



CHAPTER 5

Clever or Clueless?

Observations about Bombing Norm Debates

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For those favorably disposed toward the overthrow of oppressive regimes occasioned by the momentous events in the Arab world of early 2011, the news of the effectiveness of air attacks against the forces of a dictator threatening brutality toward his own people is a welcome development. In the wake of NATO intervention against the regime of Muammar Gaddafi in Libya in March of that year, the *New York Times* cited an example of what allied air power had accomplished. It quoted “a rebel spokesman using the name Aiman” who described how government tanks and artillery had been firing into the besieged city of Misurata “until three waves of airstrikes forced them back. ‘After the airstrikes, things have been quiet,’ he said by telephone.”¹

Indeed, the use of aerial bombing in support of what has been called the Arab Spring” caused one enthusiastic (overenthusiastic?) analyst to proclaim that Operation Odyssey Dawn (the name of the Coalition air operation) is providing a “new lease on life for humanitarianism” by vindicating the “fragile responsibility-to-protect norm.”²

The Arab Spring generated virtually a tsunami of interdisciplinary discussion about the meaning, effect, and utility of the use of force at the call of the United Nations in the furtherance of humanitarian goals.³ Much of that inevitably addresses the technology of war, of which airpower is frequently seen as the most sophisticated expression. It is imperative, therefore, that the

enormous intellectual firepower of the academy be applied to this effort, as practitioners too often lack the time or the environment for the kind of considered reflection that best produces introspective analysis and thoughtful guidance for going forward.

The purpose of this essay is to attempt to facilitate the potential contribution of the range of academics, philosophers, theologians, nongovernmental organization representatives, and others outside the armed forces and government whose views are vital to this important dialogue. It will seek to complement and widen the expertise of discussants by highlighting certain technical information about airpower and by presenting something of a military perspective. Why? Because in this writer's experience the debate about the legal and ethical issues of bombing can become obfuscated when, for example, the terms of reference are confused and, especially, the technology of modern air warfare is misunderstood.

To illustrate, sometimes interchanges get bogged down in lengthy polemics whose predicates seem to assume that the means and methods of air warfare—not to mention the doctrine and methodologies for its application—were somehow frozen in place circa 1945. In other instances, the interpretation of *today's* bombing norms is too often sourced in popular understandings of Cold War deterrence strategies. Reference to Vietnam-era bombing practices can likewise become mired in circular discussions of the war's wisdom—a discussion that has intrinsic value but that is nevertheless of limited help in meeting the challenge of devising contemporary bombing norms.

It is true that some commentators have delved into more recent conflicts, especially those in Iraq and Afghanistan. Typically, the narrative produced is disapproving as to the use of the air weapon. Such criticism can be well reasoned, insightful, and productive. However, occasionally it is less useful than it might have been because the armed forces in general, and the U.S. Air Force specifically, too often have done an inadequate job of informing the public of relevant factual information.

Of course, sometimes the hostile reviews are merely an expression of an ideological agenda that uses seemingly generic critiques of advanced military technology as a stalking horse for further attacks on the real objective—that is, the defense policies of the United States. Those who level such attacks are not the hoped-for audience of this chapter.

Rather, this chapter is for those who are open-minded in their views, and—in any event—want to ensure that their arguments take into account as much factual data as possible and consider the widest set of views. Even if one remains convinced of one's own critique after evaluating the information and perspective this analysis tries to provide, one can do so with renewed

confidence and conviction from having considered and rejected an alternative presentation. It is the absence of awareness of such alternative views that this essay seeks to address.

Discerning What Really Happened and Happens

One of the most frustrating aspects of any discussion about legal and ethical norms applicable to airpower is the role history plays in the debates. Unfortunately, the conversation is not always as fully informed as it should be. It is true that some historical studies about airpower are so technical that they can be difficult for those whose expertise lies in another discipline to fully assimilate, but there are also readily available sources that are cogent, concise, and easily digestible. Perhaps the finest example of the genre is Phillip Meilinger's short book *Airpower: Myths and Facts*, which is available online.⁴ Meilinger works to dispel many misunderstandings about airpower, including, for example, those concerning World War II aerial bombardments.

Dr. Rebecca Grant's short essay about the much-maligned Kosovo air operation is another easily accessible perspective that counters many of the misconceptions regarding that campaign. One need not accept her conclusions per se to appreciate that correcting some widely reported *factual* errors (e.g., that no NATO aircraft flew below 15,000 feet) is important in considering the legal and ethical norms that were actually observed.⁵ Offering alternative readings of what is assumed to be the "history" of past bombing operations may help illuminate contemporary discourse.

There are several more extended examples of relatively recent scholarship that provide needed perspective for some classic issues of air warfare. For example, with reference to the bombing of Dresden—which is frequently used as a bumper sticker of sorts to denigrate airpower—historian Frederick Taylor observes that the number of civilian deaths from the strike "still wrenches at the heart six decades later" but adds:

This does not mean that the Allied bombing of Dresden cannot be justified. Dresden was not an "open city," but a functioning enemy administrative, industrial, and communications center that by February 1945 lay close to the front line. . . . The bombing of Dresden was not irrational, or pointless—or at least not to those who carried it out, who were immersed deep in a war that had already cost tens of millions of lives.⁶

Taylor's observation does not make Dresden some kind of recommended template for a current approach to bombing. It simply shows that historians

continue to argue over these controversies. Some point out, for example, that the overall bombing campaign—for all its many faults—did have the effect of imposing a huge burden on the Nazis' ability to wage war. Among other things, they were obliged to divert “two million people, 55,000 anti-aircraft guns [and] 20 percent of all ammunition” to the air defense effort.⁷ Were it not for the allied air offensive, says historian Richard Overy, Nazi “frontline troops might have had as much as 50 percent more weaponry and supplies.”⁸

Nor is this to suggest that bombing should be conducted against an otherwise unlawful target simply to force an adversary to defend it. To the contrary, enormous effort was focused—with real success—at disrupting a bona fide target (Nazi war industries), and military effects of great importance were produced by that effort and sacrifice (more airmen were killed in the Eighth Air Force in Europe alone than the Marine Corps lost in all theaters during the entire war).⁹ Such information may be useful to offset the oft-heard assumption that the World War II air campaign was immaterial to the outcome of a war and therefore that all air warfare must be similarly ineffective.

