

AFTER "TOP GUN": HOW DRONE STRIKES IMPACT THE LAW OF WAR

LAURIE R. BLANK*

"We have just won a war with a lot of heroes flying around in planes. The next war may be fought by airplanes with no men in them at all Take everything you've learned about aviation in war, throw it out the window, and let's go to work on tomorrow's aviation. It will be different from anything the world has ever seen."

– General Henry H. "Hap" Arnold

In 2010, the United States launched 118 drone strikes in Pakistan, an exponential increase over past years.¹ In a broader view, in 2009, the U.S. Army reported a 400% increase in drone flight hours over the previous ten years.² Drones are regularly used in combat operations in Afghanistan³ and Libya,⁴ and have

* Director, International Humanitarian Law Clinic, Emory University School of Law.

¹ See 2011: *The Year of the Drone*, NEW AM. FOUND., <http://counterterrorism.newamerica.net/drones/2011> (noting a total of nine U.S. drone strikes in Pakistan from 2004-2007, compared to seventy such strikes in 2011).

² See J.D. Leipold, *Army to Increase Medevac Support, Add New CAB, More UAVs*, WWW.ARMY.MIL, Jan. 7, 2010, available at <http://www.army.mil/article/32603/> (discussing the military's efforts to increase armed reconnaissance capabilities).

³ See, e.g., Christopher Drew, *For Spying and Attacks, Drones Play a Growing Role in Afghanistan*, N.Y. TIMES, Feb. 20, 2010, at A6 (discussing the expansion of the use of drones in Afghanistan).

⁴ See, e.g., Martha Raddatz, *Pentagon Confirms First Predator Drone Strike in Libya*, ABCNEWS.COM, Apr. 23, 2011, <http://abcnews.go.com/International/pentagon-confirms-predator-drone-strike-libya/story?id=13442570> (confirming a U.S. drone strike against Qadhafi's forces in Libya as the first U.S. drone strike in that country).

been used to launch targeted killings in Somalia⁵ and Yemen.⁶ The most widely reported drone strike in 2011 was the killing of Anwar al-Awlaki in Yemen on September 30, 2011.⁷ Although surveillance and reconnaissance capabilities make drones a workhorse of modern intelligence gathering and targeting determinations, public discourse and outcry have focused on the so-called “robots in the sky”⁸ that launch aerial attacks on targets within armed conflict and counterterrorism operations, forming a central platform in United States operations from Pakistan to Somalia. One major topic of debate and a steady source of news is the number of civilian casualties from such strikes. Estimates of the number of civilians killed in U.S. drone strikes over the past several years vary wildly, with some reports in the thousands and others in the hundreds.⁹ In contrast, the U.S. government recently announced that Central Intelligence Agency (“CIA”) drone strikes in Pakistan have caused zero civilian casualties in the past year.¹⁰

The debate over civilian casualties goes far beyond war, incorporating the morality of targeted killing, the viability of U.S.

⁵ See Mark Mazzetti & Eric Schmitt, *U.S. Expands its Drone War into Somalia*, N.Y. TIMES, July 2, 2011, at A1 (discussing the expansion of drone strikes into Somalia on a theory of collaboration between Islamic militants in Yemen and Somalia).

⁶ See Siobhan Gorman & Adam Entous, *CIA Plans Yemen Drone Strikes*, WALL ST. J., June 14, 2011, <http://online.wsj.com/article/SB10001424052702303848104576384051572679110.html> (“The Central Intelligence Agency is preparing to launch a secret program to kill al Qaeda militants in Yemen . . .”).

⁷ See Dina Temple-Raston, *Drone Strike Ends Hunt for Al-Qaida Leader*, NPR, Sept. 30, 2011, <http://www.npr.org/2011/09/30/140958027/drone-strike-ends-hunt-for-al-qaida-leader> (detailing a U.S. drone missile attack to kill Anwar al-Awlaki while al-Awlaki travelled in a convoy of cars).

⁸ See Graeme Smith, *Pakistan's Deadly Robots in the Sky*, GLOBE AND MAIL, Apr. 12, 2011, <http://www.theglobeandmail.com/news/world/asia-pacific/pakistans-deadly-robots-in-the-sky/article1739172/singlepage/> (discussing the increasing number of drones being fired into the tribal areas of Pakistan).

⁹ Perhaps the most well-known and respected study on this data is that collected by the New America Foundation in *2011: The Year of the Drone*, *supra* note 1. According to its findings, non-militant fatalities comprise approximately twenty percent of all casualties from U.S. drone strikes in Pakistan.

¹⁰ See Scott Shane, *C.I.A. is Disputed on Civilian Toll in Drone Strikes*, N.Y. TIMES, Aug. 12, 2011, at A1 (presenting the public debate over the CIA's contention that U.S. drone strikes into Pakistan caused no civilian deaths in 2011).

counterinsurgency strategy, and the parameters of self-defense against terrorists. However, the debate puts a laser focus on the impact of drone strikes on interpretations of the law of armed conflict. These issues range from potential new—and possibly problematic—understandings of key principles to questions regarding the geographical parameters of the battlefield and the impact of non-military personnel engaging in drone strikes.

Drones, unmanned aerial vehicles (UAVs), unmanned aerial combat vehicles, remotely piloted weapons—a long list of names currently describes the enormous range of aerial vehicles that do not carry a human operator. The U.S. Department of Defense defines an unmanned aerial vehicle 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.¹¹

It is important to note, however, that drones are not truly “unmanned,” but rather remotely piloted. In fact, experts have noted that the operation of drones involves more people than F-16s or other fighter planes piloted in-person.¹² For example, beyond the pilot and the sensor operator, who operate the vehicle from a remote location, recoverable drones also involve launch and recovery teams, numerous intelligence analysts, and other legal and operational decision-makers.¹³ Many therefore favor the term “remotely piloted aircraft,” but since “drone” is one of the most commonly used terms, this Article will continue to use it as well.

¹¹ JOINT CHIEFS OF STAFF, JOINT PUB. 1-02, DEPARTMENT OF DEFENSE DICTIONARY OF MILITARY AND ASSOCIATED TERMS 571 (2009).

¹² See, e.g., Charles Blanchard, Gen. Counsel, U.S. Air Force, Remarks made at New America Foundation conference: Drones, Remote Targeting and the Promise of Law, Panel II (Feb. 24, 2011), available at <http://www.ustream.tv/recorded/12909598> (describing the drone targeting and acquisition process).

¹³ See Scott Shane & Thom Shanker, *Yemen Strike Reflects U.S. Shift to Drones as Cheaper Tool of War*, N.Y. TIMES, Oct. 2, 2011, at 1, 14 (stating that “[b]ehind each aircraft is a team of 150 or more personnel, repairing and maintaining the plane and the heap of ground technology that keeps it in the air, poring over the hours of videos and radio signals it collects, and gathering the voluminous intelligence necessary to prompt a single strike”).

During the past decade, the number and variety of drones have increased dramatically. “Within the current United States inventory, [drones] range in size from the Wasp and the Raven, at 38 inches long, both of which are ‘launched’ by being thrown in the air by hand, to the twenty-seven foot long Predator and the forty-foot long Global Hawk.”¹⁴ The most commonly-used drones in the U.S. arsenal are the MQ-9 Reaper and the MQ-1B Predator, both of which are designed for persistent intelligence, reconnaissance, and surveillance, as well as target acquisition and “destroy and disable” capabilities.¹⁵ Both systems are armed with Hellfire missiles.¹⁶ Another example is the tiny helicopter drone Libyan rebels used to coordinate attacks.¹⁷ At present, the United States and Israel are the only countries using armed drones, although Canada recently announced that it planned to acquire and use armed drones in the near future.¹⁸ More than forty countries—and some non-state actors—possess and employ unarmed drones, including Russia, India, Pakistan, China, and Iran.¹⁹

The U.S. drone program has sparked extensive and intense public commentary—academic, policy-oriented, and media—regarding targeted killing of terrorist operatives using armed drones. However, such attacks comprise only a small portion of

¹⁴ See Chris Jenks, *Law from Above: Unmanned Aerial Systems, Use of Force, and the Law of Armed Conflict*, 85 N.D. L. REV. 649, 653 (2009) (citing P.W. Singer, *Military Robots and the Laws of War*, NEW ATLANTIS, Winter 2009, at 25, 37–39) (explaining the variety of U.S. drone systems).

¹⁵ *MQ-9 Reaper Factsheet*, WWW.AF.MIL, Jan. 5, 2012, <http://www.af.mil/information/factsheets/factsheet.asp?id=6405>; *MQ-1B Predator Factsheet*, WWW.AF.MIL, Jan. 5, 2012, <http://www.af.mil/information/factsheets/factsheet.asp?id=122>.

¹⁶ *MQ-9 Reaper Factsheet*, *supra* note 15; *MQ-1B Predator Factsheet*, *supra* note 15.

¹⁷ See Ian Austen, *Libyan Rebels Reportedly Used Tiny Canadian Surveillance Drone*, N.Y. TIMES, Aug. 25, 2011, at A11 (reporting on the sale of a commercial Canadian drone to Libyan rebels).

¹⁸ See *Canada to Acquire Attack Drones: Air Chief*, CBC NEWS, Mar. 6, 2009, <http://www.cbc.ca/world/story/2009/03/06/cdn-drones.html> (quoting senior Canadian military official Lt. Gen. Angus Watt’s saying, “Armed unmanned aerial vehicles [UAVs] with air to ground weapons are a valuable capability and . . . a good option for Canadians to have”); see also Joel Greenberg, *Gaza Cease-Fire Tested by Israeli Airstrike, Palestinian Rocket Fire*, WASH. POST, Aug. 24, 2011 (discussing Israel’s use of armed drones to attack militants).

¹⁹ See Jenks, *supra* note 14, at 654 (noting UAV capabilities of various countries and non-state actors, including Hezbollah, which used drones along the Israel-Lebanon border during the 2006 Lebanon War).

the various ways in which drones are or can be used. Drones are used extensively for intelligence, surveillance, and reconnaissance (ISR), including identification of targets, and to support troops on the ground.²⁰ In the past several years, there has been extensive academic and policy debate regarding the lawfulness of UAV strikes and other targeted killings of al Qaeda and other operatives. A host of interesting questions arise from this use of drones, including the use of force in self-defense against non-state actors, the use of force across state boundaries, the nature and content of state consent to such operations, and the use of targeted killing as a lawful and effective counterterrorism measure.²¹ These issues do not stem from the particular weapon or weapons system; instead they flow naturally from the *jus ad bellum*, the law governing the resort to force as enshrined in the United Nations Charter.²² Thus, although in some situations the nature of drones might enable a broader range of options for the use of force,²³ the issues raised above are generally not drone-specific. Rather, they address

²⁰ See Michael N. Schmitt, *Drone Attacks Under the Jus ad Bellum and Jus in Bello: Clearing the 'Fog of Law,'* 13 Y.B. INT'L HUMANITARIAN L. 311, 311-26 (2010) (illustrating the exponential increase in drone use and how drones are used against Taliban operations and militants); Henry Kenyon, *Army Deploys More Small Drones in ISR Surge*, DEF. SYS., June 24, 2011, <http://defensesystems.com/articles/2011/06/24/army-briefing-uas-platforms.aspx> ("The Army is getting ready to deploy additional numbers of unmanned aircraft systems in Southwest Asia. Ranging from large, long-duration platforms to small, hand-launched tactical platforms, these new systems will support warfighters . . .").

²¹ See, e.g., Jordan J. Paust, *Self-Defense Targeting of Non-State Actors and Permissibility of U.S. Use of Drones in Pakistan*, 19 J. TRANSNAT'L L. & POL'Y 237, 280 (2010) (analyzing the acceptability of using drones in self-defense); Kenneth Anderson, *Targeted Killing in U.S. Counterterrorism Strategy and Law* (Brookings Inst., Georgetown Univ. Law Ctr., & Hoover Inst. Series on Counterterrorism and Am. Statutory Law, Working Paper No. 9, 2009) available at http://www.brookings.edu/papers/2009/0511_counterterrorism_anderson.aspx (explaining President Obama's authorization of the use of drones). See also Schmitt, *supra* note 20, at 313-15 (analyzing the use of drone strikes under *jus ad bellum* and *jus in bello*).

²² The United Nations Charter prohibits the use of force, art. 2(4), with two exceptions: the right to self-defense, art. 51, and the multilateral use of force authorized by the Security Council under art. 43. U.N. Charter art. 2, para. 4; U.N. Charter art. 51; U.N. Charter art. 43.

