Tanks and armor are not a big deal—the planes are the killers. I can handle everything but the jet fighters.¹

—TALIBAN COMMANDER, June 2008

When we hear the planes overhead, we feel relief because we know it is going to be over, and we are probably not going to die that day.²

—U.S. ARMY SERGEANT, September 2008

In the twenty-first century, perspective matters. To America's adversaries in the field, U.S. air capabilities, including those of the U.S. Air Force, are a terrifying threat, far more intimidating than many other elements of American power. From the perspective of an American infantryman in the midst of combat, airpower is a psychological—not only a physical—lifesaver.

Yet in the salons of newspapers, think tanks, and academia, and even among its sister services and other government entities, the air force is the gang that can't shoot straight. During the same month in which the Taliban

The views and opinions expressed herein are those of the author alone, and not necessarily those of the Department of Defense or any of its components.
commander quoted in the epigraph gave his rather strong testimonial about the effectiveness of airpower, the editors of the *Washington Post* derided the air force as "adrift,"⁵ and those of the *New York Times* condemned it as "dysfunctional." Functionality, it seems, is much a matter of perspective.⁶

Notwithstanding success on actual battlefields, the U.S. Air Force finds itself suffering setbacks in the all-important area of operation that is Washington. Already battered by allegations of improprieties in awarding contracts, and beset with difficulties in communicating its purpose and vision, the service staggered under revelations that nuclear-related materials had been mishandled. As the incidents were interpreted as failures of leadership, the air force's secretary and chief of staff were ousted, and other senior leaders suffered career-ending accountability actions.⁷

More fundamentally, however, the Air Force's sense of itself is under siege. As the service that prides itself on its ability to keep the world's most dangerous existential threats at bay, it nevertheless is finding that contemporary defense thinking undervalues that ability. Indeed, it has never been more fashionable to discount the need for the kind of firepower the Air Force best provides and to mock the very suggestion that we are likely to do battle against another modern army—let alone an air force. Even Secretary of Defense Robert Gates categorized apprehensions about such possibilities as "next-war-itis."⁸

With few airpower advocates in the Office of the Secretary of Defense,⁹ it is not surprising that the National Defense Strategy, issued in June of 2008, perpetuated an approach to national security planning which heavily emphasizes "irregular war," epitomized by the conflicts in Iraq and Afghanistan.⁸ While acknowledging the notion of hedging against the emergence of a peer-competitor, the document unmistakably focuses on conflicts with nonstate actors at the lower end of the spectrum of conflict. Specifically, it states that "for the foreseeable future, winning the Long War against violent extremist movements will be the central objective of the U.S."⁹

Unless airmen can do a better job of explaining to decision makers how air, space, and cyberspace power provides potent, *full-spectrum* capabilities to the joint team, the focus of the National Defense Strategy does not spell good news for the Air Force.¹⁰ In popular imagination, not to mention the minds of key leaders, waging irregular warfare against extremism
is overwhelmingly the province of the ground forces. Fueling this view are the heretofore rarely challenged assumptions about Field Manual (FM) 3-24, the army and Marine Corps counterinsurgency (COIN) doctrine issued in December 2006. Specifically, there is a widespread belief that principles enunciated in FM 3-24 were wholly responsible for suppressing violence in Iraq.

Of course, as I will go on to show, there is strong empirical data demonstrating that airpower was, in fact, vital to the joint success in Iraq beginning in 2007. But that evidence has not penetrated very far into the public consciousness. The belief that the manual is the sine qua non of COIN is significant—if not alarming—for the air force, since the doctrine conceives of only a very limited role for airpower, confining its discussion largely to a five-page annex. Consequently, many wrongly believe that airpower has little relevance to the current wars in Iraq and Afghanistan.

More disconcerting is that, to the extent airpower is employed to fight insurgencies, many believe it is actually undermining the supposedly all-important centerpiece of counterinsurgency, that is, winning “hearts and minds.” In so concluding, they point to reports in the summer of 2008 that air strikes in Afghanistan were responsible for needless civilian deaths. To their way of thinking, the military can prevent such casualties by restraining the use of airpower in favor of more U.S. ground troops.

All of this combines to create an atmosphere so poisoned that some pundits question the very rationale for having an air force. The irony of the situation is that more than any other service, the air force has dominated the physical domains in which it operates. While the ground forces still struggle in Iraq and Afghanistan to defeat lightly armed insurgents whom they typically greatly outnumber, the U.S. Air Force has made short work of every aerial opponent it has faced, including top-of-the-line Russian-built aircraft in Serbia. For its part, Saddam Hussein’s air force was so petrified of facing American pilots that it literally buried its airplanes to avoid doing so.

