

LIVES IN THE BALANCE: TARGETING AND CIVILIAN COMPARATIVE VALUE

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ABSTRACT

When United States commanders want to attack lawful targets, they must decide if the attack is proportional under the Law of Armed Conflict (“LOAC”). The attack cannot cause excessive harm to civilians compared to the strike’s military benefit. To help commanders decide if the strike is proportional, intelligence analysts forecast the number of men, women, and children who may be injured or killed as collateral damage. Yet because civilians are not equal for the purpose of targeting, commanders have no viable standard for evaluating the limited, homogenous data they receive on civilians. Commanders should have more information to help them make better informed proportionality decisions. This Article proposes a system for measuring Comparative Civilian Values (“CCV”) based on the identity of civilians and their activities. CCV will support LOAC by promoting a more objective proportionality decision and giving commanders a practical rubric to synthesize information on civilians.

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INTRODUCTION

There are no innocent civilians. It is their government and you are fighting a people, you are not trying to fight an armed force anymore. So it doesn't bother me so much to be killing the so-called innocent bystanders.

—General Curtis LeMay, United States Air Force¹

I directed the Department of Defense to take every precaution possible to minimize civilian casualties. Knowing that this terrorist had chosen to surround himself with families, including children, we made a choice to pursue a special forces raid, at a much greater risk than our—to our own people, rather than targeting him with an air strike. We made this choice to minimize civilian casualties.

—Joseph R. Biden, President of the United States²

¹ Alex Remnick, *The U.S. General Who Called Himself a War Criminal*, RETRO REP. (May 28, 2021), <https://medium.com/retro-report/the-u-s-general-who-called-himself-a-war-criminal-8789703305f5> [https://perma.cc/LSW2-PVDC].

² Joseph R. Biden, President of the United States, Remarks on a Successful Counterterrorism Operation (Feb. 3, 2022), [https://www.whitehouse.gov/briefing-](https://www.whitehouse.gov/briefing)

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In eighty years, the United States military has undergone a seismic shift in how it values civilians in war. Modern targeting philosophy is far from the indiscriminate bombing of World War II.³ For example, in February 2022, the United States carried out an attack against Abu Ibrahim al-Qurayshi, the leader of the Islamic State of Iraq and Syria (“ISIS”).⁴ Instead of an airstrike, Delta Force raided the compound to minimize casualties.⁵

From the perspective of reducing civilian casualties, there is rarely a perfect attack.⁶ Even with President Biden’s charge to take all possible precautions in the al-Qurayshi raid, civilians died.⁷ Of course, airstrikes may kill civilians due to botched intelligence, as purportedly

room/speeches-remarks/2022/02/03/remarks-by-president-biden-on-a-successful-counterterrorism-operation/ [https://perma.cc/DU8Q-MBVH].

³ Compare Kristina Wong, *US Aim for ‘Zero Civilian Casualties’ Draws Criticism*, THE HILL (June 24, 2015, 6:00 AM), <https://thehill.com/policy/defense/policy-strategy/245932-us-aims-for-zero-civilian-casualties-in-war-vs-isis> [https://perma.cc/W9CZ-JTJ4], with Ronald Schaffer, *American Military Ethics in World War II: The Bombing of German Civilians*, 67 J. AM. HIST. 318, 318–34 (1980) (characterizing the U.S. strategic bombing policy in Germany as heavily influenced by Italian airpower theorist Giulio Douhet), and STEPHEN BUDIANSKY, *AIR POWER: THE MEN, MACHINES, AND IDEAS THAT REVOLUTIONIZED WAR, FROM KITTY HAWK TO GULF WAR II* 337–40 (2004) (describing the use of B-29s and incendiary bombs to decimate Japanese cities).

⁴ Also known as Islamic State of Iraq and the Levant (ISIL), Islamic State, or Daesh. Fred Dews, *ISIS, ISIL, Islamic State? A Terminology Primer*, BROOKINGS (Sept. 15, 2015), <https://www.brookings.edu/blog/brookings-now/2015/09/15/isil-islamic-state-a-terminology-primer/> [https://perma.cc/6TYH-FCQ4].

⁵ Eric Schmitt & Ben Hubbard, *Raid Targeting ISIS Leader Came After Months of Planning*, N.Y. TIMES, <https://www.nytimes.com/2022/02/03/us/politics/isis-leader-killed-syria.html> [https://perma.cc/2ZNN-F8M6] (Feb. 4, 2022).

⁶ E.g., Vanessa Romo, *No U.S. Troops Behind a Drone Strike that Killed Afghan Civilians Will Be Punished*, NPR (Dec. 13, 2021, 7:01 PM), <https://www.npr.org/2021/12/13/1063880137/no-punishment-troops-afghanistan-kabul-strike-civilians> [https://perma.cc/EXK2-A7JK] (quoting Gen. Mark Milley, Chairman of the Joint Chiefs of Staff).

⁷ Eric Schmitt & Ben Hubbard, *A One-Legged Man Bathing on a Rooftop in Syria? Must be ISIS’ Leader*, N.Y. TIMES (Feb. 10, 2022), <https://www.nytimes.com/2022/02/10/us/politics/abu-ibrahim-al-hashimi-al-qurayshi-isis.html> [https://perma.cc/P5DF-XTX8] (noting that because some of the ISIS fighters may have been wearing suicide vests, some of the deaths may have been attributed to enemy actions); see also Tess Bridgeman & Ryan Goodman, *The Al-Qurayshi Operation and Minimization of Civilian Casualties*, JUST SEC. (Feb. 3, 2022), <https://www.justsecurity.org/80088/the-al-qurayshi-operation-and-minimization-of-civilian-casualties/> [https://perma.cc/R2PF-ZGBP] (lauding how U.S. forces were able to evacuate civilians during the raid).

happened in an August 2021 strike on a suspected terrorist in Afghanistan.⁸ But, airstrikes targeting terrorists have also led to the deaths of civilians acting as human shields⁹ or civilians who have allowed Taliban fighters to retreat into their homes.¹⁰ Further, if the target is a high-priority individual, like former Al Qaeda mastermind Osama bin Laden, the presence of civilians who reside at the same compound, some of whom may have been bin Laden's family members, does not necessarily deter United States forces from executing a deadly attack.¹¹ In each of these instances, the civilians who died were viewed equally by the attacking commander, even though in comparison, the civilians had significantly different relationships to the targeted enemy. These scenarios raise vital questions. Are civilians equal in the targeting process? If not, should commanders measure civilian lives using comparative values? If commanders view civilians differently what values should they use? Finally, do Comparative Civilian Values ("CCV") support the Law of Armed Conflict ("LOAC")? This Article addresses each question in turn.

The United States targets combatants, not civilians.¹² However, casualties may be absorbed as the cost of carrying out a necessary strike. Currently, the United States' targeting methodology sees no

⁸ E.g., Azmat Khan, *Hidden Pentagon Records Reveal Patterns of Failure in Deadly Airstrikes*, N.Y. TIMES (Dec. 18, 2021), <https://www.nytimes.com/interactive/2021/12/18/us/airstrikes-pentagon-records-civilian-deaths.html> [<https://perma.cc/XL3Q-SQ8E>] (chronicling intelligence failures across decades of U.S. airstrikes, including the August 2021 drone strike that killed an Afghan aid worker and nine of his family members); Oren Liebermann, *US Admits It Killed Multiple Civilians in Syria Air Strikes Day Before Fall of ISIS in 2019*, CNN POLS. (Nov. 16, 2021, 2:46 PM), <https://www.cnn.com/2021/11/15/politics/us-military-airstrike-syria-civilians/index.html> [<https://perma.cc/8XQC-PLTJ>] (discussing an airstrike in Syria that inadvertently killed civilians).

⁹ Luis Martinez, *'Fair Chance' US Airstrike Played Role in Mosul Civilian Deaths, Says Top US General in Iraq*, ABC NEWS (Mar. 28, 2017, 4:27 PM), <https://abcnews.go.com/International/fair-chance-us-airstrike-played-role-mosul-civilian/story?id=46428350> [<https://perma.cc/4KL7-4ZWC>].

¹⁰ "Troops in Contact": *Airstrikes and Civilian Deaths in Afghanistan*, HUM. RTS. WATCH (Sept. 8, 2008), <https://www.hrw.org/report/2008/09/08/troops-contact/airstrikes-and-civilian-deaths-afghanistan> [<https://perma.cc/46KK-SHW5>].

¹¹ See *Death of Osama bin Laden Fast Facts*, CNN WORLD, <https://www.cnn.com/2013/09/09/world/death-of-osama-bin-laden-fast-facts/index.html> [<https://perma.cc/Y5DC-XSCB>] (last updated Apr. 24, 2022, 9:30 AM) (noting the death of three men and one woman); cf. Barack Obama, President of the United States, Remarks on Osama Bin Laden (May 1, 2011), <https://obamawhitehouse.archives.gov/blog/2011/05/02/osama-bin-laden-dead> [<https://perma.cc/4LRB-HBSL>] ("They took care to avoid civilian casualties.").