²³ See Mary Ellen O'Connell, *Seductive Drones: Learning from a Decade of Lethal Operations*, J.L. INFO. & SCI. (forthcoming 2011) (arguing that drones have made the use of force more likely due to the reduced domestic political consequences from their use, as opposed to the use of manned airborne weapons platforms).

complex contemporary challenges posed by transnational terrorism and the proliferation of conflict between states and non-state actors.

This Article focuses on contemporary *jus in bello* (law of war) questions posed by the use of drones and will analyze drones as a weapons system within the law of armed conflict, leaving the *jus ad bellum* questions aside. Questions regarding the use of drones for targeted killings of terrorist operatives outside of armed conflict—or for any other purpose outside of armed conflict—raise interesting and challenging legal issues, but remain outside the scope of this Article.

The first Section will address foundational questions regarding the application of the law of armed conflict to drones, including the legality of armed drones as a weapons system and their use in accordance with the key law of armed conflict requirements of distinction, proportionality, and precautions in attack. Although many argue that the “joystick mentality”²⁴ of remotely piloted aircraft and weapons can lead to desensitization and a decreased likelihood of adherence to international norms,²⁵ the examination below demonstrates that drones indeed offer extensive and enhanced opportunities for compliance with the law of armed conflict.

In the second Section, this Article will explore how the burgeoning use of armed drones raises new questions for some traditional concepts and categories within the law of armed conflict, such as the status of persons and the geographical locus of attacks and hostilities, and potentially new challenges in the implementation of distinction and proportionality. Drones’ “capacity for persistent surveillance [has] given unprecedented intelligence capabilities to U.S. and allied military forces in Iraq

²⁴ See Dennis Kucinich, *Drones Direct Hit Upon Rule of Law*, HUFFINGTON POST Aug. 17, 2011, 11:27 AM, http://www.huffingtonpost.com/rep-dennis-kucinich/drones-direct-hit-upon-ru_b_929203.html (“[W]e have slipped into [a] spooky new world where joystick gods manipulating robots deal death from the skies and then go home and hug their children.”).

²⁵ See Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions, *Study on Targeted Killings*, Human Rights Council, ¶ 84, U.N. Doc. A/HRC/14/24/Add.6 (May 28, 2010) (by Philip Alston) [hereinafter Alston Report] (suggesting that drone operators could potentially be inclined to disregard combat norms because they control the weapons far from the actual battlefield, described as the “Playstation mentality”).

and Afghanistan, [often] reshaping the capability of military commanders and their advisers to comply with law-of-war obligations”²⁶ Notwithstanding significant hue and cry regarding their use during the past several years, the use of armed drones offers the potential for improved law of armed conflict compliance and protection of civilians during armed conflict.

1. DRONES AND LOAC: A FOUNDATIONAL ANALYSIS

The law of armed conflict (LOAC), otherwise known as international humanitarian law or the law of war, applies to situations of armed conflict and governs the conduct of hostilities and the protection of persons during conflict.²⁷ At its foundation, LOAC is based on four key principles, which undergird the spirit and purpose of the law and drive determinations in areas such as targeting, detention, and treatment of persons. The principle of distinction mandates that all parties to a conflict distinguish between those who are fighting and those who are not, and direct attacks only at the former.²⁸ The principle of proportionality seeks to minimize incidental casualties during war and operationalizes

²⁶ Jack M. Beard, *Law and War in the Virtual Era*, 103 AM. J. INT’L L. 409, 417 (2009).

²⁷ See *War and International Humanitarian Law*, INT’L COMM. RED CROSS, <http://www.icrc.org/eng/war-and-law> (last visited Feb. 18, 2012) (explaining that international rules are in place to “limit the effects of armed conflict for humanitarian reasons”). The law of armed conflict is set forth primarily in the four Geneva Conventions of August 14, 1949 and their Additional Protocols. See generally Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), June 8, 1977, 1125 U.N.T.S. 3 [hereinafter AP I]; Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II), June 8, 1977, 1125 U.N.T.S. 609 [hereinafter AP II]; Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, Aug. 12, 1949, 6 U.S.T. 3114, 75 U.N.T.S. 31 [hereinafter GC I]; Geneva Convention for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea, Aug. 12, 1949, 6 U.S.T. 3217, 75 U.N.T.S. 85 [hereinafter GC II]; Geneva Convention Relative to the Treatment of Prisoners of War, 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].

²⁸ See AP I, *supra* note 27, art. 48 (“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.”).

LOAC's fundamental premise that the means and methods of attacking the enemy are not unlimited.²⁹ Thus, a commander must refrain from any attack in which the expected civilian casualties will be excessive in light of the anticipated military advantage gained.³⁰ The principle of military necessity recognizes that a military has the right to use any measures not forbidden by the laws of war that are "indispensable for securing the complete submission of the enemy as soon as possible."³¹ Finally, the fourth principle is the principle of humanity, also commonly referred to as the principle of unnecessary suffering, and aims to minimize suffering in armed conflict.³² Once a military purpose has been achieved, the infliction of further suffering is unnecessary. In

²⁹ See *id.* art. 35(1) (establishing the principle that parties to a conflict may not use any "methods or means of warfare" whatsoever).

³⁰ See *id.* art. 51(5)(b) (defining any "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" as an indiscriminate attack and therefore prohibited).

³¹ DEP'T OF THE ARMY, DEPARTMENT OF THE ARMY FIELD MANUAL 27-10: THE LAW OF LAND WARFARE 4 (1956). The Lieber Code provides the earliest codification of military necessity: Article 14 states "those measures which are indispensable for securing the ends of the war, and which are lawful according to the modern law and usages of war;" and Article 16 states:

[M]ilitary necessity does not admit of cruelty—that is, the infliction of suffering for the sake of suffering or for revenge, nor of maiming or wounding except in fight, nor of torture to extort confessions. It does not admit of the use of poison in any way, nor of the wanton devastation of a district.

FRANCIS LIEBER, INSTRUCTIONS FOR THE GOVERNMENT OF ARMIES OF THE UNITED STATES IN THE FIELD (Gov't Printing Office 1898) (1863) [hereinafter LIEBER CODE], available at <http://www.icrc.org/ihl.nsf/FULL/110?OpenDocument>.

³² The Martens Clause is the clearest statement of the principle of humanity, found in the preamble to the Hague Convention of 1899:

Until a more complete code of the laws of war is issued, the High Contracting Parties think it right to declare that in cases not included in the Regulations adopted by them, populations and belligerents remain under the protection and empire of the principles of international law, as they result from the usages established between civilized nations, from the laws of humanity, and the requirements of the public conscience.

Convention with Respect to the Laws and Customs of War on Land, pmbl, July 29, 1899, 32 Stat. 1803.

addition, weapons that by their nature cause unnecessary suffering are outlawed.³³

1.1. Drones are Lawful Weapons

As the United Nations Special Rapporteur on Extrajudicial, Arbitrary or Summary Executions stated in his recent report on targeted killings, “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 fires missiles. The critical legal question is the same for each weapon: whether its specific use complies with IHL.”³⁴ The first question, addressed in this Section, is whether a particular weapon is prohibited due to its inherent characteristics. Section 2 below will examine whether armed drones are used in accordance with international law principles of distinction, proportionality, and precautions.

International law prohibits two categories of weapons in armed conflict: indiscriminate weapons and weapons that cause unnecessary suffering. The first prohibition appears in Article 51(4) of Additional Protocol I, which defines indiscriminate attacks as (1) attacks “not directed at a specific military objective,” (2) attacks “which employ a method or means of combat which cannot be directed at a military objective,” or (3) attacks “which employ a method or means of combat the effects of which cannot be limited as required by this Protocol.”³⁵ Means of combat generally refers to weapons or weapons systems. Thus, as the International Court of Justice declared in its advisory opinion in the *Legality of the*

³³ See AP I, note 27, art. 35(2) (prohibiting the use of weapons and methods of warfare that cause “superfluous injury or unnecessary suffering”).

³⁴ Alston Report, *supra* note 25, ¶ 79.

³⁵ AP I, *supra* note 27, art. 51(4)(a)–(c). In addition, Article 35 of Additional Protocol I sets forth the following basic rules:

1. In any armed conflict, the right of the Parties to the conflict to choose methods or means of warfare is not unlimited.
2. It is prohibited to employ weapons, projectiles and material and methods of warfare of a nature to cause superfluous injury or unnecessary suffering.
3. It is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment.

Id. art. 35(1)–(3).

Threat or Use of Nuclear Weapons, parties to a conflict may not “use weapons that are incapable of distinguishing between civilian and military targets.”³⁶ There is little doubt that any weapon can be used in an indiscriminate way during conflict, such as spraying machine gun fire into a crowd with no regard for the presence of civilians or others who are *hors de combat*. Such illegal use does not make the machine gun an unlawful weapon, however. One example of inherently indiscriminate weapons is the rockets that Hamas and Hezbollah have fired into Israel for many years.³⁷

The ban on indiscriminate weapons focuses on those weapons that are, by design or other shortcoming, “incapable of being targeted at a military objective only, even if collateral harm occurs.”³⁸ The ban on indiscriminate effects encompasses both these types of indiscriminate weapons and the use of otherwise lawful weapons in an indiscriminate manner. For example, the use of cluster munitions is highly disputed for this reason.³⁹ As the International Committee of the Red Cross has stated,

“[t]hese characteristics [of cluster munitions] raise serious questions as to whether such weapons can be used in populated areas in accordance with the rule of distinction and the prohibition of indiscriminate attacks. The wide area effects of these weapons and the large number of unguided submunitions released would appear to make it

³⁶ Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, 257 [¶ 78] (July 8) [hereinafter *Nuclear Weapons*].

³⁷ See, e.g., *Gaza/Israel: Hamas Rocket Attacks on Civilians Unlawful*, HUM. RTS. WATCH (Aug. 6, 2009), <http://www.hrw.org/news/2009/08/06/gazaisrael-hamas-rocket-attacks-civilians-unlawful> (noting that the rockets Hamas has fired on Israel are indiscriminate because “they cannot be aimed with any reliability”).

³⁸ Legality of the Threat or Use of Nuclear Weapons, 1996 I.C.J. 226, 588–89 [¶ 24] (July 8) (dissenting opinion of Judge Higgins). Examples could include missiles with a faulty guidance system resulting in an inability to aim only at military objectives or biological weapons that can spread contagion among the civilian population when not checked by an antidote. Michael N. Schmitt, *Future War and the Principle of Discrimination*, 28 ISR. Y.B. HUM. RTS. 51, 55 (1998).

³⁹ See, e.g., *Prosecutor v. Martić*, Case No. IT-95-11-T, Judgement, ¶ 463 (Int'l Crim. Trib. for the Former Yugoslavia June 12, 2007) (holding that “the M-87 Orkan, by virtue of its characteristics and the firing range in this specific instance, was incapable of hitting specific targets . . . [thereby rendering it] an indiscriminate weapon, the use of which in densely populated civilian areas, such as Zagreb, will result in the infliction of severe casualties.”).

difficult, if not impossible, to distinguish between military objectives and civilians in a populated target area.”⁴⁰

Others argue that cluster munitions may well be a more discriminating weapon in certain circumstances because if they were banned, many more missions would be needed to achieve the same effect and cover the same amount of area. By increasing the number of missions, the attacking force consequently would expose more of its force and more civilians to a heightened risk.⁴¹ Further, cluster munitions could reduce collateral damage because of their small detonating impact; otherwise, forces would have to use a more highly explosive weapon to accomplish the same military goal, thereby creating more damage.⁴²

Second, weapons that cause unnecessary suffering or superfluous injury are prohibited. The goal is to minimize harm that is not justified by military utility, either because of a lack of any utility at all or because the utility gained is considerably outweighed by the suffering caused.⁴³ The international community’s first effort at regulating weapons was the St. Petersburg Declaration Renouncing the Use, in Time of War, of Explosive Projectiles Under 400 Grammes Weight of December 11, 1868, which sought to outlaw “the employment of arms which uselessly aggravate the sufferings of disabled men, or render their death inevitable.”⁴⁴ Repeated in Article 23(e) of the Annex to the

⁴⁰ Int’l Comm. of the Red Cross [ICRC], Observations on the Legal Issues Related to the Use of Cluster Munitions, ¶ 8, Grp. of Gov’t Experts of High Contracting Parties to the Convention on Certain Conventional Weapons, U.N. Doc. CCW/GGE/2007/WP.8 (June 25, 2007).