Perhaps the real lesson is that with respect to a highly technological means of warfare such as aerial bombardment, the value of historical examples is necessarily temporally limited. This may be why airmen tend to look at history somewhat differently than perhaps others do. In an otherwise sneering and bitter denunciation of air force students attending the service's war college, academician Daniel J. Hughes has something of a point when he accuses the officers of “having little interest in theory and history, which they frequently regard as [made] irrelevant by advances in technology and military capabilities.”¹⁰

Airmen *are* keenly aware of how dramatically the irrefutable laws of physics affect their machines; a better machine typically will defeat an opposing pilot, however talented, and this shapes an airman's mindset.¹¹ There is good reason for this concern. In 1945, the B-29 Superfortress was regarded as the most fearsome air weapon ever built, as it progressively devastated Imperial Japan. Yet less than six years later, the propeller-driven bombers were slaughtered in Korea by then state-of-the-art Russian-built MiG jet fighters.

Technological evolutions, especially those of the past very few years, have revolutionized the dynamic of air warfare. Information-age technologies have wrought several extraordinary changes, two of which are especially important to bombing norms: the emergence of *precision strikes*¹² and *persistent intelligence*, reconnaissance, and surveillance (ISR) capabilities.

Regarding precision weapons, consider that during World War II bombs *on average* would land within perhaps 1,200 feet of their target. Today, to be

rated a precision weapon a “munition must hit within three meters, or less than ten feet” of the target.¹³ These are the kinds of “smart” weapons used in contemporary conflicts, not the “dumb” bombs of other conflicts. For example, “close to 100 percent of all weapons carried and employed by aircraft in Afghanistan are of the precision type.”¹⁴

Equally or more important is the revolutionary impact of persistent ISR enabled by the development of a variety of long-loiter aeronautical vehicles and more powerful sensors.¹⁵ Today, ISR platforms can keep some battlespaces under near-constant surveillance, and this has significant implications. For example, *USA Today* reported that in the air attack that killed al-Qaeda operative Abu Musab al-Zarqawi in 2006, it took “600 hours of surveillance by a Predator drone to track Zarqawi and a matter of minutes for an F-16 to drop the bombs that killed him.”¹⁶ In 2008, journalist Mark Benjamin reported on the options such technology gives decision makers:

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.¹⁷

Interestingly—and somewhat counterintuitively—overhead surveillance can sometimes provide superior situational awareness to that obtained by soldiers on the ground. One published report points out, for example, that “despite the distance, the real-time video feeds [provided by aircraft] often give [remote air controllers] a better vantage point than an Army unit has just down the street from a group of insurgents.”¹⁸ Thus, it is simply inaccurate to believe that with today’s capabilities civilians are necessarily put more at risk by air operations than by ground operations because of a dearth of relevant intelligence.¹⁹

The revolutionary impact of technology is not limited to weapons and aircraft; it has also radically changed the *process* by which operations are planned and carried out. In order to harness the potential of the information age, the air force has constructed advanced combined air operations centers (CAOCs) filled with technologies that facilitate not only that application of force but also the observance of legal and ethical norms. For example, *US News & World Report* noted that in the CAOC:

the center painstakingly plans its strikes, says an officer in the targeting team. Analysts calculate the size of bomb fragments and the distance they travel from the strike site, using detailed maps and video footage to

gauge potential for human casualties and property damage. In another area, analysts don 3D glasses to read maps that show precise heights of palm trees and the walls of any given compound to help determine “collateral concerns.”

Similarly, the *New York Times* described it this way:

At the air operations center, targeting specialists spend hours before each mission measuring distances from the potential strike zone to the nearest house, building, mosque, school or hospital. . . . Vast numbers of public, religious and historic sites make up a computer database of no-strike zones. Special goggles are worn while reviewing digital images compiled from surveillance aircraft and satellites to give a detailed, three-dimensional view of the target area.

The bombs themselves are chosen carefully and sometimes modified. Some designed for air burst are instead programmed with a delayed fuse to bury themselves before exploding, thus reducing the blast range. One sort of bomb has even been loaded with less explosive, filled instead with concrete, to cause great damage where it hits but no farther.²⁰

The *Times* also noted that air force lawyers vet the targets to ensure that the proposed bombing conforms “to a complex body of military law, including the Geneva Conventions, acts of Congress and court decisions.”²¹ Those specially trained lawyers, who are on duty in the CAOC around the clock, use a variety of computerized analytical and communication tools to conduct sophisticated evaluations of all aspects of the air operation and to provide real-time advice as required.²²

In any event, the result of this blending of law and innovative technologies is that even a Human Rights Watch analyst was obliged to admit that “in their deliberate targeting, the Air Force has all but eliminated civilian casualties in Afghanistan.”²³ Having said all this, asymmetries can arise over differences as to what law applies in determining legal and ethical norms.

Sorting out the Legal Cacophony

Today those concerned with the legal parameters of aerial bombing and with the law of war in general, are presented with a confusing cacophony of treaties, declarations, agreements, and protocols, along with claims of binding international law that exists only as custom.²⁴ The situation is further complicated by the fact that the preeminent airpower nation, the United States,

is not a party to some of the leading international agreements that many (if not most) nations have acceded to.²⁵ This can vastly complicate efforts to discern applicable legal norms.