¹² See *infra* Section I.B.

difference in the value of civilian lives amongst men, women, and children; and it does not account for differences in civilian activities.¹³ But not all civilians are equal¹⁴—they cannot be equal given the fundamental nature of war¹⁵ and ethical considerations.¹⁶ Consider the difference between an infant and a seventeen-year-old, or between an eighty-year-old and a twenty-year-old. What about a man who fought against the United States ten years ago but has since been peaceful versus a man who has never fought the United States but provides some support to terrorists? Does a thirteen-year-old boy who runs messages for an Organized Armed Group (“OAG”)¹⁷ deserve the same level of protection as one who has refused to aid the enemy?¹⁸ Should commanders give different weight to voluntary human shields?¹⁹ As this Article presents, one can and should develop a comparative value system for civilian lives that accounts for differences in civilian activities.

Moreover, LOAC permits armed forces to quantify civilian casualties.²⁰ In fact, United States analysts who conduct Collateral Damage Estimation Methodology (“CDM”) provide the commander with some information on civilians—typically a slant number, which reflects the number of men, women, and children who may die as collateral

¹³ See *infra* Section I.B.2.

¹⁴ See, e.g., Robert D. Sloane, *Three Problems with the “As-If” Thesis of Proportionality*, B.U. INT’L L.J., <https://www.bu.edu/ilj/2014/09/24/post-1/> [<https://perma.cc/G3C7-RYUG>] (last visited Mar. 4, 2022) (“No state military force that is or has ever been treats enemy civilians and its own civilians equally.”).

¹⁵ See generally ALEXANDER B. DOWNES, TARGETING CIVILIANS IN WAR (2011) (exploring historical military conflicts where governments intentionally target civilians and recent short, decisive conflicts like the 1991 Persian Gulf War and the 2003 invasion of Iraq where there have also been civilian casualties).

¹⁶ Similar to the runaway trolley thought experiment, see Eleanor Nelsen, *Would You Sacrifice One Person to Save Five?*, YOUTUBE (Jan. 12, 2017), https://www.youtube.com/watch?v=yg16u_bzjPE [<https://perma.cc/P36T-9BWX>], military targeting may lead to ethical dilemmas.

¹⁷ See Kenneth Watkin, *Opportunity Lost: Organized Armed Groups and the ICRC “Direct Participation in Hostilities” Interpretative Guidance*, 42 N.Y.U J. INT’L L. & POL. 641, 643–45 (2010) (providing a description of organized armed groups).

¹⁸ For example, an individual who performs sporadic duties for belligerents like delivering a phone from one person to a belligerent. See BLACK HAWK DOWN (Columbia Pictures 2001), <https://www.youtube.com/watch?v=BqD65FUqPN8> [<https://perma.cc/L5T4-YECL>] (watch 1:55 to 2:23).

¹⁹ See Geoffrey S. Corn, *Beyond Human Shielding: Civilian Risk Exploitation and Indirect Civilian Targeting*, 96 INT’L L. STUD. 118, 153–54 (2020).

²⁰ See *infra* Section I.A.2.

damage in strikes.²¹ Counting civilians is one way to help frame the proportionality decision in a more objective light. But there is a better way.

Instead of viewing all civilians equally, commanders should know the comparative value of expected civilian casualties to avoid making arbitrary proportionality decisions based on limited data.²² Currently, the United States' targeting process is over- and under-inclusive. Because commanders see only raw numbers of men, women, and children possibly killed in strikes, commanders may either over-value civilian lives (e.g., adult men and women who have provided extensive material support to terrorists) or undervalue those lives (e.g., local community very important persons ("VIP")). If commanders instead demanded more information on the identity of civilians and their activities, they would be able to assign comparative values and make a more objective decision as to whether an attack is proportional.²³ More objectivity will allow the commander to better decide whether a given strike is proportional.

Part I addresses two core doctrinal LOAC concepts in targeting—distinction and proportionality—and then reviews the United States' targeting process and CDM. Part II discusses why the United States' targeting process must be improved. Specifically, this Part argues that CCV will result in more objectivity and greater information flow that will lead to better decision-making. Part III explains the process of assigning comparative values to civilians, how commanders will arrive at those values, and when they apply. It also discusses how CCV supports LOAC. This Part further presents two contrasting scenarios to show how CCV can assist the commander. Finally, Part IV addresses three possible criticisms: (1) that the proportionality decision should be wholly subjective, (2) that there is insufficient information to apply CCV fairly and reliably, and (3) that using CCV is not feasible in situations like self-defense engagements or dynamic targeting.

²¹ Khan, *supra* note 8 (discussing slant number); *see infra* Section I.B.2.

²² *See infra* Section II.A.

²³ *See generally* Marcos Degaut, *Spies and Policymakers: Intelligence in the Information Age*, 31 INTEL. & NAT'L SEC. 509 (2016) (showcasing the vast amount of information available to commanders).

I. DOCTRINE

A. *Relevant Law of Armed Conflict Principles*

Two concepts undergird the law of war: *jus ad bellum*, when a nation is authorized to use force, and *jus in bello*, the law applied during war, or LOAC.²⁴ LOAC is a set of legal principles that are recognized as international law via treaty and Customary International Law (“CIL”).²⁵ In the United States’ view, there are five LOAC principles: military necessity, humanity, honor, proportionality, and distinction.²⁶

This Article focuses on two of the principles: distinction and proportionality. First, this Article will address distinction. The principle of distinction is important because before one can calculate the comparative value of civilians, one must distinguish civilians from combatants and unprivileged belligerents. Then, this Article explores proportionality. The principle of proportionality is the fundamental basis for this Article’s proposal to calculate CCV.

1. *Distinction*

Militaries must distinguish between combatants and civilians.²⁷ Combatants may be lawfully targeted, but civilians must be protected.²⁸ In targeting—when warfighters employ weapons to carry out

²⁴ U.S. DEP’T OF DEF., DEPARTMENT OF DEFENSE LAW OF WAR MANUAL para. 1.11 (2016) [hereinafter Law of War].

²⁵ See *id.* § 1.7–1.8 (discussing relevant treaties and customary international law).

²⁶ *Id.* § 2.3.1 (“[M]ilitary necessity justifies certain actions necessary to defeat the enemy as quickly and efficiently as possible.” Conversely, *humanity* forbids actions unnecessary to achieve that object.); *id.* § 2.4 (noting *Proportionality* requires that even when actions may be justified by *military necessity*, such actions must not be “unreasonable or excessive.”); *id.* § 2.5.1 (recognizing *Distinction* underpins the parties’ responsibility to comport their behavior with *military necessity*, *humanity*, and *proportionality* by requiring “parties to a conflict to apply certain legal classes, principally the distinction between the armed forces and the civilian population.”); *id.* § 2.6.2.1 (stating *honor* supports the entire system and gives parties confidence in it).

²⁷ *Id.* § 2.5 (“Distinction, sometimes called discrimination, obliges parties to a conflict to distinguish principally between the armed forces and the civilian population, and between unprotected and protected objects. Distinction may be understood as encompassing two sets of reinforcing duties. Parties to a conflict must apply a framework of legal classes for persons and objects by: (1) discriminating in conducting attacks against the enemy; and (2) distinguishing a party’s own persons and objects.”) (internal citations omitted); see also Corn, *supra* note 19, at 133 (“LOAC establishes a binary principle of attack legality.”).

²⁸ Law of War, *supra* note 24, § 2.5.2.

commanders' intent—one cannot be both a combatant and a civilian.²⁹ Persons are thus classified based on their status.³⁰

The Department of Defense ("DoD") Law of War Manual identifies three groups as lawful combatants: members of a state's armed forces, members of a state's militia, and civilians who spontaneously rise to defend their land against an invader—a *levée en masse*.³¹ Because combatants receive baseline protection of care under the Geneva Convention should they be captured,³² combatants may be lawfully targeted on the battlefield.³³ Thus, if commanders identify a member of an enemy state's armed forces, they may target that person subject to proportionality, which will be discussed in the next section.³⁴

However, the United States ascribes to another category: "unprivileged belligerents."³⁵ Unprivileged belligerents are persons who, "by engaging in hostilities, have incurred one or more of the corresponding liabilities of combatant status" like "being made the object of attack[.]"³⁶ Examples are spies, saboteurs, or members of an OAG.³⁷ It is important to note, however, that the international community does not ascribe to a separate category of unprivileged belligerents.³⁸ Some

²⁹ *Id.* § 2.5.1.

³⁰ *Id.*

³¹ *Id.* § 4.3.3; *see id.* § 4.7.1 (defining and elaborating on conditions for a *levée en masse*).

³² See Geneva Convention Relative to the Treatment of Prisoners of War art. 3, Aug. 12, 1949, 75 U.N.T.S. 135.

³³ See Law of War, *supra* note 24, § 5.7.1, 5.9 (exempting combatants placed *hors de combat*).

³⁴ See discussion *infra* Part (A)(2).

³⁵ This Article uses the traditional term "unprivileged belligerent" instead of the U.S.-coined term "unlawful combatant." *See* Joseph P. Bialke, *Al-Qaeda & Taliban Unlawful Combatant Detainees, Unlawful Belligerency, and the International Laws of Armed Conflict*, 55 A.F. L. REV. 1, 7 (2004) (defining "unlawful combatant").

