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Come the Revolution: A Legal Perspective on Air Operations in Iraq since 2003

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Introduction

Has the early part of the twenty-first century shown the most dramatic revolution in the role of law in armed conflict in history?¹ Evidence suggests that it has. Today, for example, allegations about civilian casualties often dominate our discussions about strategy in irregular war, itself a phenomenon that, according to the *National Defense Strategy*, will preoccupy our military services for years to come.²

Indeed, as will be discussed below in more detail, adherence to law in armed conflict fact *and perception* is increasingly a central, if not defining, concern of field commanders, as well as military and civilian leaders at every level. It is appropriate then to pause for a moment and discuss our experiences in Iraq since 2003, and to see what lessons we should—and should not—draw from them. Of course, there are many aspects of the role of law—and lawyers—but this paper will confine itself to some of the issues that arose from the use of airpower.

Combat Operations

Perhaps the most dramatic change during the major combat operations (MCO) phase of Operation Iraqi Freedom (OIF)³ that impacted adherence to the law of

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armed conflict (LOAC) was the vast increase in precision-guided munitions (PGMs)⁴ employed by coalition air forces (even though their employment is not, per se, required by LOAC).⁵ During 1991's Operation Desert Storm, just 8 percent of the air-delivered bombs and missiles were PGMs.⁶ By contrast, during the MCO phase of OIF that percentage rose to nearly 68 percent.⁷ Today, virtually all are PGMs.

PGMs provided unique opportunities to minimize the risk to civilians and their property, a central aim of LOAC. Consider this 2003 report from *Time* magazine about the early phases of OIF:

Judging from the look of the [OIF] battlefields today, the bombing was largely surgical. In the open market in Mahmudiyah, five tanks were hit from the air while they were parked in alleyways so narrow that their gun turrets could not be turned. The storefront windows a few feet away were blown out, but otherwise the surrounding buildings are intact.⁸

Besides PGMs, something of a more strategic mindset was at play during OIF. In short, simply because a particular target might lawfully be struck, that did *not* mean that it *would* be attacked. In fact, "hundreds of bridges, rail lines, power stations and other facilities" as well as "communication nodes and a few leadership sites" were spared.⁹

The targeting restraint demonstrated not only a better understanding of legal and moral imperatives, but also the practicalities of twenty-first-century operations. For example, one aviator observed that "[a] lot of care was put into selecting only those valid military targets that were absolutely essential to assist in taking Baghdad and securing the country" because planners knew that "anything destroyed from the air, like Iraqi roads, bridges, and power-generating stations, would have to be rebuilt during the post-war period."¹⁰

It appears that this pragmatic mindset, along with the revolutionary new munitions technologies, helped OIF air operations adhere to LOAC. Even Human Rights Watch (HRW), in its December 2003 report entitled *Off Target: The Conduct of the War and Civilian Casualties in Iraq*, gave a largely favorable assessment to the air campaign.¹¹ Although highly critical of leadership targeting and the use of cluster munitions, HRW nevertheless acknowledged that coalition forces "took significant steps to protect civilians during the air war."¹² In particular, HRW concluded that "air strikes on preplanned fixed targets apparently caused few civilian casualties, and . . . air forces generally avoided civilian infrastructure."¹³

Despite an initially slower pace of kinetic air operations after 2003,¹⁴ the Air Force continued to develop technologies to enhance the ability to apply force with great discretion. While the MCO phase did feature a "far greater use of overhead

imagery” than in previous conflicts,¹⁵ the truly revolutionary improvement in intelligence, surveillance and reconnaissance (ISR)¹⁶ capabilities did not come to fruition until unmanned aerial vehicles (UAVs) became widely available.¹⁷

The growth in the number of drones—many of which are now armed—has been mind-boggling. From a mere 167 in the military’s inventory in 2001, there are now over 5,500.¹⁸ These assets have been especially important during the insurgency or “irregular war” phase of operations in Iraq because they can provide what some are calling an “unblinking eye” on enemy activities without risk to friendly troops.¹⁹ Consider this 2008 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.²⁰

The new technologies are transforming the way twenty-first-century conflicts are fought. According to retired Army General Barry McCaffrey the marriage of unmanned ISR platforms like the MQ-1 Predator,²¹ the MQ-9 Reaper²² and the RQ-4 Global Hawk,²³ with PGMs such as the various Joint Direct Attack Munitions²⁴ constitutes a “100 year war-fighting leap-ahead” that has, McCaffrey insists, “fundamentally changed the nature of warfare.”²⁵

The synergistic effect of *persistent* ISR with *precision* strike in irregular warfare was exemplified by the 2006 airstrike in Iraq that killed the notorious Al Qaeda leader Abu Musab al-Zarqawi. In a recent CBS *60 Minutes*’ interview, General Norton Schwartz, the Air Force Chief of Staff, explained:

Here’s the way it goes. You had 600 hours of Predator time over a lengthy period . . . following Zarqawi. And then you had maybe six minutes of F-16 time to finish the target. It reflects again the power of the unmanned systems to produce the kind of intelligence that leads you to a guy like Zarqawi, who was very good at maintaining his anonymity.²⁶

When ISR capabilities are available, the task of the legal advisor is greatly facilitated because the deliberateness they allow also permits steps to be taken to limit civilian casualties, especially with respect to *preplanned* targets. The senior Air Force judge advocate currently forward deployed notes the revolutionary impact of ISR on LOAC compliance relative to previous conflicts:

It’s airborne ISR that gives us the ability to actually apply [LOAC] principles (with almost mathematical precision) that were originally just concepts. In WWII, for

example, we could merely speculate about where a bomb or an artillery round would land. Frequently, we were guessing about the target at which we were aiming. Now, we most often have photos of the target and often have FMV [full motion video] of the target area before, during and after the strike, so we can know with near certainty what collateral casualties or damage we are likely to cause.²⁷

Without question, the key to such “near certainty” is, again, the availability of *both* accurate ISR *and* the time to digest the data it produces. The proverbial “fog”²⁸ of war still applies, and command decisions may have to be made on the basis of “incomplete” data, as was especially the case early in OIF.²⁹ Nevertheless, airpower has rather unexpectedly proved vital to the counterinsurgency success the United States has enjoyed in Iraq in recent years.

Ironically, even the relatively recently published counterinsurgency doctrine does not fully reflect the full potential of contemporary airpower. In fact, the Army and Marine Corps counterinsurgency manual,³⁰ unveiled in December of 2006, sought to discourage the use of airstrikes,³¹ largely because, it appears, the drafters relied heavily upon case studies from the 1950s, ’60s, and ’70s, long before today’s ISR and precision-strike capabilities became available. Regardless, it is extremely noteworthy that, despite the doctrine, real success in suppressing insurgent activity in Iraq did not come until 2007, a year that saw airstrikes skyrocket by fivefold.³²

New technologies have served to significantly reduce—albeit not eliminate—the risk to innocent civilians. To the surprise of some observers, airstrikes have *not* been a leading cause of civilian casualties in Iraq.³³ Specifically, although critical of air attacks in civilian areas, a just-published *New England Journal of Medicine* study of civilian casualties in Iraq from 2003 to 2008 found that aerial bombs and missiles accounted for only 5 percent of the civilian casualties (as opposed to, for example, 20 percent attributed to small arms fire).³⁴

That said, it is a mistake to conceive of the LOAC revolution strictly in terms of new technologies; it also involves fresh approaches to organizing, training and employing judge advocates (JAGs).

The Legal Architecture

Although Air Force JAGs had been forward deployed for operations virtually since the service’s inception,³⁵ they were not typically found³⁶ in what we would now call air and space operations centers (AOCs).³⁷ However, a 1988 Joint Chiefs of Staff directive required legal review of operations’ planning, and that provided a basis to regularize the JAG presence in AOCs beginning with 1989’s Operation Just Cause in Panama.³⁸ That presence continued through various operations,

including Operation Desert Storm as well as the enforcement of the no-fly zone over Iraq during the 1990s.³⁹

The air-oriented operations in Afghanistan during Operation Enduring Freedom in 2001–2 had “heavy” JAG involvement.⁴⁰ Thus, prior to the start of MCO in Iraq in 2003, it was expected that JAGs would serve in the AOC. Preparation for that service was facilitated by the participation of several Judge Advocate General’s Corps members in Internal Look, an exercise that took place in late November and early December of 2002. According to one participant, the “rigorous exercise enabled JAs to gain experience . . . while [also] learning the computer software applications that would be utilized during the conflicts.”⁴¹

Mastering the computer systems used in AOCs is an essential skill for JAG advisors. Because many of these systems are unique to that environment, all Air Force JAGs who serve in AOCs must attend the Air Force Air Operations Center Initial Qualification Training Offensive Course conducted at Hurlburt Field, Florida.⁴² This five-week course is standard for all AOC personnel, regardless of career field, and covers doctrine, AOC organization and processes, air battle plan development, air tasking order⁴³ production and execution, operational assessment and more.⁴⁴

While the course is much concerned with developing a common understanding of the concepts applicable to the command and control of the air component, it also provides “hands on” instruction on the Theater Battle Management Core Systems and the Automated Deep Operations Coordination System. Those systems, along with the Information Work Space communications process, as well as the “mIRC” system (an Internet Relay Chat network), are critical tools for anyone working in the AOC, to include legal personnel. Beyond mastering these technologies, JAGs must also learn the applicable collateral damage estimation methodology.⁴⁵

Writing in a 2006 article for *Foreign Affairs*, Dr. Colin Kahl, now Deputy Assistant Secretary of Defense for the Middle East,⁴⁶ describes this process as one that “uses computer software and human analysis to estimate possible civilian casualties for every target studied.”⁴⁷ In essence, Dr. Kahl says, it requires commanders and their legal advisors to ask themselves five questions which he phrases this way:

Can they positively identify the person or the site according to the current ROE [rules of engagement⁴⁸]? Is there a protected civilian facility or significant environmental concern within the range of the weapon to be used? Can damage to that concern be avoided by attacking the target with a different weapon or a different method? If not, how many people are likely to be injured or killed in the attack? Must a higher commander be called for permission?⁴⁹

Although advanced computer and communications systems help answer such questions and indeed have revolutionized how JAG personnel do their jobs, there

is no substitute for physical presence in the AOC. At its height, there were twelve JAG personnel assigned to the AOC during OIF.⁵⁰ Some of these focused on Air Force support issues, but most were used to directly advise commanders and others on the conduct of operations. What was particularly revolutionary about JAG utilization was how they were distributed.