⁴¹ See Nout van Woudenberg, *The Long and Winding Road Towards an Instrument on Cluster Munitions*, 12 J. CONFLICT & SEC. L. 447, 450 (2007) (“[W]here use is made of an alternative to cluster weapons, more missions are needed in order to cover the same area.”); see also Thomas J. Herthel, *On the Chopping Block: Cluster Munitions and the Law of War*, 51 A.F.L. REV. 229, 258–59 (2001) (noting that cluster munitions may be deployed lawfully in certain circumstances).

⁴² See van Woudenberg, *supra* note 41, at 450 (explaining that, in particular situations, cluster weapons can pose less danger to civilian populations than weapons that have larger explosive charges).

⁴³ See COMMENTARY ON THE ADDITIONAL PROTOCOLS OF 8 JUNE 1977 TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949, at 401 [¶ 1414], (Claude Pilloud et al. eds., 1987) [hereinafter PROTOCOL COMMENTARY] (“The principle is that of the prohibition of weapons which would unnecessarily increase the suffering of men rendered *hors de combat*, or which would inevitably lead to their death.”).

⁴⁴ Declaration Renouncing the Use, in Time of War, of Explosive Projectiles Under 400 Grammes Weight pmb., Nov. 29–Dec. 11, 1868, *reprinted in* 1

1907 Hague Convention IV, this prohibition is recognized as customary international law.⁴⁵ The International Court of Justice emphasized this norm as the second of two cardinal principles of international law, explaining that

it is prohibited to cause unnecessary suffering to combatants: it is accordingly prohibited to use weapons causing them such harm or uselessly aggravating their suffering. In application of that second principle, States do not have unlimited freedom of choice of means in the weapons they use.⁴⁶

The basic idea behind the prohibition on weapons that cause unnecessary suffering is that weapons that increase suffering—specifically that of combatants—without increasing military advantage in any way are unlawful. Expanding bullets and blinding lasers offer two examples. Certainly many weapons cause extensive—even horrible—suffering and injury, but that in and of itself is not the key issue. The analysis hinges on two primary factors: “(a) whether an alternative weapon is available, causing less injury or suffering; and . . . (b) whether the effects produced by the alternative weapon are sufficiently effective in neutralizing enemy personnel.”⁴⁷

By both measures — indiscriminate weapon or effects and unnecessary suffering—armed drones pass muster. Armed drones fire Hellfire missiles and other similar munitions, all of which are also carried by or are similar to the weapons carried by piloted

SUPPLEMENT AM. J. INT'L L. 95 (1907) [hereinafter *The Declaration of St. Petersburg, 1868*].

⁴⁵ See *Convention Between the United States and Other Powers Respecting the Laws and Customs of War on Land* art. 23(e), Oct. 18, 1907, 36 Stat. 2277 [hereinafter *Hague Convention No. IV*] (“In addition to the prohibitions provided by special Conventions, it is especially forbidden . . . (e) To employ arms, projectiles, or material calculated to cause unnecessary suffering”); see also W. Hays Parks, *Conventional Weapons and Weapons Reviews*, 8 Y.B. INT'L HUMANITARIAN L. 55, 120 (2005) (asserting that, of the many provisions dealing with the use of conventional weapons, Article 23(e) of the Hague Convention IV is perhaps the only one that is clearly respected as “customary international law”).

⁴⁶ See *Nuclear Weapons*, *supra* note 36, at 275 [¶ 78].

⁴⁷ YORAM DINSTEIN, *THE CONDUCT OF HOSTILITIES UNDER THE LAW OF INTERNATIONAL ARMED CONFLICT* 60 (2004) (citing *NEW RULES FOR VICTIMS OF ARMED CONFLICTS, COMMENTARY ON THE TWO 1997 PROTOCOLS ADDITIONAL TO THE GENEVA CONVENTIONS OF 1949* 196 (Michael Bothe et al. eds., 1982)).

fighter aircraft.⁴⁸ These missiles are not banned by any international agreement and do not manifest any characteristics that cause superfluous injury as understood in international law. In fact, the precision-guided munitions that drones carry and their extensive surveillance capabilities make them particularly discriminate weapons. The ability to track a target for hours, even days, before launching an attack facilitates accurate targeting and enhances the protection of civilians by giving drone operators the ability to choose the time and place of attack with an eye towards minimizing civilian casualties or damage. Therefore, armed drones can easily be aimed at only military objectives and have effects that can be limited, as much as possible, to military objects, thus meeting the standards in Article 51(4) of Additional Protocol I.⁴⁹

The fact that armed drones could be used—and perhaps have been used—in indiscriminate attacks does not make them an inherently unlawful weapon or weapons system. Determinations of legality, such as those required in new weapons reviews under Article 36 of Additional Protocol I,⁵⁰ do not mean that states must anticipate any possible unlawful use of a weapon. Rather, as noted at the 1974–1977 Diplomatic Conference that produced the Additional Protocols, the question is “whether the employment of a weapon for its normal or expected use would be prohibited under some or all circumstances. A State is not required to foresee or analyze all possible misuses of a weapon, for almost any weapon can be misused in ways that would be prohibited.”⁵¹ The normal or expected use of armed drones falls clearly within the parameters of lawful weapons under international law.

⁴⁸ See, e.g., *MQ-1B Predator Fact Sheet*, *supra* note 15 (noting that the MQ-1B remotely piloted drone carries AGM-114 Hellfire missiles); *MQ-9 Reaper Factsheet*, *supra* note 15 (noting that the MQ-9 remotely piloted drone carries Hellfire missiles).

⁴⁹ For an articulation of Article 51(4)'s required elements, see *supra* Section 1.1, note 35 and accompanying text.

⁵⁰ See AP I, *supra* note 27, art. 36 (“In the study, development, acquisition or adoption of a new weapon, means or method of warfare, a High Contracting Party is under an obligation to determine whether its employment would, in some or all circumstances, be prohibited by this Protocol or by any other rule of international law applicable to the High Contracting Party.”).

⁵¹ See PROTOCOL COMMENTARY, *supra* note 43, at 424 [¶ 1469].

1.2. Lawful Use of Drones

Upon a determination that armed drones are lawful weapons, the next step is to examine how they are being used and whether such use complies with, and perhaps even enhances, the implementation of LOAC. As noted above, a lawful weapon can be used unlawfully in certain circumstances, such as in deliberate attacks on civilians or in indiscriminate attacks. In order to comply with LOAC, parties launching attacks must abide by the principle of distinction, the principle of proportionality and the obligation of precautions in attack. Access to reliable factual information about the United States UAV strikes in Afghanistan, northwest Pakistan, Yemen, or other locations, for example, is difficult to obtain in many circumstances.⁵² Disputes regarding facts on the ground, numbers of persons killed, identities of those killed, and other key information do impact the ability to analyze compliance with LOAC norms. However, it is reasonable, in light of existing information, to examine the use of armed drones within the framework of the central principles of distinction, proportionality, and precautions.

Many critics argue that drones “make it easier to kill without risk to a State’s forces, [so] policy makers and commanders will be tempted to interpret the legal limitations on who can be killed, and under what circumstances, too expansively.”⁵³ The analysis below, however, will demonstrate that, as one international legal expert explains:

[T]here is little reason to treat drones as distinct from other weapons systems with regard to the legal consequences of their employment. Nor is there a sound basis for heightened concern as to their use. On the contrary, the use of drones may actually, in certain cases, enhance the protections to which various persons and objects are entitled under [LOAC].⁵⁴

The extensive capabilities of drones urge examination not only of whether their use complies with LOAC, but also whether they

⁵² See e.g., Shane, *supra* note 10 (noting a wide disparity between the official American record of civilian casualties and unofficial sources).

⁵³ Alston Report, *supra* note 25, ¶ 80.

⁵⁴ Schmitt, *supra* note 20, at 313.

offer better opportunities for adherence to the law. Drones “now not only perform persistent surveillance to identify and track targets—on missions that may exceed the limited endurance and skills of human pilots—but also constitute lethal weapons platforms with a continuous presence, enabling attacks on more targets in more situations than ever before.”⁵⁵ Many more situations triggering analysis of LOAC’s key principles therefore arise with the use of armed drones.

1.2.1. *Distinction*

Identifying who or what can be targeted is one of the most fundamental issues during conflict. In traditional conflicts, one could distinguish between soldiers—who wore uniforms—and civilians—who typically did not venture near the battlefield—in most circumstances. Similarly, identifying military and civilian objects was usually feasible. Contemporary conflicts introduce a whole set of new challenges in this area, however, demanding ever-greater efforts—through intelligence-gathering and surveillance—to determine who is who in the zone of combat operations.⁵⁶

Article 48 of Additional Protocol I sets forth the fundamentals of the principle of distinction:

In order to ensure respect for and protection of the civilian population and civilian objects, 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.⁵⁷

Distinction lies at the core of IHL’s seminal goal of protecting innocent civilians and persons who are *hors de combat*. The obligation to distinguish forms part of the customary international law of both international and non-international armed conflicts, as the International Criminal Tribunal for the former Yugoslavia

⁵⁵ Beard, *supra* note 26, at 414.

⁵⁶ See Laurie Blank & Amos Guiora, *Teaching an Old Dog New Tricks: Operationalizing the Law of Armed Conflict in New Warfare*, 1 HARV. NAT’L SEC. J. 45, 45–48 (2010) (analyzing the challenges of implementing the law of war in contemporary state versus non-state actor conflicts).

⁵⁷ AP I, *supra* note 27, art. 48.

("ICTY") held in the *Tadic* case.⁵⁸ As a result, all parties to any conflict are obligated to distinguish between combatants, or fighters, and civilians, and concomitantly, to distinguish themselves from civilians and their own military objects from civilian objects.

The purpose of distinction – to protect civilians – is emphasized in Article 51 of Additional Protocol I, which states that "[t]he civilian population as such, as well as individual civilians, shall not be the object of attack."⁵⁹ Article 51 continues, stating:

Indiscriminate attacks are prohibited. Indiscriminate attacks are: (a) those which are not directed at a specific military objective; (b) those which employ a method or means of combat which cannot be directed at a specific military objective; or (c) those which employ a method or means of combat the effects of which cannot be limited as required by this Protocol; and consequently, in each such case, are of a nature to strike military objectives and civilians or civilian objects without distinction.⁶⁰

⁵⁸ See *Prosecutor v. Tadic*, Case No. IT-94-1-I, Decision on Defence Motion for Interlocutory Appeal on Jurisdiction, ¶¶ 111, 127 (Int'l Crim. Trib. for the Former Yugoslavia Oct. 2, 1995) (citing U.N. General Assembly Resolution 2675: "Bearing in mind the need for measures to ensure the better protection of human rights in armed conflicts of all types . . . [the General Assembly] affirms the following basic principles for the protection of civilian populations in armed conflicts, without prejudice to their future elaboration within the framework of progressive development of the international law of armed conflict: . . . 2. [I]n the conduct of military operations during armed conflicts, a distinction must be made at all times between persons actively taking part in the hostilities and civilian populations"). See also *Nuclear Weapons*, *supra* note 36, at 257 [¶ 79] ("[T]hese fundamental rules are to be observed by all States whether or not they have ratified the conventions that contain them, because they constitute intransgressible principles of international customary law."); JEAN-MARIE HENCKAERTS & LOUISE DOSWALD-BECK, CUSTOMARY INTERNATIONAL HUMANITARIAN LAW, VOLUME 1: RULES, at rules 3-11, 25-32, 34-76 (2005) [hereinafter CIHL] (referencing rules based on the principle of distinction that have become part of customary international law); *Abella v. Argentina*, Case 11.137, Inter-Am. Comm'n H.R., Report No. 55/97, OEA/Ser.L/V/II.98, doc. 6 rev., ¶ 177 (1998) (noting that the obligation to distinguish between combatants and civilians is customary international law).

⁵⁹ AP I, *supra* note 27, art. 51(2).

⁶⁰ *Id.* art. 51(4).

Furthermore, Article 85 of Protocol I declares that nearly all violations of distinction constitute grave breaches of the Protocol,⁶¹ and the Rome Statute of the International Criminal Court similarly criminalizes attacks on civilians and indiscriminate attacks.⁶²

Upon examination, several features of drones and aspects of how armed drones are used demonstrate a substantial, even heightened ability to conform to distinction's obligations. It is important to note, again, that armed drones, like *any other weapon or weapon system*, can be used to engage in deliberate or indiscriminate attacks against civilians or other protected individuals during armed conflict. The first aspect of distinction in which drones offer extensive capabilities is in the identification of targets. A lawful attack must be directed at a legitimate target: either a combatant or a civilian directly participating in hostilities. In international armed conflicts – those occurring between states – all members of the state's regular armed forces are combatants and can be identified by the uniform they wear, among other

⁶¹ *Id.* art. 85(3) (“[T]he following acts shall be regarded as grave breaches of this Protocol, when committed wilfully, in violation of the relevant provisions of this Protocol, and causing death or serious injury to body or health: (a) making the civilian population or individual civilians the object of attack; (b) launching an indiscriminate attack affecting the civilian population or civilian objects in the knowledge that such attack will cause excessive loss of life, injury to civilians or damage to civilian objects, as defined in Article 57, paragraph 2(a)(iii) . . .”).

