to a lack of persistence. Furthermore, because of the ease with which airpower can be called off, redirected, moderated, or resumed after a halt, policy-makers and senior military leaders may be tempted to fine-tune its effects. In so doing, these leaders can easily hamper airpower's efficacy. Micro-management from afar was one of the hallmarks of ROLLING THUNDER, the eight year bombing campaign of North Vietnam, and it was partially responsible for that campaign's notorious failure.

Political resolve influences the effectiveness of all forms of military power, and airpower is no exception.¹³⁴ In The Limits of Air Power, Mark Clodfelter makes a connection between political commitment and lethal airpower in the Vietnam War. Prior to Vietnam, Clodfelter explains, "American political resolve influenced the effectiveness of air power as a political instrument."¹³⁵ Furthermore, military constraints on bombing influenced airpower's efficacy: "The more menacing air power appeared to an enemy's essential concerns, the more effective it was in accomplishing political objectives."¹³⁶ According to Clodfelter, a failure to understand the factors that influenced airpower's effectiveness caused political and military leaders to misapply it in the Vietnam War.¹³⁷ Clodfelter's analysis suggests the effective employment of airpower requires both firm political resolve, and adherence to proper military doctrine. This should be especially true when airpower is used in compellence, because an adversary who senses a weak U.S. commitment will be encouraged to hold out against U.S. demands in the hope of ultimately prevailing.

Airpower's survivability might create a perception of artificially low costs and risks associated with its use. Moreover, relatively few American combatants are placed in harm's way when the U.S. employs lethal airpower, so that, even if losses do occur, the

134 . Blechman and Kaplan, 529.

135 . Mark Clodfelter, The Limits of Air Power (New York: Free Press, 1989), 37.

136 . Ibid.

137 . Ibid.

numbers of casualties will be relatively small.¹³⁸ Policy-makers weighing the apparently low costs of intervening with airpower against the national interests at stake may be inclined to intervene more often, or in situations where relatively unimportant interests are involved.

Stealth, which enhances survivability and surprise, has its limitations, too. Stealth involves more than a low radar cross section. It includes an array of features and operating procedures designed to avoid detection. In certain circumstances, especially deterrence, it will be desirable for the U.S. to make its airpower presence highly visible. A recent Air Force Times article on aircraft operations over Bosnia illustrates this point. When an unknown faction began shooting at Malaysian peacekeepers on the ground, Navy F-18s were scrambled to the scene, but could not make radio contact with the Malaysians.

Unable to drop their bombs without specific instructions from the controllers on the ground, the Hornets went into the "presence" maneuver that is a major part of NATO's strategy for keeping the peace in Bosnia.

The pilots dropped to 10,000 feet and pushed in their throttles to make more noise with their engines. The F/A-18s' thunder was designed to give the peacebreakers second thoughts about continuing their attack.

It worked. They stopped shelling the Malaysians.

"It's called peace through superior volume," quipped Navy Lt Bill Lind, 27, of Pittsburgh, who has flown off the George Washington [sic] on similar deterrence missions.

It was just another night's work over Bosnia. There will be many more like it for all the aircrews on the George Washington and for Air Force crews on land.

Because NATO warplanes have dropped bombs on Bosnia, airplane noise does scare off attackers.¹³⁹

¹³⁸ As Colonel John Warden, USAF (Retired), recently noted, during the Gulf War, at most, several hundred airmen were at risk in the skies over Iraq at any one time. Meanwhile, tens of thousands of soldiers were in direct proximity to ground combat. Colonel John A. Warden III, USAF (Retired), "Air Theory for the Twenty-first Century," in Battlefield of the Future, ed. Barry R. Schneider and Lawrence E. Grinter (Maxwell AFB, Alabama: Air University Press, September 1995), 122.

¹³⁹ George C. Wilson, "A lesson in peacekeeping," Air Force Times, 11 March 1996, 54.

Bosnia is not unique, and the sound of combat aircraft is not the only means of highlighting airpower's presence. At times, the visible presence of airpower may be desired. In the early stages of OPERATION PROVIDE COMFORT, in northern Iraq, a show of force with airpower may have prevented clashes between coalition and Iraqi ground forces.

Coalition aircraft provided 24 hour CAS [close air support] coverage for the ground forces as they moved into northern Iraq. The battles that followed were exclusively psychological ones during which "motivational CAS" played a key role. Low flying fighters would "buzz" the positions of Iraqi units that were reluctant to withdraw or orbit in clear sight of Iraqi forces during negotiations between coalition and Iraqi Army officials. The presence of allied aircraft supporting coalition ground forces was often the key to pushing Iraqi Army units back and avoiding the need for ground combat.¹⁴⁰

Such high visibility shows of force and stealth are fundamentally incompatible. Exposing stealth aircraft, as in the examples cited above, would invite exploitation of stealth technology and techniques—a high price to pay for a tactical effect in a situation where the U.S. is unlikely to have any vital interest at stake. Yet such coercive shows of force are appealing because they offer the same results of using force without the attendant political, economic, and military baggage that comes with actually fighting. The U.S. could use stealth aircraft as a show of force at the strategic level by moving them nearer the theater of interest, but at the tactical level, stealth and high visibility are contradictory objectives. Often, the lower the stakes for which the U.S. intervenes, the more significant tactical events become. Therefore, stealth aircraft will probably be of limited use in interventions where the U.S. prefers deterrent or compellent shows of force over the actual use of force.