The complexity of preplanned air operations is such that legal advice must be integrated long before the plan is ready for final approval. Accordingly, JAGs had a constant presence in the AOC's Strategy Division, as well as its Plans Division.⁵¹ This is a lesson, incidentally, that the Air Force learned prior to OIF. General Ronald E. Keys, who had served as the commander of NATO's AIRSOUTH, Stabilization Forces Air Component and Kosovo Forces Air Component, insisted in a 2002 interview that "[t]he important thing is that the legal advisor has got to be integrated into the operational team. He can't be an afterthought. He has to be there when the plan is being made."⁵²

This early involvement by JAGs in operational planning is now *de rigueur* in AOCs. In fact, in July of 2008 the *New York Times* noted that "Air Force lawyers vet all the airstrikes approved by the operational air commanders."⁵³ In this way they can provide input at the very early stages of an air tasking order's development so that today there rarely are legal issues associated with preplanned targets. As a result, the Air Force has, according to Human Rights Watch's Marc Garlasco, "all but eliminated civilian casualties in Afghanistan" in strikes that are a product of the deliberate planning process. This is true even though more stringent ROE for Afghanistan require "a significantly lower risk of civilian casualties than was acceptable in Iraq."⁵⁴

Of course not all airstrikes are a product of preplanning. Dynamic targeting,⁵⁵ such as airstrikes in response to urgent requests for close air support⁵⁶ coming from friendly troops in contact with enemy forces, presents the most difficult challenge. To the extent such targets can be vetted by JAGs, the responsibility falls to the JAG assigned to the Combat Operations Division. During the critical, early phases of OIF this JAG "sat at a console in the elevated platform in the center of the [AOC] floor" next to the chief of combat operations.⁵⁷ Among other things the proximity to senior leaders allowed "face to face" conversations that significantly enhanced the assigned JAG's situational awareness.⁵⁸

Still, challenges existed then—and persist today—with respect to dynamic targeting. The same *New York Times* article that noted the contribution of JAGs and the near absence of civilian casualties in *preplanned* strikes also observed that most civilian casualties occur during strikes conducted at the request of ground commanders.⁵⁹ Likewise, a September 2008 report by Human Rights Watch about operations in Afghanistan concluded that civilian casualties "rarely occur during

planned airstrikes on suspected Taliban targets” but rather “almost always occurred during the fluid, rapid-response strikes, *often carried out in support of ground troops.*”⁶⁰

Providing timely legal advice in these difficult situations re-emphasizes the importance of physical presence and proximity. In the effort to address the civilian casualty dilemma journalist Anna Mulrine points out that “the JAG officer [in the AOC] sits through the shift next to the Afghanistan duty officer, where they can consult easily.”⁶¹ Keeping a JAG close to decisionmakers is but one example of the several lessons to be learned from air operations in Iraq since 2003.

Lessons Learned

Though this article does not purport to be an exhaustive listing of “lessons learned,” such an endeavor would surely begin with the importance of the institutionalization of JAGs as essential players in the command and control process of combat air operations.⁶² Dr. Peter Singer comments in his new book, *Wired for War*, that given “advancing technology and thorny legal questions, many advise that [commanders] had better get used to the growing presence of lawyers inside military operations.”⁶³ Because of the importance of legal legitimacy of military operations not just to the US electorate, but also to the publics of America’s warfighting allies, Dr. Rebecca Grant bluntly insists that in “modern coalition warfare, attention to the law of war is a strategic necessity.”⁶⁴

Importantly, Dr. Singer also notes that the “other side knows the [legal] limits, and will do everything possible to take advantage.”⁶⁵ We live in an age where adversaries increasingly seek to employ the fact or perception of illegalities, to especially include allegations of excessive civilian casualties, as a means of offsetting not just US airpower, but America’s overall military prowess. Law professor and veteran William Eckhardt points out that that today “our enemies carefully attack our military plans as illegal and immoral and our execution of those plans as contrary to the ‘law of war’ making law, in essence, a ‘center of gravity’ in modern conflicts.”⁶⁶

This phenomenon—which may be called lawfare⁶⁷—is more than simply exploiting incidents of collateral damage; it extends to actually *orchestrating* events designed to put civilians at unnecessary risk. As Anthony Cordesman puts it in his 2007 report about airpower in Iraq and Afghanistan, “both the Taliban and Iraqi insurgents often located hostile forces in civilian areas and compounds, and steadily increased their efforts to use them as human shields.”⁶⁸

This deliberate use of human shields has hardly diminished, especially in Afghanistan. At a June 2009 news conference, Secretary of Defense Robert Gates told reporters that “we know the Taliban target innocent civilian Afghans, use them as

shields, mingle with them and lie about their actions.”⁶⁹ He recognizes that “a principal strategic tactic of the Taliban . . . is either provoking or exploiting civilian casualties.”⁷⁰

Addressing such challenges starts with what might be called “legal preparation of the battlespace” (LPB).⁷¹ There are many facets to LPB. Quite obviously, the immediate access⁷² to expert legal advice can help avoid LOAC incidents that an adversary can exploit. However, advising commanders in operations that involve the complex weaponry and the sophisticated ISR capabilities available today requires specialized knowledge. JAG advisors must be thoroughly familiar not only with the applicable law, but also with a myriad of technical specifics related to weapons, platforms, strategies and other aspects of the military art.

It is an axiom of the practice of law that a lawyer must understand the facts of the client’s business in order to apply the law properly to issues that arise from it. This is particularly important with respect to the complexities of air warfare. For example, seemingly slight adjustments in munitions’ delivery can make real differences in terms of limiting collateral damage.