⁶² See Rome Statute of the International Criminal Court arts. 8(2)(b)(i-ii) & (iv-vi), 8(2)(e)(i-ii & iv), July 17, 1998, U.N. Doc A/CONF.183/9 [hereinafter Rome Statute] (“For the purpose of this Statute, ‘war crimes’ means: . . . [i]ntentionally directing attacks against the civilian population as such or against individual civilians not taking direct part in hostilities; [i]ntentionally directing attacks against civilian objects, that is, objects which are not military objectives; . . . [i]ntentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated; [a]ttacking or bombarding, by whatever means, towns, villages, dwellings or buildings which are undefended and which are not military objectives; [k]illing or wounding a combatant who, having laid down his arms or having no longer means of defence, has surrendered at discretion; . . . [i]ntentionally directing attacks against buildings, material, medical units and transport, and personnel using the distinctive emblems of the Geneva Conventions in conformity with international law; . . . [i]ntentionally directing attacks against buildings dedicated to religion, education, art, science or charitable purposes, historic monuments, hospitals and places where the sick and wounded are collected, provided they are not military objectives . . .”).

characteristics.⁶³ In state versus non-state actor conflicts, including counterterrorism operations within the context of an armed conflict, determining who is a legitimate target is significantly more complex. The legal obligation remains the same, however, requiring parties “to distinguish between an innocent civilian and an individual who, although dressed in civilian attire, may pose an immediate threat and is therefore a legitimate target.”⁶⁴ In addition, a commander must assess whether and when to target manifestly hostile persons deliberately hiding among the civilian population.

Persons who are members of an organized armed group are legitimate targets at all times⁶⁵—but dress the same as civilians either for a lack of uniforms or specifically to blend into the civilian population for protection. In such cases, the surveillance capability of drones plays an essential role in differentiating such persons from innocent civilians. A second category of legitimate target, as noted above, is the civilian directly participating in hostilities. The concept of what constitutes direct participation has been the subject of extensive analysis and debate and is outside the scope of this Article.⁶⁶ Nonetheless, regardless of the particular parameters

⁶³ See GC III, *supra* note 27, at art. 4(A) (providing that all members of the regular armed forces of a State party to an international armed conflict are entitled to prisoner of war status and thus considered combatants).

⁶⁴ Blank & Guiora, *supra* note 56, at 58.

⁶⁵ See Nils Melzer, *Interpretive Guidance on the Notion of Direct Participation in Hostilities under International Humanitarian Law*, 90 INT'L REV. RED CROSS 991, 995 (2008) (adopted by ICRC Assembly Feb. 26, 2009), available at <http://www.cicr.org/eng/assets/files/other/irrc-872-reports-documents.pdf> [hereinafter *Interpretive Guidance*] (stating that organized armed groups are targetable based on status in non-international armed conflict). See also JIMMY GURULÉ & GEOFFREY S. CORN, PRINCIPLES OF COUNTER-TERRORISM LAW 70–76 (2011) (discussing the rules governing targeting of enemy forces in international and non-international armed conflict and noting “a member of an enemy force . . . is presumed hostile and therefore presumptively subject to attack” in international armed conflict, and “[s]ubjecting members of organized belligerent groups to status based targeting pursuant to the LOAC as opposed to civilians who periodically lose their protection from attack seems both logical and consistent with the practice of states engaged in non-international armed conflicts”).

⁶⁶ See generally Melzer, *supra* note 65; Forum, *Direct Participation in Hostilities: Perspectives on the ICRC Interpretive Guidance*, 42 N.Y.U. J. INT'L L. & POL. 637 (2010). See also HCJ 769/02 Pub. Comm. Against Torture in Israel v. Gov't of Israel, 57(6) IsrSC 285, ¶¶ 34–37 [2006] (Isr.), available at http://elyon1.court.gov.il/files_eng/02/690/007/A34/02007690.a34.pdf [hereinafter *Targeted Killings Case*] (analyzing the meaning of direct participation in hostilities for the purpose of

of direct participation, the essence of the targeting determination in this situation is that persons directly participating in hostilities—whether all the time or only once or intermittently—must be distinguished from innocent civilians.⁶⁷ As in the case of members of organized groups who appear to be civilians, intelligence information and extensive surveillance will be the key to accurate and discriminatory targeting of such persons—and thus the key to protection of innocent civilians from the consequences of combat operations. When neither hostile persons nor members of armed groups wear uniforms or carry their arms openly, the intelligence, surveillance and reconnaissance capabilities of drones offer great benefits for the implementation of the obligation of distinction.

Drone attacks rely on high resolution imagery usually transmitted in real time to a drone crew which, undistracted by any threat, engages the target. When feasible and necessary, drones can be used to carefully monitor the potential target for extended periods before engaging it with precision weapons. Compared to attacks by manned aircraft or ground-based systems, the result is often a significantly reduced risk of misidentifying the target [or attacking the wrong target].⁶⁸

Using drones, commanders can track and analyze the daily activities of suspected militants, helping to ensure that civilians are not mistakenly targeted. For such planned targets, the “pattern of life analysis”⁶⁹—an assessment of who lives and works in a particular structure or area—is a linchpin of distinction. “Unmanned systems [therefore] seem to offer several ways of

determining the legality of Israel’s policy of targeted killings, and concluding that the legality of such strikes must be determined on a case-by-case basis).

⁶⁷ See *Targeted Killings Case*, 57(6) IsrSC 285, ¶¶ 31-33 & 40, available at http://elyon1.court.gov.il/files_eng/02/690/007/A34/02007690.a34.pdf (highlighting the importance of the direct participation analysis for the effective implementation of the principle of distinction).

⁶⁸ Schmitt, *supra* note 20, at 320.

⁶⁹ For example, until at least August 2010 in Afghanistan, the International Security Assistance Force rules of engagement mandated a forty-eight-hour pattern of life assessment before any target could be approved. See Rajiv Chandrasekaran, *Petraeus Reviews Directive Meant to Limit Afghan Civilian Deaths*, WASH. POST, July 9, 2010, available at <http://www.washingtonpost.com/wp-dyn/content/article/2010/07/08/AR2010070806219.html> (describing General Petraeus’s intention to review the tactical directive giving rise to the 48-hour rule).

reducing the mistakes and unintended costs of war," such as using "far better sensors and processing power," "allow[ing] decisions to be made in a more deliberate manner" and "remov[ing] the anger and emotion from the humans behind them."⁷⁰

1.2.2. Proportionality

Once a legitimate target is identified, the legal analysis does not end. Rather, the attacking party must then assess whether the attack satisfies the principle of proportionality.⁷¹ LOAC flatly prohibits any intentional targeting of civilians, but armed conflict involves an infinite array of circumstances in which civilians may die or suffer grievous injury as a result of attacks launched directly at military targets and combatants. Technical malfunctions, inclement weather, faulty intelligence and navigation errors can all also cause a bomb to fall short and cause significant unanticipated civilian casualties. Beyond errors and accidents, on many occasions, a commander can anticipate that some civilians will suffer harm: there may be civilians near the person being targeted or in a building or location identified as a legitimate target. The commander planning the attack may have a range of choices in terms of tactics and weapons in attacking the target, which could result in different consequences for civilians in the area; in some situations, there may only be one option.

LOAC seeks to minimize such incidental civilian casualties as well, such that proportionality effectively operationalizes LOAC's fundamental premise that the means and methods of attacking the enemy are not unlimited. Article 35 of Additional Protocol I

⁷⁰ P.W. Singer, *Military Robots and the Laws of War*, NEW ATLANTIS, Winter 2009, at 25, 40-41, available at http://www.thenewatlantis.com/docLib/20090203_TNA23Singer.pdf. See also Anna Mulrine, *A Look Inside the Air Force's Control Center for Iraq and Afghanistan*, U.S. NEWS & WORLD REP., May 29, 2008, available at <http://www.usnews.com/news/world/articles/2008/05/29/a-look-inside-the-air-forces-control-center-for-iraq-and-afghanistan> (explaining that Drones enable commanders to "establish a 'pattern of life' around potential targets—recording such things as the comings and goings of friends, school hours, and market times. Despite the distance, the real-time video feeds often give them a better vantage point than an Army unit has just down the street from a group of insurgents.").

⁷¹ See Nuclear Weapons, *supra* note 38, at 587 [¶ 20] (dissenting opinion of Judge Higgins) ("[E]ven a legitimate target may not be attacked if the collateral civilian casualties would be disproportionate to the specific military gain from the attack.").

declares that “[i]n any armed conflict, the right of the Parties to the conflict to choose methods or means of warfare is not unlimited,” a basic principle that dates back at least to the 1907 Hague Convention.⁷² Importantly, however, the law does not prohibit all civilian deaths—and in fact accepts some incidental civilian casualties.⁷³ At the same time, it does mandate that the only legitimate object of war is to weaken the military forces of the enemy.⁷⁴ In this way, proportionality balances military necessity and humanity. To protect innocent civilians from the effects of war and minimize undue suffering, LOAC prohibits disproportionate attacks. Therefore, commanders must refrain from attacks where the expected loss of civilian life or damage to civilian property from an attack will be excessive in relation to the anticipated military advantage gained from the attack.⁷⁵

Collateral damage, a term seen regularly in news reports regarding drone strikes and targeted killing, refers to civilians killed in the course of attacks on military objectives—that is, the incidental casualties from an attack. Given the focus of this Article on the lawfulness of armed drones within the law of armed conflict, it is crucial to understand a fundamental distinction between LOAC and human rights or domestic criminal law. Both legal regimes forbid the deliberate killing of innocent civilians.⁷⁶

⁷² AP I, *supra* note 27, art. 35. See Hague Convention No. IV, *supra* note 45, art. 22 (“The right of belligerents to adopt means of injuring the enemy is not unlimited.”).

⁷³ See Judith Gardam, *Necessity and Proportionality in Jus ad Bellum and Jus in Bello*, in *INTERNATIONAL LAW, THE INTERNATIONAL COURT OF JUSTICE AND NUCLEAR WEAPONS* 283–84 (Laurence Boisson de Chazournes & Philippe Sands eds., 1999) (“The immunity of non-combatants from the effects of warfare . . . has never been regarded as absolute. The incidence of some civilian casualties has always been tolerated as a consequence of military action.”).

⁷⁴ See The Declaration of St. Petersburg, 1868, *supra* note 44, pmbl. (“[T]he only legitimate object which states should endeavor to accomplish during war is to weaken the military force of the enemy . . .”).

⁷⁵ See AP I, *supra* note 27, art. 51(5) (“Among others, the following types of attacks are to be considered as indiscriminate: . . . [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.”). The same language appears in Article 57 of Additional Protocol I, which refers specifically to precautions in attack. *Id.* art. 57(2)(b).

⁷⁶ See AP I, *supra* note 27, art. 51(2) (“The civilian population . . . shall not be the object of attack.”); International Covenant on Civil and Political Rights art. 6, Dec. 16, 1966, 999 U.N.T.S. 171 (stating that every human being shall have an

LOAC, however, anticipates and accepts that parties may knowingly kill civilians without violating the law. Thus, a party attacking a military objective may know for certain that some number of civilians—perhaps janitorial staff working in the building—will die when the building is hit. Such knowledge does not mean the party has committed a crime; rather, LOAC allows for such incidental civilian casualties to the extent that they are not *excessive* in relation to the military advantage gained from the attack.⁷⁷ The crux of the issue, therefore, is how to interpret “excessive” in relation to military advantage and from which perspective.⁷⁸ As the very language of Additional Protocol I shows, referring to “anticipated” military advantage and “expected” civilian casualties, proportionality must be viewed prospectively, not in hindsight. Instead, the information available and the circumstances at the time of the military operation in question must govern how we approach the balance between military advantage and civilian casualties. Because combat, even a minor firefight, involves confusion and uncertainty—the “fog of war”—these “decisions cannot be judged on the basis of

“inherent right to life”); Convention for the Protection of Human Rights and Fundamental Freedoms art. 2, Nov. 4, 1950, 213 U.N.T.S. 221 (“Everyone’s right to life shall be protected by law. No one shall be deprived of his life intentionally save in the execution of a sentence of a court following his conviction of a crime for which this penalty is provided by law.”).