The purpose of this essay is to outline several of the sources of the Air Force’s difficulties, discuss some Air Force successes, and offer a few thoughts for the way ahead. It is uncompromising on one point: if the Air Force’s critics succeed in deconstructing the world’s most successful military force, the security of the United States will be in real jeopardy.
Air Force Culture and Leadership Development

Identifying the underlying cause of the Air Force's problematic state is no easy task. As would be the case with any large and complicated organization, there are multiple causes for the service's current institutional difficulties. Still, it is always useful to examine leadership development when an organization is not meeting its own expectations or those of others. This examination suggests that the Air Force's leadership development process and its institutional culture intertwine in a way that may not be best serving its interests in the twenty-first century.

Let us begin with the current situation: it is indisputable that the Air Force has relatively few senior officers filling the leadership posts deemed most influential in national security policymaking.\textsuperscript{15} Equally troubling is that the service has few flag officers able to act in the larger defense community as effective spokespersons and advocates for airpower.\textsuperscript{16}

Likewise, the Air Force has not—as the army has—produced a cadre of warrior-intellectuals.\textsuperscript{17} Rare is the Air Force general who combines front-line combat experience with a broad-based PhD. In other words, the Air Force simply does not have combined in a single senior officer the qualities that have helped to make army general David H. Petraeus so successful and so widely admired as the prototype of military leadership for the twenty-first century.

The career path of most airmen makes it difficult to mirror the background of a Petraeus. The relatively lengthy training undertaken by aviators (who form the core of the service's senior leadership) leaves little time for the advanced study required for a PhD. Beyond an initial year of undergraduate pilot training, officers must continually fly to stay current in the increasingly complex aircraft used by today's Air Force. Over a career, the weeks and months of training needed to maintain essentially the same flying skills a company grade officer uses detract from the time available to acquire the kind of education most important at the senior level.

The result is that few who go on to command major Air Force organizations have a doctorate on their résumé. Of course, there are many well-educated officers in the Air Force. More than half have a postgraduate degree,\textsuperscript{18} and most flag officers have at least a master's degree in some specialty. The Air Force does continue to "churn out scores of airmen with
advanced degrees,” as the former secretary of the Air Force recently observed, but many of the advanced degrees are in science and engineering. Indeed, a study by Colonel Tom Ruby points out the “relative paucity” of Air Force senior officers “with doctorates applicable to strategy development.”

The emphasis on the hard sciences colors the outlook of many Air Force officers on a variety of issues to a point where it much defines the culture of the service. Although the in-depth knowledge of these officers enables them to understand the intricacies of the many advanced systems the Air Force employs, it can put them at a disadvantage in a world in which the skills of the liberally educated are increasingly valued in leadership positions. Nor does the assignment process close the gap. One study argues that airmen do not compete well for major theater commands because they have “a narrower upbringing and less exposure to the political process than other service members.”

Again, Air Force culture plays a role in accentuating this deficiency. Beyond the training demands that keep them in the cockpit, the sheer love of flying creates a dislike for the developmental staff jobs so essential to the leadership of twenty-first century militaries. For instance, most experts agree that effective military strategy must take into account a range of political, social, moral, and economic matters in addition to those purely military in nature. The narrower upbringing of Air Force officers often does not allow them to internalize adequately these important disciplines, and leaves them with a tendency to analyze problems from a scientific and technological perspective, which can in turn make them less adept at integrating the other important factors into their thinking.

Air force thinking does devote much intellectual energy to examining and optimizing the characteristics of its technologies, as well as the mechanics of procuring and maintaining them. However, creatively envisioning the strategic employment of air, space, and cyberspace power gets markedly less attention. Put another way, the Air Force is culturally more interested in encyclopedic knowledge of the specifications of its equipment than in how to best use that equipment across the spectrum of conflict. That the late Carl Builder identified virtually the same problem in the early 1990s only serves to underline how entrenched it is culturally.

For all the technical expertise of airmen, some officers argue that today’s Air Force suffers from anti-intellectualism, that is, from “valuing
doers over thinkers." According to Colonel Ruby, "Technical proficiency cannot substitute for an ability to analyze issues critically and apply every asset available to achieve a specific end in differing political and military contexts." This suggests another issue that bedevils the Air Force: the science and engineering propensities of airmen render them less than fully sensitive to the human dimension of the art of war making.