Specifically, “[d]elaying an explosion by just a few milliseconds can mean that a bomb gets buried deeper into the ground before exploding.”⁷³ Thus, a JAG must understand how fusing and other technicalities of weaponizing can affect blast patterns and, in turn, the lives of innocent civilians. Wherever possible, JAGs must try to help to offer alternatives that fulfill the commanders’ intent, while also limiting collateral damage. To reiterate, competence to do so requires an intimate understanding of the client’s “business,” so to speak, of war making.

Several other dimensions of LPB exist. It necessarily includes ensuring that forces are fully trained in the requirements of LOAC, as well as the additional limitations imposed by policy and incorporated in the ROE. Beyond the basic LOAC training all members of the US military receive, the Air Force also has developed an advanced LOAC presentation which has been integrated into the Joint Force Air Component Commander Course mandated for all senior officers destined to command AOCs.⁷⁴ This training addresses difficult topics such as targeting dual-use facilities, human shields, the use of cluster munitions and much more.

Today, for example, commanders must be concerned about the investigation of complaints about airstrikes. While this is currently being effectively accomplished via ad hoc teams assembled for specific cases,⁷⁵ it may be better to establish a standing investigatory capability explicitly designed for such purposes. The teams should be interdisciplinary, to include JAGs, intelligence officers, operations experts, public affairs professionals and other specialties that would enable a timely explanation of incidents that carry the potential for enemy exploitation.

Interestingly, the Israelis seem very conscious of the possibility that lawfare might be waged against them. Accordingly, combat units in the 2008–9 Gaza operation were accompanied by operational verification teams equipped with cameras, tape recorders and other equipment to document the facts as operations were conducted.⁷⁶ Apparently this was done in anticipation of receiving various allegations of LOAC violations.⁷⁷ Clearly, this approach to preserving evidence is worthy of further study and possible emulation.

LPB also should involve preparing the media⁷⁸ and the public generally with a proper understanding of LOAC.⁷⁹ In this way misunderstandings and unrealistic expectations can be avoided. For example, LOAC recognizes that the tragedy of civilian deaths inevitably occurs in war. Thus, LOAC does not prohibit attacks even when such losses can be anticipated;⁸⁰ rather, attacks are forbidden where the civilian casualties would be “excessive in relation to the concrete and direct military advantage anticipated.”⁸¹

Unfortunately, today the enemy is trying to exploit LOAC to deter attacks not just by intermingling with civilians, but also—as already indicated—by affirmatively forcing civilians to remain in targeted buildings.⁸² If the wrong perception about LOAC requirements in such circumstances becomes accepted wisdom, that is, that the mere presence of *any* civilians is interpreted as creating a de facto safe haven for adversaries,⁸³ it could result in commanders’ hands being needlessly tied with respect to the air weapon.⁸⁴ In essence, the enemy would be “rewarded” for a grotesque LOAC violation of deliberately putting innocent civilians at risk.

Finally, it is worth re-emphasizing that the fundamental responsibility of JAGs to provide candid advice⁸⁵—even when it may be unwelcome—is especially important in combat operations. Lieutenant General Michael Short, who commanded the air component during the successful Kosovo campaign, counsels operational lawyers to be thoroughly familiar with the mission, its challenges and the rules that will govern it. He further observes that if necessary

do not be afraid to tell [the commander] what he really does not want to hear—that he has put together this exquisite plan, but his targets indeed are not valid ones or his targets may in fact violate the law of armed conflict. . . . It will take enormous courage to do that in particular circumstances because you’re always going to be junior to your boss. . . . But you have got to be able to do that.⁸⁶

While military lawyers can get support from their JAG superiors,⁸⁷ they still must demonstrate *valor* in war.⁸⁸ True, JAGs are not often called upon to demonstrate the physical courage so central to close combat situations; however, they more often are required to demonstrate *moral* courage. It is a rather melancholy

observation of some experts that the former type of courage is common in armed forces while the latter—moral courage—can often be in short supply.⁸⁹ Yet if there is a lesson for the military lawyer that has emerged in the years since 9/11, it is the vital importance of moral courage.

It is clear that the fact or perception of illegalities, whether from the mistreatment of detainees captured in ground operations⁹⁰ or from the infliction of excessive civilian casualties in an airstrike, are among the greatest threats to mission success in twenty-first-century operations.⁹¹ Ensuring adherence to the rule of law must involve many more actors than JAGs, but JAGs must be ready to provide leadership.

As this article seeks to demonstrate, preparing to exercise such leadership is a complex and demanding task that requires real dedication and discipline. But prepare we must; the stakes are just too great. Listen to these words attributed to Winston Churchill:

To every person, there comes in their lifetime that special moment when they are tapped on the shoulder and offered that chance to do a very special thing, unique to them and fitted to their talents. What a tragedy if that moment finds them unprepared and unqualified for the work that would be their finest hour.⁹²

Fortunately, it is conferences like the one that brought us together in Newport that help us—and those who look to us for leadership—to get ready for that inevitable Churchillian moment in this era of revolutionary change in the roles of law and lawyers in armed conflict.

Notes

1. The author previously discussed this subject. See generally Charles J. Dunlap, Jr., *The Revolution in Military Legal Affairs: Air Force Legal Professionals in 21st Century Conflicts*, 51 AIR FORCE LAW REVIEW 293 (2001).

2. “For the foreseeable future, winning the Long War against violent extremist movements will be the central objective of the U.S.” See Department of Defense, National Defense Strategy 7 (June 2008), available at <http://www.defenselink.mil/pubs/2008NationalDefenseStrategy.pdf>.

