
UNMANNED COMBAT AIRCRAFT SYSTEMS AND INTERNATIONAL HUMANITARIAN LAW: SIMPLIFYING THE OFT BENIGHTED DEBATE

Michael N. Schmitt*

I. INTRODUCTION	595
II. UCAS AND THEIR OPERATION	597
III. INTERNATIONAL HUMANITARIAN LAW AND UCAS OPERATIONS	601
A. <i>Applicability of International Law</i>	601
B. <i>What and Who May be Targeted by a UCAS</i>	609
C. <i>Restrictions on UCAS Operations</i>	614
D. <i>Who May Conduct UCAS Operations?</i>	617
IV. CONCLUSION	618

I. INTRODUCTION

As noted by Human Rights Watch, “[t]he deliberate use of lethal force against a specific target can be legal in operations against a combatant on a genuine battlefield, or in a law enforcement situation in which there is an imminent threat to life and there is no reasonable alternative.”¹ Nevertheless, the United States’ growing reliance on unmanned combat aircraft systems (UCAS)² to support conventional operations like those in Iraq, Afghanistan and Libya, or to conduct counter-terrorism/insurgent strikes in locations such as Pakistan and Yemen, has fueled an acrimoni-

* Chairman, International Law Department, United States Naval War College. The views expressed herein are solely those of the author in his personal capacity and do not necessarily represent those of the United States Navy or Department of Defense.

¹ Letter from Kenneth Roth, Exec. Dir., Human Rights Watch, to Barack Obama, President, United States of America (Dec. 16, 2011), *available at* <http://www.hrw.org/news/2011/12/16/letter-president-obama-targeted-killings-us-government>.

² An unmanned aircraft system is defined as “that system whose components include the necessary equipment, network, and personnel to control an unmanned aircraft.” DEP’T OF DEF., *DICTIONARY OF MILITARY AND ASSOCIATED TERMS* 351 (2012) [hereinafter *DEP’T OF DEF. DICTIONARY*]. The “C” in the acronym designates the armed version. The aircraft itself is also known as an unmanned aircraft, drone or unmanned aerial vehicle.

ous legal debate.³ It is a debate that has too often proven vacuous and emotive.⁴

In fact, there are very few legal issues unique to UCAS. For instance, the valid controversy over whether it is lawful to cross into Pakistan in order to strike al Qaeda or Taliban fighters has little to do with the use of UCAS, since the same laws would apply to piloted aircraft or Special Forces teams.⁵ The legal issue is the same: Use of force in non-consensual border crossing and not the platform or force employed to accomplish it. Similarly, there is disagreement among legal experts as to whether counter-terrorist operations mounted outside the context of an ongoing, armed conflict should be considered international armed conflict, non-international armed conflict or armed conflict at all. The ques-

³ For instance, in 2011 there were twenty-nine UCAS strikes against the Taliban, four against al Qaeda, five against Haqqani and thirty-three against “unclear/other” targets in Pakistan. New American Foundation, *The Year of the Drone* (Feb. 4, 2012), <http://counterterrorism.newamerica.net/drones>. Current Department of Defense plans are to dramatically increase reliance on UCAS and other drones. Adam Entous et al., *More Drones, Fewer Troops*, WALL ST. J., Jan. 27, 2012, at 10. For typical discussion of the subject in the legal context, see *Rise of the Drones: Unmanned Systems and the Future of War Before the Subcomm. on Nat'l Sec. & Foreign Aff. of the H. Comm. on Oversight & Gov't Reform*, 111th Cong. (2010) (written testimony of Kenneth Anderson); *Rise of the Drones II: Examining the Legality of Unmanned Targeting Before the Subcomm. on Nat'l Sec. & Foreign Aff. of the H. Comm. on Oversight & Gov't Reform*, 111th Cong. (2010) (statements of Kenneth Anderson and Mary Ellen O'Connell).

⁴ To cite one example, during a panel discussion for the conference *Ten Years In: Appraising the International Law of the “Long War” in Afghanistan and Pakistan*, held at Boston University School of Law on October 14, 2011, in which this author participated, a well-known panelist characterized civilian casualties caused by UCAS strikes as a violation of the self-defense principle of proportionality. In fact, that principle, resident in the *jus ad bellum*, deals with the degree of force that a state may use in self-defense and not the collateral damage that results from the defensive operations. Collateral damage is, instead, a matter of the *jus in bello* rule of proportionality, which assesses the lawfulness of expected collateral damage in light of the military advantage anticipated to result from an operation. With purported experts making such fundamental errors of law, it is little surprise that the public has become confused and the issue has become politicized.

⁵ The choice of platform would be somewhat relevant as to the extent of permissible intrusion into sovereign territory. This author takes the position that that in light of the territorial state's right to sovereignty, any non-consensual intrusion into its territory justified on the basis of the right of self-defense must be the least intrusive method reasonably possible in light of the circumstances. Thus, for instance, if a surgical UCAS strike is feasible, this option would be required as a matter of law instead of, for example, a significant ground incursion. On the author's approach to cross border operations, see Michael N. Schmitt, *Responding to Transnational Terrorism Under the Jus ad Bellum: A Normative Framework*, in INTERNATIONAL LAW AND ARMED CONFLICT: EXPLORING THE FAULTLINES 157 (Michael N. Schmitt & Jelena Pejic eds., 2007).

tion is significant, for its answer will determine which body of law to apply to UCAS cross-border operations. The fact that a UCAS is the means of attack has no bearing on the determination. Furthermore, controversial issues raised by targeted killing operations, such as the legal status of the target or the individual conducting the strike, have little to do with the fact that a UCAS was employed instead of other means, such as cyber attacks or car bombs.⁶

Be that as it may, global law and legal attention has focused on UCAS operations. This article attempts to identify, explain and demystify the key international humanitarian legal issues that should be considered by those charged with rendering *ex ante* advice or making *ex post facto* assessments about UCAS operations. International humanitarian law, also labeled the *jus in bello*, law of war and law of armed conflict, concerns itself with how hostilities must be conducted during an armed conflict, as well as the legal protection accorded to certain categories of persons and objects. The article does not discuss the *jus ad bellum*, a separate component of the law of conflict dealing with the issue of when a state may resort to the use of force as an instrument of their national policy, such as in situations of self-defense or pursuant to a United Nations Security Council authorization or mandate.

II. UCAS AND THEIR OPERATION

Much of the confusion surrounding UCAS operations derives from a failure to understand the technical capabilities of weapons system and their employment methodology. Reliance on unmanned aerial systems in combat operations is a relatively new phenomenon. Initially, they were primarily used for conducting intelligence, surveillance and reconnaissance (ISR) missions,⁷ typically by transmitting real-time imagery back to tactical operations centers that would use it for intelligence purposes to facilitate attacks by ground forces or manned aircraft. Today, an array of

⁶ Harold Koh has correctly noted that:

The rules that govern targeting do not turn on the type of weapon system used, and there is no prohibition under the laws of war on the use of technologically advanced weapons systems in armed conflict – such as pilotless aircraft or so-called smart bombs – so long as they are employed in conformity with applicable laws of war. Indeed, using such advanced technologies can ensure both that the best intelligence is available for planning operations, and that civilian casualties are minimized in carrying out such operations.

Harold Hongju Koh, Legal Advisor to the State Dept., Keynote Speech at the Annual Meeting of the American Society of International Law (Mar. 24, 2010), *available at* <http://harpers.org/media/image/blogs/misc/kohspeech.pdf>.