This insensitivity can harm the Air Force in unexpected ways. For example, the Air Force's concept of centralized control and decentralized execution of airpower has led to an unfortunate assumption by its comrades in arms, particularly in the army. The Air Force relies on advanced communications methodologies that permit the comprehensive command and control of its capabilities from a single air and space operations center in a given theater of operations. Typically, the operations center is physically separate from the operations center of the overall joint force commander. Thus senior Air Force commanders were not co-located with the overall joint force commander in either Iraq or Afghanistan. Theoretical efficiencies aside, the physical absence of Air Force flag officers from the councils of war conducted by army and Marine Corps generals in Iraq and Afghanistan prevented the development of the kind of personal bonds that produce mutual respect and understanding. Moreover, it seems to have created suspicion among some ground-component officers that the Air Force lacks sufficient understanding of or, worse, concern about, their needs.

The failure to fully appreciate the importance of developing these personal bonds does not bode well for the future. Compared to the army and the Marine Corps, the Air Force has far fewer officers destined for senior rank with extended service in either Iraq or Afghanistan. Many top Air Force officers who have served in the Middle East did so at the site of the air operations center or at another airbase located outside of those countries. As a practical matter, as Iraq and Afghanistan veterans assume higher leadership positions in the army and Marine Corps, this divergence in experience may create further difficulties for the Air Force in its relationship with the ground forces.

Likewise, it may be hard to place Air Force officers, however otherwise talented, in positions of prominence either in joint commands or in key positions in the Office of the Secretary of Defense. Understandably, those with service in Iraq or Afghanistan will likely be favored since they will
presumably be more cognizant of the nuances of contemporary conflicts. This will result in combatant commands responsible for the areas of probable conflict dominated by officers not in the Air Force. Because of the extraordinary—and growing—authority of these four-star joint commands, the absence of airmen from the upper ranks of the most important ones is worrisome for those who believe that the air weapon has an irreplaceable role to play in protecting the nation's interests.

Today, there is a growing tendency for combatant commanders, emboldened by supportive Defense Department policies, to attempt to expand their authority at the expense of individual services. Consider, for example, the effort by Marine Corps general James N. Mattis, the commander of Joint Forces Command, to expunge the concept of effects-based operations (EBO) even though it is fundamental to Air Force doctrine.\textsuperscript{27} There are many arguments for and against EBO, but suffice it to say that at its core, EBO focuses on achieving certain effects desired by the commander without particular concern for which service or platform accomplishes the necessary tasks.\textsuperscript{28}

To be sure, it is possible that the Marines could consider EBO a threat to their air-ground task force approach.\textsuperscript{29} For example, the implementation of EBO might require making all aviation assets available for theater-wide tasking based upon the joint force commander's highest priorities—that is, airpower would not be reserved for use at the corps' discretion. In that case, the Marines could see EBO as disrupting the air-ground synergy that they believe their style of warfare requires, and hence as undermining the combat power of Marine formations to the detriment of the overall effort.

Regardless, for a combatant commander to use his joint authority to attempt to demolish another service's operational approach is, to say the least, unprecedented. Retired Air Force lieutenant general Thomas McInerney termed General Mattis's memo "parochial, un-joint, biased, one-sided," and pointed out further that EBO had been "key in the transformation of warfare—and proven in the most successful U.S. military conflicts of the past 20 years (Desert Storm and Allied Force)."\textsuperscript{30} Yet such bureaucratic eviscerations of Air Force doctrine are what happen when too few airmen occupy key joint billets, and—importantly—when the service is perceived as vulnerable.

Additionally, the Air Force's "engineering" mind-set tends to generate a rather naïve belief that the efficacy of its capabilities are self-evident. Many
Airmen seem to assume that decision makers will readily engage in a dispassionate, almost mathematical analysis of available data, which will irrefutably demonstrate the utility and value of airpower and the Air Force. In such a conception of the world, advocacy per se is wholly unnecessary and, indeed, a bit unseemly. In the real world, of course, advocating particular policies or arguing for alternatives requires a far more aggressive approach than merely computing numbers and presenting spreadsheets. The numbers do not, necessarily, speak for themselves.

All of this is in stark contrast to what the other services have mastered. The army's development of FM 3-24 is a classic example of savvy twenty-first-century policymaking. During the developmental stage of the doctrine, the army invited comment from a range of representatives from outside the military, including the media, academia, and think tanks. The army drafters of the manual gave the inputs from these unconventional sources more than just a respectful hearing; in many instances their suggestions were wholly adopted.

It is not surprising, therefore, that the final document was praised for the very characteristics so admired by some civilian intellectuals and academics—notwithstanding the opaqueness of these characteristics in terms of military doctrine. As one commentator explained, FM 3-24 was popular among sections of the country's liberal-minded intelligentsia. This was warfare for northeastern graduate students—complex, blended with politics, designed to build countries rather than destroy them, and fashioned to minimize violence. It was a doctrine with particular appeal to people who would never own a gun.