3. For a summary of the purposes of OIF, see Catherine Dale, Congressional Research Service, *Operation Iraqi Freedom: Strategies, Approaches, Results, and Issues for Congress*, No. RL34387 (Apr. 2, 2009), available at <http://fas.org/sgp/crs/natsec/RL34387.pdf>. Dr. Dale describes the mission of OIF as follows:

Operation Iraqi Freedom (OIF), the U.S.-led coalition military operation in Iraq, was launched on March 20, 2003, with the immediate stated goal of removing Saddam Hussein’s regime and destroying its ability to use weapons of mass destruction or to make them available to terrorists. Over time, the focus of OIF shifted from regime

removal to the more open-ended mission of helping the Government of Iraq (GoI) improve security, establish a system of governance, and foster economic development.

Id. at Summary.

4. A precision-guided munition is defined as a “weapon that uses a seeker to detect electromagnetic energy reflected from a target or reference point and, through processing, provides guidance commands to a control system that guides the weapon to the target. Also called PGM.” See “precision-guided munitions,” Joint Chiefs of Staff, Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms (as amended through Oct. 17, 2008), available at <http://www.dtic.mil/doctrine/jel/doddict/data/p/877.html> [hereinafter DoD Dictionary].

5. See, e.g., Danielle L. Infeld, Note, *Precision-Guided Munitions Demonstrated Their Pinpoint Accuracy in Desert Storm; But Is a Country Obligated to Use Precision Technology to Minimize Collateral Civilian Injury and Damage?*, 26 GEORGE WASHINGTON JOURNAL OF INTERNATIONAL LAW AND ECONOMICS 109 (1992).

6. THOMAS G. MAHNKEN, TECHNOLOGY AND THE AMERICAN WAY OF WAR SINCE 1945, at 223 (2008).

7. *Id.*

8. Terry McCarthy, *Whatever Happened to the Republican Guard?*, TIME, May 4, 2003, at 38, available at <http://www.time.com/time/magazine/article/0,9171,1101030512-449441,00.html>.

9. Bradley Graham & Vernon Loeb, *An Air War of Might, Coordination and Risks*, WASHINGTON POST, Apr. 27, 2003, at A01, available at <http://www.iraqwararchive.org/data/apr27/US/wp10.pdf>.

10. Gerry J. Gilmore, *Air Strategy Preserved Iraqi Infrastructure, Lives*, DEFENSELINK, Apr. 10, 2006, <http://www.defenselink.mil/news/newsarticle.aspx?id=15498> (quoting Major Michael Norton, Air National Guard).

11. HUMAN RIGHTS WATCH, OFF TARGET: THE CONDUCT OF THE WAR AND CIVILIAN CASUALTIES IN IRAQ (2003), available at <http://www.hrw.org/en/reports/2003/12/11/target>.

12. *Id.* at 17.

13. *Id.* at 6.

14. See, e.g., ANTHONY H. CORDESMAN, US AIRPOWER IN IRAQ AND AFGHANISTAN: 2004–2007 (2007), available at http://www.csis.org/media/csis/pubs/071213_oif-oef_airpower.pdf.

15. Graham & Loeb, *supra* note 9.

16. DoD defines ISR as “[a]n activity that synchronizes and integrates the planning and operation of sensors, assets, and processing, exploitation, and dissemination systems in direct support of current and future operations. This is an integrated intelligence and operations function.” See “intelligence, surveillance, and reconnaissance,” DoD Dictionary, *supra* note 4, available at <http://www.dtic.mil/doctrine/jel/doddict/data/i/11775.html>.

17. DoD defines a UAV as a “powered, aerial vehicle that does not carry a human operator, uses aerodynamic forces to provide vehicle lift, can fly autonomously or be piloted remotely, can be expendable or recoverable, and can carry a lethal or nonlethal payload. Ballistic or semiballistic vehicles, cruise missiles, and artillery projectiles are not considered unmanned aerial vehicles.” See “unmanned aerial vehicle,” DoD Dictionary, *supra* note 4, available at <http://www.dtic.mil/doctrine/jel/doddict/data/u/94.html>.

18. Christopher Drew, *Drones Are Weapons of Choice in Fighting Qaeda*, NEW YORK TIMES, Mar. 17, 2009, at A1, available at <http://www.nytimes.com/2009/03/17/business/17uav.html>.

19. John Barry & Evan Thomas, *Up in the Sky, An Unblinking Eye*, NEWSWEEK, June 9, 2008, at 2, available at <http://www.newsweek.com/id/139432>.