³⁶ Law of War, *supra* note 24, § 4.2.3.3.

³⁷ *Id.* § 4.18.4.1; *see also* David Akerson, *Applying Jus in Bello Proportionality to Drone Warfare*, 16 OR. INT'L L. 173 (2014).

³⁸ See Law of War, *supra* note 24, § 4.3.1. For further commentary on the international perspective of unprivileged belligerents as a standalone class, *see* Richard R. Baxter, *So-Called "Unprivileged Belligerency": Spies, Guerrillas, and Saboteurs*, 28 BRIT. Y.B. INT'L L. 323 (1951); Knut Dörmann, *The Legal Situation of "Unlawful/Unprivileged Combatants"*, 85 INT'L REV. RED CROSS 45, 46–47 (2003) ("Whereas the terms 'combatant', 'prisoner of war' and 'civilian' are generally used and defined in the treaties of international humanitarian law, the terms 'unlawful combatant', 'unprivileged combatant/belligerent' do not appear in them."); David J. R. Frakt, *Direct Participation in Hostilities as a War Crime: America's Failed Efforts to Change the Law of War*, 46 VAL. UNIV. L. REV. 729 (2012) ("Contrary to the prevailing international view, the United States has attempted, through the

states have used the term narrowly in certain treaties to characterize spies, saboteurs, and others who have forfeited their civilian protections because of their actions.³⁹ As a general matter, the United States' view on unprivileged belligerents is not accepted CIL.⁴⁰ As the United States classifies unprivileged belligerents as individuals subject to targeting, the question of whether international law supports a blanket category of unprivileged belligerents is not germane to this Article.⁴¹

For simplicity, this Article refers to persons who are subject to attack as *belligerents*.⁴² This term includes both combatants and unprivileged belligerents, distinguished from civilians who are not subject to attack.⁴³ Therefore, an individual might be considered a civilian, yet they are subject to attack because of their conduct.⁴⁴

Civilians are best described as persons who are not considered combatants or unprivileged belligerents.⁴⁵ With respect to targeting, civilians may not be made the object of attack.⁴⁶ As the court in

military commissions of Guantánamo, to treat direct participation in hostilities as a war crime.”); Marco Sassòli, *Query: Is There a Status of “Unlawful Combatant?”*, 80 INT'L L. STUD. 57 (2006).

³⁹ Law of War, *supra* note 24, § 4.3.1 (citing Convention (IV) Respecting the Laws and Customs of War on Land, Oct. 18, 1907, 36 Stat. 2277, arts. 29–31); JEAN S. PICTET, GENEVA CONVENTION RELATIVE TO THE PROTECTION OF CIVILIAN PERSONS IN TIME OF WAR: COMMENTARY 5 (International Committee of the Red Cross [ICRC], 1958)).

⁴⁰ Cf. Law of War, *supra* note 24, § 4.3.1 (“States have generally refrained from explicitly recognizing unprivileged belligerents as a class in treaties . . .”) (citation omitted).

⁴¹ *Id.* (“Unprivileged belligerents include lawful combatants who have forfeited the privileges of combatant status by engaging in spying or sabotage, and private persons who have forfeited one or more of the protections of civilian status by engaging in hostilities.”).

⁴² The term belligerent in this Article will mean “non-civilian” for purposes of targeting. See *id.* § 4.3.2.1 (“‘Combatant’ and ‘belligerent’ have sometimes been used interchangeably and, in this usage, they generally describe individuals who are not ‘civilians.’”).

⁴³ See *id.* § 4.2.1 (“[B]ecause the ordinary members of the civilian population make no resistance, it has long been recognized that there is no right to make them the object of attack.”) (citation omitted).

⁴⁴ *Id.* § 4.8.2 (“Civilians may not be made the object of attack, unless they take direct part in hostilities.”). For a discussion of how the international community largely declines to recognize unprivileged belligerents as a distinct class—choosing instead to assign this term to specific instances where civilians have forfeited their protections due to spying or sabotage, see Dörmann, *supra* note 38, at 46–47; Frakt, *supra* note 38; Sassòli, *supra* note 38; and Law of War, *supra* note 24, § 4.3.1.

⁴⁵ See Law of War, *supra* note 24, § 4.2. (“[T]he population of an enemy State is generally divided into two classes: the armed forces and the civilian population.”).

⁴⁶ *Id.* § 4.2.1.

Prosecutor v. Kupreškić stated, “[t]he protection of civilians in time of armed conflict . . . is the bedrock of modern humanitarian law.”⁴⁷ However, if a civilian takes a direct part in hostilities, they lose their protection from an attack.⁴⁸ The decision as to whether an individual has forfeited their protection is not always clear-cut and requires a contextual totality-of-the-circumstances test.⁴⁹

Take the difference between a farmer who picks up a rifle to shoot at United States soldiers one time versus a farmer who occasionally uses his truck to drive enemy fighters. Clearly, the shooter has taken a direct part in hostilities. On the other hand, it is less certain that the driver has taken a direct part in hostilities because one must ask further questions such as, how often is the farmer driving the enemy fighters? Where is he driving them? For what purpose?⁵⁰

Complicating this scenario is the question of whether the United States could target these farmers only when they are shooting at United States forces or driving the enemy fighters, or if the U.S. forces could also attack them when they are sleeping. This problem refers to the

⁴⁷ *Prosecutor v. Kupreškić*, Case. No. IT-95-16T, Judgment, ¶ 521 (Int'l Crim. Trib. for the Former Yugoslavia Jan. 14, 2000).

⁴⁸ For a description of what “direct part in hostilities” means, see Law of War, *supra* note 24, § 4.8.1.5. See also Adil Ahmad Haque, *Off Target: Selection, Precaution, and Proportionality in the DoD Manual*, 92 INT'L L. STUD. 31, 61 (2016) (“[C]ivilians can only lose their legal rights through their own conduct.”). See generally Trevor A. Keck, *Not All Civilians Are Created Equal: The Principle of Distinction, the Question of Direct Participation in Hostilities and Evolving Restraints on the Use of Force in Warfare*, 211 MIL. L. REV. 115 (2012). For the ICRC’s view on civilians taking a direct part in hostilities, see Caitlin McNamara, *Targeting Decisions in the Crosshairs of Humanitarian Law and Human Rights Law*, 5 CREIGHTON INT'L & COMP. L.J. 1, 18–19 (2014).

⁴⁹ See Law of War, *supra* note 24, § 5.8.3 (citations omitted); Ryan T. Krebsbach, *Totality of the Circumstances: The DoD Law of War Manual and the Evolving Notion of Direct Participation in Hostilities*, 9 J. NAT'L SEC. L. & POL'Y 125, 126 (2017) (“The preferred approach in determining whether an individual has become a member of a non-State armed group is to consider whether, under a totality of the circumstances, he performs functions for that group, either formally or on a continuous basis, that would ordinarily be associated with functions performed by a member of a State armed force.”); cf. Jay C. Jackson, Applying the U.S. and ICRC Standards for Direct Participation in Hostilities to Civilian Support of U.S. Military Operations (May 21, 2002) (Master’s Thesis, George Washington University Law School) (ProQuest) (explaining the ICRC standard, which “requires the civilian’s action to meet a certain threshold of harm, to have a direct causal link to the harm that results from the act, and to be specifically designed to support one belligerent and harm another.”) (citing International Committee of the Red Cross, *INTERPRETIVE GUIDANCE ON THE NOTION OF DIRECT PARTICIPATION IN HOSTILITIES UNDER INTERNATIONAL HUMANITARIAN LAW* 46 (2009)).

⁵⁰ See Law of War, *supra* note 24, § 5.8.3 (highlighting other relevant factors).

concept of the “revolving door.”⁵¹ A prototypical example of the “revolving door” is that of a civilian who farms during the day and plants roadside improvised explosive devices by night.⁵² Unlike the view promulgated in Additional Protocols (“AP”) I and II to the 1949 Geneva Conventions,⁵³ the United States’ stance is that a commander can target an individual who demonstrates a pattern of engaging in direct hostilities even if that person is not taking part in hostilities at that time.⁵⁴ The ICRC’s view, on the other hand, is that the two farmers in the previous example can be targeted only “for such time” as they engage directly in hostilities.⁵⁵ Even from the United States’ perspective, if the civilian has permanently ceased participation in hostilities, that individual would no longer be subject to attack.⁵⁶

It is not always easy for commanders to identify belligerents versus civilians.⁵⁷ This task is made even harder since in the United

⁵¹ See *id.* § 5.8.4.2; see also Cynthia Marshall, *Civilians with Skin in the Game: The Law of War Manual’s Rejection of the ICRC Guidance on Direct Participation in Hostilities*, 225 MIL. L. REV. 259, 269–70 (2017).

⁵² See Michael N. Schmitt, *The Interpretive Guidance on the Notion of Direct Participation in Hostilities: A Critical Analysis*, 1 HARV. NAT'L SEC. J. 5, 37 (2010).