⁷ “Intelligence, surveillance and reconnaissance” is defined 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.” DEPT OF DEF. DICTIONARY, *supra* note 2, at 166.

drones continues to be employed for ISR purposes. They range from small, man-portable systems carried by troops in the field to large, high altitude platforms with sophisticated sensors.⁸

UCAS were first used to attack a target in 2001 during operations in Afghanistan.⁹ Their use captured international attention in 2002 when a CIA-operated Predator UCAS attacked a convoy carrying al Qaeda operative Ali Qaed Senyan al-Harithi, who was reportedly involved in the 2000 bombing of the USS Cole in Yemen.¹⁰ Today, they are central to many operations conducted by advanced militaries, as illustrated during Operation Unified Protector in Libya last year.¹¹

The United States fields two armed systems, the MQ-1B Predator and the MQ-9A Reaper. The Predator is used far more often.¹² A pilot and a sensor/weapons system operator crew the system remotely and can be located in-theater or far from it. The Predator is smaller than the Reaper, flies at a lower altitude and usually supports ground troops engaged in combat, strikes predetermined targets, strikes targets of opportunity or conducts armed reconnaissance. With a range of nearly 700 nautical miles, it flies at approximately eighty miles per hour. Most importantly,

⁸ For instance, the Wasp III weighs only one pound, has a wingspan of just over two feet and is man-portable. *Fact Sheet: Wasp III*, U.S. AIR FORCE (Sept. 4, 2012), <http://www.af.mil/information/factsheets/factsheet.asp?id=10469>. By contrast, the Global Hawk weighs over seven tons, has a wingspan of 131 feet and enjoys a range of more than 8,500 nautical miles. *Fact Sheet: RQ-4 Global Hawk*, U.S. AIR FORCE (Jan. 27, 2012), <http://www.af.mil/information/factsheets/factsheet.asp?id=13225>.

⁹ Interestingly, the CIA, not the Air Force, first used the Predator to conduct attacks. Judith Miller & Eric Schmitt, *Ugly Duckling Turns Out to Be Formidable In the Air*, N. Y. TIMES, Nov. 23, 2001, <http://www.nytimes.com/2001/11/23/international/23PRED.html?pagewanted=all>.

¹⁰ Craig Hoyle & Andrew Koch, *Yemen Drone Strike: Just the Start?*, JANE'S DEF. WKLY., Nov. 13, 2002, at 3.

¹¹ See, e.g., *Operation Unified Protector Final Mission Stats*, NORTH ATLANTIC TREATY ORGANIZATION (Nov. 2, 2011), http://www.europarl.europa.eu/meetdocs/2009_2014/documents/sede/dv/sede200312factsheetunifiedprotector_SEDE200312factsheetunifiedprotector_en.pdf

¹² As of Sept. 30, 2010, the U.S. Air Force fielded 174 Predators and fifty-four Reapers. *The Air Force in Facts and Figures*, AIR FORCE MAG., May 2011, at 38, 48. Information on the Predator and Reaper, discussed *infra*, is drawn from Susan H.H. Young, *Gallery of USAF Weapons*, AIR FORCE MAG., May 2011, at 78, 85-86; *Fact Sheet: MQ-1B Predator*, U.S. AIR FORCE (Jan. 5, 2012), <http://www.af.mil/information/factsheets/factsheet.asp?id=122>; *Fact Sheet: MQ-9 Reaper* U.S. AIR FORCE (Jan. 5, 2012), <http://www.af.mil/information/factsheets/factsheet.asp?fsID=6405>; and personal knowledge of the author and other members of the Naval War College's International Law Department. The discussion in the remainder of this section is based on personal knowledge of the author and other members of the Naval War College's International Law Department. Under military naming conventions, "M" signifies the system is armed while "Q" signifies that it is unmanned.

the Predator has the ability to stay aloft for forty hours, although a typical mission typically lasts twenty-four hours.

Predators are generally armed with two AGM-114 Hellfire missiles which home in on a laser beam directed at the target from the Predator itself, other airborne target designators or ground forces.¹³ The weapon can be launched five miles from the target. Originally designed for anti-vehicle attacks, the Hellfire has a very limited effects radius since its explosive force is designed to penetrate forward into the target it is attacking. This factor hindered its use against individuals, who often escaped harm when located only a short distance from the point of impact. In response, an anti-personnel version of the weapon is now available with enhanced effects radius.

The Predator is equipped with a highly advanced sensor suite. Its Multispectral Targeting System (MTS) has infrared and color/monochrome TV (including image-intensified TV) capabilities. The infrared sensor allows it to “see” at night and, to an extent, in poor weather by sensing heat emissions. Certain classified sensor systems that the Predator may also carry dramatically enhance its abilities. Combined, the sensors generate imagery and other data that is available, depending on the circumstances, to its crew, troops on the ground, operations and intelligence centers, and commanders in “real time” or as events unfold; users can even switch back and forth between the various sources of information.

The Reaper, a much larger platform, has a loiter capability of thirty hours, a range of approximately 1000 miles and a speed of 230 miles per hour. Like the Predator, it carries a version of the MTS and is equipped with a variety of highly sensitive sensors. However, its weapons suite is more varied. In addition to four Hellfire missiles, it can be equipped with precision munitions, such as the GBU-38 JDAM and laser guided weapons like the GBU-12 Paveway II.¹⁴ Its weapons options give the Reaper greater flexibility than the Predator when engaging targets. For instance, the Paveway can be used when a high degree of accuracy is required and the JDAM results in a greater blast effect than a Hellfire. The Reaper’s two-person crew generally pilots the aircraft from outside the theater of operation.

Certain unique characteristics of these two weapons systems have humanitarian law implications, especially their ability to provide multi-source intelligence, which allows operators to identify and refine targets, employ precision munitions, loiter over potential targets for long periods and conduct an engagement without placing the crew at risk. Their novelty, however, should not be exaggerated. For instance, some critics note that the UCAS crew is not observing the target with the naked human eye during an attack (although ground forces may frequently control an

¹³ AGM is the designation for an air-to-ground missile.

¹⁴ A JDAM is a Joint Direct Attack Munition. It is essentially an unguided bomb to which a guidance system has been affixed. GBU designates a Guided Bomb Unit.

engagement). But the same is true of many weapons systems, such as manned aircraft that launch weapons beyond visual range (BVR) or employ over the horizon (OTH) missile systems. They, like the UCAS, often must rely on sensors to assist the operator in fixing and engaging the target. In addition, weapons employed on UCAS are identical to those carried by manned aircraft. It is fair to say, then, that UCAS presents no distinctive practical problems *vis-a-vis* compliance with international humanitarian law as compared to other existing military technologies. On the contrary, UCAS represent an option available to commanders that may further their ability to achieve humanitarian law objectives.

Of course, UCAS employment methodology depends on the operational context. For instance, approval authority for a UCAS attack in support of a counter-insurgency campaign intended to secure and maintain the support of the local population (as with attacks from manned systems) will typically be set at a higher level of command than during a classic military campaign in which decisive military defeat of the enemy is the primary objective. Similarly, the operational context will determine other matters, such as the weapons which may be used or where strikes may be conducted. In most cases, rules of engagement (ROE), special instructions, tactical directives or other forms of guidance address these and similar employment methodologies. They are the product of a combination of law, policy and operational factors. Of course reserving strike authority for higher levels does not release the crew of its own legal obligations, such as suspending an attack if it becomes apparent that, due to unforeseen circumstances, the engagement will violate the rule of proportionality.

U.S. operations in Afghanistan are illustrative. Given that the mission is primarily counter-insurgency, and the need to avoid civilian casualties is paramount, the employment environment is highly restrictive. For instance, although the UCAS crew has the technical capability to conduct attacks on their own, they are not authorized to do so. Rather, “strike authority” is exercised either by designated senior officers in operations centers (e.g., a NATO or Joint Special Operations Task Force Operations Center) or, in certain defensive situations, ground commanders engaged with enemy forces.¹⁵

For “deliberate targeting,” that is, preplanned attacks on fixed targets, a highly sophisticated “collateral damage estimate” is conducted to assess likely harm to civilians or other protected persons. The resulting number of expected non-combatant casualties from an attack, after taking all feasible steps to minimize harm to civilians, determines who may approve a strike. It should be noted, however, that the system of approval levels is a policy and operational construct, not a legal one. Judge advocates (mili-

¹⁵ Operations centers can monitor an engagement in real-time, thereby allowing rapid decision-making.

tary lawyers) are available to provide legal advice throughout the targeting cycle.