Conclusion. In concluding this chapter, it is appropriate to balance the past several pages of discussion on airpower's limitations with some positive observations and

¹⁴⁰ This information comes from a School of Advanced Airpower Studies thesis by Major James O. Tubbs. The original source of the information, though, was Major Dave Leffler, a forward air controller for the U.S. ground forces involved in the operations. According to Major Tubbs's notes, "Major Leffler recalled two specific occasions when his unit used this technique to avoid combat." The thesis also cites apparently successful high visibility shows of force using helicopter gunships early in the humanitarian relief operations conducted in Somalia. James O. Tubbs, "Beyond Gunboat Diplomacy: Forceful Applications of Airpower in Peace Enforcement Operations," (Thesis, School of Advanced Airpower Studies, Maxwell Air Force Base, Alabama, June 1995), 21.

a summary. The purpose of analyzing the limitations of airpower was not to denigrate it. Airpower is indispensable for warfighting and highly useful for many types of intervention, as the next chapter will demonstrate. Where the characteristics of airpower tend to limit its usefulness, technological advances have consistently been employed to overcome the limitations. The purpose of this chapter, in part, has been to focus on some of the remaining barriers to the effective employment of lethal airpower in the hopes of better understanding why it has worked in certain situations, but might not be as effective under apparently similar circumstances.

The lethality and penetrative ability that make airpower an unparalleled instrument for fighting and winning wars, pose, potentially, the biggest obstacles for employing lethal airpower in other forms of intervention. As a general statement, then, the characteristics of airpower favor the high end of the conflict spectrum. Airpower's speed, range, flexibility, precision, lethality, penetration ability, and the advantages conferred by stealth and elevation above the earth's surface, make it an excellent tool for destruction. These same traits, however, could hinder airpower's utility where the use of force must be circumscribed, where physical control is deemed necessary, or where human interaction is an integral part of military operations.

Policy-makers and military leaders must understand the capabilities and limitations of lethal airpower, if they hope to maximize their chances for success when employing this powerful tool. The next chapter, then, will address the implications, of airpower's capabilities and limitations, for intervention.

CHAPTER 5

AIRPOWER AND INTERVENTION

Air and space forces are becoming instruments of choice for tailored responses in a range of contingencies...Instead of just reacting to events, aerospace power in the evolving post-Cold War world is a flexible tool that can help shape events.

—Global Reach—Global Power

The basic problem is that very few political objectives can be met directly by air attack alone. Air power is certainly an instrument of punishment and denial, and its use can influence the victim's calculations. But it cannot achieve the physical control of enemy decision-making that is always at least a theoretical possibility with land power. When the two can work closely together, the effect can be overwhelming. The risk in the current situation is that crises which are not seen to be critical enough to Western interests to warrant the introduction of ground troops may see the use of air power in an effort to ease a guilty conscience.

—Lawrence Freedman
Professor of War Studies
Kings College London

Airpower, in its broadest sense, is the instrument of choice for dealing with many international situations. Furthermore, lethal airpower is the preferred means of employing force in certain forms of intervention. The characteristics of lethal airpower, the subject of Chapter 4, are the roots of both airpower's advantages and limitations as a tool for intervention. This fifth chapter continues the analysis, begun in Chapter 4, of airpower's utility as an instrument of intervention.

Vital Interests, Warfighting and Lethal Airpower. Where vital U.S. interests are at stake, the U.S. will, if necessary, intervene with all of its instruments of power, including all forms of conventional military force, to fight and win decisively. As noted

in Chapter 3, this is U.S. policy. In reality, there may be circumstances when intervening to protect vital interests might threaten U.S. survival, e.g., a resurgent Russia reasserting control over Central Europe. In such cases, the U.S. might not intervene militarily. Absent a threat to America's survival, the U.S. would, most likely, go to war to defend its vital interests.

What exactly are America's vital interests? Certainly, the defense of Western Europe and access to Arabian Gulf sources of oil qualify as vital interests. Defense of North, South, and Central America from external aggression has long been deemed vitally important to the United States.

Deciding where vital interests stop and important, but not vital, interests begin may not be possible in the abstract. Since the Korean War, which the U.S. fought despite Secretary of State Dean Acheson's pronouncement apparently excluding the Korean peninsula from America's defense perimeter,¹⁴¹ U.S. administrations have purposely remained vague in defining when and where the U.S. will, or will not, fight. It seems likely, then, that except for in a few relatively clear cut areas, America's vital interests will be defined as threats to them emerge. The discussion thus seems to have come full circle, ending in a tautology—America is willing to go to war over her vital interests, and her vital interests are defined by where she is willing to go to war. In any case, defining the line between vital and important interests is beyond the scope of this paper. This discussion will proceed on the assumption that U.S. policy-makers, in a position to decide on the use of force, can discern what constitutes America's vital interests, and that they can perceive a threat to those interests warranting the most serious form of intervention—war-fighting.

141. As Robert Frank Futrell notes in The United States Air Force in Korea 1950-1953 Dean Acheson's comments only excluded Korea from the area the U.S. would defend unilaterally. Acheson's speech before the National Press Club in Washington on 12 January 1950 did not indicate a lack of U.S. commitment to defend South Korea. In fact, in the speech, the Secretary of State promised U.S. participation as part of any United Nations force protecting other free nations in the region. Robert Frank Futrell, The United States Air Force in Korea 1950-1953 (Washington: GPO, 1983), 18.

Lethal airpower has become, for many, the *sine qua non* for victory in conventional war-fighting situations, especially since the unprecedented success of coalition airpower in the Gulf War. A Reuters' news report on a recent British review of its war-fighting doctrine illustrates the point well. The review was reportedly based on "a recognition that future wars would be determined by air power and intelligence superiority rather than by divisions of tanks confronting each other on the battlefield."¹⁴² Because conventional surface forces and their logistical lines of communications are vulnerable to air attack, a state employing conventional means in war must attain air superiority, or risk being decimated by its adversary's airpower.

Currently, the U.S. has no peer competitor that could challenge it for control of the air, but winning air superiority and dominating military contests on the surface do not necessarily equate to winning a war. Wars are fought for political objectives, and airpower's ability to directly effect the desired political outcome might be its most valuable contribution to war-fighting. Any state fielding a modern conventional surface force would likely be industrialized to some extent, and it would possess economic means of production and infrastructure valued by the state's leaders. This implies states capable of engaging in conventional warfare may be extremely vulnerable to attack from airpower. In general, the more amenable an enemy's military and political COGs are to being influenced by bombing, the more useful lethal airpower will be in war. Rather than further replotting the ground on airpower's dominance in conventional war-fighting, this discussion will analyze some aspects of airpower and intervention that suggest airpower should not be used alone in war-fighting interventions, even if it could win a war.