⁵³ Protocol (I) Additional to the Geneva Conventions of August 12, 1949, and Relating to the Protection of Victims of International Armed Conflicts, Jun. 8, 1977, 1125 U.N.T.S. 3, art. 51(3) [hereinafter AP I] (“Civilians shall enjoy the protection [from being made the object of attack], unless and for such time as they take a direct part in hostilities.”); Protocol (II) Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts, Jun. 8, 1977, 1125 U.N.T.S. 609, art. 13(3) [hereinafter AP II].

⁵⁴ See Law of War, *supra* note 24, § 5.8.4.2 (“[P]ersons who . . . engage[] in a pattern of taking a direct part in hostilities do not regain protection from being made the object of attack in the time period between instances of taking a direct part in hostilities.”); see also R.J. Lesperance, *Civilians Taking Direct Part in Hostilities: Why the ‘Revolving Door’ Must Become a One-Way Turnstile* (2012–2013) (Master’s Thesis, Canadian Forces College) (on file with school). The United States does not support as CIL all portions of AP I or AP II, including taking a direct part in hostilities. See Law of War, *supra* note 24, § 5.8.1.2. Further, the Law of War manual provides examples that do not rise to the level of taking direct part in hostilities: showing sympathy or “moral support” to the enemy, general financial contributions, upholding law and order, journalism, working in a factory distant from the military theater, or providing humanitarian assistance. *Id.* § 5.8.3.2. For an Israeli take on the concept of the “revolving door,” see McNamara, *supra* note 48, at 10–11.

⁵⁵ See Marshall, *supra* note 51, at 261.

⁵⁶ Law of War, *supra* note 24, § 5.8.4.1. Persons that are hors de combat are also immune from direct attack. These persons include detained fighters, fighters who have just surrendered, incapacitated persons, or pilots parachuting out of an aircraft in distress. *Id.* § 5.9.

⁵⁷ See, e.g., ANICÉE VAN ENGELAND, *CIVILIAN OR COMBATANT?: A CHALLENGE FOR THE 21ST CENTURY* xvi (2011).

States' view, there is no presumption for civilian status under CIL.⁵⁸ Most of the international community follows AP I's admonition that if there is doubt, the individual should be considered a civilian.⁵⁹ Ultimately, U.S. commanders are expected to make status determinations "in good faith based on the information available to them in light of the circumstances . . . at th[at] time."⁶⁰ Following a botched August 2021 drone strike, a Central Command representative summed up the difficulty of applying a distinction in an urban environment: the "targeting process had been vastly complicated by enemies who 'plan, resource and base themselves in and among local populace.'"⁶¹

The principle of distinction is an implicit component of the CCV chart outlined later in this Article.⁶² It is important to note that everyone in the CCV chart is a civilian.⁶³ Otherwise, the individual would not have a value: that person would be either a combatant or an unprivileged belligerent and subject to attack. The next section turns to proportionality.

2. Proportionality

Once commanders identify belligerents and decide to target them, the commander must apply the principle of proportionality. Commanders cannot attack belligerents "in a way that is unreasonable or excessive."⁶⁴ Of course, LOAC accepts that military forces may kill civilians incidentally while targeting lawful military objectives.⁶⁵ Thus, no civilian death is per se unreasonable or excessive.⁶⁶ Instead,

⁵⁸ Law of War, *supra* note 24, § 5.4.3.2.

⁵⁹ AP I, *supra* note 53, art. 52(3). Some nations take a modified view on civilian presumption. See, e.g., UNITED KINGDOM MINISTRY OF DEFENCE, THE JOINT SERVICE MANUAL OF THE LAW OF ARMED CONFLICT, 2004, § 5.3.4 ("substantial doubt" presumption). At least one national security scholar thinks that the United States should adopt the larger international community's view. See Ryan Goodman, *Clear Error in the Defense Department's Law of War Manual: On Presumptions of Civilian Status*, JUST SEC. (Feb. 9, 2022), <https://www.justsecurity.org/80147/clear-error-in-the-defense-departments-law-of-war-manual-on-presumptions-of-civilian-status/> [https://perma.cc/STX7-6Y2T] (advocating that the United States should affirm AP I's presumption of civilian status when there is doubt).

⁶⁰ Law of War, *supra* note 24, § 5.4.3.2.

⁶¹ Khan, *supra* note 8.

⁶² See *infra* Part III; Appendix A.

⁶³ See *infra* Appendix A.

⁶⁴ Law of War, *supra* note 24, § 2.4 (citation omitted).

⁶⁵ *Id.* § 5.10.

⁶⁶ *Id.*

it is a sliding scale. The difficulty is identifying the definition of “unreasonable” and “excessive.”⁶⁷ This section will summarize what international law requires and then will discuss the unique challenges that the standard presents.

a. Proportionality Defined

Per AP I, prohibited attacks include those which are “expected to cause incidental . . . injury to civilians, [or] damage to civilian objects . . . which would be excessive in relation to the concrete and direct military advantage anticipated.”⁶⁸ This concept has two components. First, warfighters may not carry out attacks where the anticipated incidental harm is “excessive in relation to the concrete and direct military advantage anticipated to be gained.”⁶⁹ Second, the attacking forces must “take feasible precautions . . . to reduce the risk of harm to civilians . . . being made the object of attack.”⁷⁰ Both principles demand that commanders—given the information provided by intelligence analysts—make subjective comparisons between a target’s military value and the expected number of civilians who may be killed.⁷¹

The proportionality analysis can be summed up with two questions. First, can the military objective be positively identified? Second, would any harm to civilians exceed the predicted military advantage? Precautions need only be feasible.⁷² If using a Low Collateral Weapon (“LCW”) will not achieve desired effects on the target, then it would not be feasible to use that weapon.⁷³ Ultimately, civilian deaths are necessary as long as those deaths are not “excessive” or “unreasonable.”⁷⁴

Should a commander face scrutiny for a strike that causes civilian casualties, the reviewing tribunal will “examine whether a reasonably well-informed person in the circumstances of the actual perpetrator, making reasonable use of the information available to him or her,

⁶⁷ *Id.*

⁶⁸ *Id.* § 5.10.1.2, n.297 (quoting AP I, *supra* note 53, art. 57(2)(a)). The United States has accepted this provision in AP I as CIL. See Law of War, *supra* note 24, § 5.12.

⁶⁹ Law of War, *supra* note 24, § 2.4.1.2.

⁷⁰ *Id.* But see President Biden’s statement that the United States takes “every precaution possible” to minimize civilian casualties. Biden, *supra* note 2.

⁷¹ See Law of War, *supra* note 24, § 2.4.1.2.

⁷² *See id.*

⁷³ *Id.*

⁷⁴ *Id.* § 5.10.

could have expected excessive civilian causalities [sic] to result from the attack.”⁷⁵ Under the “reasonable military commander” test, the question is whether the commander’s proportionality decision was “reasonable.”⁷⁶ United States law is full of “reasonableness” tests.⁷⁷ One of the problems with this type of standard is the definition of a “reasonable person,” or here, a “reasonable commander.” Indeed, any two commanders may disagree; even the same commander might make different decisions at different times. Thus, commanders are viewed, “based on the information available” to them at the time,⁷⁸ as a “person with all the experience, training, and understanding of military operations”⁷⁹

⁷⁵ LAURENT GISEL, THE PRINCIPLE OF PROPORTIONALITY IN THE RULES GOVERNING THE CONDUCT OF HOSTILITIES UNDER INTERNATIONAL HUMANITARIAN LAW 53 (2016) (quoting Prosecutor v. Galić, Case No. IT-98-29-A, Appeal Judgment, ¶ 58 (Int'l Crim. Trib. for the Former Yugoslavia Nov. 30, 2006)).

⁷⁶ Law of War, *supra* note 24, § 5.10.2.2; see JEFFREY A. ROCKWELL & CHRISTOPHER A BROWN, THE LAW OF AIR, SPACE, AND CYBER OPERATIONS 16 (4th ed. 2020) (“If the commander can clearly articulate in a reasonable manner what the military importance of the target is and why the anticipated civilian collateral injury and damage is outweighed by the military advantage to be gained, this will generally satisfy a ‘reasonable military commander’ standard.”); U. N. Int'l Crim. Tribunal for the Former Yugoslavia, Final Report to the Prosecutor by the Committee Established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia, para. 50 (June 13, 2000), <https://www.icty.org/x/file/Press/nato061300.pdf> [<https://perma.cc/7E6L-SZW2>] (“It is suggested that the determination of relative values must be that of the ‘reasonable military commander.’ Although there will be room for argument . . . , there will be many cases where reasonable military commanders will agree that the injury to noncombatants or the damage to civilian objects was clearly disproportionate to the military advantage gained.”).

⁷⁷ Tort law’s “reasonably careful person under the circumstances” is one example. See THE LAW OF TORTS ¶ 293 (Dan B. Dobbs, Paul T. Hayden & Ellen M. Bublick eds., 2d ed. 2011). For the reasonable care standard distinguished from the medical standard, see *id.* See also Bus. Guides, Inc. v. Chromatic Commc'ns Enters., Inc., 498 U.S. 533 (1991) (discussing the objective standard of reasonable inquiry).