⁷⁷ See W. Hays Parks, *Air War and the Law of War*, 32 A.F. L. REV. 1, 4 (1990) (“Within both the Just War Tradition and the law of war, it has always been permissible to attack combatants even though some noncombatants may be injured or killed; so long as injury to noncombatants is ancillary (indirect and unintentional) to the attack of an otherwise lawful target, the principle of noncombatant immunity is met.”).

⁷⁸ See Michael N. Schmitt, *Fault Lines in the Law of Attack*, in TESTING THE BOUNDARIES OF INTERNATIONAL HUMANITARIAN LAW 277, 293 (Susan C. Breau & Agnieszka Jachec-Neale eds., 2006) (“Focusing on excessiveness avoids the legal fiction that collateral damage, incidental injury, and military advantage can be precisely measured.”); Joseph Holland, *Military Objective and Collateral Damage: Their Relationship and Dynamics*, 7 Y.B. INT’L HUMANITARIAN L. 35, 47 (2004) (“Clearly, one cannot always attribute every civilian death after an attack to the attacker. . . . One cannot assess incidental civilian losses for which the attacker is responsible by simply conducting a body count. Such an oversimplification is as superficial as assessing the quality of a hospital by only counting the bodies in its morgue.”); William J. Fenrick, *The Prosecution of Unlawful Attack Cases Before the ICTY*, 7 Y.B. INT’L HUMANITARIAN L. 153, 175 (2004) (“The actual results of the attack may assist in inferring the intent of the attacker as he or she launched the attack but what counts is what was in the mind of the decision maker when the attack was launched.”).

information which has subsequently come to light.”⁷⁹ The proportionality of any attack—and thus both the anticipated military advantage and the expected civilian casualties—must thus be viewed from the perspective of the military commander on the ground, taking into account the information he or she had at the time.

Just as with distinction, proportionality mandates that parties to a conflict gather and assess information about the target, the target area, and those persons and objects in the vicinity of the target. In the context of proportionality, drones appear to be particularly well designed for adherence to these obligations. The heart of this comprehensive surveillance and intelligence-gathering process is the “pattern of life” analysis. Using drones, which can loiter over a target and the surrounding area for days, commanders can follow a target and gather information about the civilian population in the area and the potential for civilian casualties in possible strike locations and at certain times.

Because the drones provide high quality information about the target area in real-time (or near real-time), for extended periods and without risk to the operators, they [thus] permit more refined assessments of the likely collateral damage to civilians and civilian objects. The ability of armed drones to observe the target area for long periods before attacking means the operators are better able to verify the nature of a proposed target and strike only when the opportunity to minimize collateral damage is at its height.⁸⁰

At a preliminary level, therefore, the capacity that armed drones offer for pre-attack surveillance and at-the-moment awareness of the target and civilians in the area offers great

⁷⁹ Canada, Reservations and Statements of Understanding made upon Ratification of Additional Protocol I, 20 Nov. 1990, § 7, available at http://www.icrc.org/customary-ihl/eng/docs/v2_cou_ca_rule14. See also, Belgium, Interpretative Declarations Made Upon Ratification of Additional Protocol I, 20 May 1986, § 3, available at http://www.icrc.org/customary-ihl/eng/docs/v2_cou_be_rule15_SectionD (“[T]he only information on which [proportionality determinations] can possibly be taken is such relevant information as is then available and that it has been feasible from him to obtain for that purpose.”).

⁸⁰ Schmitt, *supra* note 20, at 314.

opportunities for compliance with LOAC's proportionality obligations. There is little doubt that better information about where and when civilians are present can help to minimize civilian casualties from strikes on military targets.

1.2.3. Precautions in Attack

LOAC mandates that all parties take certain precautionary measures to protect civilians. In many ways, the identification of military objectives and the proportionality considerations are, of course, precautions. But the obligations of the parties to a conflict to take precautionary measures go beyond that. Beginning at the broadest level, Article 57(1) of Additional Protocol I states: "In the conduct of military operations, constant care shall be taken to spare the civilian population, civilians and civilian objects."⁸¹ This provision is a direct outgrowth of, and supplement to, the Basic Rule in Article 48, which mandates that all parties distinguish between combatants and civilians, and between military objects and civilian objects. The practical provisions forming the major portion of Article 57 discuss precautions to be taken specifically when launching an attack. Precautions are, understandably, a critical component of the law's efforts to protect civilians and are of particular importance in densely populated areas or areas where civilians are at risk from the consequences of military operations.⁸² For this reason, even if a target is legitimate under the laws of war, failure to take precautions can make an attack on that target unlawful.

First, parties must do everything feasible to ensure that targets are military objectives.⁸³ Doing so helps to protect civilians by limiting attacks to military targets, thus directly implementing the principle of distinction. Second, they must choose the means and methods of attack with the aim of minimizing incidental civilian losses and damage.⁸⁴ For example, during the 1991 Persian Gulf War, "pilots were advised to attack bridges in urban areas along a longitudinal axis. This measure was taken so that bombs that

⁸¹ AP I, *supra* note 27, art. 57(1).

⁸² See PROTOCOL COMMENTARY, *supra* note 43, at 679 [¶ 2190] ("It is clear that the precautions prescribed here will be of greatest importance in urban areas because such areas are most densely populated.").

⁸³ AP I, *supra* note 27, art. 57(2)(a)(i).

⁸⁴ *Id.* art. 57(2)(a)(ii).

missed their targets—because they were dropped either too early or too late—would hopefully fall in the river and not on civilian housing.”⁸⁵ Another common method of taking precautions is to launch attacks on particular targets at night when the civilian population is not on the streets or at work, thus minimizing potential losses. In addition, when choosing between two possible attacks offering similar military advantage, parties must choose the objective that offers the least likely harm to civilians and civilian objects.⁸⁶ Each of these steps requires an attacking party to take affirmative action to preserve civilian immunity and minimize civilian casualties and damage—in effect, to take “constant care.” Proportionality considerations are also a major component of the precautions framework. Parties are required to refrain from any attacks that would be disproportionate and to cancel any attacks when it becomes evident that the civilian losses would be excessive in light of the military advantage.⁸⁷ Finally, Article 57(2)(c) of Additional Protocol I requires attacking parties to issue an effective advance warning “of attacks which may affect the civilian population, unless circumstances do not permit.”⁸⁸

At the same time, it is important to note that, as in other areas, LOAC is at its foundation concerned with practicalities. The obligation is to take precautions that are feasible in the circumstances, given the information available to the commanders and military planners. The Eritrea-Ethiopia Claims Commission explained that, “[b]y ‘feasible,’ Article 57 means those measures that are practicable or practically possible, taking into account all circumstances ruling at the time.”⁸⁹ Precautions cannot be judged by whether a certain result was obtained after the fact;⁹⁰

⁸⁵ Jean-François Quéguiner, *Precautions Under the Law Governing the Conduct of Hostilities*, 88 INT’L REV. RED CROSS 793, 801 (2006) (noting that this angle of attack “also means that damage would tend to be in the middle of the bridge and thus easier to repair”) (citing Michael W. Lewis, *The Law of Aerial Bombardment in the 1991 Gulf War*, 97 AM. J. INT’L L. 481, 501 (2003)).

⁸⁶ AP I, *supra* note 27, art. 57(3).

⁸⁷ *Id.* art. 57(2)(a)(iii) and art. 57(2)(b).

⁸⁸ *Id.* art. 57(2)(c).

⁸⁹ Ethiopia v. Eritrea, Partial Award—Western & Eastern Fronts, Ethiopia’s Claims 1 & 3, ¶ 33 (Eri. Eth. Claims Comm’n, 2005), available at [http://www.pca-cpa.org/upload/files/FINAL%20ET%20FRONT%20CLAIMS\(1\).pdf](http://www.pca-cpa.org/upload/files/FINAL%20ET%20FRONT%20CLAIMS(1).pdf).

⁹⁰ Rather, the language of both provisions, speaking of attacks that “may affect” the civilian population in AP I, *supra* note 27, art. 57(2)(c), and accounting for “circumstances” or events within the commander’s “power,” in Hague IV,

nonetheless, they do demand that parties gather, analyze, and act on all relevant information in the planning process. The ability of drones to loiter over a target and gather information greatly increases the time during which a target can be analyzed and verified, in most cases significantly improving the accuracy of attacks.

Distinction and proportionality considerations do not generally turn on the choice of an armed UAV rather than a missile fired from a piloted aircraft. The actual choice of weapon or weapons system, however, is a component of the obligation to take precautions.⁹¹ Means and methods of warfare must be chosen with an eye to minimizing or even avoiding civilian casualties.

Here a drone must be used when reasonably available and its use is operationally feasible, but only if such use would minimize likely collateral damage without sacrificing military advantage. Conversely, drones may not be used when other means or methods of warfare that would result in less collateral damage with an equivalent prospect of mission success are available.⁹²

The legal issue concerns what amount of information constitutes sufficient available information for an acceptable determination regarding precautions and proportionality. As the ICTY stated, the question is “whether a reasonably well-informed person in the circumstances of the actual perpetrator, making reasonable use of the information available to him or her, could have expected excessive civilian casualties to result from the attack.”⁹³ In an age when the information-gathering capabilities of drones make extraordinary amounts of information available, it is reasonable to examine whether using drones adds any heightened standard for the use of information in analyzing targets, potential collateral damage and other considerations. The new “persistent

supra note 45, art. 26, leads to the conclusion that the law focuses on the content and nature of the warnings at the time and whether they were reasonable and effective under the circumstances.

⁹¹ See PROTOCOL COMMENTARY, *supra* note 43, at 682 [¶ 2200] (noting that although the rule itself does not imply a prohibition of specific weapons, “their precision and range should be taken into account . . .”).

⁹² Schmitt, *supra* note 20, at 325.

⁹³ Prosecutor v. Galić, Case No. IT-98-29-T, Judgement and Opinion, ¶ 58 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 5, 2003).

surveillance” capabilities of drones, including “network-centric access to related ISR data throughout the command structure, the improving quality and types of information collected by virtual platforms (especially real-time data), and the complete lack of risk involved in the collection of information”⁹⁴ are continually reshaping these questions. Some therefore argue that the obligation to take all feasible precautions extends beyond analysis of information gathered on-scene to include “assessment[s] of the key methods, procedures, and systems necessary to support the effective use of the virtual technologies to be deployed, including a careful evaluation of whether appropriate efforts are being made to ensure that databases are sufficiently accurate to catch mistakes by the human operators.”⁹⁵

In all three areas—distinction, proportionality, and precautions—drones’ unique and advanced capabilities suggest great potential for adherence to LOAC’s obligations. Drones are not automatons; they depend on human operators, analysts, and decisionmakers. As a result, the use of armed drones in compliance with the law also depends on these same categories of human participants. Some critics challenge the growing use of armed drones, arguing that remote operators are desensitized to the effects of combat and risk approaching targeting—and killing—as a video game rather than a war with real life-and-death consequences.⁹⁶ In the same vein, such detractors raise concerns that because drones “make it easier to kill without risk to a State’s forces, policy makers and commanders will be tempted to interpret the legal limitations on who can be killed, and under what circumstances, too expansively.”⁹⁷ These concerns are certainly legitimate, but perhaps a bit unfounded. Pilots who have flown both fighter jets and drones explain that while the F-16 pilot

⁹⁴ Beard, *supra* note 26, at 435, n. 139 (citing Michael N. Schmitt, *Precision Attack and International Humanitarian Law*, 87 *Int’l Rev. Red Cross* 445, 461 (2005)).

⁹⁵ *Id.* at 441.

⁹⁶ See David E. Anderson, *Drones and the Ethics of War*, RELIGION & ETHICS NEWSWEEKLY (May 14, 2010), <http://www.pbs.org/wnet/religionandethics/episodes/by-topic/international/drones-and-the-ethics-of-war/6290/> (citing one critic of drone strikes who argues that “[T]he real ethical issue . . . is ‘the greater propensity to kill’ made possible by the ‘video game-like’ quality of drone combat.”).