Commitment of U.S. ground forces may be necessary even in situations where the enemy's COGs are vulnerable to lethal airpower. Airpower is appealing, from an American standpoint, because it can apparently be used without too much commitment.

142. Reuters, "Britain reviews post-Cold War battle doctrine," Reuters UK News Clips, 5 May 1996: 9 pars. Online. Compuserve.com/News & Weather/Global News Service/Reuters UK News Clips. 5 May 1996.

Potential coalition partners may, however, require a sign of strong U.S. commitment before agreeing to side with the U.S. against a powerful regional player. Allegedly, it took the promise of substantial ground forces to convince the Saudi Ambassador to the U.S., Prince Bandar, that America was committed to defending the Saudis from further aggression by Saddam Hussein in the summer of 1990. According to one account:

The night of the invasion [of Kuwait], the Bush administration offered the Saudis a tactical fighter squadron. It was essentially a symbolic gesture to demonstrate the American commitment to defend the Saudi Kingdom while the Pentagon struggled to come up with a more comprehensive response. But the Saudi's never replied to the offer.¹⁴³

Two days later at the White House, President Bush attempted to assure Prince Bandar of U.S. commitment:

"It hurts when your friends don't trust you," Bush told the Saudi prince, according to a participant. The president said that he was offering his word of honor: if American forces were sent to Saudi Arabia, the United States would go all the way. Saudi Arabia would not be abandoned.¹⁴⁴

Prince Bandar reportedly asked to be briefed on the plans to defend Saudi Arabia. Within a few days, he received the requested briefing in Defense Secretary Cheney's office. The Saudi prince was convinced the U.S. meant business.

When Bandar saw the dimensions of the plan, he seemed to catch his breath; the Pentagon was talking about a massive ground presence.

Bandar asked Powell how many troops he was talking about, and the JCS chairman pegged the number at around 100,000.

"Colin now I know you are not bullshitting me," Bandar said. "Now you know why we did not want a tactical fighter squadron."¹⁴⁵

The original offer to send a squadron of fighters probably reminded the Saudis of the time a decade before, during the Iranian revolution, when the U.S., in a deterrent show of force, did send a squadron of F-15s to the kingdom—unarmed.¹⁴⁶ Perhaps a U.S.

143. Michael R. Gordon and General Bernard E. Trainor, The Generals' War: The Inside Story of the Conflict in the Gulf (New York: Little, Brown, 1995), 39.

144. Ibid.

145. Ibid., 40.

146. U.S. News and World Report, Triumph Without Victory: The Unreported History of the Persian Gulf War (New York: Random House, 1992), 73.

offer to send a more robust air presence would have convinced the Saudis that America was serious about its commitment to stand by their kingdom. In any case, the presence of U.S. ground forces appears to signal greater American resolve than does American airpower alone.

Airpower is appealing to U.S. policy makers because of it offers limited liability; it can be deployed, employed and withdrawn, with far less effort and risk than ground forces. The ease with which airpower can be withdrawn is not lost on America's potential partners in times of crises. The last thing the Saudis wanted to do in August of 1990 was take a strong and confrontational stand against Saddam Hussein based on an American promise, only to be abandoned in a flip flop of U.S. policy. The Bush administration's offer to send ground forces seemed to make a much stronger statement of commitment. The decision to send troops probably made a policy reversal more difficult, and it apparently helped convince the Saudis to stick their necks out.

Even if ground forces are not always needed by the U.S. to gain entry into a war, they are probably necessary for achieving the level of control commensurate with concluding a war-fighting intervention undertaken on behalf of vital interests. As noted in the preceding chapter, relying on airpower alone leaves the initiative in the hands of the opponent. The opponent decides when, if ever, the costs imposed by aerial attack should lead to abandonment of his political objectives, including any territorial gains he has made. Also in Chapter 4, airpower was shown to lack the physical presence and ability to exert control over events on the ground that land forces can provide. Though soldiers occupying an opponent's land impose only a limited degree of control, it is still the highest degree attainable. The higher the interests at stake, the more likely the U.S. is to seek to control the military and political situation, hence the more prone it will be to call upon ground forces to occupy the territory where control is needed.

Nevertheless, success in war-fighting interventions will almost certainly hinge upon lethal airpower. Fortunately, the U.S. holds a great advantage in this important area

of military power. For a variety of reasons, though, relying on airpower alone will, most likely, be inappropriate and insufficient for achieving U.S. political objectives in war-fighting scenarios—no matter how much airpower comes to dominate surface combat forces. Ground forces, regardless of their utility in combat, may be necessary to show U.S. commitment, and to seize the initiative and exercise control over events on the ground to successfully conclude hostilities. Airmen need to understand this, accept it, and be willing to advise policy-makers of this central truth. Admitting that airpower cannot, or even if it can, it should not, be used alone to win wars is not to slight airpower. No single instrument of military power ought to be used alone for such an important task. It should suffice to note that no conventional war is likely to be won without airpower. Airpower, then, should be considered a necessary, but not sufficient, element of a winning strategy at the high end of the intervention spectrum—war-fighting.

Humanitarian Interests and Lethal Airpower. Humanitarian interests occupy the bottom rung of the national security interest ladder. The current NSS states that unique military resources, not combat power, are the focus of decisions on whether to use the military for humanitarian interventions. The security strategy lists four conditions that render military assistance appropriate:

"when a humanitarian catastrophe dwarfs the ability of civilian relief agencies to respond; when the need for relief is urgent and **only the military has the ability** to jump-start the longer-term response to the disaster; when the response requires **resources unique to the military**; and when the **risk to American troops is minimal.**"[emphasis added]¹⁴⁷

Non-lethal airpower, especially in the form of airlift, fulfills these conditions, and it is essential to most, if not all, humanitarian interventions. Lethal airpower, by contrast, is ill-suited for humanitarian work.