A good example is Protocol I to the Geneva Conventions, which contains much-discussed rules about the protections of civilians.²⁶ Even though it is not a party to Protocol I, the United States conducts its operations in a way that seems to indicate that it accepts the bulk (but not all) of it as customary international law. Regrettably, the publication of the U.S. Department of Defense's long-awaited *Law of War Manual*, which was anticipated to elucidate this and many other issues, has not, as of this writing, yet occurred.²⁷

Until it does, the best and most widely accepted compilation of existing international law applicable to bombing is the *HPCR Manual on International Law Applicable to Air and Missile Warfare* issued by Harvard's Program on Humanitarian Policy and Conflict Research.²⁸ Although this *Manual* is not without controversy, it is the product of a six-year effort that included many leading international experts from both legal and military disciplines. Notably, it bills itself as a "restatement" of existing law and emphatically does not purport to create any new norms.

What is remarkable about the slim volume is that it reveals that relatively little law is explicitly limited to air and missile warfare. This would suggest that air operations should get no more scrutiny—and perhaps less, given the relatively small numbers of civilian casualties they cause—than other kinds of fires and military operations. Yet they do. James Baker, a former member of the U.S. National Security Council, illustrates a common perception:

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.²⁹

In many respects, what Baker says is true (and this explains why airpower can be discreetly applied). However, characterizations like his are also apt to create an expectation of perfection that is unattainable with virtually any weapon, given the proverbial fog and friction of war. In fairness, it is often the military's own actions, such as the distribution of videos showing bombs falling precisely down the airshafts of enemy buildings, that exacerbate the assumption of infallibility, which in turn distorts discussions of the application of force via aerial bombing.

Misperceptions about the law also create misunderstandings. The St. Petersburg Declaration of 1868 is an illustration of the mischief that can ensue

when the legal applicability of a particular norm is misapprehended.³⁰ The United States is one of the nations that were not part of the St. Petersburg convocation and it has never agreed to the convocation, which is not, in any event, part of customary international law. To the extent that it still retains vitality, it binds only nations who are a party to it.

Of most relevance to this discussion is the Declaration's Preamble. It states, in part, that "the only legitimate object which States should endeavor to accomplish during war is to weaken the military forces of the enemy; that for this purpose it is sufficient to disable the greatest possible number of men."³¹ Scholars often cite this wording to support the premise that the purpose of war is simply to kill the opponent's military personnel. Yet the "object" of war is not, per se, to "disable the greatest number of men" in the adversary's military forces, as some suppose. Rather, as the great military theorist Carl von Clausewitz explains, war is "an act of violence to compel our opponent to fulfill our *will*. . . . Violence . . . is therefore the *means*; the compulsory submission of the enemy to our will is the ultimate object."³² The destruction of the enemy's military forces is one way of achieving that end, but in the view of many strategists, it is an imperfect means of doing so. Sun Tzu, for example, argues in his classic *The Art of War* that "supreme excellence consists in breaking the enemy's resistance without fighting."³³ Experience shows that the erosion of the "will" of an adversary through the *indirect* effects of aerial bombardment on civilians is a key element of victory in modern war.³⁴

The St. Petersburg Declaration also stimulates misunderstandings about the status of civilians in war. Contrary to what many may think, the law of armed conflict (LOAC) makes no judgment as to the moral culpability of individuals in defining that status. Instead, it adjudicates status based on certain objective factors—for example, membership in the armed forces of a belligerent and, in the case of persons otherwise considered civilians, whether they directly participate in hostilities. To the extent they do, they are targetable to the same extent as military personnel are.³⁵

None of this turns on the ideological proclivities—or the absence of the same—of any person, combatant or civilian. Under the LOAC, a civilian may not be *directly* targeted—even if he or she embraces the most loathsome, odious ideologies and actively promotes the same (short of direct participation in hostilities). Thus, it is incorrect to indiscriminately apply the label of "innocent" to civilians in the context of LOAC. Civilians may be guilty of any number of moral or even legal breaches yet still enjoy immunity from being directly targeted. They are not necessarily, however, *morally* "innocent" civilians.

The late Daniel Boorstin, the former librarian of Congress and formidable Pulitzer Prize-winning scholar, took this concept a bit further. He insisted that Americans in particular suffer from the “Myth of Popular Innocence” that is expressed in the “touching American unwillingness to believe ill of human majorities.”³⁶ Boorstin points out that in reality Hitler, Stalin, and Saddam Hussein could not have carried out their evil deeds without the cooperation of much of the populace. Boorstin adds that civilian societies are not helpless victims of unscrupulous leaders, as “history proves that ruthless rulers can be removed by popular will.”³⁷ In fact, despite having powerful internal security forces, the Soviet Union collapsed when confronted with a determined people’s movement. Much the same can be said of the fall of Arab autocrats in the spring of 2011.

It is not surprising, therefore, that there is no legal or, indeed, moral imperative to spare the sentient adult population of a belligerent from the vicissitudes of war, short of refraining from direct targeting. To be clear, while it is plainly wrong to target civilians or to conduct military operations—bombing or otherwise—for the “sole or primary purpose of spreading terror among the civilian population,”³⁸ it is nevertheless also fully expected—and tolerated—that military operations could have psychological and other unpleasant consequences for civilians.

For example, consider the profound sadness of those who have lost a family member serving as a soldier in the nation’s army. Moreover, even the indisputably legitimate destruction of purely *military* objects can impact the civilian population responsible for replacing them. As Dwight Eisenhower said, “Every gun that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and not clothed.”³⁹

More specifically, no imperative of law or ethics prohibits the sentient adult population from suffering certain *indirect* costs of war. For example, as a matter of law, collateral damage from an air attack “does not include inconvenience, irritation, stress, fear or other intangible conditions caused to the civilian population.”⁴⁰ Accordingly, while the blockades, “no-fly zones,” and the destruction of “dual use” infrastructure no doubt impose hardship on civilians, it is hardship that is legally and morally permissible.