⁷⁸ Law of War, *supra* note 24, § 5.10.2.3 (“Commanders and other decision-makers must make decisions in good faith and based on the information available to them. Even when information is imperfect or lacking . . . , commanders and other decision-makers may direct and conduct military operations, so long as they make a good faith assessment of the information that is available to them at that time.”).

⁷⁹ Ian Henderson & Kate Reece, *Proportionality under International Humanitarian Law: The “Reasonable Military Commander” Standard and Reverberating Effects*, 51 VAND. J. TRANSNAT'L L. 835, 845–46 (2018).

b. Challenges to Proportionality

There are at least three challenges to applying the principle of proportionality. First, how can commanders accurately measure the value of civilians? Given the prevalence of subjective factors, it may be difficult to turn the commander's decision into a mathematical equation.⁸⁰ It may be true that there is no equation to balance military benefits versus civilian harm, but the day may come when Artificial Intelligence ("AI") helps commanders gather relevant information to make those calculations.⁸¹ In that case, a CCV calculation could become indispensable.⁸² Further, as one sees in the United States' current targeting process,⁸³ civilians are counted, but they are not sufficiently classified as to their identity and activities. The CCV chart will thus provide the commander with an objective metric.⁸⁴

The second challenge is to defeat a presumed fiction that commanders in today's battles do not have to worry about civilian casualties.⁸⁵ The United States' diligence in reducing civilian casualties⁸⁶ and the development of LCWs⁸⁷ have raised a valid issue. LCWs are often

⁸⁰ Michael N. Schmitt & Michael Schauss, *Uncertainty in the Law of Targeting: Towards A Cognitive Framework*, 10 HARV. NAT'L SEC. J. 148, 165 (2019) ("[T]hese formulae are not to be applied mechanistically.").

⁸¹ See, e.g., Jody Williams, *PART I: Killer Robots: A Third Revolution in Warfare?*, GEO. J. INT'L AFFS. (Mar. 19, 2021), <https://gjia.georgetown.edu/2021/03/19/part-i-killer-robots-a-third-revolution-in-warfare/> [https://perma.cc/4985-GLGK].

⁸² See *id.* ("Autonomous weapons would be able to receive, process, and react to information much more quickly than any human being."); *infra* Section III.A.

⁸³ See *infra* Section I.B.

⁸⁴ See *infra* APPENDIX A.

⁸⁵ See, e.g., Kristina Wong, *US Aim for 'Zero Civilian Casualties' Draws Criticism*, THE HILL (June 24, 2015, 6:00 AM), <https://thehill.com/policy/defense/policy-strategy/245932-us-aims-for-zero-civilian-casualties-in-war-vs-isis/amp/> [https://perma.cc/2JVK-SEMX].

⁸⁶ See DEP'T OF DEF., ANNUAL REPORT ON CIVILIAN CASUALTIES IN CONNECTION WITH UNITED STATES MILITARY OPERATIONS IN 2020 (2021); James Igoe Walsh, *Precision Weapons, Civilian Casualties, and Support for the Use of Force*, 36 POL. PSYCH. 507, 508 (2015) ("The public wishes to avoid civilian casualties Precision weapons make it easier to achieve this objective, and the public adjusts its expectations with this in mind.").

⁸⁷ E.g., *GBU-39B Small Diameter Bomb Weapon System*, U.S.A.F., <https://www.af.mil/About-Us/Fact-Sheets/Display/Article/104573/gbu-39b-small-diameter-bomb-weapon-system/> [https://perma.cc/P6H6-JP6U] (last visited Mar. 6, 2022) (250-pound guided munition); Kris Osborn, *America's BLU-129 Bomb Turns Jets Into Aerial Snipers*, NAT'L INT. (Apr. 6, 2021), <https://nationalinterest.org/blog/reboot/americas-blu-129-bomb-turns-jets-aerial-snipers-182016> [https://perma.cc/T45Y-3CWD] (describing another type of LCW).

employed to minimize risk to civilians, but they may not achieve the commander's desired effects on target due to the weapons' generally small explosive yield.⁸⁸ Commanders therefore may have a false sense of security when trying to minimize or eliminate civilian casualties because if the LCW does not achieve desired effects, then the commander will likely have to use a more destructive weapon.⁸⁹ Additionally, these weapons may still injure civilians despite having a lower explosive yield than standard weapons.⁹⁰ Thus, civilians may be at risk even with the availability of LCWs.⁹¹

Finally, the reasonable commander framework does not convey the magnitude of how intuition influences commanders' proportionality decisions. To begin, military commanders are not "paralyzed by the absence of an optimal answer to valuing civilian lives."⁹² They cannot afford to be passive. Yet the absence of objective standards for measuring the value of civilian casualties means that commanders necessarily rely on their intuition.⁹³

⁸⁸ Should a commander employ a LCW against a hardened bunker target, to achieve desired effects, the next weapon employed might be one with a much higher explosive yield. E.g., Rachel S. Cohen, *The Air Force Is Testing a New Bunker-Busting Bomb that Could Counter North Korea and Iran*, A.F. TIMES (Oct. 12, 2021), <https://www.airforcetimes.com/news/your-air-force/2021/10/12/the-air-force-is-testing-a-new-bunker-busting-bomb-that-could-counter-north-korea-and-iran/> [https://perma.cc/S8CV-PURF].

⁸⁹ See generally *Composite Bomb Bodies*, AEROJET ROCKETDYNE, <https://www.rocket.com/defense/munitions/composite-bomb-bodies> [https://perma.cc/P99K-7N8P] (last visited Mar. 6, 2022). But see Khan, *supra* note 8 ("We develop all these capabilities, but we don't use them to buy down risk for civilians. We just use them so we can make attacks that maybe we couldn't do before.").

⁹⁰ See Khan, *supra* note 8 ("According to the military's count, 1,417 civilians have died in airstrikes in the campaign against ISIS in Iraq and Syria; since 2018 in Afghanistan, U.S. air operations have killed at least 188 civilians."). Of course, LCWs were not employed in all of these strikes, but logically, some LCWs were used.

⁹¹ See BRUCE CRONIN, BUGSPLAT: THE POLITICS OF COLLATERAL DAMAGE IN WESTERN ARMED CONFLICTS 73 (2018) (marking that the NATO air campaign in Kosovo resulted in civilian casualties despite being "the most precise and lowest collateral damage air operation ever conducted") (citation omitted).

⁹² R. Scott Adams, *Power and Proportionality: The Role of Empathy and Ethics on Valuing Excessive Harm*, 80 A.F. L. REV. 149, 165 (2019).

⁹³ *Id.* ("Th[e] commander must estimate the value of civilian harm and compare it to military advantage, without any specific guidance or assistance on how to weigh or assign these values."); see also Luke A. Whittemore, *Proportionality Decision Making in Targeting: Heuristics, Cognitive Biases, and the Law*, 7 HARV. NAT'L SEC. J. 577, 619–20 (2016). Confirmation bias may have led to the botched August 2021 drone strike. See Khan, *supra* note 8.

Giving commanders more objective information and clear standards will reduce biased decision-making. Specifically, a CCV chart like the one in Appendix A will facilitate the refining application of potential civilian casualties.⁹⁴ This will help ensure that commanders' proportionality decisions are more informed and objective.

B. U.S. Targeting Process

The United States' targeting process may be described in a sanitary manner,⁹⁵ but it is a deadly art⁹⁶ that demands careful balancing under the principle of proportionality.⁹⁷ This section will describe the targeting process and CDM.

1. Joint Targeting Cycle

The joint targeting cycle is the "iterative, logical methodology for the development, planning, execution, and assessment of targeting, weapons, and capabilities effectiveness," and has six steps.⁹⁸ This Article focuses on the first three steps: (1) commander's end state, (2)

⁹⁴ See *infra* APPENDIX A.

⁹⁵ JOINT CHIEFS OF STAFF, JOINT PUB'N 3-60, JOINT TARGETING I-1 (2013) [hereinafter JP 3-60] ("Targeting is the process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities.").

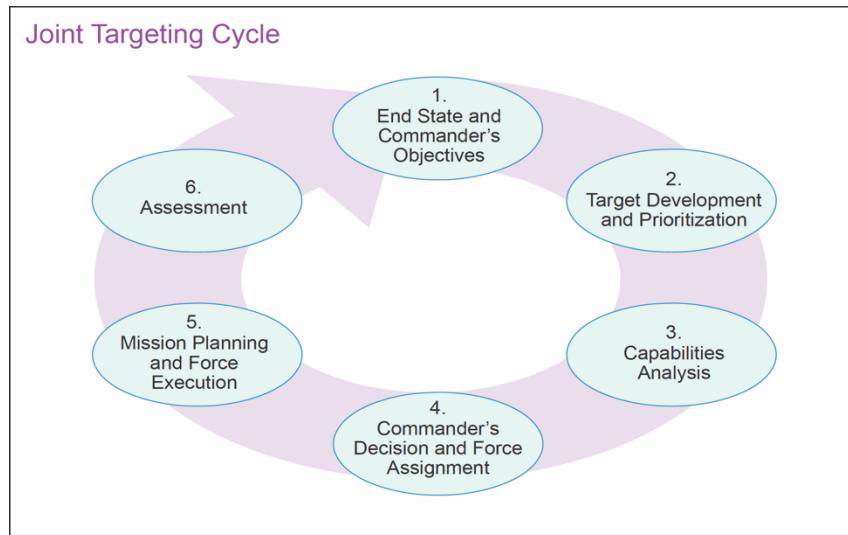
⁹⁶ While targeting may not be best described as killing people and breaking things, the United States has perfected the art of synchronizing and maximizing fires to achieve optimal effects on enemy targets. M.L. Cavanaugh, *The Military's Purpose is Not to Kill People and Break Things*, WAR ON THE ROCKS (Aug. 26, 2015), <https://warontherocks.com/2015/08/the-militarys-purpose-is-not-to-kill-people-and-break-things/> [<https://perma.cc/2KYW-EYU3>]; see also Danielle L. Infeld, *Precision-Guided Munitions Demonstrated Their Pinpoint Accuracy in Desert Storm; But Is a County Obligated to Use Precision Technology to Minimize Collateral Civilian Injury and Damage?*, 26 GEO. WASH. J. INT'L L. & ECON. 109 (1992).