Still, lethal airpower may be useful for protecting relief providers when the U.S. intervenes on behalf of humanitarian interests. Initially, in Somalia, attack helicopters

147. The White House, A National Security Strategy of Engagement and Enlargement (Washington: GPO, February 1996), 18.

and Marine fighters were sufficiently menacing, when used in conjunction with adequate ground combat power, to keep Somali warlords at bay.¹⁴⁸ Similarly, armed helicopters can be useful in rescue operations—a form of humanitarian intervention.¹⁴⁹ Aerial policing might also fit this category of military operations, provided it is intended to limit the level of violence and save lives (as opposed to altering the political situation at hand in the furtherance of some other national interest).¹⁵⁰

Airpower's versatility and flexibility give it some utility even at the low end of the conflict spectrum. However, the basic tension between airpower's lethality and the humanitarian interests being served suggest a limited role, at best, for lethal airpower in humanitarian interventions.

There are many military activities associated with these interventions for which lethal airpower is ill suited. Certainly, lethal airpower cannot search, seize, arrest, capture, or interact well with individual humans on the ground (e.g., clan leaders, civilian relief providers, intelligence informants). Airpower cannot effectively police unconventional ground forces (e.g., guerrillas or terrorists), control refugee flows, or conduct nation building activities. As the U.S. intervention into Haiti in 1994 illustrated, special operations forces and regular ground forces are often better than lethal airpower

148. Major James Tubbs in his SAAS thesis on airpower and peace enforcement describes how U.S. Ambassador to Somalia Robert B. Oakley would usually have attack helicopters or Marine CAS aircraft as a visible show of force in the background during his meetings with Somali clan leaders. Tubbs, "Beyond Gunboat Diplomacy," 40.

149. Haass begins his discussion of rescue operations by noting that: "Rescue operations are a form of humanitarian intervention, but sufficiently special to merit separate treatment." He goes on to make his point by arguing that, besides their essentially life-saving nature, they are of limited scale and objective, and, like other humanitarian operations, they do not seek to alter underlying political problems. Haas, *Intervention*, 63-64.

150. OPERATION DENY FLIGHT over Bosnia seems to have fit the category of aerial policing as humanitarian intervention, at least up until it merged with OPERATION DELIBERATE FORCE in the summer of 1995. Enforcement of the no-fly zone over northern Iraq, in support of OPERATION PROVIDE COMFORT, probably does not qualify as a humanitarian intervention, because it is too closely linked to unfinished business from the Gulf War, and the U.S. has repeatedly allowed the Turks to conduct military operations against Kurds in northern Iraq. This is not to suggest that the U.S. is wrong in what it is doing in northern Iraq, nor does it imply any lack of humanitarian motive for beginning PROVIDE COMFORT. The humanitarian aspects of the intervention seem to have waned in light of the more important objective of pressuring Saddam Hussein's regime by showing it to be powerless to control events within Iraq's own borders.

for employing force in a discriminate and discreet fashion. In addition, the same ground forces that impose America's will on her adversaries can often conduct post-conflict operations, including assisting in the provision of humanitarian services.

Important but Not Vital Interests and Lethal Airpower. Having so far addressed the high and low ends of the range of national interests, the discussion now turns to the middle ground where the use of force is neither clearly acceptable, nor fundamentally at odds with the interest being served. As discussed in Chapter 3, Richard Haass tells us that, "tolerance for costs reflects the interests at stake."¹⁵¹ The implication of this statement is that, "when interests are modest...[the] intervention must be extremely short or, if this is not possible, designed so that risks and costs are modest."¹⁵²

Because airpower appears to offer a seductively low-risk, low-cost approach to intervention, it is a tempting tool for U.S. policy-makers confronted with threats to less than vital U.S. interests. Such circumstances imply a limited commitment and limited objectives on America's part. This, in turn, suggests the U.S. should seek to influence the situation at hand, rather than to control the situation, as it might prefer to do in a war-fighting intervention in defense of vital interests.

Limited U.S. commitment implies a limited willingness to accept costs. Low tolerance for costs, in turn, will likely lead U.S. policy-makers to seek coercive strategies (i.e., deterrence and compellence) rather than conventional war-fighting approaches to attaining desired objectives. To paraphrase Alexander George's explanation of the appeal of coercive diplomacy: Coercive use of force is an attractive strategy because it offers policy-makers a chance to achieve reasonable objectives in an intervention with less cost, with much less—if any—bloodshed, with fewer political and psychological costs, and often with less risk of unwanted escalation than is true with a traditional warfighting

151. Haass, Intervention, 71.

152. *Ibid.*, 72.

strategy.¹⁵³ Coercive uses of force offer the potential for quick, clean, and cheap interventions. Airpower, in turn, seems ready-made to fulfill such strategies.

America's lethal airpower can sustain high-tempo operations, simultaneously, against all facets of an opponent's means of resisting. This suggests it can quickly compel an adversary to yield to U.S. demands. The mere threat of such force might well deter an opponent from unwanted behavior. Moreover, airpower's precision provides a means to limit collateral damage if coercive force must be used. Finally, lethal airpower's survivability suggests it can, with minimal risk of U.S. casualties, be used to deter or compel an adversary. Lethal airpower, then, apparently provides the potential for quick, clean, and cheap interventions, via strategies based on coercion.

A quick review of coercion is in order before further analyzing airpower's utility for deterrence and compellence. The following ten conditions favor successful coercion. First, the U.S. must know precisely who is to be coerced. This requires a detailed understanding of the target's leadership and its decision-making process. Second, the U.S. must also know what it desires of the target. What behavior is the U.S. attempting to compel or deter? Third, the U.S. must have reasonable grounds for believing the target of the coercion can enforce compliance of the desired behavior once it is sufficiently coerced. It is useless to coerce the leadership within the target state or group if they cannot deliver the desired response.