What this process did, in effect, was to disarm potential adversaries—those ordinarily likely to oppose almost anything coming out of the armed forces—by giving them intellectual ownership of the doctrine produced. This generated an outpouring of flattery from a myriad of unusual venues, including an almost obsequious review in the New York Times Book Review.

Much of what the manual was understood to advocate was not, in fact, what proved successful in Iraq during the period of its supposed
implementation in 2007 and 2008; but its public perception as calling for a “kinder and gentler” form of war making with little use for airpower remains firmly in place. At least insofar as FM 3-24’s reputation for passivity is concerned, it seems to be more a product of the wishful thinking of some of the manual’s fans than the machinations of its drafters. General Petraeus, one of the manual’s principal authors, insists that it does not “shy away from the need to kill the enemy” and that “the words ‘kill’ and ‘capture’ are on every page.”

Nevertheless, respected trade publications such as Defense News were claiming as late as September of 2008 that the “Army and Marines are succeeding in Iraq, thanks to a softer approach.” Regardless of what the manual does or does not say, the much-derided techniques of “killing and capturing” both spiked during this most successful period of the Iraq War, and—importantly—airpower became key to that effort as air strikes increased fivefold in 2007. Retired Air Force lieutenant general Michael Dunn, the president of the Air Force Association, characterized the counter-insurgency effort in this way in July of 2008:

The so-called troop surge has really been an airpower surge. Consider this. Air sorties are up 85%; air strikes are up 400%; weight of ordnance dropped is up 1000%. Some insiders say that 90% of the terrorists being killed are being killed by airpower.

Notwithstanding the enormous role airpower played (and continues to play) in counterinsurgency operations, the Washington Post accurately observes that the “public faces of the wars in Iraq and Afghanistan have been almost exclusively those of troops in Army and Marine Corps uniforms.” Thus, the army, despite years of botched strategies (as recorded in such books as Tom Rick’s Fiasco), has been able to reinvent its “brand” to be that of an intellectual, forward-thinking institution.

To meet its larger manpower recruiting need and facilitate this transformational rebranding, the army enjoys a significantly larger advertising budget than that of the Air Force. Beyond its paltry marketing budget, the Air Force has been burdened with its problematic “Above All” advertising campaign, which viewers have found alternatively inscrutable and arrogant. While all service advertising efforts seek to appeal to recruits by
projecting a sense of organizational uniqueness and excellence, the Air Force's slogan turned out to be self-defeating. It is almost (but not quite) understandable that the Air Force frequently has found itself denounced as an organization wedded to outdated Cold War concepts.43

The army (and the Marine Corps) have also benefited from scores of books, articles, and broadcasts that—whatever their view of the leadership—treated the individual soldier or marine with great sympathy. The reason is easy to discern: those who produced the most favorable commentary usually had been embedded with ground units. The army's own study of the Iraq war, On Point II, recognizes the effect this had by quoting Los Angeles Times reporter John Hendren:

When you're living in tents with these guys and eating what they eat and cleaning the dirt off the glasses, it's a whole different experience. You definitely have a concern about knowing people so well that you sympathize with them.44

On Point II downplays the phenomenon by insisting rather illogically that the reporting of embedded journalists was not biased, even though the authors came to "understand the Soldiers with whom they lived and who protected them from danger."45 In truth, there is little doubt that the association with the vibrant personalities of America's young soldiers and marines who were protecting them from very real threats was influential, and this "understanding" boosted the ground services' image overall.

The Air Force has little hope of engendering favorable press the same way. The nature of the service's operations is such that it does not lend itself to the embedding of reporters. Embeds rarely find themselves in the cockpit of an airplane46 or, for that matter, in the confines of an unmanned aerial system (UAS) or satellite. It is quite rare for an airman to have a human-interest story related to Air Force capabilities that is as captivating as that of his infantry counterpart fighting amid the sights, sounds, and smells of ground combat.

Regrettably, to the extent there are human-interest stories about airpower coming out of the wars in Iraq and Afghanistan, they are typically negative ones, emphasizing the tragedy of civilian deaths. Air Force "stories" tend to revolve around technology rather than people. Given the relative paucity of
authors with the interest and background to write animatedly about the technology that underpins the Air Force way of war, the service’s difficulties in explaining itself are not hard to understand.

In certain respects, the Air Force has been its own worst enemy. Beginning with the distribution of videos of precision bombs falling into airshafts during the first Gulf War, the service has created the perception that what it does is easy. In every conflict for more than half a century, the Air Force has provided near-perfect air defense as well as long-range strikes and theater and strategic lift; as a result, the service garners little thought or consideration by its beneficiaries. The U.S. national defense community cavalierly considers these resources as givens, though of course virtually no other air force in the world can provide these capabilities.