Perhaps the most severe penalty civilians must suffer is being killed or injured as a result of an attack on a genuine military target. Every legitimate military operation seeks to avoid such losses, yet the fact remains that the law, properly applied, recognizes that incidental civilian deaths in connection with an otherwise bona fide attack on a military target are acceptable and often *expected*.

This crucial principle (along with the practical reality that it is typically impossible in the midst of military operations to determine which civilians are authentically “innocent”) illustrates why the notion that combatants are legally or morally obliged to take more risk than those holding civilian status is so deeply flawed. Apart from the fact that nothing in international law imposes such a requirement, simply because a human being chooses to serve his or her country in uniform *should not be* a rationale to value that life less. It is wrong to convert an ethic of a disposition toward public service into a norm that licenses the devaluation of the lives of those who choose to serve as combatants. The life of the civilian—“innocent” or not—is not intrinsically more worthy than that of the combatant.

Another problematic tendency among some well-meaning advocates is the unbridled assumption that treaties and other restrictions on specific weaponry are an unqualified good. For example, consider the Ottawa Convention’s prohibition on anti-personnel land mines.⁴¹ The United States—which is not a party to the Ottawa Convention—has in its inventory the GATOR mine system, an air-deliverable weapon that contains self-neutralizing anti-tank and anti-personnel mines.⁴² It may be used as a “runway denial” weapon in that it can scatter mines on an enemy airfield to make it temporarily unusable to hostile forces without actually destroying it. Nations who are parties to the Ottawa Convention, however, cannot use the weapon. What is the alternative for them? Destroy the runway with conventional high-explosives—but this will make it unavailable to both postconflict humanitarian relief flights and economic reconstitution.

Many experts are discovering that the well-intended prohibitions on chemical and biological weaponry are having the perverse effect of limiting nonlethal and low-lethality weapons that might otherwise be developed.⁴³ For example, although riot control agents have great potential to limit deaths and injury, they are forbidden as a method of war by the chemical weapons convention.⁴⁴ Such results are garnering criticism. Harvard Law professor Gabriella Blum cites the prohibition on the use of riot control agents to question the morality of “the law’s current absolutist stance [that] prevents parties in conflict from lawfully pursuing actions that might lessen the harms of war.”⁴⁵

Regardless, challenging science to come up with solutions to military problems that avoid the law’s “current absolutist stance” can take things in a direction some may not have expected. For example, as discussed above, it is generally unlawful to use nonlethal tear gas as a means or method of war, and most countries do not permit the use of anti-personnel landmines. What then, are the options left to air operation commanders tasked with such challenges as neutralizing the use of caves by enemy forces?⁴⁶

One solution would be to scatter anti-personnel mines around the entrances. Since that option is foreclosed to parties of the Ottawa Convention, commanders from states that are parties to the Convention may need to entomb a cave's occupants by blowing up the entrance—a disconcerting action that is not necessarily at odds with international law. Another solution, provided by science, is thermobaric weapons.⁴⁷ According to one description, the thermobaric bomb is “among the most horrific weapons in any army's collection . . . , a fearsome explosive that sets fire to the air above its target, then sucks the oxygen out of anyone unfortunate enough to have lived through the initial blast.”⁴⁸ Again, these consequences merely illustrate that when the focus of a treaty is on a certain weapon, as opposed to *effects*, the result can be unintended and a source of concern.⁴⁹

Science does not always produce solutions more troubling than the problem it seeks to solve. Consider cluster munitions, another much-maligned—and much misunderstood—weapon. They are bombs “that release a number of smaller submunitions intended to kill enemy personnel or destroy vehicles” in a given area.⁵⁰ Because the submunitions contain relatively small explosives, they are very useful in attacking such targets as anti-aircraft guns on a dam, snipers on a hospital roof, or even factories producing weapons of mass destruction, whose devastation by more powerful explosives might put civilians at greater risk as toxic materials entered the atmosphere.

Yet today, despite the development of advanced technologies that reduce the failure rate of submunitions,⁵¹ many nations either prohibit or severely limit their use.⁵² One way science is helping to address legitimate concerns about these weapons is by developing a “newer generation” of cluster bombs that are more accurate and “sensor-fuzed submunitions [that] are designed to sense and destroy [military] vehicles without creating an extensive hazard area of unexploded submunitions.”⁵³

This raises another issue that is inexplicable to some in the armed forces: that is, the recent obsession of many academicians with remotely piloted aircraft (RPAs)—often inaccurately referred to as “drones.” Plainly, RPAs are not “autonomous,” as some seem to believe, although, as suggested above, weapons that “autonomously” sense certain characteristics of targets as they home in on them have been in the inventory for decades.⁵⁴ There are certainly legitimate issues about RPA use, but—again—it is not clear why these particular systems should be considered differently from other means of using force.⁵⁵ Some writers seem disturbed that RPAs are operated at a distance, but throughout the history of warfare combatants have always sought to apply their weaponry from a range beyond their opponents' capability.⁵⁶ There is nothing in law or ethics that requires a combatant to give an opponent a “fair

fight” in the sense of exposing himself or herself to being killed. Indeed, as General George Patton succinctly (albeit indelicately) put it “the object of war is not to die for your country but to make the other bastard die for his.”