Next, the U.S. must understand the target sufficiently well to discern its COG(s) and vulnerabilities. Successful coercion hinges on what the target believes it needs or values, not what the U.S. thinks the target should value. Fifth, the U.S. must, somehow, be able to affect those COG(s) and vulnerabilities. A target seeking tangible objectives,

153. Alexander George used the following words to explain the appeal of coercive diplomacy over traditional military strategy [words in brackets show the substitutions made in the paraphrased version]. "Coercive diplomacy [use of force] is an attractive strategy because it offers the defender [policy-makers] a chance to achieve reasonable objectives in a crisis [an intervention] with less cost, with much less—if any—bloodshed, with fewer political and psychological costs, and often with less risk of unwanted escalation than is true with a traditional military [warfighting] strategy." Alexander L. George and William E. Simons, The Limits of Coercive Diplomacy (San Francisco: Westview, 1994), 9.

such as territory, and relying on conventional military weaponry and tactics will be easier for the U.S. to coerce than guerrillas or terrorists pursuing intangible gains, such as vengeance or ideological purity.

Sixth, the chances for successful coercion by the U.S. will be enhanced if the U.S. has a relatively important interest at stake and it is committed to achieving its aims. The target of U.S. coercion may well be engaged in a struggle for its survival or something it sees as a vital interest. The higher the U.S. interest at stake and the greater the U.S. commitment, the less likely an asymmetry in commitment between the U.S. and its target will lead to a failed attempt to compel or deter. Next, the U.S. must clearly communicate to the target what it wants the target to do, stop doing, or refrain from doing. This requires a coherent policy, and parallel, complementary diplomatic and military efforts.

Communication takes two: a sender, and a receiver. Therefore, the eighth requirement is that the target clearly receive and understand the U.S. signals.¹⁵⁴ Ninth, the target must believe the signals sent; it must perceive the U.S. as being capable and credible of fulfilling the threatened course of action. Finally, the target must perceive that the costs and benefits of its various options favor complying with U.S. demands.

The history of America's foreign policy, since at least the early 1960s, suggests U.S. political and military leaders have tended to overlook the first eight conditions, and have focused primarily on the last two—making the threat or use of force appear capable and credible of affecting the target's presumed cost-benefit calculations.¹⁵⁵ Recent successes with coercion, though, may indicate that U.S. policy-makers have gained a

154. These first eight conditions borrow heavily from the ideas expressed by Wallace J. Thies in When Governments Collide, especially his final chapter titled "Coercive Warfare: An Appraisal." Wallace J. Thies, When Governments Collide: Coercion and Diplomacy in the Vietnam Conflict, 1964-1968 (Berkeley, California: University of California Press, 1980), 375-420.

155. Graham T. Allison's Essence of Decision addresses the U.S. decision-making process and discusses the underlying assumptions that influence U.S. foreign policy (see especially pages 1-38, the introduction and first chapter). Graham T. Allison, Essence of Decision: Explaining the Cuban Missile Crisis (n.p.: Harper Collins for the John Fitzgerald School of Government, Harvard University, 1971), 1-38. In addition, Thies's When Governments Collide gives a good description of the U.S. failure to understand the target of its strategy and the failure to effectively signal its intentions to Hanoi (see especially pages 213-348, chapters five and six). Thies, When Governments Collide, 213-348.

more sophisticated appreciation of the multitude of factors that influence the effective use of military force for deterrence and compellence (e.g., OPERATION VIGILANT WARRIOR to deter Iraq in 1994, OPERATION RESTORE DEMOCRACY to effect Type-C compellence in Haiti in 1995, and OPERATION DELIBERATE FORCE to compel Bosnian Serb acquiescence to cease-fire conditions in September of 1995).

In his 1995 study on airpower and peace enforcement, Major James O. Tubbs highlighted the potential value of airpower for deterrence and compellence.¹⁵⁶ The study analyzed the coercive effects of airpower, as a tool for peace enforcement, in support of OPERATION PROVIDE COMFORT in northern Iraq, and in OPERATION RESTORE HOPE in Somalia. In his conclusion, Tubbs noted that:

Centralized air forces have been most effective against modern nation states who [sic] depend on mechanized forces and aircraft as a primary component of their combat power. The same is true when the physical environment allows aircraft to easily identify belligerents and operate with limited collateral damage potential. Under these conditions, centrally controlled air forces can have a powerful coercive affect [sic]. Air forces are well suited to enforce air exclusion zones and hold concentrated mechanized ground forces at risk. They can enforce a cease-fire after it has taken effect and **threaten to quickly escalate the conflict beyond peace enforcement, which can be a key factor in a successful coercive strategy.** Under these circumstances, air forces can be a dominant force in securing long term stability. **A primary task for air forces in the future will be to assert escalation dominance at the upper end of the conflict spectrum.** [emphasis added]¹⁵⁷

Later in the conclusion, Tubbs refines the distinction between airpower as a force for deterrence versus compellence.

Air forces are better deterrent forces than compellant [sic] forces when operating under the political restraints of peace enforcement ROE. **They should primarily be used to assert escalation dominance at the high end of the conflict spectrum.** Airpower can be an effective coercive force to demonstrate resolve as a preventive deployment or as a long term deterrent to keep a conflict limited to...an acceptable level. **In these limited cases airpower may be a potential stand alone military force.** However, when direct intervention is required [i.e., deterrence has failed] airpower is a powerful coercive force only in combination with adequate ground forces. [emphasis and bracketed comment added]¹⁵⁸

156. Tubbs's SAAS thesis won the U.S. Air Force, Air University, best thesis award.

157. Tubbs, 58-59.

158. Ibid., 60.

Tubbs seems to imply that airpower, as a tool for coercion, serves two distinct purposes. First, it poses a threat that deters. That threat is presumably strengthened by airpower's ability to out-escalate a target's attempt to violate the peace, especially when the target "depends on mechanized forces and aircraft as a primary component of [its] combat power."¹⁵⁹ The second purpose for airpower is to forcibly compel the target if violence does escalate beyond a peace enforcement situation. As a force for compellence, Tubbs concludes airpower must be employed in conjunction with ground forces to be effective. OPERATION DELIBERATE FORCE in Bosnia seemed to bear out Tubbs's conclusion on compellence,¹⁶⁰ suggesting it has some validity beyond peace enforcement (at least for those who differentiate between peace-making and peace enforcement—DELIBERATE FORCE can perhaps best be categorized as a compellent use of airpower within a broader peace-making intervention).