⁹⁷ Alston Report, *supra* note 25, ¶ 80.

engages the target and then returns to the base, drones, in contrast, are intimately connected to the battlefield, the target and the aftermath of the attack. "The amount of time spent surveilling an area—sometimes hundreds of hours are devoted to a single mission—creates a greater sense of intimacy than with other aircraft,"⁹⁸ debunking the myth of the "Playstation mentality." As one UAV commander explains,

"There's no detachment. . . . Those employing the system are very involved at a personal level in combat. You hear the AK-47 going off, the intensity of the voice on the radio calling for help. You're looking at him, 18 inches away from him, trying everything in your capability to get that person out of trouble."⁹⁹

In addition, the UAV will remain over the attack site and go from launching an attack into a battle damage assessment immediately thereafter.¹⁰⁰ UAV pilots and sensor operators have significantly greater engagement with the battlefield and the destruction of war than other pilots. In the end, though, it is compliance with the law that matters to ensure protection for civilians and others under LOAC, not the moral or mental motivation of the attacker in fulfilling the obligations of distinction, proportionality, and precautions.

2. THE IMPACT OF DRONES ON TRADITIONAL LOAC CATEGORIES AND CONCEPTS

The increased use of armed drones over the past decade, both in armed conflict and in counterterrorism operations outside of armed conflict, has also played a major role in introducing some questions regarding the application of traditional LOAC concepts and categories to today's conflicts and situations. As the media have reported extensively, U.S. drone strikes in Pakistan are generally planned and executed by intelligence agencies and

⁹⁸ Megan McCloskey, *The War Room: Daily Transition between Battle, Home Takes a Toll on Drone Operators*, STARS & STRIPES (Oct. 27, 2009), <http://www.stripes.com/news/the-war-room-daily-transition-between-battle-home-takes-a-toll-on-drone-operators-1.95949>.

⁹⁹ *Id.* (internal quotation marks omitted).

¹⁰⁰ See Blanchard, *supra* note 12 (explaining in detail the U.S. Air Force's process of drone targeting and acquisition).

operatives, rather than the military.¹⁰¹ In some cases, contractors play a significant role in the operation of the drones as well, often at the launch and recovery sites overseas.¹⁰² The involvement of non-military personnel, whether intelligence operatives or contractors, can have consequences for the application of LOAC to such persons during armed conflict. Another challenging issue involves the geographical parameters of the battlefield. The ability to use armed drones across state borders without risk to personnel who could be shot down or captured across those borders could have an expansive effect on the location of conflict and hostilities, in essence broadening the battlefield beyond traditional parameters. Finally, extensive media coverage of the psychological and emotional impact of the UAV campaigns, particularly in northwest Pakistan, raises questions about whether there are second-order effects from the UAV strikes beyond the fundamental questions of applying LOAC principles to the actual targeting and strikes.

2.1. Status of Operators and Direct Participation

LOAC is relevant not only in analyzing the lawfulness of particular attacks, but also in determining the rights and privileges of persons involved in the operation and targeting of drones. In international armed conflict, LOAC recognizes two categories: combatants and civilians.¹⁰³ This status, whether on the battlefield or off, determines whether a person can lawfully engage in hostilities, is immune from attack, and enjoys the privileges of prisoner of war status upon capture, among other questions. In non-international armed conflict, LOAC does not contemplate combatant status and leaves classification of persons to the state's

¹⁰¹ See, e.g., Scott Shane, *C.I.A. Drone Use is Set to Expand Inside Pakistan*, N.Y. TIMES, Dec. 4, 2009, at A1 (noting the C.I.A.'s increased use of remote missiles and aircraft to target al-Qaeda, the Taliban, and their allies); Craig Whitlock & Greg Miller, *U.S. Creating a Ring of Secret Drone Bases*, WASH. POST, Sept. 21, 2011, at A1 (describing the Obama administration's construction of drone bases to combat al-Qaeda and its allies in Somalia and Yemen).

¹⁰² See James Risen & Mark Mazzetti, *C.I.A. Said to Use Outsiders to Put Bombs on Drones*, N.Y. TIMES, Aug. 21, 2009, at A1 (describing how the Xe company, formerly known as Blackwater, has assumed an important role in the U.S. military's anti-terrorism drone operations).

¹⁰³ See GC III, *supra* note 27, art. 4 (defining prisoners of war); AP I, *supra* note 27, art. 50 (defining civilians and civilian populations).

domestic law.¹⁰⁴ This distinction raises two questions: who has a legal right to launch attacks using armed drones, and what are the consequences for those who do so in the absence of such legal authority?

For the purposes of the instant discussion, the first key difference between combatants and other persons during armed conflict is that combatants are entitled to engage in hostilities—lawful belligerents do not commit crimes when they engage in lawful killing or destruction of property in the course of hostilities.¹⁰⁵ Thus, a soldier who kills the enemy in accordance with the law of war—the person killed was a legitimate target, the attack complied with basic LOAC principles, and so forth—is not engaging in what would, under domestic law, be murder. In this way, the law effectively permits acts that would be criminal during peacetime, reflecting the fact that soldiers act as agents of the sovereign state.¹⁰⁶ Persons who do not qualify for combatant status, in contrast, can be prosecuted for acts on the battlefield under domestic law, because they do not enjoy the privilege of combatant immunity.¹⁰⁷

As members of the regular armed forces of a state, military personnel who operate drones are combatants and therefore do not pose any questions regarding the authority to use lethal force in the course of armed conflict. U.S. drone strikes in Afghanistan, or Israeli drone strikes against Palestinian militants¹⁰⁸ in the course of that armed conflict, do not raise questions regarding status and

¹⁰⁴ See ROBERT KOLB & RICHARD HYDE, AN INTRODUCTION TO THE INTERNATIONAL LAW OF ARMED CONFLICTS 259 (2008) (“[T]here is no prisoner of war status under NIAC. The state where the non-international armed conflict takes place can treat the rebels as simple criminals and try them for having taken up the arms against the government, contrary to the criminal law of that state.”).

¹⁰⁵ See, e.g., *United States v. Lindh*, 212 F. Supp.2d 541 (E.D. Va. 2002) (holding that an American who fought for the Taliban was not a lawful combatant, and therefore was not entitled to combatant immunity under GC III).

¹⁰⁶ See, e.g., LIEBER CODE, *supra* note 31, art. 57 (“So soon as a man is armed by a sovereign government and takes the soldier’s oath of fidelity, he is a belligerent; his killing, wounding, or other warlike acts are not individual crimes or offenses.”).

¹⁰⁷ See, e.g., *Lindh*, 212 F. Supp.2d 541 (concluding that Lindh was not a lawful combatant and was therefore not entitled to combatant immunity).

¹⁰⁸ Although news reports talk of Israeli drone strikes, Israeli officials generally maintain that drones are used only for reconnaissance and targeting planning.

combatants' privilege, therefore. In contrast, it is widely reported that the CIA is the lead—perhaps sole—agency planning and executing U.S. targeted strikes using armed drones in Pakistan.¹⁰⁹ Neither intelligence agents nor contractors fall within the category of combatant under LOAC. They are not members of regular armed forces, civilians engaged in a *levée en masse*, or members of a regular militia under responsible command, carrying arms openly, wearing a distinctive emblem, and abiding by the laws of war.¹¹⁰ As a result, they do not enjoy the right to engage in hostilities within the law of war and the concomitant immunity that accompanies that right—combatant immunity. A person who engages in hostilities without combatant status does not violate LOAC *per se*, but does not enjoy the protection from prosecution that combatant status provides.¹¹¹ Thus, CIA agents or contractors who launch UAV attacks can be subject to prosecution under the domestic law of the countries where the attacks occur and would not be protected by the LOAC principle of combatant immunity.¹¹²

A second, and closely related, issue that arises from non-military personnel operating armed drones during armed conflict is that such personnel can be liable to attack as a result of their

¹⁰⁹ The extent of the hostilities between the United States and militants in Pakistan, including Tehrik-e-Taliban Pakistan (TTP) and other groups, suggests that the United States is engaged in an armed conflict in Pakistan. See Laurie R. Blank & Benjamin R. Farley, *Characterizing U.S. Operations in Pakistan: Is the United States Engaged in an Armed Conflict?*, 34 FORDHAM INT'L L.J. 151, 151-52 (2011) (considering whether the United States' involvement in Pakistan is an armed conflict). In Yemen and Somalia, however, where the United States has also employed UAV strikes against terrorist operatives, the United States is operating within the international law of self-defense and is not engaged in an armed conflict at this time, making the legal analysis, particularly regarding the status and rights of persons, wholly different.

¹¹⁰ See GC III, *supra* note 27 (setting forth the categories of individuals entitled to combatant status).

¹¹¹ See *Lindh*, 212 F. Supp.2d 557-58 (noting that persons who engage in hostilities without lawful combatant status do not have immunity from prosecution under domestic law).

¹¹² See Nathan Hodge, *Drone Pilots Could Be Tried for "War Crimes," Law Prof Says*, WIRED.COM (Apr. 28, 2010, 4:15 PM), <http://www.wired.com/dangerroom/2010/04/drone-pilots-could-be-tried-for-war-crimes-law-prof-says/> (describing how drone operators could be prosecuted in the country in which they carried out the drone-related actions because these operators "[are not] combatants in a legal sense.").

participation in hostilities.¹¹³ One of the central tenets of LOAC is that civilians are immune from attack. Article 51(2) of Additional Protocol I states: “The civilian population as such, as well as individual civilians, shall not be the object of attack.”¹¹⁴ Direct targeting of civilians is therefore strictly prohibited. But the protection for civilians is significantly broader than protection from direct attack. Article 51 sets the foundation for a framework of protections to ensure that “the civilian population and individual civilians shall enjoy general protection against dangers arising from military operations.”¹¹⁵

However, the practical and functional needs of the law lead to one important exception: direct participation in hostilities. Article 51(3) of Additional Protocol I sets forth this exception, stating that “[c]ivilians shall enjoy the protection afforded by this Section, unless and for such time as they take a direct part in hostilities.”¹¹⁶ In certain limited circumstances, therefore, civilians may be directly and intentionally targeted during hostilities, notwithstanding their civilian status. As the Israeli Supreme Court held in its 2006 *Targeted Killings* judgment,

A civilian who violates that law and commits acts of combat does not lose his status as a civilian, but as long as he is taking a direct part in hostilities he does not enjoy – during that time – the protection granted to a civilian. He is subject to the risks of attack like those to which a combatant is subject, without enjoying the rights of a combatant, e.g. those granted to a prisoner of war. True, his status is that of a civilian, and he does not lose that status while he is directly participating in hostilities. However, he is a civilian performing the function of a combatant. As long as he performs that function, he is subject to the risks which

¹¹³ See AP I, *supra* note 27, art. 51(3) (“Civilians shall enjoy the protection afforded by this Section, unless and for such time as they take a direct part in hostilities.”).

¹¹⁴ *Id.* art. 51(2).

¹¹⁵ *Id.* art. 51(1).

¹¹⁶ *Id.* art. 51(3).

that function entails and ceases to enjoy the protection granted to a civilian from attack.¹¹⁷

From a practical standpoint, enabling civilians to engage in hostilities but maintain their immunity from attack would upend LOAC's delicate balance between military necessity and humanity.¹¹⁸ Direct participation thus also comports with the basic right of individual self-defense by recognizing that a soldier engaged in conflict has the right to respond with force to someone posing a threat, whether that person is a combatant or a civilian.

Although the parameters and definition of direct participation in hostilities has been the subject of extensive debate, the nature of the activities that intelligence operatives and contractors engage in as part of UAV attacks fall squarely within the context of direct participation in hostilities.¹¹⁹ Therefore, such persons lose their

¹¹⁷ See *Targeted Killings Case*, 57(6) IsrSC 285, ¶ 31, available at http://elyon1.court.gov.il/files_eng/02/690/007/A34/02007690.a34.pdf; see also *Abella v. Argentina*, Case 11.137, Inter-Am. Comm'n H.R., Report No. 55/97, OEA/Ser.L/V/II.98, doc. 6 rev. ¶ 178 (1998) ("Specifically, when civilians, such as those who attacked the Tablada base, assume the role of combatants by directly taking part in fighting, whether singly or as a member of a group, they thereby become legitimate military targets. As such, they are subject to direct individualized attack to the same extent as combatants.") (emphasis omitted).

¹¹⁸ See Michael N. Schmitt, *Military Necessity and Humanity in International Humanitarian Law: Preserving the Delicate Balance*, 50 VA. J. INT'L L. 795, 803 (2010) (explaining the interplay between necessity and distinction).