20. Mark Benjamin, *Killing "Bubba" from the Skies*, SALON.COM, Feb. 15, 2008, http://www.salon.com/news/feature/2008/02/15/air_war/.
 21. MQ-1 Predator Unmanned Aircraft System (Factsheet), AF.MIL, Sept. 2008, <http://www.af.mil/information/factsheets/factsheet.asp?id=122>.
 22. MQ-9 Reaper Unmanned Aircraft System (Factsheet), AF.MIL, Sept. 2008, <http://www.af.mil/information/factsheets/factsheet.asp?fsID=6405>.
 23. RQ-4 Global Hawk Unmanned Aircraft System (Factsheet), AF.MIL, Oct. 2008, <http://www.af.mil/information/factsheets/factsheet.asp?fsID=13225>.
 24. Joint Direct Attack Munition GBU 31/32/38 (Factsheet), AF.MIL, Nov. 2007, <http://www.af.mil/information/factsheets/factsheet.asp?id=108>.
 25. Memorandum from General Barry R. McCaffrey to Colonel Mike Meese, United States Military Academy, Subject: After Action Report 5 (Oct. 15, 2007), available at <http://www.mccaffreyassociates.com/pages/documents/AirForceAAR-101207.pdf>.
 26. Lara Logan, *Drones—America's New Air Force*, CBSNEWS.COM, May 10, 2009, updated Aug. 14, 2009, <http://www.cbsnews.com/stories/2009/05/08/60minutes/main5001439.shtml>.
 27. E-mail from Gary Brown, CAOC Input – 2009 International Law Conference (Apr. 23, 2009) (on file with author).
 28. See CARL VON CLAUSEWITZ, ON WAR 140 (Michael Howard & Peter Paret eds. & trans., Princeton University Press 1989) (1832) (discussing the uncertainty of all information in war).
 29. See William C. Smith, *Lawyers at War*, ABA JOURNAL, Feb. 2003, at 14–15.
 30. Headquarters, Department of the Army & Headquarters, Marine Corps Combat Development Command, FM 3-24/MCWP 3-33.5, Counterinsurgency (2006), available via Jim Garamone, *Army, Marines Release New Counterinsurgency Manual*, AMERICAN FORCES INFORMATION SERVICE, Dec. 15, 2006, <http://www.fas.org/irp/doddir/army/fm3-24.pdf> [hereinafter FM 3-24].
 31. For example, FM 3-24 admonishes counterinsurgents to exercise exceptional care when using airpower in the strike role. Bombing, even with the most precise weapons, can cause unintended civilian casualties. Effective leaders weigh the benefits of every air strike against its risks. An air strike can cause collateral damage that turns people against the host-nation (HN) government and provides insurgents with a major propaganda victory. Even when justified under the law of war, bombings that result in civilian casualties can bring media coverage that works to the insurgents' benefit.
- Id.* at Appendix E, para. E-5.
32. See CORDESMAN, *supra* note 14.
 33. See, e.g., *Iraq Study: Executions Are Leading Cause of Death*, USATODAY.COM, Apr. 15, 2009, http://www.usatoday.com/news/world/iraq/2009-04-15-iraq-civilian-deaths_N.htm ("Execution-style killings, not headline-grabbing bombings, have been the leading cause of death among civilians in the Iraq war").
 34. Madelyn Hsiao-Rei Hicks et. al., *The Weapons That Kill Civilians – Deaths of Children and Noncombatants in Iraq 2003–2008*, NEW ENGLAND JOURNAL OF MEDICINE, Apr. 16, 2009, at 1585, 1586 available at <http://content.nejm.org/cgi/reprint/360/16/1585.pdf>.
 35. See, e.g., Walter Lewis, *In the Korean War*, THE REPORTER 113 (Special 50th Anniversary Edition 1999), available at <http://www.afjag.af.mil/shared/media/document/AFD-090107-018.pdf>.
 36. See, e.g., David C. Morehouse, *A Year in Vietnam*, *id.* at 126–27.

37. AOCs are generally described in Chapter 7, Department of the Air Force, Air Force Doctrine Document 2, Operations and Doctrine 105 (2007), available at <http://www.e-publishing.af.mil/shared/media/epubs/AFDD2.pdf>.

38. PATRICIA A. KERNS, THE FIRST FIFTY YEARS: U.S. AIR FORCE JUDGE ADVOCATE GENERAL'S DEPARTMENT 138 (2001).

39. For a discussion of legal issues associated with no-fly zones, see generally Michael N. Schmitt, *Clipped Wings: Effective and Legal No-Fly Zone Rules of Engagement*, 20 LOYOLA OF LOS ANGELES INTERNATIONAL & COMPARATIVE LAW JOURNAL 727 (1998).

40. See BENJAMIN S. LAMBETH, AIRPOWER AGAINST TERROR: AMERICA'S CONDUCT OF OPERATION ENDURING FREEDOM 318 (2005). Although the involvement was reported by Lambeth as "heavy" in terms of influence, the support was largely provided by just three JAGs.

41. E-mail from Edward J. Monahan, JA Support at CAOC – OIF (June 8, 2009) (on file with author).

42. This is one of a number of AOC-related courses conducted by the 505th Training Squadron. See generally Department of the Air Force, 505th Training Squadron (Fact Sheet), <http://www.505ccw.acc.af.mil/library/factsheets/factsheet.asp?id=5171> (last visited June 14, 2009).

43. DoD defines the air tasking order as a "method used to task and disseminate to components, subordinate units, and command and control agencies projected sorties, capabilities and/or forces to targets and specific missions. Normally provides specific instructions to include call signs, targets, controlling agencies, etc., as well as general instructions." See "air tasking order," DoD Dictionary, *supra* note 4, available at <http://www.dtic.mil/doctrine/jel/doddict/data/a/9435.html>.

44. E-mail from Major Mathew J. Mulbarger, Comments for Major General Dunlap on CAOC (June 9, 2009) (on file with author).

45. Monahan, *supra* note 41.

46. See Colin Kahl, Deputy Assistant Secretary of Defense for the Middle East, U.S. Department of Defense, Biography, DEFENSELINK, <http://www.defenselink.mil/bios/biographydetail.aspx?biographyid=204> (last visited Oct. 12, 2009).