The idea that airpower is most effective as a deterrent, though, may not pertain to interventions other than peace enforcement, and the concept of escalation dominance is especially questionable. Escalation dominance—originally a concept for nuclear deterrence—postulated that a nation possessing superiority in strategic nuclear capabilities could use tactical nuclear weapons against another nuclear power, yet still deter an all-out strategic exchange. Thus, if the U.S. maintained strategic nuclear superiority, it could, in theory, deter a nuclear response against its homeland, even after using tactical nuclear weapons against Soviet forces attacking into Western Europe.

159. *Ibid.*, 58.

160. Many observers credit the success of DELIBERATE FORCE to the simultaneous Muslim and Croat ground offensives as much as they do to the airstrikes. For an indication of this see: Roger Cohen, "Bosnia Serbs Agree to Pull Back Heavy Artillery From Sarajevo," *The New York Times*, 15 September 1995, A8; and Mike O'Connor, "Bosnian and Croatian Troops Consolidate Gains as More Serb Refugees Flee," *The New York Times*, 15 September 1995, A8. Still others give the credit for the cease-fire to the "generous" terms offered to the Bosnian Serbs for their compliance. Michael Mandelbaum, Professor of American Foreign Policy at the Paul H. Nitze School of Advanced International Studies, The Johns Hopkins University, sees it that way, asserting that: "Perhaps because of American bombing, certainly because of the American concessions, a cease-fire was achieved, and a conference convened in Dayton...that produced a peace settlement." Michael Mandelbaum, "Foreign Policy as Social Work," *Foreign Policy* 75, no. 1, 24.

Obviously, that theory has not been tested. In a non-nuclear sense, escalation dominance implies an ability to prevail in a clash of conventional arms by increasing the amount of force beyond an opponent's ability to respond. Because America possesses a tremendous airpower advantage over its potential adversaries, it should be able to maintain escalation dominance whenever it chooses to intervene.¹⁶¹

However, the ability to dominate conventional military operations does not necessarily deny an adversary's ability to asymmetrically counter U.S. strategy. The UN and the U.S. learned a lesson in asymmetric uses of force from the Bosnian Serbs in 1994, and again in 1995. When Bosnian Serb forces attacked Gorazde on 5 April 1994, NATO responded, on 10 April, with the first bombing strikes in the history of its existence. Bosnian Serb General Ratko Mladic retaliated by surrounding 150 UN peacekeepers. Michael Williams, a UN Special Advisor noted: "It brought home to us the limits and the difficulties of using airpower when you had such exposed forces on the ground."¹⁶² Thirteen months later, Mladic resorted to chaining peacekeepers to sites he suspected NATO intended to bomb.¹⁶³ To prevent similar Bosnian Serb actions from undermining OPERATION DELIBERATE FORCE, NATO and UN commanders coordinated to ensure peacekeepers on the ground in Bosnia were withdrawn, or moved to easily defensible positions, before the first airstrikes took place.¹⁶⁴ If the U.S. is to rely on airpower for escalation dominance, it may also need to anticipate and preclude such asymmetric responses in the future.

Escalation dominance via airpower may not have much relevance in situations where an opponent's COGs are not amenable to aerial attack. The whole concept of escalation dominance seems to be predicated upon the belief that more force can affect

161. The author discounts potential peer, or near peer, states such as Russia or China, because the U.S. would not intervene militarily on behalf of less than vital interests against such powers.

162. Yugoslavia: The Death of a Nation, Part V, produced by Norma Percy, directed by Paul Mitchell and Angus Macqueen, 60 min., Brian Lapping Associates, 1995, Videocassette.

163. Ibid.

164. Atkinson, "Air Assault Set Stage for Broader Role," A20; and General Ryan briefing.

the situation in a favorable way. As noted earlier, interventions at the low end of the conflict spectrum, such as imposed humanitarian operations or counterinsurgencies, may call for minimal uses of force.

A requirement for minimum force probably will be incompatible with a strategy that depends on escalation dominance. In fact, U.S. adversaries might want to provoke an escalation in fighting to increase the probability of American casualties or collateral damage. This seems to be what happened in Somalia, where warlord Mohamed Farah Aideed's principal military deputy, Colonel Sharif Hassan Guimale, made preparations to engage UN forces in a battle he could not hope to win in any military sense.¹⁶⁵ Rather than running from the superior forces pouring into the engagement outside Mogadishu's Olympic Hotel in October of 1993, the Somali National Alliance colonel ordered his fighters to surround and engage the U.S. forces. The fifteen-hour battle that ensued cost the U.S. eighteen dead and eighty-four wounded.¹⁶⁶ The Somalis claimed losses of 312 killed and 814 wounded; many were, no doubt, due to rather indiscriminate helicopter gunfire.¹⁶⁷ American forces clearly maintained escalation dominance in Somalia, largely by way of their heliborne mobility and firepower.¹⁶⁸ But, the increased use of force was incompatible with the humanitarian interests at stake in Somalia. One hundred casualties was too steep of a price to pay for the intervention's ill-defined humanitarian objectives, and the U.S. decided to pull out despite the militarily lopsided exchange.

A strategy dependent on escalation dominance, especially through airpower, can be difficult to execute even when minimum use of force is not deemed necessary. After the Vietnam War, many in the U.S. military blamed their lack of success, in part, on the gradualistic approach to using force. In particular, many airmen believed the ROLLING THUNDER air campaign epitomized the failure of this gradualistic strategy. For airpower

165. Atkinson, "The Raid That Went Wrong," *The Washington Post*, 30 January 1994, A27.

166. Atkinson, "Night of a Thousand Casualties," A11.

167. Atkinson describes one scene where an MH-6 pilot controlled his helicopter with one hand while firing a machine gun with the other. *Ibid.*, A10.