Most UCAS targeting in Afghanistan is not deliberate, but involves either a “time sensitive” or “target of opportunity” attack. A “time sensitive” attack refers to a situation in which a target must be struck in less time than available in the normal targeting cycle (typically forty-eight hours), perhaps because conducting a full, formal collateral damage estimate or seeking approval from the deliberate strike authority would take so much time that the opportunity to strike the target would be lost. For example, a senior insurgent located in a dwelling may leave, thereby making it infeasible to strike him using the deliberate targeting process. A “target of opportunity” attack usually involves a situation in which the operations center identifies a target based on real time imagery from a UCAS or other airborne platform or ground forces. With both “time sensitive” and “target of opportunity” attacks, the operations center can frequently draw on other sources of information, such as signals (e.g., a phone intercept) or human intelligence, to supplement imagery and other information gathered by the UCAS’ on-board sensors.

III. INTERNATIONAL HUMANITARIAN LAW AND UCAS OPERATIONS

A. *Applicability of International Law*

The applicability of international humanitarian law during UCAS operations depends on the existence of a state of “armed conflict.” Whether states are acting in self-defense, engaging in hostilities pursuant to a Security Council mandate, maintaining or reestablishing internal order or even acting unlawfully, international humanitarian law applies to all parties once the threshold of armed conflict is reached.¹⁶ Absent an armed conflict, their actions are governed by rules of conduct set forth in human rights law and any governing domestic norms; in other words, one can say a “law enforcement legal regime” applies.

Therefore, the first step in any assessment of UCAS operations should be to classify the conflict in which they are occurring. Since no definition of the term “armed conflict” appears in international humanitarian law, it is necessary to refer to its two categories in order to determine whether it applies at all to particular hostilities and, if so, identify the applicable aspects thereof.¹⁷ Those categories are international and non-international armed conflict.

¹⁶ In other words, the *jus ad bellum* and the *jus in bello* are separate and distinct legal regimes. The legality of a use of force under the *jus ad bellum* has no bearing whatsoever on the application of international humanitarian law.

¹⁷ For an excellent discussion of the characterization of armed conflicts, see Jelena Pejic, *Status of Armed Conflicts*, in *PERSPECTIVES ON THE ICRC STUDY ON CUSTOMARY INTERNATIONAL HUMANITARIAN LAW 77* (Elizabeth Wilmshurst & Susan Breau eds., 2007).

Common Article 2 to the four 1949 Geneva Conventions sets forth the traditional formula for international armed conflict: “all cases of declared war or . . . any other armed conflict which may arise between two or more of the High Contracting parties.”¹⁸ As restated by the International Criminal Tribunal for the Former Yugoslavia, an international armed conflict exists “whenever there is a resort to force between States.”¹⁹ Although the requisite intensity of hostilities is sometimes a point of contention, this author takes the position set forth by the International Committee of the Red Cross (ICRC) in its *Commentary* to the 1949 Geneva Conventions. Usefully simple, it provides that it “makes no difference how long the conflict lasts, how much slaughter takes place, or how numerous are the participating forces.”²⁰ So long as armed hostilities are underway between a State’s forces, or forces under the overall control of a State²¹ and those of another State, the law of international armed conflict governs associated UCAS operations.

An alternative approach extends the classification to hostilities between State and non-State actors in which a border has been crossed. In other words, the term “international” has geographical significance. This was the position taken by the Israeli Supreme Court in the 2006 *Targeted Killings* case. There, the Court opined that in addition to the archetypal situation of “State-on-State” conflict, the law of international armed conflict also applies to “one that crosses the borders of the state”

¹⁸ Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field art. 2, Aug. 12, 1949, 6 U.S.T. 3114, 75 U.N.T.S. 31 [hereinafter GC I]; Convention for the AMELIORATION OF THE CONDITION OF THE WOUNDED, SICK and Shipwrecked Members of Armed Forces at Sea, Aug. 12, 1949, art. 2, 6 U.S.T. 3217, 75 U.N.T.S. 85 [hereinafter GC II]; Geneva Convention Relative to the Treatment of Prisoners of War, art. 2, Aug. 12, 1949, 6 U.S.T. 3316, 75 U.N.T.S. 135 [hereinafter GC III]; Geneva Convention Relative to the Protection of Civilian Persons in Time of War, Aug. 12, 1949, 6 U.S.T. 3516, 75 U.N.T.S. 287 [hereinafter GC IV].

¹⁹ *Prosecutor v Tadić*, Case No. IT-94-1-AR72, Decision on Defence Motion for Interlocutory Appeal on Jurisdiction, para. 70 (Int’l Crim. Trib. for the Former Yugoslavia Appeals Chamber Oct. 2, 1995).

²⁰ YEARBOOK OF INTERNATIONAL HUMANITARIAN LAW 209 (T. McCormack & A. McDonald eds., 2003).

²¹ In *Tadić*, the International Criminal Tribunal for the Former Yugoslavia [hereinafter ICTY] Appeals Chamber, addressing the issue of classification, held that the authority of the Federal Republic of Yugoslavia over the Bosnia Serb armed groups “required by international law for considering the armed conflict to be international was overall control going beyond the mere financing and equipping of such forces and involving also participation in the planning and supervision of military operations.” *Prosecutor v Tadić*, Case No. IT-94-1-A, Judgment, Appeals Chamber, para. 145 (Int’l Crim. Trib. for the Former Yugoslavia Appeals Chamber Oct. 2, 1995).

and involves armed conflict with terrorist groups.²² This author takes the contrary position that such conflicts are, to the extent the criteria thereof are met, non-international in character. This appears to have now become the prevailing point of view.²³

During an international armed conflict, the bulk of international humanitarian law applies. This includes both treaty law applicable in such conflicts and the customary law of international armed conflict. With respect to UCAS strikes, the most determinative of these treaties is the 1977 Additional Protocol (I) to the Geneva Conventions, which codifies key principles and rules regarding the conduct of hostilities.²⁴ Certain treaty law provisions also reflect customary law. These undoubtedly include the 1907 Hague Regulations and the 1949 Geneva Conventions.²⁵ Additionally, most of the Additional Protocol I provisions that are relevant to UCAS attacks are generally considered to restate customary norms.²⁶

²² HCJ 796/02, Public Committee Against Torture in Israel et al. v. Government of Israel et al., para. 18 (Israel, High Court of Justice Dec. 13, 2006). In explaining its logic, the Court noted:

The fact that the terrorist organizations and their members do not act in the name of a state does not turn the struggle against them into a purely internal state conflict. Indeed, in today's reality, a terrorist organization is likely to have considerable military capabilities. At times they have military capabilities that exceed those of states. Confrontation with those dangers cannot be restricted within the state and its penal law. Confronting the dangers of terrorism constitutes a part of the international law dealing with armed conflicts of international character.

Id. at para. 21.

²³ The U.S. Supreme Court adopted this position in *Hamdan v Rumsfeld*, 548 U.S. 557, 631 (2006). The Justice Department has adopted it in litigation concerning hostilities with al Qaeda. *See, e.g.*, Opposition to Plaintiff's Motion for Preliminary Injunction and Memorandum in Support of Defendant's Motion to Dismiss at 32-34, *Al-Aulaqi v. Obama*, 727 F. Supp. 2d 1 (D.D.C. 2010) (No. 10 Civ. 1469).

²⁴ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts, arts. 48-58, June 8, 1977, 1125 U.N.T.S. 3 [hereinafter AP I].