47. Colin H. Kahl, *How We Fight*, FOREIGN AFFAIRS, Nov./Dec. 2006, at 83, available at http://www.realclearpolitics.com/articles/2006/12/how_we_fight.html.

48. DoD defines rules of engagement as "[d]irectives issued by competent military authority that delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered." See "rules of engagement," DoD Dictionary, *supra* note 4, available at <http://www.dtic.mil/doctrine/jel/doddict/data/i/6783.html>.

49. Kahl, *supra* note 47.

50. Monahan, *supra* note 41.

51. *Id.*

52. Randon H. Draper, *Interview with a JFACC: A Commander's Perspective on the Legal Advisor's Role*, THE JAG WARRIOR, Autumn 2002, at 21–22.

53. Thom Shanker, *Civilian Risks Curb Airstrikes in Afghan War*, NYTIMES.COM, July 23, 2008, <http://www.nytimes.com/2008/07/23/world/asia/23military.html>.

54. *Id.*

55. DoD defines dynamic targeting as targeting "that prosecutes targets identified too late, or not selected for action in time to be included in deliberate targeting." See "dynamic targeting," DoD Dictionary, *supra* note 4, available at <http://www.dtic.mil/doctrine/jel/doddict/data/d/19552.html>.

56. DoD defines close air support as “[a]ir action by fixed- and rotary-wing aircraft against hostile targets that are in close proximity to friendly forces and that require detailed integration of each air mission with the fire and movement of those forces. Also called CAS.” See “close air support,” DoD Dictionary, *supra* note 4, available at <http://www.dtic.mil/doctrine/jel/doddickt/data/c/8823.html>.

57. Monahan, *supra* note 41.

58. Shanker, *supra* note 53.

59. *Id.*

60. HUMAN RIGHTS WATCH, “TROOPS IN CONTACT”: AIRSTRIKES AND CIVILIAN DEATHS IN AFGHANISTAN 4 (2008), available at <http://hrw.org/reports/2008/afghanistan0908/afghanistan0908web.pdf> (italics added).

61. Anna Mulrine, *Lawyers Review Airstrike Plans*, USNEWS.COM, May 29, 2008, <http://www.usnews.com/articles/news/world/2008/05/29/lawyers-review-airstrike-plans.html>.

62. In 2008, twenty-two judge advocates deployed to support air and space operations centers. See *JAG Corps Personnel in the Operational Setting*, THE REPORTER: THE YEAR IN REVIEW 118 (2008), available at <http://www.afjag.af.mil/shared/media/document/AFD-090317-021.pdf>.

63. P.W. SINGER, WIRED FOR WAR 391 (2009).

64. Rebecca Grant, *In Search of Lawful Targets*, AIR FORCE MAGAZINE, Feb. 2003, at 38, 40, available at <http://www.airforce-magazine.com/MagazineArchive/Documents/2003/February%202003/02targets03.pdf>.

65. SINGER, *supra* note 63, at 39.

66. William George Eckhardt, *Lawyering for Uncle Sam When He Draws His Sword*, 4 CHICAGO JOURNAL OF INTERNATIONAL LAW 431 (2003).

67. Charles J. Dunlap, Jr., *Lawfare: A Decisive Element of 21st-Century Conflicts?*, 54 JOINT FORCES QUARTERLY, 3rd Quarter 2009, at 34, available at http://www.ndu.edu/inss/Press/jfq_pages/editions/i54/12.pdf.

68. CORDESMAN, *supra* note 14.

69. Jim Garamone, *Gates Stresses Need to Curtail Civilian Casualties*, DEFENSELINK, June 12, 2008, <http://www.defenselink.mil/news/newsarticle.aspx?id=54760>.

70. See Press Conference, Secretary of Defense Robert Gates & Chairman, Joint Chiefs of Staff Michael Mullen, Leadership Changes in Afghanistan (transcript), DEFENSELINK, May 11, 2009, <http://www.defenselink.mil/transcripts/transcript.aspx?transcriptid=4424>.

71. Compare “intelligence preparation of the battlespace,” which DoD defines as an analytical methodology employed to reduce uncertainties concerning the enemy, environment, and terrain for all types of operations. Intelligence preparation of the battlespace builds an extensive database for each potential area in which a unit may be required to operate. The database is then analyzed in detail to determine the impact of the enemy, environment, and terrain on operations and presents it in graphic form. Intelligence preparation of the battlespace is a continuing process.

See “intelligence preparation of the battlespace,” DoD Dictionary, *supra* note 4, available at <http://www.dtic.mil/doctrine/jel/doddickt/data/i/8628.html>.

72. See, e.g., Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts art. 82, June 8, 1977, 1125 U.N.T.S. 3, reprinted in DOCUMENTS ON THE LAWS OF WAR 422 (Adam Roberts & Richard Guelff eds., 3d ed. 2000), available at <http://www.unhchr.ch/html/menu3/b/93.html> (“Parties to the conflict in time of armed conflict, shall ensure that legal advisers are available”) [hereinafter Additional Protocol I].

73. Anna Mulrine, *Targeting the Enemy: A Look Inside the Air Force's Control Center for Iraq and Afghanistan*, U.S. NEWS & WORLD REPORT, June 9, 2008, at 26, available at <http://www.usnews.com/articles/news/world/2008/05/29/a-look-inside-the-air-forces-control-center-for-iraq-and-afghanistan.html>.