168. Atkinson, "Raid That Went Wrong," A27.

to be effective, they argued, military commanders had be free to employ it as they saw fit. Any policy that granted the enemy sanctuary or placed unnecessary constraints on the employment of airpower undermined its effectiveness. The dilemma, then, is how can one maintain escalation dominance, while avoiding a gradualistic approach to the use of airpower. There seems to be a fundamental tension between using airpower in an unfettered fashion, and simultaneously retaining the ability to out-escalate an opponent.

Escalation dominance is, apparently, a useful concept for deterrence rather than compellence. Even in deterrence, though, escalation dominance may prove counterproductive in situations that require a minimum use of force. Furthermore, events in Bosnia and Iraq suggest the threat of escalation through airpower seems to enhance deterrence only after a strong compellent use of airpower has demonstrated a U.S. capability and resolve for using force. Perhaps, eventually, the U.S. reputation for effectively employing airpower will lead to effective deterrence without first proving itself through compellence. That remains to be seen.

The Airpower Paradox.


Taken all together, intervention on behalf of less than vital interests, the resultant limited political commitment, and the factors that influence the effectiveness of airpower suggest a certain paradox. The airpower paradox is that lethal airpower will be most appealing to policy-makers in the circumstances most likely to hinder its success. Modest stakes imply more than reduced U.S. commitment. As discussed earlier, they also imply a reduced tolerance for casualties, lower public support, a diminished acceptance of collateral damage, and a generally circumscribed role for military force. The lower the interests at risk, the more appealing airpower looks; it appears quick, clean, and cheap. Yet, under such conditions, policy-makers will be most tempted to constrain airpower to virtual ineffectiveness due to political and humanitarian concerns. On the other hand, unconstrained employment of airpower seems more likely to lead to intolerable costs.

Escaping the airpower paradox in future interventions will require U.S. airmen to fight for rules of engagement that unleash airpower enough to be effective. Once given the freedom to use airpower effectively, though, those same airmen will have to take great pains to avoid collateral damage and the loss of aircrew. Furthermore, U.S. policy-makers, as well as military leaders, must appreciate the factors that influence airpower's effectiveness as a tool for coercion, if they are to avoid the pitfalls inherent in the airpower paradox.

Recent airpower successes may be creating unrealistic expectations about how quickly, cleanly, and cheaply airpower will be for producing political results, thus exacerbating the potential for future misapplications of airpower. In OPERATION DESERT STORM, airpower appeared, to many American observers, to make war-fighting speedy and sanitary. OPERATION DELIBERATE FORCE in Bosnia, where U.S. national interests hardly seemed vital, epitomized the quick, clean, and cheap sort of intervention Americans may be coming to expect from airpower. The danger inherent in such successes is that they may increase interventionist tendencies among policy-makers, because the victories make the costs and risks of intervening appear unrealistically low. As artificially low costs and risks are balanced against the interests at stake, the U.S. may find itself attempting to intervene with lethal airpower on behalf of relatively unimportant national interests. If this were to occur, small amounts of collateral damage, or the loss of a few aircrew, could result in a rapid end to military operations, and a U.S. policy reversal. This in turn would lead to a drop in American military prestige, and questions about U.S. competence in the foreign policy arena. Though such consequences might not be as dangerous today as they would have been during the Cold War, the U.S. should not risk tarnishing its military and political reputation by intervening in places where victory can do little to further American security.

Table 3
Airpower and a Macro View of Intervention

INTERESTS AT STAKE	TOLERANCE FOR COSTS	DESIRED OBJECTIVE	UTILITY OF FORCE
VITAL	HIGH	WIN / CONTROL	HIGH (WAR)
MORE IMPORTANT	MODERATE	INFLUENCE POLITICAL SITUATION	
IMPORTANT	LOW		
LESS IMPORTANT	VERY LOW		
HUMANITARIAN	NEAR ZERO	SAVE LIVES AND PREVENT SUFFERING	LOW

 - Increased potential for intervention with lethal airpower


 - Area for caution when using airpower (Airpower Paradox & Low Utility of Force)

Table 3 presents the macro view of intervention, developed in Chapter 3, with shading to illustrate the conclusions about lethal airpower. The light shading indicates an area of increased potential for lethal airpower to play a role in intervention. The less than vital interests suggest lower commitment and modest aims, though the utility of force could be high depending on the situation at hand. The darker shading marks an area where the U.S. should be cautious in attempting to use lethal airpower, because the lower interests at stake suggest a higher potential for a misapplication of airpower. The dark-shaded portion of important interest corresponds to the recently discussed airpower paradox. At the very bottom portion of the table, under humanitarian interests, lethal airpower would probably be inappropriate, or counterproductive, due to the low utility of military force, particularly lethal airpower.

Summary and Conclusions.

The U.S. has a doctrine for intervention, both formal written doctrine, and informal doctrine. The formal written doctrine expresses the latest stage in the evolution of ideas first articulated by Caspar Weinberger, as his six criteria for using force. The

similarity between today's doctrine and the original criteria suggests the rationale for deciding when and how to use force has changed far less than the geopolitical environment in which that doctrine must be applied. Though the potential costs and risks of intervening are lower now than they were during the Cold War, the end of the zero-sum game implies the motivations for intervening have also declined. This has, perhaps, made intervention decision-making more, not less, difficult than it was during the Cold War.¹⁶⁹ Among the informal rules for intervening, the need to keep interventions on behalf of modest interests quick, or if not quick, clean and cheap (preferably quick, clean, and cheap) appears to be the most salient.