²⁵ Convention Respecting the Laws and Customs of War on Land, annex, Oct. 18, 1907, 36 Stat. 2277, 207 Consol. T.S. 277 [hereinafter 1907 Hague Regulations]; GC I-IV, *supra* note 18. On the customary nature of the 1949 Geneva Conventions and the 1907 Hague Regulations, see *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, Advisory Opinion, 2004 I.C.J. 136, 172 (July 9); *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 1996 I.C.J. 226, paras. 79-83 (July 8); UN Security Council, Report of the Secretary-General Pursuant to Paragraph 2 of Security Council Resolution 808 (1993), U.N. GAOR, U.N. Doc. S/25704 (May 3, 1993), at para. 35; 1 TRIAL OF THE MAJOR WAR CRIMINALS AT THE INTERNATIONAL MILITARY TRIBUNAL 254 (1947), available at http://www.loc.gov/rr/frd/Military_Law/pdf/NT_Vol-I.pdf.

²⁶ AP I, *supra* note 24 (setting forth the key targeting rules). In an attempt to "capture" customary law, which is by nature unwritten, the ICRC engaged in a

The law of international armed conflict applies irrespective of location or legality of presence. Suggestions that zones of hostilities exist beyond which the law of international armed conflict does not apply are baseless. During an international armed conflict, hostilities may lawfully be conducted in the belligerent territory, international waters and international airspace. While conducting hostilities in neutral territory is usually unlawful absent unwillingness or inability of the neutral State to ensure its territory is not used for belligerent purposes by the enemy,²⁷ the law of international armed conflict would nevertheless govern any hostilities between the belligerents that might occur therein. Simply put, all UCAS operations during an international armed conflict are subject to the international humanitarian law operative in such conflicts.

Determining whether a non-international armed conflict exists is far less straightforward. This is unfortunate in light of the fact that most of today's UCAS strikes are conducted in other than international armed conflicts and that non-international armed conflicts far outnumber those that are international.

Common Article 3 to the Geneva Conventions, which reflects customary law, refers to non-international armed conflicts as those that are "not of an international character."²⁸ This clearly excludes conflicts between States; resultantly, non-international armed conflict includes State versus non-State actor conflicts and non-State actor versus non-State actor conflicts.²⁹ As noted, the majority position is that the phrase "not of an

decade long project resulting in the three-volume *Customary International Humanitarian Law* study. JEAN-MARIE HENCKAERTS & LOUISE DOSWALD-BECK, 1 CUSTOMARY INTERNATIONAL HUMANITARIAN LAW (2005), available at <http://www.icrc.org/eng/assets/files/other/customary-international-humanitarian-law-i-icrc-eng.pdf> [hereinafter CIHL]. Although some of its provisions are contested, those dealing with the law of attack are generally accepted.

²⁷ Under customary law, a belligerent State may enter neutral territory to put an end to its improper use by an opposing belligerent if the neutral fails to comply with its duty to ensure its territory is not improperly used by belligerents. DEP'T OF THE NAVY ET AL., NWP 1-14M, THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS para. 7.3 (2007); COMMENTARY ON THE HPCR MANUAL ON INTERNATIONAL LAW APPLICABLE TO AIR AND MISSILE WARFARE, Rule 168(b) and accompanying commentary (2010) [hereinafter AMW MANUAL]; SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA, Rule 22 and accompanying commentary (1995).

²⁸ "In the case of armed conflict not of an international character occurring in the territory of one of the High Contracting Parties, each Party to the conflict shall be bound to apply, as a minimum, the following provisions . . ." GC I-IV, *supra* note 18, art. 3.

²⁹ Common Article 3 excludes States because Common Article 2, which addresses *international* armed conflict, refers to "armed conflict which may arise between two or more of the High Contracting Parties." GC I-IV, *supra* note 18, art. 2.

international character” does not exclude conflicts involving parties that cross borders, although this issue remains unsettled.

To qualify as a non-international armed conflict, two criteria must be met.³⁰ The first is “organization,” which derives from Common Article 3’s reference to a “Party” to the conflict. The term is generally understood to denote States or groups with a certain degree of organization and command structure. The organization criterion would rule out individual terrorists unaffiliated with a group, as well as groups of individuals acting spontaneously (i.e.: a riot) or otherwise failing to exhibit a meaningful degree of organization (i.e.: organization sufficient to conduct coordinated actions). Since hostilities between the State and such individuals or groups do not qualify as a non-international armed conflict, human rights law and applicable domestic law, not international humanitarian law, would govern UCAS operations against such individuals.

The second criterion is intensity, which requires a particular level of “violence.” The ICTY’s Appeals Chamber has noted that an internal armed conflict involves “protracted armed violence between governmental authorities and organized armed groups or between such groups within a State.”³¹ The Statute of the International Criminal Court has likewise embraced the protracted requirement, together with that of organization, to exclude “situations of internal disturbances and tensions, such as riots, isolated and sporadic acts of violence or other acts of a similar nature.”³² Factors that have been recognized as relevant for classifying a conflict as non-international, in distinction to a purely law enforcement situation, include the geographical extent of the fighting, its intensity, the size of the forces involved and the weapons employed by the Parties.³³

³⁰ These criteria are from the analysis in Tadić, Decision on Defence Motion, *supra* note 19, para. 70. This standard is widely accepted.

³¹ *Id.*

³² Rome Statute of the International Criminal Court, art. 8, sec. 2(f), July 17, 1998, 2187 U.N.T.S. 90 [hereinafter ICC Statute]. See also Additional Protocol II, Article 1.2, which likewise excludes such situations. Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts, art. 1.2, June 8, 1977, 1125 U.N.T.S. 609 [hereinafter AP II]. Whereas Additional Protocol II only applies to higher-level non-international conflicts to which that instrument refers, the ICC Statute encompasses all non-international armed conflicts. This further supports the applicability of the organization and intensity criteria beyond Additional Protocol II conflicts.

³³ See discussion in Prosecutor v. Haradinaj, Case No. IT-04-84-T, Judgment, paras. 39-49, (Int’l Trib. for the Former Yugoslavia, Trial Chamber April 3, 2008). See also Prosecutor v. Limaj, Case No. IT-03-66-T, Judgment, para 90 (Int’l Trib. for the Former Yugoslavia, Trial Chamber Nov. 30, 2005). Somewhat questionably, in *Abella*, the Inter-American Commission on Human Rights characterized a thirty hour conflict between dissident armed forces and the Argentinean military as a non-

The 1977 Additional Protocol II to the 1949 Geneva Conventions is the only treaty to exclusively address non-international armed conflict. For this protocol to apply, the organized armed group in question must be under “responsible command” and “exercise such control over a part of its territory as to enable them to carry out sustained and concerted military operations and to implement this Protocol.”³⁴ This threshold is only applicable to non-international armed conflicts in which a Party to the instrument is involved. However, with regard to the law governing UCAS operations, specifically the law of targeting, it is widely accepted that there is no practical or legal distinction between the norms governing “Common Article 3” and “AP II” non-international armed conflicts.

Treaty law applicable to non-international armed conflicts includes, for Parties thereto, Common Article 3 (which is reflective of customary law), Additional Protocol II, the 1977 Ottawa Convention on Anti-Personnel Mines,³⁵ the 1999 Second Protocol to the Hague Cultural Property Convention³⁶ and the 2008 Dublin Convention on Cluster Munitions.³⁷ In 2001, an amendment to the Convention on Certain Conventional Weapons was adopted extending its protocols to non-international armed conflict.³⁸ Although current UCAS operations implicate none of the aforementioned treaties, it is imaginable that they might affect future operations. For instance, UCAS could readily be adapted to the air-delivery of anti-personnel mines or cluster munitions. They could also be employed to target cultural property. But most law governing UCAS operations during a non-international armed conflict is customary in nature, especially the law regarding targeting.³⁹ Since these norms gener-

international armed conflict. *Abella v. Argentina*, Case No 11.137, Inter-Am. Comm’n H.R., Report No. 55/97, OEA/Ser.L/V/II.98, doc. 6 rev. ¶ 156 (1997).

³⁴ AP II, *supra* note 32, at 611.

³⁵ Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, art. 1, Sept. 18, 1997, 36 I.L.M. 1507.