One might rightly argue that regardless of what the law may permit, ethical norms demand a higher standard. Undoubtedly, there is a clear relationship between law and ethics. According to historian Geoffrey Best, “It must never be forgotten that the law of war, wherever it began at all, began mainly as a matter of religion and ethics . . . It began in ethics and it has kept one foot in ethics ever since.”⁵⁷ Nevertheless, few would dispute the idea that law typically represents the baseline of consensus about behavioral norms.

With norms expected to have global application, such as those governing armed conflict, it should be clearly understood that seemingly universal principles are actually less universal than many believe. This is why, for example, the Harvard *Manual on International Law Applicable to Air and Missile Warfare* was described above as a “slim volume.” In an increasingly globalized world, interpretations of ethical norms can vary widely, making consensus rarer. Richard Falk is one of many scholars who argue that the proposition that “all persons and people aspire to the same human rights” is just factually untrue.⁵⁸

In any event, ethicists and others need to be especially cautious about calling upon members of the armed forces to apply ethical norms at variance with the law. Service members are not obliged to obey patently illegal orders, but military law does provide that “the dictates of a person’s conscience, religion, or personal philosophy cannot justify or excuse the disobedience of an otherwise lawful order.”⁵⁹ Given that there are many different moral philosophies, the dangers of allowing personal moral norms to trump the law are readily apparent.

For example, some conscientious people believe that abortion amounts to the murder of an unborn child; the law, however, permits abortions under certain circumstances. Thus, force is not permitted to “defend” the unborn. Put another way, in the military context uniformed personnel are obliged to follow the law in conducting operations, and reliance upon their personal interpretations of international norms is done at their peril. Apart from liability for disobedience of orders, even well-meant efforts to “improve” upon the law in situations that do not involve the disobedience of orders can still have dire consequences for those the law is meant to protect, as is discussed below.

Airpower in Counterinsurgency

Until very recently, conventional wisdom was that airpower was either largely irrelevant to counterinsurgency (COIN) operations or affirmatively

counterproductive. This is the philosophy that seemed to infect Field Manual (FM) 3-24, the much-celebrated publication by, among others, General David Petraeus.⁶⁰ Published in late 2006, it rapidly became “The Book” on COIN.⁶¹ From the perspective of the air weapon, it is significant that FM 3-24 relied heavily upon a study of a rather narrow band of COIN campaigns, mostly from the Cold War era, that largely preceded the information revolution that was so influential in the development of precision weaponry and persistent ISR.⁶²

According to a 2006 RAND study emphasizing those conflicts, “air power has been used in a less-visible supporting role” mainly because historically, “insurgencies do not present opportunities for the overwhelming application of the air instrument.”⁶³ As a matter of fact, given the airpower technologies available to those operations of more than a half-century ago, it is not especially surprising that airpower was limited to a mainly supporting role.⁶⁴

More complicated, particularly in the context of a discussion of aerial bombardment, is that FM 3-24 embraced a view of COIN that eschewed violence in favor of a “population-centric” strategy⁶⁵ that sought to win hearts and minds⁶⁶ through nonviolent nation-building and other developmental projects. While not shunning force entirely, FM 3-24 rapidly became perceived as advocating a “softer approach that won allies” after it was implemented in Iraq in 2007.⁶⁷

In evaluating this “softer approach,” it is worth noting that the contributions to FM 3-24 came from what was called an “odd fraternity” of “representatives of human rights nongovernmental organizations and international organizations, academic experts, civilian agency representatives, [and] journalists.”⁶⁸ Among other things, the resulting document called upon a counterinsurgent to serve variously as a “social worker, a civil engineer, a school teacher, a nurse, [and] a boy scout.”⁶⁹ Steven Coll described the new doctrine this way in the *New Yorker*:

[FM 3-24 is 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.⁷⁰

Unsurprisingly, airpower—especially in its strike role—was marginalized into a five-page annex in a nearly 300-page document. And that brief reference discouraged its use.⁷¹ What FM 3-24 did not take into account was the

dramatic technological revolution that had taken place in recent years. 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,⁷² MQ-9 Reaper,⁷³ and Global Hawk.⁷⁴ Now we have loiter times in excess of 24 hours, persistent eyes on target, micro-kill with Hellfire and 500 lb JDAM bombs,⁷⁵ synthetic aperture radar, and a host of ISR sensors and communications potential that have fundamentally changed the nature of warfare.⁷⁶

Such capabilities were not overlooked by military commanders—including one of FM 3-24's principal authors. Notwithstanding the "softer" persona of FM 3-24, General David Petraeus's COIN operations in Iraq were decidedly "hard." Although he publicly derided the notion of "killing and capturing" as an avenue to COIN success, that is exactly what happened in Iraq following the issuance of FM 3-24. Tens of thousands of Iraqi males were swept up and incarcerated in huge detention camps,⁷⁷ and a dramatic increase in "killing"⁷⁸ complemented the "capturing" that combined to finally bring the violence under control.

Much of the killing of insurgents was accomplished by airpower. Despite the admonitions of FM 3-24, airstrikes increased fivefold.⁷⁹ The results were significant: retired air force lieutenant general Mike Dunn asserts that "90% of the terrorists [who were] killed [were] killed by airpower."⁸⁰ Somehow, it seems, this increasing utility of airpower as a COIN weapon got translated into an assumption that airpower was a major cause of civilian deaths.

That was really never the case with Iraq. For example, a 2003 Human Rights Watch investigation of major combat operations in Iraq "found that, in most cases, aerial bombardment resulted in minimal adverse effects to the civilian population."⁸¹ A study published in 2009 in the prestigious *New England Journal of Medicine* entitled "Weapons That Kill Civilians" did complain about airstrikes in urban areas but nevertheless produced statistics that showed that during the 2003–2008 timeframe in Iraq, *only about 6% of civilians* who died as a result of the *conflict* were killed by air weaponry.⁸²

There is also little to support the notion that the military success of 2007 is attributable to FM 3-24's "softer" persona. Even though security increased markedly in Iraq in 2007, a 2008 survey of Iraqis found that 61 percent still believed that the presence of U.S. forces made security worse in their country, and of those who thought the security was improved, only 4 percent believed U.S. forces deserved the most credit.⁸³ Notwithstanding the vital role of airstrikes and the obvious fact that few hearts and minds were won, Iraq is now considered the exemplar of COIN success.