The situation is even more aggravated with respect to costly and intricate space systems. Here, too, Air Force capabilities are taken for granted. The Secretary of the Air Force recently noted that in the Middle East, “U.S. and Coalition forces are supported by over 46 satellites, along with their network of operations centers and ground stations, operated by airmen at bases across the globe.” Yet the Air Force’s sister services seem at best to recognize only vaguely that these are Air Force-furnished resources.

Beyond being taken for granted, the Air Force also must deal with the perception that its high-tech weaponry is easier to control than is really the case. Consider this statement by a former member of the National Security Council:

Air power is more susceptible to legal and policy adjustment than ground combat, in light of the variations in means and method of attack available through variation in munitions, delivery azimuth, angle of attack, aim point, fuse, and explosive, all amplified with the assistance of computer simulation.

This type of overstatement, which implies that Air Force weaponry is perfectly controllable, exacerbates criticism when things seem to go awry. There is little appreciation for the vagaries of combat; the assumption is that any unintended result is due to malfeasance.

The air force has not effectively conveyed the vulnerability of the current force or, equally important, the fragility of the supporting industrial
base. Although key decision makers seem cognizant of the service's aging fleet, they evidently believe the looming deficiencies do not merit immediate attention. Accordingly, decisions concerning the production of the F-22 fighter and the acquisition of a new tanker were left to the new administration. Even respected experts like Professor Richard K. Betts of Columbia University appear to misapprehend the lead time required to manufacture and field air, space, and cyberspace technology. Betts argues that hedging against a peer-competitor threat like China merely requires a "mobilization strategy." By this he means putting off the production of weaponry "until genuine evidence" exists that military supremacy is slipping. But waiting until the threat actually exists is often waiting too long to produce successful counters. Consider how long it took to field the relatively low-tech Mine Resistant Ambush Protected (MRAP) vehicles. Apparently, Professor Betts—and presumably other national security experts—are unaware that once the production line for a high-tech weapon like an advanced aircraft terminates, it may take years to regenerate it. There is no "mobilization strategy" that is meaningful for a service that depends upon superior technology for its military effectiveness. Once a threat is actually materializing, it is most likely too late to address it by the manufacture of new equipment. To paraphrase an erstwhile defense leader, "you go to war with the air force you have; not the one you want."

An Airpower Renaissance?

Do all of these issues mean the Air Force is doomed to be underappreciated and underresourced, and hence undervalued as an instrument of national power? Actually, no. Despite its many ills, airpower—if not the Air Force itself—is enjoying a renaissance of sorts. Rather surprisingly, this is nowhere more evident than in counterinsurgency operations. The details of the revolutionary changes that have made airpower such a capability of choice in counterinsurgency operations are available elsewhere. Suffice it to say here that airpower "persistence and precision" technologies—many of which have been only recently fielded—have led influential strategists to insist that the nature of warfare has
fundamentally changed. In the fall of 2007, retired army general Barry McCaffrey observed:

We have already made a 100 year war-fighting leap-ahead with MQ-1 Predator, MQ-9 Reaper, and Global Hawk. Now we have loiter times in excess of 24 hours, persistent eyes on target, micro-kill with Hellfire and 500 lb JDAM bombs, synthetic aperture radar, and a host of ISR [intelligence, surveillance, and reconnaissance] sensors and communications potential that have fundamentally changed the nature of warfare.  

In essence, profound advances in the ability to conduct persistent and precise ISR, complemented by the availability of precise strikes, have combined to create a new way of war, one that is increasingly problematic for low-tech insurgents to counter. Perhaps even more importantly, these new high-tech capabilities make it possible for airpower to have a strategic effect not on civilian morale, as airpower pioneers once sought, but on the minds of the actual combatants.

As the first of the epigraphs to this chapter suggests, today airpower can inflict on insurgents a sense of helplessness that is psychologically debilitating. Commanders seem to understand this development. According to counterinsurgency expert Colin Kahl, air strikes in Iraq increased dramatically in 2007 partly because of the realization of their ability to affect the enemy's psychology. In fact, hints about the psychological effect of precision aerial fires had appeared even earlier. General Tommy Franks relates that during his tenure in command, an Afghan ally told him that the AC-130 gunship is “a famous airplane [whose] guns have destroyed the spirit of the Taliban and the Arabs.”