³⁶ Second Protocol to the Hague Convention of 1954 for the Protection of Cultural Property in the Event of Armed Conflict, art. 2, Mar. 26, 1999, 2253 U.N.T.S. 212.

³⁷ Convention on Cluster Munitions, art. 1(1), May 30, 2008, 48 I.L.M. 357.

³⁸ SECOND REVIEW CONFERENCE OF THE STATES PARTIES TO THE CONVENTION ON PROHIBITIONS OR RESTRICTIONS ON THE USE OF CERTAIN CONVENTIONAL WEAPONS WHICH MAY BE DEEMED TO BE EXCESSIVELY INJURIOUS OR TO HAVE INDISCRIMINATE EFFECT, Geneva, Dec. 11-21, 2001, *Report of the Second Review Conference*, U.N. Doc. CCW/CONF.II/2 (Dec. 21, 2001).

³⁹ Commentary to the HPCR MANUAL ON THE INTERNATIONAL LAW APPLICABLE TO AIR AND MISSILE WARFARE addresses norms applicable to UCAS in both international and non-international armed conflict. *See supra* note 27, at 54, 135 esp. Rules 1(dd) and 39. The other major efforts to capture the customary international humanitarian law of non-international armed conflict are the *San Remo Manual on the Law of Non-International Armed Conflict*, MICHAEL N. SCHMITT, CHARLES H.B. GARRAWAY & YORAM DINSTEIN, THE MANUAL ON THE LAW OF NON-

ally mirror those applicable in international armed conflict, the discussion that follows applies equally in both types of armed conflict.

In non-international armed conflict, the zones of hostilities issue is more problematic than in international armed conflict. First, as noted, certain States and commentators take the position that the conflict must take place exclusively within the country concerned. Once the conflict spills over borders, it is either international in nature or not armed conflict. In the latter case, international humanitarian law would be inapplicable as a matter of law.

Along the same lines, it is sometimes suggested that international humanitarian law's zone of applicability depends on the existence of hostilities that meet the intensity threshold. By this approach, a UCAS could not lawfully target a member of an organized armed group if he or she is located in a peaceful area of the country that was experiencing little or no fighting; only standard law enforcement measures could be used against that individual. Similarly, it would be unlawful to strike such an individual in another country from which they were not operating.

As with international armed conflict, one author takes the view that targetability depends on status rather than location.⁴⁰ So long as the individual in question is a "fighter" in a non-international armed conflict,⁴¹ no prohibition exists in international humanitarian law on targeting him or her. Moreover, that body of law would govern the conduct of the engagement with regard to such matters as collateral damage. Of course, certain legal restrictions might apply depending on the circumstances. For instance, and as with neutral States in an international armed conflict, operations may be conducted outside a State's territory only when the "sanctuary State" fails to comply, or cannot comply, with its duty to ensure its territory not be used for purposes harmful to other States.⁴²

INTERNATIONAL ARMED CONFLICT WITH COMMENTARY (2006) [hereinafter NIAC MANUAL], and the ICRC's *Customary International Humanitarian Law* study. Although the international humanitarian law community has accepted neither manual in its entirety, the manuals do serve as useful guides.

⁴⁰ This is the legal position of the United States, as noted by Ashley Deeks, a former State Department attorney. Ashley Deeks, *Pakistan's Sovereignty and the Killing of Osama Bin Laden*, ASIL INSIGHTS, May, 5, 2011, <http://www.asil.org/insights110505.cfm>. On the issue, see also Robert Chesney, *Who May Be Killed? Anwar Al-Awlaki as a Case Study in the International Legal Regulation of Lethal Force*, 13 Y.B. OF INT'L HUMANITARIAN L. 3 (2011).

⁴¹ The term "fighter" is used in lieu of "combatant" because the notion of combatancy does not exist in non-international armed conflict. See NIAC MANUAL, *supra* note 39.

⁴² This well-recognized duty as recognized, *inter alia*, in the first judgment of the International Court of Justice. *Corfu Channel (UK v. Alb.)*, 1949 I.C.J. 4, 22 (Apr. 9); See also *Trail Smelter (U.S. v. Can.)*, 3 R.I.A.A. 1911 (1941) (finding a State owes at all times a duty to protect other States against injurious actions cause by individuals from within its jurisdiction).

Otherwise, conducting UCAS attacks there, although in compliance with international humanitarian law, would violate the sovereignty of the State in which they took place.

To summarize, when UCAS operations occur as part of an ongoing conventional conflict, the legal regime applicable to the conflict in question governs them; therefore, the key to identifying the applicable law (law of international armed conflict, law of non-international armed conflict or human rights and domestic law) is determining the appropriate classification of the hostilities. To illustrate, during the initial phases of Operation Iraqi Freedom, the applicable law was that governing international armed conflict, since the United States was engaged in such a conflict with Iraq. Once a new Iraqi government was formed and fully recognized following the defeat of Saddam Hussein's forces, the conflict became non-international in nature. From that point, and to extent they supported operations against the new regime's opponents, UCAS operations were subject to the law of non-international armed conflict. Similarly, current UCAS operations against the Taliban are subject to the law of non-international armed conflict in that US forces are acting in support of the Karzai government and therefore assume the character of its conflict with the Taliban.

The classification of UCAS operations directed against transnational terrorists, such as those taking place in Pakistan, Yemen and elsewhere, remains a matter of disagreement among international law experts.⁴³ Some deem them international since they transcend borders. Others see them as non-international in that States are not involved on opposing sides of the conflict. Still others argue they are not armed conflict at all, and instead are subject to a law enforcement regime. The debate is crucial to topics like detention, in which the applicable law differs significantly depending on classification. In the case of UCAS operations, they key differences lie between the two forms of armed conflict, on the one hand, and the law enforcement regime, on the other.

Since UCAS strikes are being directed against an array of insurgent groups, precision is required in making the relevant classification determinations. Consider the issue of organization as it bears on UCAS strikes against al Qaeda affiliated groups. The ICRC Commentary to Additional Protocol I notes that:

The term 'organized' is obviously rather flexible, as there are different degrees of organization. In the first place, this should be interpreted in the sense that the fighting should have a collective character, be conducted under proper control and according to rules,

⁴³ See *Targeting Operations with Drone Technology: Humanitarian Law Implications*, Background Note for the American Society of International Law Annual Meeting, Human Rights Institute, Columbia Law School March 25, 2011, at 4 - 8 (discussing the various positions).

as opposed to individuals operating in isolation with no corresponding preparation or training.⁴⁴

Clearly, attacks against al Qaeda's core take place as part of a non-international armed conflict with that particular organized armed group. The same applies to strikes against groups that act on the instructions of al Qaeda, like Somalia's al Shabaab.⁴⁵ But operations against other terrorist groups that might only be inspired by al Qaeda's actions or ideology would not be encompassed within that conflict. Instead, their activities would have to separately qualify as a non-international armed conflict, meeting both the organization and intensity criteria. In the event they did not, human rights and applicable domestic law, not international humanitarian law, would govern UCAS operations against them.

B. *What and Who May be Targeted by a UCAS*

The provisions of international humanitarian law governing "attacks" apply equally to UCAS strikes, although the use of a UCAS may affect how a particular rule is implemented. Three aspects of targeting law are central to the execution of attacks: lawful targets, precautions and proportionality. Each will be examined below. Other rules of international humanitarian law, such as weapons law, also apply, but they do not factor significantly into discussions regarding the legality of UCAS operations.⁴⁶ As noted by the UN Special Rapporteur on Extrajudicial Executions, "a missile fired from a drone is no different from any other commonly used weapon, including a gun fired by a soldier or a helicopter or gunship that

⁴⁴ INTERNATIONAL COMMITTEE OF THE RED CROSS, COMMENTARY ON THE ADDITIONAL PROTOCOLS OF 8 JUNE 1977 TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949 (Yves Sandoz et al. eds., 1987), at 512, ¶1672 [hereinafter AP COMMENTARY].