¹¹⁹ See *Prosecutor v. Strugar*, Case No. IT-01-42-A, Appeals Chamber Judgement, ¶ 177 (Int'l Crim. Trib. for the Former Yugoslavia July 17, 2008) (listing the following examples of direct participation in hostilities: "bearing, using or taking up arms, taking part in military or hostile acts, activities, conduct or operations, armed fighting or combat, participating in attacks against enemy personnel, property or equipment, transmitting military information for the immediate use of a belligerent, transporting weapons in proximity to combat operations, and serving as guards, intelligence agents, lookouts, or observers on behalf of military forces") (citations omitted); MINISTRY OF DEFENSE, THE JOINT SERVICE MANUAL OF THE LAW OF ARMED CONFLICT, 2004, JSP 383, at § 5.3.3 (U.K.) [hereinafter U.K. MANUAL] (including amongst "those taking a direct part in hostilities . . . [c]ivilians manning an anti-aircraft gun or engaging in sabotage of military installations"); U.S. NAVY, U.S. MARINE CORPS & U.S. COAST GUARD, NWP 1-14M/MCWP 5-12.1/COMDTPUB P5800.7A, THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS, § 8.2.2 (2007) ("Direct participation in hostilities must be judged on a case-by-case basis. Some examples include taking up arms or otherwise trying to kill, injure, or capture enemy personnel or destroy enemy property."). See also *Interpretive Guidance*, supra note 65, at 991 (noting that the conduct of hostilities falls within the definition of direct participation in hostilities).

immunity from attack and can be targeted during armed conflict. Direct participation in hostilities is not, in and of itself, a violation of LOAC, however, and any civilians who engage in drone strikes are not liable for violations of LOAC unless they launch those attacks in violation of the law—such as deliberate targeting of civilians, disproportionate or indiscriminate attacks, or a failure to take precautions, for example.¹²⁰ In the context of who operates drones and launches or participates in attacks, the growing use of armed drones does pose interesting questions regarding status and the consequences of that status, with regard to the loss of both immunity from attack and immunity from prosecution.

2.2. Geography of Attacks

Even a cursory reading of the front-page news from the past several years demonstrates an expanding geography of UAV attacks: Afghanistan, Pakistan, Yemen, Somalia, and Libya. Some of these, such as in Afghanistan—and now Pakistan—and Libya, fall within the generally recognized parameters of an armed conflict. Others, such as Yemen and Somalia, raise more complicated questions regarding where force is being used and what that means for the application of LOAC. A secondary part of this inquiry is the difficulty of determining which groups form part of the enemy in this armed conflict and which groups are separate entities.

Some argue that the use of armed drones is extending the battlefield to locales wherever UAV attacks against terrorist operatives take place.¹²¹ Indeed, the United States has used drones extensively beyond the existing conflict regions of Afghanistan and Pakistan. In the first targeted killing after September 11, a CIA

¹²⁰ See *Rise of the Drones II: Examining the Legality of Unmanned Targeting: Hearing Before the Subcomm. on Nat'l Sec. and Foreign Affairs of the H. Comm. on Oversight and Gov't Reform*, 111th Cong. 27 (2010) (statement of David W. Glazier, Professor of Law, Loyola Law School Los Angeles) (also arguing, however, that under the legal theories adopted by our government in prosecuting Guantánamo detainees, these CIA officers, as well as any higher level government officials who have authorized or directed their attacks, are committing war crimes).

¹²¹ See *Rise of the Drones II: Examining the Legality of Unmanned Targeting: Hearing Before the H. Subcomm. on Nat'l Sec. and Foreign Affairs of the H. Comm. on Oversight and Gov't Reform*, 111th Cong. 20 (2010) (statement of Mary Ellen O'Connell, Professor of Law, University of Notre Dame) (arguing for strict rules limiting the use of armed drones to legally determinable combat zones.).

drone launched a Hellfire missile into southern Yemen, killing six suspected al Qaeda members, including the man believed to be responsible for the bombing of the U.S.S. *Cole*.¹²² More recently, the United States used a drone strike to kill Anwar al-Awlaki, the Muslim cleric who served as an operational commander of al Qaeda in the Arabian Peninsula (AQAP), who was suspected of planning the failed attack against Britain's ambassador to Yemen in April 2010, and who was allegedly involved in the Fort Hood massacre of November 2009 and the attempted airline bombing on Christmas Day 2009.¹²³ In Somalia, as early as January 2007, the United States launched attacks against al Qaeda members suspected of involvement in the 1998 bombings of U.S. embassies in Kenya and Tanzania.¹²⁴ After multiple failed drone strikes against Saleh Ali Saleh Nabhan, the al Qaeda militant suspected of masterminding the 2002 attack on the Paradise Hotel in Mombasa, Kenya, the U.S. launched a commando raid in broad daylight, killing Nabhan and at least eight others.¹²⁵ And in June 2011, the United States used an armed UAV to attack two senior members of al-Shabab who had direct ties to al-Awlaki.¹²⁶

¹²² See Sources: *U.S. Kills Cole Suspect*, CNN.COM, Nov. 5, 2002, <http://archives.cnn.com/2002/WORLD/meast/11/04/yemen.blast/index.html> (detailing how a CIA drone killed a terrorist bombing suspect). See also Alston Report, *supra* note 25, ¶ 7 (noting the reported November 2002 attack in Yemen by a CIA-operated drone).

¹²³ See Con Coughlin & Philip Sherwell, *American Drones Deployed to Target Yemeni Terrorist*, TELEGRAPH, MAY 2, 2010, available at <http://www.telegraph.co.uk/news/worldnews/middleeast/yemen/7663661/American-drones-deployed-to-target-Yemeni-terrorist.html> (detailing President Obama's authorization of the assassination of al-Awlaki, a U.S. citizen, because of the radicalizing effect of his sermons in addition to his operational role in AQAP).

¹²⁴ See *US 'Targets al-Qaeda' in Somalia*, BBC NEWS, Jan. 9, 2007, <http://news.bbc.co.uk/2/hi/africa/6245943.stm> (discussing U.S. air strikes carried out in Somalia that killed at least nineteen people, and the concerns expressed by Italy and the UN regarding the practical consequences of the U.S. attacks).

¹²⁵ See Jeffrey Gettleman & Eric Schmitt, *American Raid in Somalia Kills Qaeda Militant*, N.Y. TIMES, Sep. 15, 2009, at A1 (describing the helicopter attack on a convoy carrying Nabhan and the leaders of Shabab, an Islamist group with ties to al Qaeda that is fighting to overthrow Somalia's recognized government); Jeffrey Gettleman & Eric Schmitt, *U.S. Forces Fire Missiles Into Somalia at a Kenyan*, N.Y. TIMES, Mar. 4, 2008, at A9 (describing a prior failed attempt to assassinate Nabhan using Tomahawk cruise missiles fired from a submarine in the Arabian Sea).

¹²⁶ See Greg Jaffe & Karen DeYoung, *U.S. Drone Targets Two Leaders of Somali Group Allied with Al Qaeda, Official Says*, WASH. POST, June 29, 2011, available at <http://www.washingtonpost.com/national/national-security/us-drones-target/>

In response to the growing use of drones, some suggest that it is “easier” to send unmanned aircraft across sovereign borders because there is no risk of a pilot being shot down and captured, making the escalation and spillover of conflict more likely.¹²⁷ Similarly, one might argue that it is easier to group more entities or individuals within the category of “enemy” because of the greater ease in reaching them with drones.¹²⁸ An armed drone is simply a weapon, much like any other, and a weapon does not drive the legal interpretation of what constitutes armed conflict and against whom the conflict is being fought. To the extent that one country engages in extensive UAV strikes against another state—creating an international armed conflict—or against a non-state actor so as to create a situation of protracted armed violence,¹²⁹ then what was an isolated UAV campaign against selected targets could morph into an armed conflict.¹³⁰ In the contemporary arena of a conflict between states and non-state terrorist groups, the more complex questions involve the consequences of UAV strikes for the parameters of that conflict against terrorist groups—the extension of an existing and admittedly hard-to-define conflict instead of the creation of new conflicts.

The present conflict between the United States and al Qaeda and affiliated terrorist groups poses significant, yet seemingly fundamental, questions about not only the law applicable to

two-leaders-of-somali-group-allied-with-al-qaeda/2011/06/29/AGJFzrH_story.html (discussing U.S. drone attacks in Somalia against al-Shabab).

¹²⁷ See O’Connell, *supra* note 23 (presenting evidence that the availability of unmanned combat vehicles (UCVs) is lowering psychological and political barriers to killing).

¹²⁸ See, e.g., Robert Chesney, *Is AQAP Part-and-Parcel of al Qaeda? Some New Evidence*, LAWFARE BLOG (Aug. 28, 2011, 2:56 PM), <http://www.lawfareblog.com/2011/08/is-aqap-part-and-parcel-of-al-qaeda-some-new-evidence/> (discussing whether AQAP’s request for Bin Laden’s permission to install Anwar al-Awlaki as AQAP’s leader demonstrates that AQAP is “part-and-parcel of ‘core’ al Qaeda” for purposes of status under the Authorization for Use of Military Force (AUMF)).

¹²⁹ See *Prosecutor v. Tadić*, Case No. IT-94-1-I, Decision on Defence Motion for Interlocutory Appeal on Jurisdiction, ¶ 70 (Int’l Crim. Trib. for the Former Yugoslavia Oct. 2, 1995) (defining armed conflict as “protracted armed violence between . . . governmental authorities and organized armed groups or between such groups within a State”).

¹³⁰ See Blank & Farley, *supra* note 109, at 188–89 (characterizing the United States’ engagement in Pakistan, including the use of unmanned drones, as an armed conflict).

operations against terrorists, but also about where the conflict is taking place and where that law applies. Beyond the obvious areas of Afghanistan, Iraq, and the border areas of Pakistan, there is, at present, little agreement on where the battlefield is – that is, where this conflict is taking place – and an equal measure of uncertainty regarding when it started and how it might end. In traditional conflicts, military operations could take place beyond the territory of any neutral party.¹³¹ The law of neutrality generally “defines the relationship under international law between states engaged in an armed conflict and those that are not participating in that conflict.”¹³² Neutrality law thus led to a geographic-based framework in which belligerents can fight on belligerent territory or the commons, but must refrain from any operations on neutral territory. In essence, the battlespace in a traditional armed conflict between two or more states is anywhere outside the sovereign territory of any of the neutral states.¹³³

Today’s conflicts, however, pit states against non-state actors. The latter are actors and groups who often do not have any territorial nexus beyond wherever they can find safe haven free from government intrusion. Once we are outside the belligerent-neutral framework that defined the traditional battlespace, determining the parameters of the contemporary battlefield or zone of combat becomes significantly more complicated. Simply superimposing the approach applicable in traditional armed conflict onto conflicts with terrorist groups does not provide any means for distinguishing between different conceptions of the battlefield. In the past several years, arguments have centered on whether there can be a global battlefield or whether the conflict with al Qaeda is limited solely to Afghanistan.¹³⁴ Just a few weeks

¹³¹ See YORAM DINSTEIN, *WAR, AGGRESSION AND SELF-DEFENCE* 20 (4th ed. 2005) (“In principle, all the territories of the belligerent States, anywhere under their sovereign sway, are inside the region of war. As a corollary, the region of war does not overstep the boundaries of neutral States, and no hostilities are permitted within their respective domains.”).

¹³² U.K. Manual, *supra* note 119, § 1.42.

¹³³ See DINSTEIN, *supra* note 131, at 26 (“[T]he region of war does not include the territories of neutral States, and no hostilities are permissible within neutral boundaries.”).

¹³⁴ See Laurie R. Blank, *Defining the Battlefield in Contemporary Conflict and Counterterrorism: Understanding the Parameters of the Zone of Combat*, 39 GA. J. INT’L & COMP. L. 1, 20–21 (2010) (arguing for the use of factors drawn from LOAC in analyzing the parameters of the battlefield in contemporary conflicts).

after the September 11th attacks, President George W. Bush laid the foundation for the notion of the whole world as a battlefield when he pronounced that “our war on terror will be much broader than the battlefields and beachheads of the past. This war will be fought wherever terrorists hide, or run, or plan.”¹³⁵ When coupled with statements by other high-ranking administration officials,¹³⁶ the President’s view of a global battlefield, in which the whole world is a war zone, became clear. The Obama Administration has not used the same language of a global battlefield, but has actually significantly expanded the use of drone strikes outside of Afghanistan.¹³⁷ The use of armed drones against terrorist operatives in Yemen and Somalia has driven debate about whether those areas fall within the boundaries of the armed conflict with al Qaeda and affiliated terrorist groups, whether any hostilities in those areas constitute separate armed conflicts, or whether the conflict against terrorists can indeed be a global one.¹³⁸ To this extent, the use of armed drones continues to generate extensive discussion about where conflict against transnational non-state actors occurs.