The psychological unhinging of today's insurgents by contemporary airpower is apparent in more than just the battlespaces of Iraq and Afghanistan. The Revolutionary Armed Force of Colombia (FARC, in its Spanish acronym), the main insurgent group in Colombia, is being devastated by desertions which, according to interviews with former rebels, are much motivated by “the sheer terror of being bombed by Colombian fighter planes.”
In American counterinsurgency operations, the phenomenal growth of robotic aeronautical platforms makes it possible to achieve almost Pavlovian psychological reactions. As one report put it:

Iraqi insurgents have learned to fear the drones. "They hear some sort of air noise and they don't know exactly what it is, but they know it's associated with 'my buddy getting killed,'" says [a U.S. soldier].

The sheer inability to defend against airpower no doubt contributes to its devastating psychological effect, as insurgents have few weapons capable of holding high-performance aircraft at risk. In fact, the greatest threat to airpower in counterinsurgency operations is not a weapon at all, but rather misperceptions about its relationship to civilian casualties, especially in Afghanistan.

The Civilian Casualty Conundrum

It is, of course, true that aerial fires—like ground-based fires—can cause civilian causalities. However, there is no question that Taliban and al Qaeda are stepping up their sophisticated effort to turn every tragedy into a political issue. Unfortunately, they are enjoying significant success. According to the chief NATO spokesman, the coalition "is definitely not winning the information war." Part of the problem is clearly bureaucratic. As the Washington Post explains: "Although civilian deaths have been frequent and real, officials say that the Taliban quickly broadcasts exaggerated tolls, stoking public anger, while foreign military officers may take days to respond."

There is a real risk that the Taliban may succeed in pressuring coalition forces to virtually abandon airpower. Misinformation is playing a role. Friendly forces do not seem to understand that it is not wise to declare that every civilian death, however tragic, is the product of an error. Too often, however, they seem to do just that. For example, the commander of NATO's International Security Assistance Force in Afghanistan recently insisted that "any civilian casualty caused by NATO or American forces is inadvertent." This statement, together with earlier NATO statements suggesting that no
bombing would take place if it were known that civilians were in the area, can create serious military difficulties.55

International law prohibits targeting civilians, but it does not ban attacks on legitimate targets even if it is known that innocents will be killed as a result. Rather, the law requires only that such losses not be "excessive" in relation to the military advantage sought.66 If the law were otherwise, it would simply encourage adversaries to use innocent civilians as human shields.67

Of course, every effort must be made to limit civilian losses, but the requisite analysis ought to take into account those civilians who may be killed by Taliban and al Qaeda if these groups are allowed to escape an airstrike. Limiting civilian casualties requires as careful an assessment of the consequences of not bombing as of the bombing itself. When civilian deaths occur in the course of an otherwise legitimate attack because the enemy is wrongly intermingling with civilians, the legal and moral responsibility for the deaths is upon the insurgents, not the attackers. Counterinsurgency forces would do well to make that clear to decision makers and the public.

Somewhat surprisingly, there seems to be a rather widespread belief that more ground-force counterinsurgents will somehow reduce the number of civilian casualties. The evidence indicates otherwise. The air strikes that have recently caused the most civilian casualties were typically not preplanned in the air operations center, but were the product of actions taken at the behest of U.S. forces on the ground.68 Such strikes can lack the detailed vetting that otherwise takes place in the operations center targeting cell. As one journalist observes, such planning may include extended aerial surveillance that provides those in the operations center with "a better vantage point than an Army unit has just down the street from a group of insurgents."69

When airpower is applied as the result of this kind of preplanning, even Human Rights Watch activist Marc Garlasoc concedes that "airstrikes probably are the most discriminating weapon that exists."70 However, when they are called for by troops on the ground, "not all air strikes can be so meticulously planned." This is the view of General James Conway, commandant of the Marines, who points out that "U.S. or allied units can call in sudden strikes when they find themselves in a firefight or stumble on a meeting of Taliban leaders." He also makes clear how insurgents exploit
the imprecision of these unplanned attacks: "Sometimes it's a conscious tactic of these people who meet to make sure there are kids playing in the compound so that they're seen, and that complicates your targeting methodology... This is a dirty game being played."\(^7\)

In any event, troops on the ground do not necessarily equate to more discriminate targeting. Journalist Mark Thompson—a frequent critic of airpower—admitted after a ground force raid that reportedly left as many as fifteen civilians dead that "having American soldiers in a position to call in strikes is no guarantee that civilians won't be killed."\(^7\)

More troops on the ground mean more risk against which the air weapon may be the sole defensive recourse. This is especially so in Afghanistan, where the mountainous terrain leaves few other options for isolated garrisons undergoing unanticipated attacks that threaten to overrun them. The desire to attack without the threat of retaliation by air may well be a principal motivation for the Taliban's propaganda efforts to delegitimize airpower.\(^7\)

**Airpower and COIN**

Although it is unquestionably true that military means cannot alone achieve all the goals of a counterinsurgency effort, it is also accurate to say that in terms of suppressing violence, the strategy of "killing and capturing," as noted above, has proven more effective than expected. This strategy was presumed to rely on deployment of massive numbers of U.S. ground forces as counterinsurgents. FM 3-24, for example, calls for a "minimum troop density" of twenty counterinsurgents per thousand residents;\(^7\) it was such calculations that led to the "surge" of nearly thirty thousand American troops into Iraq in 2007.