Afghanistan reflected a somewhat similar yet different challenge. In 2001 a unique blend of airpower, small numbers of U.S. special operations forces on the ground, and alliances with indigenous opposition forces enabled the United States to unseat the Taliban in a matter of weeks.⁸⁴ In the ensuing years, however, NATO took responsibility, and efforts to prevent Taliban resurgence foundered, as did myriad nation-building projects. In 2009, General Stanley McChrystal was sent to Afghanistan with a charter to stabilize the situation in order to permit a withdrawal of foreign forces.

During NATO's tenure, its approach to airpower can most charitably be described as misguided. In June 2007, NATO announced that there would be no airstrikes if it "knew there were civilians nearby."⁸⁵ In 2008, another NATO spokesman declared that no airstrike would take place "if there is the likelihood of even one civilian casualty . . . not even if we think Osama bin Laden is down there."⁸⁶ The law certainly does not require such extraordinary measures to avoid civilian casualties—and for good reason.

By replacing the proportionality standard of Protocol I, which permits attacks that cause incidental civilian casualties so long as they are "not excessive in relation to the concrete and direct military advantage anticipated" with a "zero casualty" rule, NATO evidently did not seem to comprehend the wisdom behind the Protocol's approach. In its approach, NATO telegraphed to the insurgents that all they needed to do to protect themselves from air attack was to surround themselves with civilians—and that is exactly what they did. If NATO had followed the Protocol, the insurgents would not have had as much incentive to shield themselves with civilians.

Unfortunately, General McChrystal's decision in June 2009 to further restrict airstrikes proved disastrous for civilians. By June of the year following the implementation of the restrictive rules, Afghan civilian deaths had skyrocketed by 31 percent,⁸⁷ and Coalition military casualties likewise rose sharply.⁸⁸ Importantly, the astonishing increase in civilian deaths was *not* the result of the airstrikes that did take place. A study released in July 2010 showed that airstrikes were responsible for only a small percentage of the casualties caused by Coalition forces.⁸⁹ For example, traffic accidents involving U.S. and Coalition vehicles killed two and a half times as many Afghan women and children as did airstrikes.⁹⁰

When General Petraeus replaced General McChrystal in June 2010, he vastly increased the use of the air weapon. Noting that airstrikes had risen 172 percent by October of that year, a journalist accurately declared that there was "once again a full-blown air war over Afghanistan."⁹¹ General Petraeus appears to have grasped the fact that since the vast majority of civilian casualties are caused by insurgents (some 76 percent),⁹² the best way to

protect civilians is to kill those who would kill them. The policy of forgoing airstrikes operates to spare insurgents to live to kill civilians.

Statistics proved the worth of Petraeus's strategies. By the end of 2010, he was able to cut the rise in civilian casualties from the 31 percent that had occurred under McChrystal's approach to half that rate.⁹³ Most remarkably, a UN report released in March 2011 declared: "Although the number of air strikes increased exponentially, the number of civilian casualties from air strikes decreased in 2010."⁹⁴

Nevertheless, airstrikes are often singled out for the proposition that the deaths they cause ipso facto increase insurgent recruitment. Actually, dispositive evidence about insurgent recruitment motivation is scant, and what does exist is subject to varying interpretations. For example, that the Taliban kill by far the most civilians suggests that they believe that doing so furthers their cause in some way. Being Afghans themselves, one would assume they would not conduct operations so deadly to civilians otherwise.

And it appears they may be right. The *Christian Science Monitor* reports that "there is little indication these Taliban indiscretions [causing civilian casualties] have backfired on the movement so far."⁹⁵ Another interesting perspective is offered by Afghan expert Jeremy Shapiro. Shapiro believes that the Afghan government highlights civilian casualties to get leverage with the Coalition, but local officials in his experience "tend actually not to be too concerned" with the civilian casualty issue.⁹⁶

Other experts have challenged—convincingly—the notion that RPA strikes spur insurgent recruitment. For example, after conducting on-the-ground research, analyst Christopher Swift found that such strikes simply do not "drive al Qaeda recruiting" in Yemen.⁹⁷ With respect to Pakistan, scholars Christine Fair, Karl Kaltenthaler, and William Miller challenged conventional wisdom in an *Atlantic* magazine article entitled "You Say Pakistanis All Hate the Drone War? Prove It" by arguing that while "drone strikes are not very popular among a large section of Pakistani society . . . Pakistanis are not united in opposition to drone strikes."⁹⁸ "In fact," the writers contend, "many Pakistanis support the drone strikes."⁹⁹

None of this is to suggest that any death is less than a tragedy; rather, it is simply to dispute the negative inferences about the *military* effect of unintended civilian casualties that is so often attributed to airpower. In truth, a significant amount of scholarship indicates that the physical presence of foreign forces on the ground is the biggest recruitment stimulant for insurgents. COIN expert William R. Polk insists that the "fundamental motivation" for insurgents is an "aim primarily to protect the integrity of

the native group from foreigners.”¹⁰⁰ And this has proven true in recent conflicts.¹⁰¹

In fact, some of the key underlying premises of FM 3-24 are now being questioned. Jill Hazelton of Harvard’s Belfer Center argues in a recent interview that the “conventional wisdom” of COIN—that “the development of healthy, participatory, well-governed states will defeat insurgency”—has never actually worked.¹⁰² She contends:

Generally, states that succeed in COIN rely on the use of force, offensive and defensive, to destroy the insurgent military threat by military means, and they also provide limited, targeted political accommodations to gain the cooperation of useful political actors within the populace and insurgency. Success in COIN does not require the protection of the populace, good governance, economic development, or winning the allegiance or the loyalty of the great majority of the population. It does not require building up all of the institutions of the state. These goals may be important to the meeting popular grievances in a particular case, or important to the counterinsurgent for a variety of reasons, as with the United States in Iraq and Afghanistan, but the empirical evidence does not show that they are necessary for success.¹⁰³

Importantly, her research also shows that “successful COIN cases include less sensitivity to civilian casualties than the conventional wisdom prescribes.”¹⁰⁴ Along the same lines, Francis J. “Bing” West, former assistant secretary of defense for international security affairs and best-selling author, notes that although “our senior leaders say the war cannot be won by killing,” the war “will surely be lost if we don’t kill more Islamist terrorists and hard-core Taliban.”¹⁰⁵

West, a former Marine who has just written a new book on Afghanistan, sees airpower—as both a high-tech surveillance platform and a precision strike weapon—playing a central role in a new strategy that he proposes:

Push the Afghans to fight their own war. Stop fighting for them. Create the Adviser Corps we have needed for the past ten years. *Our air surveillance is so extraordinary today that we can deploy about 50 advisers per 400-man Afghan battalion and patrol rigorously without unduly risking our advisers.* We do not need 100,000 troops. . . . The Taliban needs to mass in order to threaten to retake government control in the urban areas. *Given our air, they cannot mass.*¹⁰⁶

Concluding Observations

As stated at the outset, the potential contribution of the academy to the proper interpretation and development of legal and ethical norms associated with air warfare is tremendous. The erudition—not to mention sense of commitment—of many moral philosophers, theologians, historians, ethicists, legal scholars, and many other disciplinary experts is a reservoir of talent that needs to be tapped. This is especially so when the means and methods of warfare are increasingly complex, especially as related to the air weapon. Better ways to use force, especially in sensitive situations such as those posed by recent conflicts, can be found if *all* the information and perspectives are considered by the functional experts working in harmony, if not always in agreement.

Of course, no amount of discussion will impact those whose moral tenets reject the concept of the just war.¹⁰⁷ It may surprise some, but those in the armed forces—especially those who have seen the horrific consequences of war firsthand—are often the ones most opposed to the use of force. Senior military officers spend their entire life around young people who comprise the vast majority of the armed forces; to them, they are real people who they often know in a personal way. And they are acutely aware it is these same young people they must send into harm's way and that many of them will not return or will return much different than they went.

Sensitivity to this reality is important. An illustration is the infamous incident when UN ambassador Madeleine Albright asked Chairman of the Joint Chiefs of Staff General Colin Powell: "What's the point of having this superb military you're always talking about if we can't use it?"¹⁰⁸ Such a casual depersonalization of those who will be expected to go into harm's way and, if necessary, pay the ultimate price is deeply offensive to those in uniform. As the BBC reports it, General Powell—who it describes as "this most military of politicians who has watched men die"—answered Ambassador Albright by icily observing that "American GIs are not toy soldiers to be moved around on some global game board."¹⁰⁹ Cavalier references to the troops—and the risks they take—is dangerous ground.

There is also a lesson for those ready to ascribe nefarious motives to military professionals. Consider the case of Philip Alston, the UN special rapporteur who claimed in a study of targeted killings¹¹⁰ that because RPA operations can be conducted "entirely through computer screens and remote audio feed, there is a risk of developing a 'PlayStation' mentality to killing."¹¹¹ Of course, no such evidence of that exists. To the contrary, what we do know is that those operating these systems take their responsibilities extremely seriously, to the point of suffering psychologically because of it.

Dr. Peter Singer, the Brookings Institution researcher who authored the book *Wired for War*, about high-technology weaponry, found that

in the beginning we feared that drones may make the operators not really care about what they're doing. But the opposite has turned out to be true. They may almost care too much. We're seeing higher levels of combat stress among remote units than among some units in Afghanistan. We found significantly increased fatigue, emotional exhaustion and burnout. Drone operators are more likely to suffer impaired domestic relationships, too.¹¹²

Dr. Singer explained this phenomenon by noting, among other things, that a "remote operator sees the target up close, he sees what happens to it during the explosion and the aftermath. You're further away physically but you see more."¹¹³ His conclusions dovetail with earlier reports in the *New York Times Magazine* about the stresses conscientious RPA operators suffer.¹¹⁴ As one air force official put it, RPA operations are "a deeply, deeply emotional event. It's not detached. It's not a video game."¹¹⁵ In fact, the *New York Times* reported in early 2013 that RPA pilots suffer stress disorders just as those in combat do.¹¹⁶

That Professor Alston would make such a serious accusation without offering evidence rightly raises questions about the rest of his analysis and conclusions. All of this is yet one more illustration of the importance of thoroughly understanding the systems *before* engaging in speculation about the motives of the professionals involved. The reality is that academics can get their facts wrong. For example, for years many critics of the bombing campaign in the 1991 war with Iraq alleged that the destruction of infrastructure and the subsequent economic sanctions were responsible for the deaths of 500,000 Iraqi children. Yet new scholarship convincingly argues that this allegation is a myth.¹¹⁷

Furthermore, few things frustrate military professionals more than critics who do not bother to learn about systems they disparage. With respect to RPAs in particular, retired air force lieutenant general David Deptula insists that the "truth is, RPA are the most precise means of employing force in a way that reduces collateral damage and minimizes casualties" and argues that the "critics don't understand the reality of 'drone' operations."¹¹⁸ Deptula points out that

the persistence, situational awareness, and degree of control possible with an RPA allows for the immediate suspension of lethal engagement if circumstances change or questions emerge—even after a weapon has

been released or launched. RPA are networked aircraft and their data can reach any spot on earth in less than two seconds.