⁴⁵ Following the death of Osama bin Laden, the group issued the following statement:

In an initiative and in [a demonstration of] loyalty, love and support amongst the mujahideen in the world, the Shabaab al-Mujahideen Movement announces the renewal of its allegiance to the Emir of Qaedat al-Jihad. . . . The mujahideen in Somalia confirm to the mujahideen in al-Qaeda: 'You are more experienced than us and you have better views than us in the future of the jihad of our Ummah against the enemy, as we experienced from you before. We await your instructions and we will act according to what you see in the coming stage to be in the interests of jihad and the Muslim Ummah.

Bill Roggio, *Somalia's Shabaab Vows Allegiance to New al Qaeda Emir Zawahiri*, THE LONG WAR JOURNAL (June 17, 2011), http://www.longwarjournal.org/archives/2011/06/somalias_shabaab_vow.php.

⁴⁶ In the air warfare environment, these would especially include the Protocol on Prohibitions or Restrictions on the Use of Incendiary Weapons, art. 1, Oct. 10, 1980, 1342 U.N.T.S. 171 [hereinafter Protocol III], and the Convention on Cluster Munitions, *supra* note 37.

fires missiles. The critical legal question is the same for each weapon: whether its specific use complies with IHL.”⁴⁷

The first hurdle to overcome in a proposed UCAS strike is the status of the target. Article 48 of Additional Protocol I sets forth the principle of distinction, one that reflects customary international humanitarian law to such an extent that the International Court of Justice has labelled it one of two “cardinal” principles of that body of law.⁴⁸ It provides that “the Parties to the conflict shall at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives.”⁴⁹ No difference exists between UCAS and other operations with regard to compliance with this foundational rule of international humanitarian law.

Objects may be attacked when they qualify as “military objectives.” Pursuant to Article 52.2 of Additional Protocol I, “military objectives are limited to those objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.”⁵⁰ The most important point with regard to UCAS attacks, at least in contemporary operations, is that objects such as buildings, vehicles, bridges and communications systems that are originally civilian in nature become lawful targets once the enemy adapts them, in whole or in part, to military purposes. As military objectives, they are not factored as collateral damage into any precautions in attack or proportionality assessments, discussed *infra*, during an attack against individuals.

The Article 52.2 definition is universally accepted as an accurate restatement of the customary norm in both international and non-international conflict. However, some disagreement does exist as to its interpretation. All States agree that “war-fighting” and “war-supporting” entities, like a military headquarters and a civilian munitions factory respectively, are lawful targets. The United States would also include “war-sustaining” objects, especially “[e]conomic objects of the enemy that indirectly but effectively support and sustain the enemy’s war-fighting capability.”⁵¹ A contemporary example would be oil export facilities of a country that relies on the exports to finance its war effort. While UCAS platforms are not currently used for strikes against this category of

⁴⁷ Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions, *Study on Targeted Killings*, ¶ 79, Hum. Rts. Couns., U.N. Doc. A/HRC/14/24/Add.6 (May 28, 2010) (by Philip Alston) [hereinafter Alston Report].

⁴⁸ Legality of the Threat or Use of Nuclear Weapons, *supra* note 25, at ¶ 78.

⁴⁹ AP I, *supra* note 24, art. 48.

⁵⁰ *Id.* at art. 52.2. Even non-Party States adopt the definition. *See, e.g.*, NWP 1-14M, *supra* note 27, ¶ 8.2.

⁵¹ *Id.* at ¶¶ 8.2, 8.2.5.

targets, the weapons capabilities and other features of the Reaper render it a suitable platform for performing future counter-war-supporting missions.

Most current UCAS strikes are against personnel. In an international armed conflict, two categories of individuals may be lawfully attacked: members of the armed forces and civilians who are directly participating in the hostilities.⁵² For purposes of targeting, as distinct from detention, members of the armed forces include both individuals who are members of a State's regular armed forces and members of any organized armed group participating in the conflict on behalf of a Party to the conflict.⁵³ All others are civilians, who may only be attacked for such time as they are directly participating in the hostilities,⁵⁴ such as an individual paid by an insurgent group on a piecework basis for planting improvised explosive devices.

In non-international armed conflict, there are three categories of targetable individuals: "dissident armed forces" (that is, those individuals from the regular armed forces who are in revolt),⁵⁵ organized armed groups and individuals directly participating in hostilities. The latter two categories of targetable individuals are the same in both non-international armed conflicts and international armed conflicts.

There are several ongoing debates about these categories. First, the ICRC's *Interpretive Guidance on the Notion of Direct Participation in Hostilities* takes the position that only those members of an organized armed group who have a "continuous combat function" are always targetable, that is, they are targetable on the same terms as members of

⁵² See AP I, *supra* note 24, at arts. 51.1, 51.3. The rule on direct participation (51.3) provides that "[c]ivilians shall enjoy the protection afforded by this Section (protection from attack), unless and for such time as they take a direct part in hostilities." For non-international armed conflict, see AP II, *supra* note 32, at art. 13.3. Note that members of a *levee en masse* are not treated as civilians for targeting purposes. AP I, *supra* note 24, at art. 50.1, by reference to GC III, *supra* note 18 at art. 4A(6).

⁵³ ICRC, INTERPRETIVE GUIDANCE ON THE NOTION OF DIRECT PARTICIPATION IN HOSTILITIES UNDER INTERNATIONAL HUMANITARIAN LAW 20-36 (2009) [hereinafter INTERPRETIVE GUIDANCE]. Although some of the Guidance is controversial, most experts who participated in the process, including this author, found this approach acceptable. As to the distinction with the detention regime, note that many individuals who would qualify as members of organized armed groups, and therefore members of the armed forces, for targeting purposes would not qualify as combatants entitled to prisoner of war status pursuant to the Third Geneva Convention. See GC III, *supra* note 18, art. 4A(2).

⁵⁴ AP I, *supra* note 24, art. 51.3; AP II, *supra* note 32, art. 13.3.

⁵⁵ Like members of the regular armed forces, they are targetable at all times. INTERPRETIVE GUIDANCE, *supra* note 53, at 32. Note that the law does not technically provide that they are targetable. It simply does not prohibit them from being targeted as a matter of international humanitarian law, as it does with civilians.

the regular armed forces.⁵⁶ Otherwise, they are to be treated analogously to civilians, who are targetable only “for such time” as they are participating in hostilities. This limitation has been subject to extensive criticism on the basis that it creates different standards for regular armed forces and other organized armed groups, standards that afford the latter greater protection from attack.⁵⁷ This is an especially relevant debate in the UCAS context. By the ICRC interpretation, an attacker would need an indication of the function of the targeted individual before striking. By the latter approach, all that is needed is sufficiently reliable information that he or she is a member of the organized armed group in question (e.g.: the Taliban).

Second, disagreement exists as to which acts qualify as direct, versus indirect, participation. Only the former lowers the shield of protection provided by civilian status. Suitably, the *Interpretive Guidance* has set forth three cumulative constitutive elements of direct participation: (1) likely adverse effect on the military capacity or operations of the enemy or harm to protected persons or objects; (2) a direct causal link between that harm and the act in question; and (3) a nexus between the act and the armed conflict.⁵⁸

Commentators generally agree with these criteria, although disagreement has surfaced over their application in particular cases. There is no question that piloting a UCAS or operating its weapons and sensors qualifies as direct participation. Planning or approving UCAS strikes also amounts to direct participation, as does servicing UCAS for particular attack missions.⁵⁹ By contrast, simply conducting a UCAS’s basic life-cycle maintenance on a pre-determined schedule would generally not be characterized as such. Activities that fall between these two actions are

⁵⁶ Individuals with a continuous combat function as envisaged in the INTERPRETIVE GUIDANCE include those “whose continuous function” within the group “involves the preparation, execution or command of acts or operations amounting to their direct participation in hostilities.” INTERPRETIVE GUIDANCE, *supra* note 53, at 34.