⁹⁷ See, e.g., James A. Burkart, *Deadly Advice: Judge Advocates and Joint Targeting*, 2016 ARMY L. 10, 12 (2016) (statement of Marine Corps judge advocate) ("[T]argeting is a delicate balance between . . . the capability to effectively conduct military operations and the humanitarian mandate of both shielding those who are uninvolved . . . and protecting those who are involved . . . from unnecessary harm.") (quoting Michael N. Schmitt & Eric W. Widmar, "*On Target*": *Precision and Balance in the Contemporary Law of Targeting*, 7 J. NAT'L SEC. L. & POL'Y 379 (2014)).

⁹⁸ JP 3-60, *supra* note 95, at I-6.

target development, and (3) capabilities analysis.⁹⁹ The targeting cycle is reproduced below.¹⁰⁰

Figure 1: Joint Targeting Cycle¹⁰¹



a. Commander's End State

In the first phase, the commander lays out his desired end state and objectives.¹⁰² The commander also shares his vision and gives broad direction to subordinates.¹⁰³ This stage dictates the rest of the targeting cycle.

b. Target Development

The second phase is target development and prioritization.¹⁰⁴ Here, targeteers perform systems analysis, conduct entity-level target development, and create target lists.¹⁰⁵ A target is a person, object, or location that is “considered for possible engagement or action to alter

⁹⁹ *Id.* at II-3.

¹⁰⁰ *Id.*; cf. Scott E. McIntosh, *The Wingman-Philosopher of MiG Alley: John Boyd and the OODA Loop*, 58 AIR POWER HIST. 24 (2011) (discussing John Boyd’s Observe-Orient-Decide-Act iterative cycle).

¹⁰¹ JP 3-60, *supra* note 95, at II-4.

¹⁰² *Id.* at II-4-5.

¹⁰³ *Id.*

¹⁰⁴ *Id.* at II-5.

¹⁰⁵ *Id.*

or neutralize the function it performs for the adversary.”¹⁰⁶ Every selected target helps the commander achieve his desired end state.¹⁰⁷ Because targeting—the act of striking targets—is the kinetic manifestation of the commander’s will, targeteers conduct extremely detailed analyses of targets.¹⁰⁸ Specifically, targeteers analyze each target’s “[p]hysical, functional, cognitive, environmental, and temporal” characteristics.¹⁰⁹ They also scrutinize enemy objectives for “critical vulnerabilities or other key system nodes” and apply complex “nodal analysis to yield target sets, targets, critical elements, and aim-points.”¹¹⁰

After developing and classifying potential targets, the next step is assigning priorities.¹¹¹ There are certain target categories that merit special attention. For example, sensitive targets are those which require presidential or Secretary of Defense approval because attacking them may “exceed national-level thresholds such as high collateral damage or collateral effect[s,] . . . adverse political or diplomatic ramifications[,] . . . environmental harm/hazard[,] . . . or adverse public sentiment.”¹¹² Other categories include high-value and high-payoff targets.¹¹³ Finally, time-sensitive targets are “of such high importance to the accomplishment of the [commander’s] mission and objectives, or . . . present[] such a significant strategic or operational threat to friendly forces or allies” that the commander will divert assets to prosecute these targets.¹¹⁴

Targeteers thus embark on a “foundational process of system-level target development,” zeroing in on a target’s criticality and vulnerability by applying discrete factors.¹¹⁵ Finally, they identify

¹⁰⁶ *Id.* at I-1.

¹⁰⁷ JP 3-60, *supra* note 95, at I-2. In fact, commanders promulgate targeting guidance early in the targeting cycle. JOINT TARGETING SCHOOL, JOINT TARGETING SCHOOL STUDENT GUIDE 6 (2017) [hereinafter JTS Guide], https://www.jcs.mil/Portals/36/Documents/Doctrine/training/jts/jts_student-guide.pdf?ver=2017-12-29-171316-067 [<https://perma.cc/PTS3-W7VY>].

¹⁰⁸ JP 3-60, *supra* note 95, at I-2.

¹⁰⁹ *Id.* (emphasis removed).

¹¹⁰ JTS Guide, *supra* note 107, at 6.

¹¹¹ JP 3-60, *supra* note 95, at I-10.

¹¹² *Id.* at I-8.

¹¹³ A *high-value target* is one that the enemy deems necessary for his end state. *Id.* at I-9. A *high-payoff target*, on the other hand, is one that will contribute to friendly forces’ success. *Id.*

¹¹⁴ *Id.*

¹¹⁵ *Id.* at II-7-11.

candidates, nominate targets to the target list, and further develop selected targets.¹¹⁶

c. Capabilities Analysis

The third step, capabilities analysis, introduces expected collateral damage.¹¹⁷ Planners in this stage first “evaluat[e] all available capabilities against targets’ critical elements to determine the appropriate options available to the commander.”¹¹⁸ This includes conducting a vulnerability analysis, capabilities assignment, and feasibility assessment on the target.¹¹⁹ Next, weapons are matched to the target.¹²⁰ Only then do targeteers perform Collateral Damage Estimation (“CDE”).¹²¹

2. *Collateral Damage Estimation Methodology*

The United States considers minimization of collateral damage a key to success on the battlefield.¹²² Commanders try to minimize collateral damage with CDM, the process in which analysts develop information required for the commander’s proportionality decision.¹²³

¹¹⁶ JP 3-60, *supra* note 95, at I-11-12.

¹¹⁷ *Id.* at II-13 to -16.

¹¹⁸ *Id.* at II-13.

¹¹⁹ *Id.* at II-13-14.

¹²⁰ *See id.* at II-14.

¹²¹ *Id.* at II-14.

¹²² See, e.g., Elizabeth Dickinson, *A Bright Shining Slogan*, FOREIGN POL’Y (Aug. 22, 2009, 5:22 PM), <https://foreignpolicy.com/2009/08/22/a-bright-shining-slogan/> [<https://perma.cc/JKV7-JY2N>]; BUDIANSKY, *supra* note 3, at 184–344. As the United States recognizes, “[p]erceived use of disproportionate force undermines support in the U.S., from coalition partners, and within the contested area.” JOINT CHIEFS OF STAFF, CJCSI 3162.02, METHODOLOGY FOR COMBAT ASSESSMENT D-1 (2019); see also JOINT CHIEFS OF STAFF, CJCSI 3160.01A, NO-STRIKE AND THE COLLATERAL DAMAGE ESTIMATION METHODOLOGY A-4 (2012) [hereinafter Collateral Damage Estimation Methodology] (“Due to the nature of operations and the potential strategic risk posed to the U.S. Government, due diligence is critical to ensure personnel are trained in the [Collateral Damage Estimation Methodology].”); *id.* at A-6 (“It is an inherent responsibility of all commanders, observers, air battle managers, weapons directors, attack controllers, weapons systems operators, intelligence analysts, and targeting personnel” to establish positive identification of targets before attacking, identify collateral damage concerns like civilians in a weapon’s expected blast radius, and apply an appropriate level of CDE.).

¹²³ Collateral Damage Estimation Methodology, *supra* note 122, at D-1 (“CDM encompasses the joint standards, methods, techniques, and processes for a commander to conduct CDE and mitigate unintended or incidental damage or injury to civilian or noncombatant persons or property or the environment.”).

CDM is best explained as a “balance of science and art.”¹²⁴ However, because there is more art than science in CDM,¹²⁵ introducing objectivity is critical.¹²⁶

CDM practitioners start with the target and expected weapon’s effects.¹²⁷ If there are no risks of civilian casualties, then the analysis is complete.¹²⁸ But if there are risks of civilian casualties, then the practitioner moves to Level 2.¹²⁹ Here, targeteers see if different weapons or alternate engagement methods will eliminate the risk of casualties.¹³⁰ If there are still expected casualties, then targeteers explore more refined weaponeering options in Level 3.¹³¹ Level 4, if necessary, investigates additional mitigation such as adjusting the attacking aircraft’s delivery heading, using delay or variable-time bomb fuzes, or using aimpoint offsets.¹³² Finally, if the risk of casualties is still expected, then targeteers count the number of expected casualties in Level 5.¹³³

Level 5 CDM asks, “How many civilians and noncombatants do I think will be injured/killed by the attack?”¹³⁴ However, the CDM manual warns that “[n]o precise means exists to predict noncombatant demographics.”¹³⁵ Instead, analysts are encouraged to use “discretion,

¹²⁴ *Id.*

¹²⁵ *Id.* at D-1, D-3 (“Through “empirical data, probability, historical observations, and complex modeling,” expected weapons effects are well known. What is not well known is who, exactly, may be killed by these weapons. And there are already many other subjective variables like “[o]perational objectives, end state considerations, LOW, ROE, target characteristics, risk to friendly forces, and strategic risk are examples of other factors that contribute to a commander’s decision[-]making”).