Hence, in addition to the hundreds of operational, maintenance, and intelligence personnel, many lawyers and senior leadership are directly involved with RPA lethal engagements. That kind of oversight is rarely, if ever, the case with the use of manned aircraft or with boots on the ground or sailors at sea. The power of our intelligence networks allows RPA essentially to carry around their own command and analysis center and legal counsel as an integral part of their payload.

Similarly, the methodology of a much-touted study by Stanford and New York University that was critical of RPAs was deconstructed by subsequent analysis.¹¹⁹ More meticulous studies find that “drone strikes are associated with decreases in the number and lethality of militant attacks in the areas where strikes are conducted.”¹²⁰ When the “lethality of militant attacks” is eroded, innocent civilians benefit. This is especially important given the reported decline in civilian casualties from RPA missile attacks. While incidents still occur, the New America Foundation reported in June 2013 that only four civilians (as opposed to seventy-eight militants) died in fourteen strikes in Pakistan.¹²¹ In any event, one scholar recently concluded:

In the end, drone strikes remain a necessary instrument of counterterrorism. The United States simply cannot tolerate terrorist safe havens in remote parts of Pakistan and elsewhere, and drones offer a comparatively low-risk way of targeting these areas while minimizing collateral damage.¹²²

It is also useful for anyone who wants to influence policy to exercise caution in attacking the motives of military personnel for this reason: doing so will not resonate well with the American people. Not that anyone should shy away from criticism where criticism is due—which is often the case. But notwithstanding periodic scandals and incidents of terrible misconduct, polls show that the armed forces as an entity remain the most trusted institution in American society.¹²³

Such public approval is in stark contrast to that afforded an institution such as the UN, which is not held in nearly as high esteem. More particularly, military leaders are exceeded only by nurses in the public’s positive estimate of their honesty and ethics.¹²⁴ This may be worth considering when judging the decisions of military commanders. They often must make difficult life-and-death decisions in an extremely compressed time frame and do so based on imperfect information produced in the chaos of battle.

That is why, for example, international law does not judge command determinations as to what constitutes “excessive” civilian casualties based only on knowledge gained in hindsight.¹²⁵ Even the U.S. Supreme Court has concluded that “it is difficult to conceive of an area of governmental activity in which the courts have less competence” than the “complex, subtle, and professional decisions” military officers must make.¹²⁶ Although penetrating analysis of the conduct of military personnel should be made, reticence in ascribing *mens rea* in the first instance could be useful.

Finally, no amount of discussion will convince those invested in the belief that force has no place in human affairs. Chinese president Hu Jintao recently said that “history has repeatedly proved that the use of force is not an answer to problem. . . . Dialogue and other peaceful means are the ultimate solution to problem.”¹²⁷ This may be so. But what force *can* do is create the space—and incentive—for dialogue by those not otherwise disposed to engage in it. It is becoming increasingly clear to many experts that to get terrorist or insurgent groups to “cease their pursuit of an objective via armed violence,” governments “should focus on the physical attrition of such groups as being the primary contribution of force to gaining such a policy goal.”¹²⁸

Of course, no use of force is desirable. Yet in the twenty-first century, bombing—with all its flaws—is in many instances better than no action at all. As one commentator put it, “No one, certainly no one in the US military, has ever claimed that a bombing campaign can be carried out without any loss of innocent human life. Yet the use of airpower is essential if America is to be able to prevail at an acceptable cost of both life and treasure for itself.”¹²⁹ And in the absence of American leadership—and its distinctive airpower capabilities—one wonders what would have happened to the people of Kosovo or, more recently, the people of Libya.

Indeed, the slaughter in Syria has led to calls for an implementation of a no-fly zone.¹³⁰ While this is doable, it would likely involve a significant bombing campaign to suppress Syrian air defenses.¹³¹ Many also fear it could draw the United States and its allies into a wider war.¹³² It is imperative that no one forget the sheer horror and ugliness of war, whether the result of bombing or any other use of force.

As John Stuart Mill famously observed, “war is an ugly thing, but not the ugliest of things. The decayed and degraded state of moral and patriotic feeling which thinks that nothing is worth war is much worse.”¹³³ That war may be inevitable should spur our efforts to do whatever we can to ameliorate its ugliness, and an aggressive, interdisciplinary rethinking of bombing norms is a logical endeavor toward that end.

It would be a mistake, however, to be overly optimistic. Clausewitz counsels:

Kind-hearted people might of course think there was some ingenious way to disarm or defeat the enemy without too much bloodshed, and might imagine this is the true goal of the art of war. Pleasant as it sounds, it is a fallacy that must be exposed: war is such a dangerous business that the mistakes which come from kindness are the very worst.¹³⁴

That said, there is indisputably a place for hard-headed realism (if not “kindness”) in the development and application of legal and ethical norms. When tied to a genuine understanding of modern weaponry, the strategies for their use, and the people who use them, real progress can be made. Achieving that “genuine understanding” does, however, require a serious investment of time and intellectual energy by all concerned.

The stakes are very high as we look ahead. With respect to airpower, futurists George and Meredith Friedman muse that the images of high-technology precision weapons striking their targets with extreme accuracy carries a “deep moral message,” especially “when contrasted with the strategic bombardments of World War II.”¹³⁵ According to the Friedmans, “War may well be a ubiquitous part of the human condition, but war’s permanence does not necessarily mean that the slaughters of the twentieth century are permanent.”¹³⁶ That is a proposition with which this writer would readily agree.

5. Clever or Clueless?

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