⁵⁷ For critiques of the Interpretive Guidance, *see generally* Bill Boothby, “*And for Such Time As*”: *The Time Dimension to Direct Participation in Hostilities*, 42 N.Y.U. J. INT’L L. & POL. 741, (2010); W. Hays Parks, *Part IX of the ICRC “Direct Participation in Hostilities” Study: No Mandate, No Expertise, and Legally Incorrect*, 42 N.Y.U. J. INT’L L. & POL. 769 (2010); Michael N. Schmitt, *Deconstructing Direct Participation in Hostilities: The Constitutive Elements*, 42 N.Y.U. J. INT’L L. & POL. 697 (2010); Kenneth Watkin, *Opportunity Lost: Organized Armed Groups and the ICRC “Direct Participation in Hostilities” Interpretive Guidance*, 42 N.Y.U. J. INT’L L. & POL. 641 (2010); Michael N. Schmitt, *The Interpretive Guidance on the Notion of Direct Participation in Hostilities: A Critical Analysis*, 1 HARV. NAT’L SEC. J. 5 (2010) [hereinafter Schmitt, *Critical Analysis*].

⁵⁸ INTERPRETIVE GUIDANCE, *supra* note 53, at 46.

⁵⁹ For examples of direct participation in the aerial warfare context, *see* AMW MANUAL, *supra* note 27, at Rule 29 and accompanying commentary.

of uncertain character. Two are especially noteworthy in the UCAS environment: acting as voluntary shields (civilians who willingly attempt to shield military objectives from attack) and building improvised explosive devices. Whereas the ICRC expressly styled these actions as *indirect* participation in the *Interpretive Guidance*,⁶⁰ many commentators (in this author's opinion correctly) characterize them as direct. The distinction has particular resonance in light of the prevalence of these activities in Iraq, Afghanistan, Gaza, Lebanon and elsewhere.

Third, there is a difference of opinion with regard to the temporal dimension of participation. Directly participating civilians and, by the ICRC interpretation, those members of organized armed groups who do not have a continuous combat function, may only be targeted "for such time" as they participate in hostilities.⁶¹ The ICRC position is that the period of participation includes the time engaging in the qualifying act, as well as periods of deployment to and from the activity.⁶² Critics respond that this creates a "revolving door" in that the civilian is only targetable if he or she can be "caught in the act;" once home, that individual is no longer targetable, having passed back through the revolving door of targetability. This author takes the position that this is an impractical standard and that the better interpretation is one in which civilians who engage in repeated acts of direct participation remain targetable throughout the course of their involvement. The example cited above of the civilian who regularly implants improvised explosive devices is illustrative. By the latter standard, he would be targetable throughout the period of such activity.

Finally, it should be noted that international humanitarian law occasionally acknowledges nationality, as in the case of non-extension of the 1949 Fourth Geneva Convention's protection to persons who find themselves in the hands of a Party to the conflict of which they are nationals.⁶³ Despite debates over UCAS targeting of American citizens under US law,⁶⁴ nationality plays absolutely no part in targeting law. The sole issue is a lawful target's status (be it members of armed forces or direct civilian participants).

⁶⁰ INTERPRETIVE GUIDANCE, *supra* note 53, at 54, 57. For a contrary position, see Schmitt, *Critical Analysis*, *supra* note 57, at 30-32.

⁶¹ AP I, *supra* note 24, art. 51.3; AP II, *supra* note 32, art. 13.3.

⁶² AP COMMENTARY, *supra* note 42, ¶¶ 1679, 1943, 4788; INTERPRETIVE GUIDANCE, *supra* note 53, at 67-68.

⁶³ GC IV, *supra* note 18, art. 4.

⁶⁴ For instance, a judicial review by the American Civil Liberties Union and the Center for Constitutional Rights, which challenged the US policy on targeted killings, was rejected on procedural grounds. *Al-Aulaqi*, 727 F. Supp. 2d at 44.

C. *Restrictions on UCAS Operations*

International humanitarian law requires taking precautions during an attack to minimize harm to civilians. The precise requirements are set forth in Article 57 of Additional Protocol I, which, for the most part, reflects customary international humanitarian law applicable in both international and non-international armed conflict.⁶⁵ Of particular relevance to UCAS strikes are the obligations to do “everything feasible to verify that the objectives to be attacked are neither civilians nor civilian objects and are not subject to special protection;” to “take all feasible precautions in the choice of means and methods of attack with a view to avoiding, and in any event to minimizing” collateral damage; and to cancel or suspend an attack “if it becomes apparent that the objective is not a military one or is subject to special protection or that the attack may be expected to” violate the rule of proportionality.⁶⁶

The unique characteristics of UCAS must be considered when applying these standards. For instance, note that the requirement to take verification measures extends only to those that are “feasible.” Feasible precautions are those “which are practicable or practically possible taking into account all circumstances ruling at the time, including humanitarian and military considerations.”⁶⁷ In the UCAS context, this would require taking full advantage of the multiplicity of on-board sensors, as well as the ability to loiter over a target so as to afford adequate time to confirm identity before attacking. The fact that an engagement poses no risk to aircrew members also affects feasibility. This does not mean that an attacker must necessarily expose the UCAS to great risk from ground or air fire in order to enhance verification, but acceptance of somewhat greater risk than in the case of manned aircraft would seem reasonable when verification of the target can be enhanced, thereby significantly minimizing the risk of mistaken attack.

The terms “methods and means” in Article 57 refer to weapons and tactics. Means include the UCAS and “on-board weapons;” method refers to techniques such as on-board versus ground target designation, night versus day attack and so forth. The requirement to select methods and means with attention to minimizing collateral damage influences

⁶⁵ AP I, *supra* note 24, art. 57. For a non-AP I Party approach, see NWP 1-14M, *supra* note 27, ¶ 81. See also AMW MANUAL, *supra* note 27, sect. G.

⁶⁶ AP I, *supra* note 24, art. 57.

⁶⁷ Protocol III, *supra* note 46, art. 1(5). See also Amended Protocol on Prohibitions or Restrictions on the Use of Mines, Booby Traps and Other Devices, art. 3(10), May 3, 1996, 2048 U.N.T.S. 135-36 [hereinafter Amended Protocol II]. A number of countries specifically adopted this standard as their interpretation of the term upon ratifying Additional Protocol I. See, e.g., Letter from Christopher Hulse, Ambassador from the U.K. to Switz., to the Swiss Gov’t (Jan. 28, 1998), available at <http://www.icrc.org/ihl.nsf/NORM/0A9E03F0F2EE757CC1256402003FB6D2?OpenDocument>.

decisions as to whether a UCAS or other system should be chosen to attack the target and, in cases of UCAS employment, how to conduct the attack. For example, a choice must be made among the weapons carried by a Reaper. To the extent one weapon would likely result in fewer civilian casualties or less harm to civilian objects without unduly diminishing the sought after military effect, it must be chosen as a matter of law.

More practically significant is the option of using a UCAS versus other means of conducting the attack, such as a manned aircraft, artillery or ground operation. Because of its sensitive sensors, ability to monitor a target for long periods and use of precision weapons, and because those operating the system are unaffected by the heat of battle, a UCAS often poses far less risk of collateral damage than other attack systems. It is very common, by way of illustration, for an operations center to monitor a targeted individual in a populated area for many hours, waiting to attack until he or she is no longer near civilians or civilian objects. To the extent that doing so is militarily feasible (and only in that case), the law would require use of a UCAS in this situation.

It will seldom be the case that the requirement for selecting feasible means and methods of warfare will necessitate selection of a ground force system other than the UCAS. Nevertheless, the ICRC has raised concern that challenges to responsible operation of such systems include:

The limited capacity of an operator to process a large volume of data, including contradictory data at a given time ('information overload'), and the supervision of more than one such system at a time, [could lead] to questions about the operator's ability to fully comply with the relevant rules of IHL in those circumstances.⁶⁸

If accurate, this would suggest that less taxing attack systems must be used in lieu of a UCAS if doing so would result in less collateral damage. Such an assertion is speculative at best, and in the vast majority of situations it is counter-factual. It must also be emphasized that the mere complexity of an attack system does not render it unlawful *per se*.