Tolerance for costs, especially U.S. casualties and collateral damage, is linked to the national interests at stake, and it declines precipitously when vital interests are not threatened. Understandably, administrations past, and present, have claimed to be intervening on behalf of U.S. vital interests, when clearly none were in jeopardy. Requesting support to send U.S. forces into harms way on the basis of domestic political concerns, or matters of relatively little importance to the nation, would be counterproductive and foolish. Whenever relatively low stakes dictate a need to keep an intervention quick, clean, and cheap, policy-makers may be tempted to employ lethal airpower for coercion. Moreover, because coercion factors into nearly every type of intervention, regardless of the interests at stake, lethal airpower as a tool for coercion warrants further study.

Lethal airpower's capabilities and limitations suggest it may be extremely useful for certain types of intervention, but useless, or counterproductive, in others. Too many factors influence the effectiveness of airpower, and real world interventions are too complex, for this brief study to meaningfully address the utility of lethal airpower in each type of intervention. Furthermore, neither the types of intervention, nor the utility of

169. Kanter, 14.

force in general, align neatly with national interests at stake. As noted in Chapter 3, this poses two potentially troublesome mismatches between U.S. interests and the utility of force: high interests with a low utility for force; and low interests with a high utility for force. Both situations create the potential for misapplying military force in general, and lethal airpower in particular. (Of course, lethal airpower can also be misapplied in situations where the interests at stake are low, and the utility for using force to further those interests is low, as the intervention in Somalia amply demonstrated.)

The first type of mismatch, high interest, low utility for force, probably poses a lower risk for the misapplication of lethal airpower for several reasons. Potential adversaries are unlikely to openly challenge U.S. vital interests; inviting a war with the U.S. simply is not in their interests. Furthermore, the U.S. has become more sophisticated about dealing with indirect threats to its interests over the past two decades. The lessons of Vietnam still resonate among the American people, in Congress, among members of the media, and in the U.S. military; Americans are skeptical about intervening with military force. When military force is called for, though, the U.S. has a broader range of options for responding today than it did in the years immediately following the Vietnam War. Joint doctrine on Military Operations Other Than War (MOOTW) now exists, and it clearly recognizes the limited utility of force, especially lethal airpower, in most MOOTW situations.

The second mismatch, low interests and high utility for force, could more easily lead to the misapplication of lethal airpower. Airpower could be misapplied if low tolerance for costs led to excessive constraints on air operations, e.g., overly restrictive rules of engagement, sanctuaries for the adversary, political micro-management, bombing halts and renewals. On the other hand, even if lethal airpower is employed masterfully, in conjunction with a coherent foreign policy and expert diplomacy, the fog and friction of military operations could well lead to unbearable casualties or collateral damage. This

predicament is the airpower paradox, and the recent U.S. successes at employing lethal airpower seem to make the paradox a likely problem for the future.

APPENDIX A
COMPARISON OF CONSIDERATIONS AND DOCTRINES ON THE USE OF
MILITARY FORCE

	WEINBERGER 1984	POWELL 1992	
1. Stakes Warranting the Use of Force	"First, the United States should not commit forces to combat overseas unless the particular engagement or occasion is deemed vital to our national interests or that of our allies. "	"Relevant questions include: Is the political objective we seek to achieve important..."	"at de on
2. Level of Force	"Second, if we decide it is necessary to put combat troops into a given situation, we should do so wholeheartedly, and with the clear intention of winning." (Warns against "gradualist incremental approach").	"Decisive means and results are always to be preferred..." (Highly critical of a gradualistic approach to the use of force).	"w a in th
3. Clarity of Political and Military Objectives	"Third, if we do decide to commit forces to combat overseas, we should have clearly defined political and military objectives. And we should know precisely how our forces can accomplish those clearly defined objectives."	"Is the political objective we seek to achieve important, clearly defined and understood? And, "clear and unambiguous missions must be given to the armed forces."	"I m A th
4. Reassessment /Mission Creep, and Follow-on Actions	"Fourth, the relationship between our objectives and the forces we committed—their size, composition and disposition—must be continually reassessed and adjusted if necessary. Conditions and objectives invariably change during a conflict. When they do change, then so must our combat requirements."	"How might the situation that we seek to alter, once it is altered by force, develop further and what might be the consequences?"	"th fa a c a

All citations for this appendix came from Weinberger, Fighting for Peace, 433-445, Powell, "U.S. Forces: Challenges Ahead," 38-41, and the 1996 National Security Strategy of Engagement and Enlargement, 18-19.

(continued)	WEINBERGER 1984	POWELL 1992	
5. Public Support	"Fifth, before the U.S. commits combat forces abroad, there must be some reasonable assurance we will have the support of the American people and their representatives in Congress."	"In those circumstances where we must use military force, we have to be ready, willing and able. Where we should not use force we have to be wise enough to exercise restraint. I have infinite faith in the American people's ability to sense when and where we should draw the line."	" o a
6. Last Resort/ Other Options	"Finally, the commitment of U.S. forces to combat should be a last resort." But: "We must also be farsighted enough to sense when immediate and strong reactions to apparently small events can prevent lion-like responses that may be required later."	"Have all other nonviolent policy means failed?"	" o
7. Multilateralism	N/A - Discusses multilateral operations for peacekeeping missions only.	N/A - Does not address multilateral operations, per se. Discusses regional security issues.	" t i
8. Adequacy and Feasibility	"We should have clearly defined political and military objectives. And we should know precisely how our forces can accomplish those clearly defined objectives."	"Will military force achieve the objective?"	" b o
9. Acceptability	"We must continuously keep as a beacon light before us the basic questions: <i>"Is this conflict in our national interest?"</i> Does our national interest require us to fight, to use force of arms?" If the answers are "yes," then we <i>must</i> win. If the answers are "no," then we should not be in combat."	"At what cost? Have the gains and risks been analyzed?"	" U j st

All citations for this appendix came from Weinberger, Fighting for Peace, 433-445, Powell, "U.S. Forces: Challenges Ahead," 38-41, and the 1996 National Security Strategy of Engagement and Enlargement, 18-19.

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