¹²⁶ *Id.* at D-1 (“As a science, the CDM uses a mix of empirical data, probability, historical observations, and complex modeling for CDE analysis. However, the science is inherently limited by the quantity and reliability of collected and analyzed weapons effects data, weapon delivery uncertainties, and target information. Furthermore, the science of the CDM cannot always account for the dynamics of the operational environment. Therefore, the art of the CDM is not only complementary but critical.”); *see also* Schmitt & Schauss, *supra* note 80, at 192 (“We have not attempted to solve the perennial problem of how to address the uncertainty in targeting that haunts those involved in lethal and destructive operations during warfare.”).

¹²⁷ Collateral Damage Estimation Methodology, *supra* note 122, at D-2–3.

¹²⁸ *Id.* at D-A-12.

¹²⁹ *See id.* at D-A-12 to -18.

¹³⁰ *Id.* at D-A-13.

¹³¹ *Id.* at D-A-18 to -23.

¹³² *Id.* at D-A-26.

¹³³ Collateral Damage Estimation Methodology, *supra* note 122, at D-A-30.

¹³⁴ *Id.*

¹³⁵ *Id.* at D-A-31.

experience, and current intelligence” to help estimate the number of civilians.¹³⁶ While Level 5 estimates should “never be portrayed as an expected ‘casualty count[,]’” commanders are often directed by rules of engagement (“ROE”)¹³⁷ to compare these numbers to a “civilian casualty cutoff value” or Non-combatant Casualty Cut-off Value (“NCV”).¹³⁸

The targeting process provides no equation or simple calculator for commanders to balance military necessity with the prevention of unnecessary civilian casualties.¹³⁹ In fact, the disproportionate focus is put on the target at the expense of discovering more about expected civilian casualties.¹⁴⁰ Thus, commanders make decisions with minimal information about civilians. Targeteers and intelligence personnel, however, should do more than count civilians. They should affix comparative values to civilians to give the commander an objective starting point as to the value of civilian lives. Further, the need to develop these values will provide the commander with more information about civilians. The next section of this Article expands on these reasons.

II. WHY THE TARGETING PROCESS NEEDS IMPROVEMENT

Commanders must seek more objectivity in making proportionality decisions. Yet skeptics may ask “[h]ow can one set a value for human life?”¹⁴¹ There are arguments on both sides as to the value of

¹³⁶ *Id.* at D-A-32.

¹³⁷ ROE are “Directives issued by competent military authority that delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered.” JOINT PUBLICATION 1-04, Legal Support to Military Operations, GL-3 (Aug. 17, 2011). “ROE are used by States to tailor the rules for the use of force to the circumstances of a particular operation.” Law of War, *supra* note 24, § 1.6.5.

¹³⁸ Collateral Damage Estimation Methodology, *supra* note 122, at D-A-31. NCV is a restrictive ROE that commanders (or political leaders) institute to prevent lower commanders from exceeding a certain casualty number without authorization. *Id.* at GL-5 (defining NCV).

¹³⁹ Burkart, *supra* note 97, at 15 (“It is not as simple and precise as ‘using a calculator to solve a mathematical equation.’” (quoting Frederic L. Borch, *Targeting After Kosovo: Has the Law Changed for Strike Planners?*, LVI-2 NAVAL WAR C. REV. 75 (2003))).

¹⁴⁰ See JP 3-60, *supra* note 95, at II-20–30.

¹⁴¹ See Adams, *supra* note 92, at 161 (“The problem also shows the impossibility of placing relative values on human life. Centuries of debate among philosophers have failed to create meaningful answers to the question, and yet proportionality asks commanders to make similar decisions routinely, weighing whether the value in the destruction of an enemy’s personnel or capabilities is sufficient to destroy

human life, and philosophers have not reached a consensus.¹⁴² This Article does not try to answer this difficult ethical question. Instead, the Article focuses on the specific problem of how the United States can improve the current targeting process where civilian lives are measured.

Civilians are not treated equally in war.¹⁴³ Certainly, the United States military does not consider non-United States civilian lives equally in the targeting process.¹⁴⁴ Whether civilians should be treated

innocent lives as well. The fact remains that while jurists and theorists have ‘struggled mightily to invest proportionality with greater determinacy,’ no specific international consensus exists with respect to proportionality assessments, beyond: ‘It depends on the circumstances.’” (citations omitted); Barry A. Feinstein, *Proportionality and War Crimes in Gaza Under the Laws of Armed Conflict*, 36 RUTGERS L. REV. 224, 252 (2009) (“In the end, since the quantities being evaluated are such disparate factors, it would be extremely complex and difficult, if not altogether an impossible process, to determine some sort of impartial way to fairly and adequately measure the civilian casualties and damage and the military advantage, or to set up a precise proportional relationship between the two aspects.”); *see also* Adams, *supra* note 92, at 160 (“But, as the ICTY has elegantly understated, ‘one cannot easily assess the value of innocent human lives.’”) (citation omitted).

¹⁴² See, e.g., Michael D. Bayles, *The Price of Life*, 89 ETHICS 20 (1978); Feinstein, *supra* note 141, at 239 (“Human” understood in the way that every person is of equal value and has equal rights, something that is being contested in our neoliberal world both in theory and practice.); Emanuel Gross, *Use of Civilians As Human Shields: What Legal and Moral Restrictions Pertain to A War Waged by A Democratic State Against Terrorism?*, 16 EMORY INT’L L. REV. 445, 462–63 (2002) (citation omitted) (“Immanuel Kant opined that dilemmas of this type are insoluble as there is a moral imperative stating that human beings are equal in value, and every person must be treated as having his own value and being an end in himself.”).

¹⁴³ See Sloane, *supra* note 14; Watkin, *supra* note 17, at 643–45; Corn, *supra* note 19, at 153–54.

¹⁴⁴ The United States government and other entities do not consider the value of each citizen’s life equally. See e.g., Sarah Gonzalez, *How Government Agencies Determine the Dollar Value of Human Life*, NPR (Apr. 23, 2020, 3:59 PM), <https://www.npr.org/2020/04/23/843310123/how-government-agencies-determine-the-dollar-value-of-human-life> [<https://perma.cc/95R9-8KJ3>]; *Actuarial Life Table*, SOC. SEC. ADMIN., <https://www.ssa.gov/oact/STATS/table4c6.html> [<https://perma.cc/ZL5S-GCQX>] (last visited Mar. 6, 2022); DEP’T OF TRANSP., DEPARTMENTAL GUIDANCE: TREATMENT OF THE VALUE OF PREVENTING FATALITIES AND INJURIES IN THE PREPARING ECONOMIC ANALYSES (2021), <https://www.transportation.gov/sites/dot.gov/files/2021-03/DOT%20VSL%20Guidance%20-%202021%20Update.pdf> [<https://perma.cc/B2SJ-8FHL>]. Notice, however, that U.S. politicians loathe to claim that there is a price tag on the value of human life. E.g., Austin Frakt, *Putting a Dollar Value on Life? Governments Already Do*, N.Y. TIMES (May 11, 2020), <https://www.nytimes.com/2020/05/11/upshot/virus-price-human-life.html> [<https://perma.cc/3C6H-C852>]; Jim Rutenberg & Jackie Calmes, *False ‘Death Panel’ Rumor Has Some Familiar Roots*, N.Y. TIMES (Aug. 13, 2009),

equally is another discussion. The fact is that when commanders make targeting decisions, their judgments are colored by intuition, biases, prejudices, and heuristics.¹⁴⁵

Compare how civilians are counted in the United States' targeting process to how military targets are analyzed.¹⁴⁶ Targeteers rely on objective data for the target; why not also rely on data for expected civilian casualties?¹⁴⁷ CCV can help prevent individual commanders from inserting their personal preferences as to civilians' worth.¹⁴⁸ Indeed, some civilians may provide more or less support to the enemy and the commander should have that information. Commanders should be able to differentiate civilians serving as voluntary human shields from civilians trying to distance themselves from enemy activity.¹⁴⁹ In essence, civilians are not treated equally in the targeting process and there is not presently a reliable way to measure those differences. CDM only notes civilians' gender and if they are adults or children.¹⁵⁰

The current targeting process contains too much homogeneity. Mere tallies of men, women, and children obscure the true cost of civilian casualties. Without the heterogeneity of CCV, commanders have few objective clues to decide if the risk of killing a certain number of civilians is truly proportional. Determining CCV will allow commanders to make a more informed decision, as commanders would have to wrestle with different values for civilians, depending on their identity (e.g., age) and activity (e.g., level of support to the enemy) when deciding whether to attack, which will lead to a better proportionality decision.