However, recent reports call into question the "more boots on the ground" theory. Specifically, journalist Bob Woodward, author of the *The War Within* (about the surge phase of the Iraq War), insists that "at least three other factors were as important as, or even more important than, the surge" including operations that "locate, target and kill key individuals" in various insurgent groups.\(^7\)

This is a very significant truth for developing counterinsurgency strategy for the United States because it is becoming increasingly clear that
deploying masses of American troops will always be problematic in irregular warfare situations, and especially so in the Middle East. Studies demonstrate that the presence of foreign forces nearly always invigorates an insurgency. The "fundamental motivation" for insurgencies generally, expert William R. Polk maintains, is "to protect the integrity of the native group from foreigners."76 This is especially so in Iraq.77

Thus the desirability of airpower, which does not require a large "footprint" in a nation suffering from an insurgency, and perhaps requires none at all. This is not an especially new feature of the air weapon. What is new is the capacity to "target and kill" specific individuals, the exact capability Woodward says was so important in suppressing violence in Iraq. Consider this report from journalist Mark Benjamin:

The Air Force recently watched one man in Iraq for more than five weeks, carefully recording his habits—where he lives, works and worships, and whom he meets... The military may decide to have such a man arrested, or to do nothing at all. Or, at any moment they could decide to blow him to smithereens.78

Similarly, the Los Angeles Times reported in April of 2008 that NATO forces in Afghanistan "recently have had unusual success in tracking and targeting mid-level Taliban field commanders, killing scores of them in pinpoint airstrikes."79 Cases like this suggest that neutralizing individual insurgents is much more important to overall counterinsurgency success than FM 3-24 and other approaches would indicate.

The need for a counterinsurgency strategy that does not require large numbers of U.S. ground forces is very great. According to James S. Corum, the loss of blood and treasure in Iraq has so eroded domestic support for similar operations elsewhere that they are unlikely in the future, "no matter how necessary or justified they might be."80 Polls seem to bear this out. Even though the percentage of Americans who think the United States can win the war in Iraq rose to 58 percent in August of 2008, the percentage opposing the war also rose to 60 percent—as did the percentage who thought the United States made a mistake to send troops to Iraq in the first place.81
Is Imitation Flattery or . . . ?

Perhaps the greatest endorsement of the efficacy of airpower in counter-insurgency operations might be expressed in the maxim, “Imitation is the greatest form of flattery.” Although airpower is seldom given much credit by the ground forces, it appears to some observers that the army nevertheless wants to build, in effect, its own air force. The army’s acquisition of the Sky Warrior, a virtual replica of the Air Force’s Predator unmanned aerial system, is but one piece of evidence among several that gives credence to this charge.

Another more graphic indicator came in June of 2008. Thom Shanker of the New York Times reported that the army, charging the Air Force with irrelevance and an inability to meet its requests for “sophisticated surveillance aircraft,” was developing its own aviation unit. The Wall Street Journal later revealed that the “army is preparing to deploy a network of drones and other surveillance aircraft to Afghanistan.” All of this is a tacit admission by the ground forces themselves that airpower has revolutionized counterinsurgency warfare, and that airpower is vastly more efficient and effective than certain manpower-intensive infantry modalities of the past.

At the same time, there is little to suggest that ground forces understand and employ airpower more productively than does the Air Force. Consider that in Afghanistan, dubious army airpower planning for Operation Anaconda would have produced a disaster had not air force fixed-wing assets rescued the operation. Virtually the only conventional victory the Iraqi military achieved in 2003, moreover, was the defeat of an army Apache helicopter unit that left twenty-seven of thirty-three helicopters unable to fly. Also telling, as Major Robert J. Seifert points out in a joint Forces Quarterly article, is how inefficiently ground commanders in Iraq used the AC-130 gunships; indeed, their strategy was disturbingly reminiscent of one that proved so ineffective in North Africa during World War II. The commanders limited the aircraft to providing air cover to specific units, and this made the gunships unavailable to attack emerging targets in another unit’s area of operations. They failed to optimize each sortie by refusing to link the “on call” aircraft to several units, thus making it unable to respond to the one with the greatest need.