¹³⁵ President George W. Bush, Radio Address of the President to the Nation, (Sep. 29, 2001), available at <http://georgewbush-whitehouse.archives.gov/news/releases/2001/09/20010929.html>.

¹³⁶ See, e.g., Interview by Tony Snow with Secretary of State Condoleezza Rice in D.C. (Nov. 10, 2002), http://www.foxnews.com/printer_friendly_story/0,3566,69783,00.html. Secretary Rice explained, “We’re in a new kind of war, and we’ve made very clear that it is important that this new kind of war be fought on different battlefields.” *Id.* See also Matthew C. Waxman, *The Structure of Terrorism Threats and the Laws of War*, 20 DUKE J. INT’L & COMP. L. 431, 444 (2010) (noting that this view “extend[s] the boundaries of the conflict to take in al-Qaeda’s operations around the world”) (quoting Anthony Dworkin, *Beyond the War on Terror: Towards a New Transatlantic Framework for Counterterrorism*, 13 EUR. COUNCIL ON FOREIGN REL. 1, 5 (2009)).

¹³⁷ See Larisa Epatko, *Controversy Surrounds Increased Use of U.S. Drone Strikes*, THE RUNDOWN, PBS NEWSHOUR, Oct. 10, 2011, <http://www.pbs.org/newshour/rundown/2011/10/drone-strikes-1.html> (describing the exponential increase in the use of drones under the Obama Administration and the accompanying increase in civilian deaths).

¹³⁸ See generally, Robert Chesney, *Who May Be Killed? Anwar al-Awlaki as a Case Study in the International Legal Regulation of Lethal Force*, 13 Y.B. INT’L HUMANITARIAN L. 3, 3–6 (2010). See also Charlie Savage, *Secret U.S. Memo Made Legal Case to Kill a Citizen*, N.Y. TIMES, Oct. 9, 2011, at A1 (discussing the legal analysis allegedly conducted by the Obama Administration to determine the lawfulness of killing Anwar al-Awlaki, and American citizen, on Yemen soil).

2.3. *Contemporary Challenges for Proportionality and Precautions*

Drones do introduce additional interesting considerations into the proportionality and precautions calculus as well. The very capabilities that make drones an effective weapon with regard to distinction, proportionality, and precautions can also have the effect of actually changing the calculus for assessing a lawful attack. In essence, drones may “raise[] the bar of expectations,” creating a higher standard because of the ability to target more precisely.¹³⁹ A significant part of any analysis of the legality of an attack relies on the notion of the “reasonable commander” looking at the situation from the perspective of the commander before the attack. If drone capabilities alter what a reasonable commander knows—or is expected to know—then we may see a shift in the actual content of how distinction, proportionality, and precautions are being interpreted in operations and after-the-fact. At first glance, this shift can have positive effects: as parties continue to be more precise and more demanding in their implementation of LOAC, the ability to protect civilians will also increase. However, such heightened standards can raise serious concerns. If using drones means that a party faces different legal standards and obligations than it would in the absence of drones, that party may opt for a less precise weapon in order to avoid such heightened standards. Here, civilians will likely bear the brunt of such decisions, meaning that, overall, the use of drones in a way that maximizes—but does not significantly alter—adherence to the obligations of distinction, proportionality, and precautions is the best way to carry out LOAC’s central goals.

Second, as news reports have documented, the sheer volume and pace of the information gathered by drones can be overwhelming, sometimes to the point of detracting from efficient military operations and decisionmaking.¹⁴⁰ In 2009, “Air Force drones collected nearly three times as much video over

¹³⁹ See Christopher Drew, *Human Rights Group Says 29 Civilians Were Killed by Israeli Air Attacks in Gaza*, N.Y. TIMES, June 30, 2009, available at <http://www.nytimes.com/2009/07/01/world/middleeast/01gaza.html> (quoting P.W. Singer, author of *Wired for War*).

¹⁴⁰ See Christopher Drew, *Military Is Awash in Data from Drones*, N.Y. TIMES, Jan. 10, 2010, available at <http://www.nytimes.com/2010/01/11/business/11drone.html?pagewanted=all> (highlighting the challenges posed by excessive information from drones).

Afghanistan and Iraq . . . as in 2007” and are on course to increase that yield exponentially.¹⁴¹ Reaper drones, the latest development in drones, will soon be able to record video in over thirty directions at once.¹⁴² The flood of information raises concerns about the ability of analysts to cull the essential information for operational decisionmaking, particularly in time-sensitive situations. For example, investigations into a February 2010 attack in Afghanistan suggested that information overload was responsible for the mistaken targeting of civilians, including children. In the intelligence gathered from a UAV video feed and other sources:

There were solid reports that the group included children, but the team did not adequately focus on them amid the swirl of data The team was under intense pressure to protect American forces nearby, and in the end it determined, incorrectly, that the villagers’ convoy posed an imminent threat, resulting in one of the worst losses of civilian lives in the war in Afghanistan.¹⁴³

Although the data that drones can gather is a critical tool for effective proportionality analyses and contributes greatly to LOAC-compliant targeting, it is important to recognize the limits of data analysis as well. As one U.S. military commander explains, “You need somebody who’s trained and is accountable in recognizing that that is a woman, that is a child and that is someone who’s carrying a weapon . . . [a]nd the best tools for that are still the eyeball and the human brain.”¹⁴⁴ Furthermore, given that proportionality rests on a reasonable commander’s determination based on the information available to him at the time of the attack, we must consider whether drones at some point will no longer add to that process but could actually impede that process simply because of the flood of information.

A final development to consider regarding drones and proportionality is whether the use of armed drones and their heightened capabilities is altering the interpretation—and thus

¹⁴¹ *Id.*

¹⁴² *Id.*

¹⁴³ Thom Shanker & Matt Richtel, *In New Military, Data Overload Can Be Deadly*, N.Y. TIMES, Jan. 16, 2011, available at <http://www.nytimes.com/2011/01/17/technology/17brain.html?pagewanted=all>.

¹⁴⁴ Drew, *Military is Awash*, *supra* note 140.

implementation—of the principle of proportionality altogether. As noted above, proportionality requires that civilian casualties not be excessive; it does not require that there be no civilian casualties at all. The combination of counterinsurgency strategy and UAV capabilities in Afghanistan has led to a growing perception that any civilian deaths are unlawful. Strategic policy and mission imperatives may well seek to eliminate civilian casualties as much as possible, particularly in counterinsurgency, and drones offer highly precise targeting capabilities. The confluence of these two factors has often seemed to suggest that proportionality in the context of UAV strikes is being, or could soon be, reconfigured, that we are seeing a recalibration of the relationship between military advantage and civilian casualties—away from “excessive” and towards “none.” In essence, if the notion of “information reasonably available to the commander” becomes “perfect information,” then we would begin to see a trend away from the concept of proportionality as we now know it and toward a more strict liability standard of targeting analysis in which “zero casualties” is the standard.¹⁴⁵ Beyond the fact that a zero casualty rate is impossible unless all persons in the combat zone are considered to be legitimate targets (an extraordinarily dangerous conclusion), this change in the proportionality standard raises significant concerns.¹⁴⁶ In particular, a military force held to such a zero casualty standard will either disregard the law entirely as unreasonable or will refrain from military operations altogether to avoid legal violations. Both options leave innocent civilians—LOAC’s true constituency—unprotected and in danger.

3. CONCLUSION

The novelty and hi-tech nature of unmanned aircraft launching missiles at targets without risk of retaliation has led to extensive moral, philosophical, political, strategic, and legal debates

¹⁴⁵ See, e.g., Shane, *supra* note 10, at A11 (quoting Obama’s top counterterrorism advisor, John O. Brennan, as claiming a zero casualty rate in Pakistan: “there hasn’t been a single collateral death because of the exceptional proficiency, precision of the capabilities we’ve been able to develop”).

¹⁴⁶ See Laurie R. Blank, *Drone Strike Casualties and the Laws of War*, JURIST (Aug. 22, 2011), <http://jurist.org/forum/2011/08/laurie-blank-drone-strikes.php> (contending that the CIA’s claim of zero civilian casualties raises potential serious legal and policy questions about drone strikes).

regarding the use of such weapons.¹⁴⁷ Lauded as highly precise and discriminating weapons, decried as “killer robots,”¹⁴⁸ drones are at the center of contentious debates about the moral and ethical underpinnings of conflict. These debates go beyond their direct effects—namely, civilian casualties in the course of attacks against terrorist targets—to questions about the psychological effects on the civilian population living with drones buzzing overhead and launching missiles seemingly without warning.¹⁴⁹ From a legal perspective, drones offer a useful lens through which to view both traditional LOAC principles and questions specifically raised in contemporary conflicts. In particular, they have great potential for heightened implementation of the key principles of distinction, proportionality and precautions in attack. As a recent report by the U.K. Ministry of Defence explains:

[T]he greater situational awareness provided by the sensors on a persistent unmanned aircraft that observes the battlespace for long, uninterrupted, periods . . . enables better decision making and more appropriate use of force. This is enhanced by the fact that the decision-maker is in the relatively stress-free environment of an air-conditioned cabin instead of in a fast jet cockpit.¹⁵⁰

Use of armed drones continues to raise serious questions about the numbers and nature of civilian casualties, but these questions stem primarily from the procedures for selecting targets and approving attacks,¹⁵¹ not from the nature and capabilities of drones

¹⁴⁷ See generally USING TARGETED KILLING TO FIGHT THE WAR ON TERROR (Claire Finkelstein et al. eds., forthcoming 2012).

¹⁴⁸ William Saletan, *Predators Need Editors*, SLATE (Apr. 25, 2011, 8:08 AM), <http://www.slate.com/id/2292062>.

¹⁴⁹ See Smith, *supra* note 8 (reporting the psychological toll that repeated drone strikes have had on people living in Pakistan's tribal regions). Some might suggest that UAV attacks constitute attacks that spread terror among the civilian population, in violation of Article 51(2) of Additional Protocol I. However, the crime of spreading terror among the civilian population requires specific intent, which is not demonstrated in the case of UAV attacks. See *Prosecutor v. Galic*, Case No. IT-98-29-T, Judgement and Opinion, ¶ 162 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 5, 2003) (“[T]he crime of terror contains the distinct material element of ‘primary purpose of spreading terror.’”).

¹⁵⁰ MINISTRY OF DEF., THE UK APPROACH TO UNMANNED AIRCRAFT SYSTEMS, 2011, J. Doctrine Note 2/11, ¶ 519.

¹⁵¹ See *supra* Part 1.2.

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themselves. As with any other weapon, it is essential to ensure that UAV attacks are launched only against legitimate military objectives in accordance with the obligations of proportionality and precautions.

The nature of today's conflicts and the way in which armed drones are employed do introduce some concerns about how drones and their capabilities are affecting the interpretation, implementation, and development of LOAC. News reports show that the U.S. drone program, particularly in Pakistan, involves significant civilian participation, which raises questions regarding the status and privileges of persons launching attacks. Drone campaigns against al Qaeda and other terrorist operatives beyond the borders of Afghanistan and Pakistan have contributed substantially to questions regarding the geographical parameters of armed conflict, particularly conflict with transnational non-state actors and the challenges of understanding who is part of an enemy group for the purposes of targeting and detention.

Finally, notwithstanding the extensive capabilities drones offer in the areas of distinction, proportionality and precautions, current developments demonstrate that drones also pose some potential risks to the development and interpretation of the law in ways that could endanger the central goal of protecting civilians and conducting hostilities in a lawful manner. Counterinsurgency strategy and mission imperatives appropriately seek to eliminate civilian casualties as much as possible in the fight for "hearts and minds." But international law does not require no civilian casualties; indeed, the law accepts that there will be incidental casualties from lawful attacks—a tragic but not criminal consequence of war. The combination of drones' highly precise targeting capabilities and strategic needs to reduce civilian casualties has led to a growing—and mistaken—perception that any civilian deaths are unlawful. It may seem that innocent civilians will be the beneficiaries of this development; in fact, the opposite could well be true. To the extent that drones thus begin to alter interpretations of distinction, proportionality, and precautions, the results may not be as protective for civilians as anticipated. A military force facing such a zero casualty standard will either disregard the law entirely as unreasonable, endangering civilians in the combat zone, or will refrain from military operations altogether to avoid legal violations, leaving its own citizens undefended from attacks. Both options leave innocent civilians unprotected and in danger. As a result, analyzing drones

as a weapon and the nature of drone strikes—from target acquisition to strike—within existing interpretations of LOAC is critical to ensuring and enhancing civilian protections in wartime. Maximizing capabilities and effective decisionmaking is the most straightforward way to carrying out LOAC's key goals and principles.