The final precaution requirement regarding suspension or cancellation typically comes into play when the situation on the ground changes quickly and unexpectedly. It is highly relevant with respect to UCAS because of the system's ability to monitor an attack in real-time. For example, those controlling the engagement may realize the target is in fact not subject to attack, as when it suddenly becomes apparent that an individual digging near a road is not implanting an improvised explosive device. In such a situation, the attack must be instantly cancelled. Alternatively, civilians may unexpectedly come into the area, creating a situation in which an attack would result in disproportionate collateral damage or in which suspending the attack temporarily would give the

⁶⁸ ICRC, International Humanitarian Law and the Challenges of Contemporary Armed Conflict, at 39, ICRC Doc. No. 31IC/11/5.1.2 (Oct. 2011).

civilians an opportunity to move on without the target escaping. In such a situation, the attack must be delayed until the civilians leave the area.

Once the precautionary requirements for an attack have been complied with, a proportionality assessment must be made. The customary rule of proportionality, codified in Articles 51 and 57 of Additional Protocol I, prohibits “[a]n attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.”⁶⁹ The rule does not impose a body count comparison between enemy and civilians killed or wounded. Rather, proportionality calculations are always case-specific. Multiple civilian casualties may not be excessive when attacking a senior leader of the enemy forces, but even a single civilian casualty may be excessive if the enemy soldiers killed are of little importance or pose no threat.

The unique capabilities of UCAS render it a system that can conduct an attack proportionate in many situations where other systems might not. Of particular note is its loiter capability. Whereas other systems can carry the same weaponry or rely on sensor data collected by UCAS and other sensor platforms, currently only UCAS has the capability to monitor targets for extended periods of time with an attendant ability to withhold attack until clearly proportionate.

When assessing the proportionality of an attack, the excessiveness determination is an *ex ante*, not *ex post facto* determination. What is often missed in criticism of UCAS strikes is that the legal issues are whether the *expected* collateral damage was excessive relative to the *anticipated* military advantage of the strike, and whether those expectations and anticipations were reasonable under the circumstances.

Finally, it should be noted that the *Interpretive Guidance* sparked an on-going debate by suggesting that:

While operating forces can hardly be required to take additional risks for themselves or the civilian population in order to capture an armed adversary alive, it would defy basic notions of humanity to kill an adversary or to refrain from giving him or her an opportunity to surrender where there manifestly is no necessity for the use of lethal force.⁷⁰

This statement evoked great controversy, with many commentators, including this author, arguing that while capture almost always makes good operational sense, there is no legal obligation to capture a member of the enemy forces or a civilian directly participating in hostilities unless

⁶⁹ AP I, *supra* note 24, arts. 51.5(b), 57.2(a)(iii) & 57.2(b). See also CIHL, *supra* note 26, Rules 14 & 19; ICC Statute, *supra* note 32, art. 8(2)(b)(iv); NIAC MANUAL, *supra* note 39, ¶ 2.1.1.4; NWP 1-14M, *supra* note 27, ¶ 8.3.1; AMW MANUAL, *supra* note 27, Rule 14.

⁷⁰ INTERPRETIVE GUIDANCE, *supra* note 53, at 82.

he or she communicates a desire to surrender.⁷¹ The debate is generally irrelevant with regard to UCAS operations because it is often the case that a UCAS strike is being used for the very reason that it is operationally impractical to capture the target. However, in the unlikely event that capture is an option (a possibility limited almost exclusively to strikes in occupied territory), operators and their legal advisers must be sensitive to this debate.

D. *Who May Conduct UCAS Operations?*

UCAS operations have been, and continue to be, conducted by personnel other than the armed forces, although it must be emphasized that military personnel carry out the vast majority of these operations. A great deal of misunderstanding surrounds the law as to civilian participation in UCAS operations.

In fact, international humanitarian law does not directly address the subject of who may conduct military operations. Rather, it provides certain protections to lawful combatants, that is, members of the regular armed forces and other designated groups meeting specific conditions.⁷²

Additional Protocol I, in a reflection of customary law, provides that “[m]embers of the armed forces of a Party to a conflict [other than religious personnel and chaplains] are combatants, that is to say, they have the right to participate directly in hostilities.”⁷³ The practical effect of this “right” is that they enjoy “belligerent immunity” for acts committed during an international armed conflict that are lawful under international humanitarian law, but which would otherwise violate separate bodies of law, especially domestic law. The classic example is killing a member of the enemy armed forces in combat. A member of the military may not be prosecuted for murder of the individual in violation of domestic law. By contrast, a civilian committing the same act could so be prosecuted because he or she does not enjoy belligerent immunity. Therefore, civilians operating UCAS do not enjoy belligerent immunity. Lawful combatants are also entitled to prisoner of war status on capture during an international armed conflict.⁷⁴ Civilians cannot achieve that status and therefore, with certain narrow exceptions set forth in the relevant article, are treated in accordance with the Fourth Convention on Civilians, not the Third Convention on Prisoners of War.

A careful reading of the law, therefore, leads to the conclusion that although civilian operators of UCAS do not enjoy belligerent immunity for their activities and will not be treated as prisoners of war upon capture, there is no *per se* prohibition on their involvement in any facet of

⁷¹ On the issue generally, see Parks, *supra* note 57.

⁷² See GC III, *supra* note 18, art. 4; AP I, *supra* note 24, arts. 43-44.

⁷³ *Id.* at art. 43(2).

⁷⁴ GC III, *supra* note 18, art. 4.

UCAS operations.⁷⁵ The same is true in non-international armed conflict. Non-international armed conflict does not recognize the concept of combatancy, and, accordingly, the notions of belligerent immunity and prisoner of war status do not exist. More to the point, while the law of non-international armed conflict outlaws attacks on civilians who are not directly participating in hostilities, it places no limitations on their participation in the conflict. Such matters are exclusively subject to domestic legal norms.

Participation in hostilities is ultimately only an issue of targetability, not the right to participate. This point is often misunderstood in the debates over UCAS strikes. Civilians such as contractors or intelligence agency personnel may lawfully conduct UCAS operations. But during an international armed conflict, they are subject to attack for such time as they participate, may be prosecuted for any actions violating domestic legal norms and are not entitled to prisoner of war status in the event of capture.

IV. CONCLUSION

There are very few legal issues unique to the employment of UCAS on the battlefield. While particular operations may raise legal concerns, as in the case of cross-border counterterrorist operations, it is not UCAS that lies at the heart of the matter. This is especially true with regard to application of international humanitarian law. To the extent that the UCAS option has an effect on application of that law, it usually allows for greater protection of persons and objects than would otherwise be the case.

Finally, although this article has dealt with the international humanitarian law implications of UCAS operations, in practice legal issues deriving from that body of law are rare. The rules of engagement and other forms of guidance in a counter-insurgency campaign are generally so restrictive for operational and policy reasons that legal issues seldom arise. Although their content is classified, it can be fairly said that such instruments often prohibit attacks against persons or objects that would clearly qualify as lawful targets under international humanitarian law. Similarly, the measures they impose to avoid collateral damage (such as collateral damage estimation methodology, pattern of life analysis and real-time monitoring of an engagement at the operations center level) are extremely sophisticated and robust. The threshold for acceptable collateral damage is so low that attacks are usually prohibited well before an operation begins to approach the “excessive” threshold found in the law.

⁷⁵ Human Rights Watch recognizes this point. See Letter from Kenneth Roth, *supra* note 1. See also, Arabella Thorp, Drone Attacks and the Killing of Anwar al-Awlaqi, House of Commons Library Standard Note 6165, Dec. 20, 2011, at 8; Alston Report, *supra* note 47, at ¶¶ 71, 79.

All of this said, it must be recognized that in a different, “hotter,” combat environment, law may well prove the base line against which UCAS operations are evaluated.