All of this makes some of the official writings of senior army officers quite curious. Army lieutenant general Michael Vane asserts in Defense
News that only soldiers at the “lowest echelon” (and not, he supposes, those at “25,000 feet or 10 miles off-shore”) can “find, capture, and if necessary, kill” today’s “religious extremists and nonstate actors.” Thus he claims that land power “needs more of [the] budget pie” than the other services. In another article, however, then-Lieutenant General Raymond T. Odierno claims that aerial intelligence, surveillance, and reconnaissance (as opposed to soldiers at the “lowest echelon”) are essential for today’s counterinsurgency operations—and that these should be under a ground force commander’s control.

In any event, it seems clear that airpower has, rather unexpectedly, emerged as the capability of choice for the counterinsurgency fight. One need look no further than the fact that intelligence, surveillance, and reconnaissance assets were General Petraeus’s “top hardware priority in Iraq.” Would it be efficient to give additional aerial platforms to the army officers who complain that the Air Force is not filling enough of their requests for surveillance aircraft? Not likely. Because the Air Force conducts “split operations”—employing pilots in the United States to control large numbers of forward-deployed unmanned aircraft—it is able to keep 88 percent of these unmanned planes operational. The army, however, can organize itself to deploy only about 30 percent of its unmanned aerial assets at any given time.

In truth, joint warfare is most powerful when individual services focus upon their core competencies. In a world where thousands of airmen are filling army billets because of shortages in ground force personnel, it makes no sense for a service to try to replicate the special capabilities of another service. Such duplication is not just unnecessarily costly; it also detracts from the combat power that interdependence might otherwise provide. Moreover, viewing the allocation of scarce resources as a scramble for slices of the “budget pie” is profoundly unhelpful in preparing to meet the challenges of twenty-first-century conflicts.

The Future

Despite the Air Force’s current difficulties, the future of the service is bright if for no other reason than that airpower itself has demonstrated extraordinary flexibility and utility across the spectrum of conflict. The recent
innovative and decisive applications of range airpower platforms in counterinsurgency settings are powerful indicators of the resilience of this central feature of the air weapon. That said, there is no doubt that the Air Force has much work to do if it is to become—and to be perceived as—a more effective and respected member of the joint team.

At the fall 2008 meeting of the Air Force Association, General Norton Schwartz, Air Force chief of staff, alluded to an important principle seemingly overlooked by too many of today's strategists—that is, that technology can allow the aerial warfighter to be far from the fight and still be essential to mission success. General Schwartz insisted, "The value of an Airman's contribution is not measured by his or her proximity to the target. . . . In fact, without [the airmen's] expertise, no one would be near the target."95 General Schwartz's point is that, notwithstanding the emotion the close fight may engender, the purpose of using force is to achieve certain effects, and to do so with the least risk to human beings. Airpower carries the most potential to achieve desired effects with the lowest risk. The real value of a military component is not its relative popularity in the body politic, but rather in its ability to deliver the intended results for the society it serves. Technology facilitates that end. Although many disparage the utility of high-technology weaponry, Americans need to appreciate that technology is, in fact, this country's asymmetric advantage. Recently, strategic theorist Colin Gray noted that "high technology is the American way in warfare. It has to be. A high technology society cannot possibly prepare for, or attempt to fight, its wars in any other than a technology-led manner."96

Overall, the "American way in warfare" has been the most successful in history. In a real way, the technology-intensive nature of airpower makes it eminently "American." To the extent it is abandoned or demeaned, the United States risks departing from a military approach that has the most promise to provide options to decision makers that, among other things, do not require placing masses of young Americans in harm's way. At the same time, air force leaders must be able to assist decision makers in their understanding of the military arts, as well as the science of weaponry. To do so effectively, they must comprehend fully, and be able to speak coherently about, the political, social, and economic contexts of twenty-first-century conflicts. In this area, the air force has much to learn from its sister services about how to produce leaders who are—and who appear to be—ready to provide such comprehensive advice.
It is imperative that the Air Force cultivate airmen—particularly at the senior level—with a stronger ability to advocate airpower. Secretary Michael Donley seemed to recognize this need when he observed that

we need to be prepared to engage—and if necessary debate—the major issues facing our Air Force. Good stewardship demands developing a deep understanding of the macro-level trends affecting the Air Force. . . . As we do so, we will cultivate reasoned, carefully considered perspectives. We will be able to present these views not by digging in or staking out turf, but from a careful analysis and a seasoned appreciation of the many joint and national influences affecting today's strategic decision-making.97

In order to meet its challenges, the Air Force must be prepared to change those aspects of its culture that conflict with its large goals. It must also explore new means of reconciling the burdens of a highly demanding technical environment with the complex dynamics of human interactions, the mastery of which is proving so essential to success in twenty-first-century warfare.
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How America Can Win on New Battlefields

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