74. See generally "MCADRE 004 Joint Force Air Component Commander Course," Air University Catalogue Academic Year 2008–2009, Oct. 1, 2008, at 168, available at http://www.au.af.mil/au/cf/au_catalog_2008_09/AU_Catalog_Print_Version_1_Oct_08.pdf.

75. See, e.g., Eric Schmitt & Thom Shanker, *U.S. Report Finds Errors in Afghan Airstrikes*, NEW YORK TIMES, June 3, 2009, at A1, available at <http://www.nytimes.com/2009/06/03/world/asia/03military.html>.

76. Barbara Opall-Rome, *Israelis Document Everything to Justify Strikes*, DEFENSE NEWS, Jan. 12, 2009, at 8.

77. Thomas Darnstadt & Christopher Schult, *Did Israel Commit War Crimes in Gaza?*, SPIEGELONLINE INTERNATIONAL, Jan. 26, 2009, <http://www.spiegel.de/international/world/0,1518,603508,00.html>.

78. This can be done in an effective way. See, e.g., Defense Intelligence Agency, *Saddam's Use of Human Shields and Deceptive Sanctuaries: A Special Briefing for the Pentagon Press Corps*, DEFENSELINK, Feb. 2003, <http://www.defenselink.mil/dodcmssshare/briefingslide/110/030226-D-9085M-020.pdf>.

79. See, e.g., Article 83 of Additional Protocol I to the 1949 Geneva Conventions. It provides:

The High Contracting Parties undertake, in time of peace as in time of armed conflict, to disseminate the Conventions and this Protocol as widely as possible in their respective countries and, in particular, to include the study thereof in their programmes of military instruction and to encourage the study thereof by the civilian population, so that those instruments may become known to the armed forces and to the civilian population.

Additional Protocol I, *supra* note 72.

80. Compare Pamela Constable, *NATO Hopes to Undercut Taliban With 'Surge' of Projects*, WASHINGTON POST, Sept. 27, 2008, at A12, available at http://www.washingtonpost.com/wp-dyn/content/article/2008/09/26/AR2008092603452_pf.html (quoting Brigadier General Richard Blanchette, chief spokesman for NATO forces: "[i]f there is the likelihood of even one civilian casualty, we will not strike, not even if we think Osama bin Laden is down there").

81. See, e.g., Additional Protocol I, *supra* note 72, art. 53.

82. Jim Garamone, *Taliban Forced Civilians to Remain in Targeted Buildings, Petraeus Says*, DEFENSELINK, May 10, 2009, <http://www.defenselink.mil/news/newsarticle.aspx?id=54272>.

83. Compare Constable, *supra* note 80 ("We need to weigh the effects and the proportionality of every action. If there is the likelihood of even one civilian casualty, we will not strike, not even if we think Osama bin Laden is down there," quoting Brigadier General Richard Blanchette, chief spokesman for NATO forces).

84. Consider the recent statement of US National Security Advisor General James Jones, USA (Ret.), during a recent interview:

Stephanopoulos: You all had a busy week this week. The heads of Afghanistan and Pakistan came here to the United States to meet with the president—to meet with the president's entire team. And you seemed to be on the same page, yet after the meetings, the president of Afghanistan, Hamid Karzai, said that all airstrikes—all American airstrikes in Afghanistan must end. Will the U.S. comply with that demand?

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Jones: Well, I think that we're going to take a look at trying to make sure that we correct those things we can correct, but certainly to tie the hands of our commanders and say we're not going to conduct airstrikes, it would be imprudent.

See This Week, Interview with National Security Adviser General James Jones and Senator John McCain (ABC News television broadcast May 10, 2009) (transcript available at <http://abcnews.go.com/ThisWeek/Story?id=7549797&page=1>).

85. CENTER FOR PROFESSIONAL RESPONSIBILITY, AMERICAN BAR ASSOCIATION, MODEL RULES OF PROFESSIONAL CONDUCT Rule 2.1 (2007).

86. Michael Short, *Operation Allied Force from the Perspective of the NATO Air Commander*, in *LEGAL AND ETHICAL LESSONS OF NATO'S KOSOVO CAMPAIGN* 19, 26 (Andru E. Wall ed., 2002) (Vol. 78, US Naval War College International Law Studies).

87. JAGs are entitled by law to communicate directly with their JAG superiors, to include the Judge Advocate General. *See* 10 U.S.C. § 806 (2000).

88. Valor is one of the guiding principles of the Air Force JAG Corps. *See* Department of the Air Force, *JAG Corps Values and Vision 2* (2006), available at <http://www.afjag.af.mil/shared/media/document/AFD-080502-052.pdf>.

89. MAX HASTINGS, *WARRIORS: PORTRAITS FROM THE BATTLEFIELD* xvii (2005) ("Physical bravery is found more often than the spiritual variety. Moral courage is rare . . .").

90. Tom Brokaw, *Gen. Sanchez: Abu Ghraib 'clearly a defeat'*, MSNBC.COM, June 30, 2004, <http://www.msnbc.msn.com/id/5333895/>.

91. *See, e.g.*, Robert Burns, *Analysis: US must limit Afghan civilian deaths*, WASHINGTONPOST.COM, June 13, 2009, <http://www.washingtonpost.com/wp-dyn/content/article/2009/06/13/AR2009061300246.html>.

92. Some experts believe this quote is apocryphal. *See* CHURCHILL BY HIMSELF: THE DEFINITIVE COLLECTION OF QUOTATIONS 578 (Richard Langworth ed., 2008).