<https://www.nytimes.com/2009/08/14/health/policy/14panel.html?module=inline>
[<https://perma.cc/847T-E2MG>].

¹⁴⁵ See Whittemore, *supra* note 93; Adams, *supra* note 92, at 168–78; Blank & Guiora, *infra* note 157, at 58–59; Tulving, *infra* note 159; Giesen, Schmidt & Rothmund, *infra* note 160.

¹⁴⁶ See U.S. AIR FORCE, AIR FORCE DOCTRINE PUBLICATION 3-60, TARGETING 41–55 (2021) (recounting the extensive process of target development and weaponeering).

¹⁴⁷ JP 3-60, *supra* note 95, at GL-9 (A *targeteer* is “[a]n individual who has completed [requisite] training [] and [guides] the joint targeting cycle in their current duties.”).

¹⁴⁸ See *infra* Section II.A.

¹⁴⁹ See *infra* APPENDIX A (compare CCV for individual who avoids helping the enemy (1.5) versus voluntary human shields (0.5)).

¹⁵⁰ Khan, *supra* note 8.

A. Make More Objective Proportionality Decisions

Comparative values for civilians may not turn the proportionality decision into a clean mathematical equation,¹⁵¹ but it will bring more objectivity. On one extreme, the United States could use a very simple system for bypassing a complicated proportionality decision. U.S. commanders could declare that any “military age male” in a target area is a belligerent.¹⁵² As such, if there was a group of people that looked like males at least sixteen-years-old, the commander could avoid having to decide whether harm to civilians is excessive because everyone in that group would be a belligerent.¹⁵³ Taking this one step further, commanders could theoretically create free fire zones where any person was subject to immediate attack.¹⁵⁴ On the other end of the spectrum, commanders could be so afraid of killing even one civilian that they never authorize a strike.¹⁵⁵ LOAC counsels that the proper balance is somewhere in the middle.¹⁵⁶ Thus, the commander must have sufficient tools and information to make a decision based on objective

¹⁵¹ Burkart, *supra* note 97, at 15 (“It is not as simple and precise as “using a calculator to solve a mathematical equation.”).

¹⁵² See Kevin Jon Heller, ‘*One Hell of a Killing Machine*’: Signature Strikes and International Law, 11 J. INT’L CRIM. JUST. 89 (2013) (“The ‘military-age male’ signature, it is worth noting, is an unfortunate remnant of the Vietnam War, during which the US government routinely presumed that any military-age male in a combat zone was a Viet Cong fighter.”).

¹⁵³ *See id.*

¹⁵⁴ OFFICE OF THE CHAIRMAN OF THE JOINT CHIEFS OF STAFF, DOD DICTIONARY OF MILITARY AND ASSOCIATED TERMS, 89 (2021) [hereinafter DoD Dictionary], <https://irp.fas.org/doddir/dod/dictionary.pdf> [<https://perma.cc/WV5Z-RQ9N>] (defining a free-fire area as designated geographical area where forces may employ any weapon without coordinating with the headquarters who established the area); *see also* *The Free-Fire Zone*, PBS (Sept. 1, 2017), <https://www.pbs.org/video/free-fire-zone-fwhiaa/> [<https://perma.cc/Q2K5-LLRV>] (explaining that during the Vietnam War, the United States created free-fire zones by relocating villages, demolishing any structures, and creating a landscape that “looked like Mars”). *See generally* Law of War, *supra* note 24, § 5.11.2 (describing the difference between Specified Strike Zones (SSZ) where the commander has identified areas where civilians are “more likely to be absent” and “Free Fire zones” that are prohibited).

¹⁵⁵ *See, e.g.*, Matthew Power & Ethan Levitas, *Confessions of a Drone Warrior*, GQ (Oct. 22, 2013), <https://www.gq.com/story/drone-uav-pilot-assassination> [<https://perma.cc/Z95K-JXGB>] (“A female operator, after her first shot, refused to fire again even under the threat of court martial.”).

¹⁵⁶ *See* Law of War, *supra* note 24, §§ 2.4, 5.10–12.

criteria.¹⁵⁷ Naturally, this should include a comparative value for civilians.

A related benefit to CCV is the lessening impact of several kinds of cognitive biases. One bias relates to how targeting starts with a detailed target summary.¹⁵⁸ Through primacy, the commander will remember and think about the target more than collateral damage concerns.¹⁵⁹ Next, the law of recency means that the commander will have a target-centric view if the commander reviews the target before making the final decision.¹⁶⁰ Additionally, an initial focus on the target can create an anchoring effect.¹⁶¹ The commander, who first receives information about the target may lean too heavily on that intelligence. Finally, without CCV, decision-makers will have no external reference to guide their valuation of civilian casualties. For example, a given commander might have greater empathy towards certain groups.¹⁶² CCV would help commanders refrain from arbitrary judgments influenced by their prejudices.

B. Process Information About Civilians

If the targeting process demands the input of CCV, commanders will not only receive more information on civilians, but they also will have a practical way to process it. A simple CCV rubric will allow commanders to better satisfy LOAC's requirement for warfighters to take "feasible precautions."¹⁶³ Moreover, if a United States president

¹⁵⁷ There is scholarship on how to "operationalize" targeting when commanders must apply the principle of distinction. 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, 58–59 (2010) ("Operationalizing LOAC gives commanders the tools to determine when civilians are not innocent, knowledge that is key to protecting soldiers and civilians."). Likewise, this Article will help commanders operationalize the proportionality decision.

¹⁵⁸ See *supra* Section I.B.1.b.

¹⁵⁹ See Endel Tulving, *On the Law of Primacy*, ch. 7 in *MEMORY AND MIND* (Mark Gluck et al. eds., 2007).

¹⁶⁰ See Carina G. Giesen, James R. Schmidt & Klaus Rothermund, *The Law of Recency: An Episodic Stimulus-Response Retrieval Account of Habit Acquisition*, FRONTIERS PSYCH. (Jan. 15, 2020), <https://www.frontiersin.org/articles/10.3389/fpsyg.2019.02927/full> [<https://perma.cc/X47M-SZV3>].

¹⁶¹ Adams, *supra* note 92, at 166.

¹⁶² Cf. id. (noting the phenomenon of being emotionally paralyzed).

¹⁶³ Law of War, *supra* note 24, § 5.10 ("Combatants must take feasible precautions in planning and conducting attacks to reduce the risk of harm to civilians and other persons and objects protected from being made the object of attack.").

asks commanders to take “every precaution possible,”¹⁶⁴ then it would be even more crucial for commanders to request CCV for expected civilian casualties.

Whether commanders are directed to take “feasible precautions” or “every precaution possible,” commanders must obtain as much information as practicable on what civilians may be injured or killed.¹⁶⁵ Certainly, that would mean gathering more information on civilians than just counting the number of civilians at risk. The August 2021 Afghanistan drone strike demonstrated that intelligence gaps can result in tragic consequences.¹⁶⁶ Yet with a requirement to develop CCV, the commander’s intelligence staff would have to gain detailed information on civilians. With greater data, analysts would then be able to inform the commander with more than just the gender and rough age for civilians. Intelligence analysts would discover whether a given civilian attacked United States forces; whether the individual has supported the enemy; whether a woman is pregnant; family relationships between civilians and belligerents; and numerous other factors.¹⁶⁷ It is important to note that the commander may still decide, even with more detailed information on civilians, that the value of the strike outweighs the expected number of casualties. The point is that the commander will have additional data to make a more informed decision.

The receipt of information is but the first step. Commanders would then be able to use CCV charts, like the one in Appendix A, to filter and process the information collected on civilians. Commanders can then tailor the CCV chart for their specific area of operation. For

¹⁶⁴ Biden, *supra* note 2; Obama, *supra* note 11. While politicians may state that the U.S. military takes “every precaution possible,” that is not the official U.S. position according to the DoD. See Law of War, *supra* note 24, § 2.4.1.2 (“Rather, [proportionality] creates obligations . . . to take *feasible precautions* in planning and conducting attacks . . .”) (emphasis added). In comparison, the ICRC’s view, and that of AP I, is that commanders must take “*all feasible precautions*” to avoid harm to civilians. AP I, *supra* note 53, art. 57(2)(a)(ii) (emphasis added); see also ICRC, *Customary IHL* (Rule 15. Principle of Precautions in Attack), https://ihl-databases.icrc.org/customary-ihl/eng/docindex/v1_rul_rule15 [https://perma.cc/CH6A-WQDD] (last visited Mar. 26, 2022).

¹⁶⁵ Khan, *supra* note 8 (“But to examine the documents and interview local people is to understand how often unseen civilians might have been seen, or their presence at least suspected, had the military had a more intimate knowledge of the war-torn fabric of everyday life.”); see Michael N. Schmitt & Eric W. Widmar, “*On Target*”: *Precision and Balance in the Contemporary Law of Targeting*, 7 J. NAT’L SEC. L. & POL’Y 379, 400–04 (2014).

¹⁶⁶ See Khan, *supra* note 8.

¹⁶⁷ See *infra* APPENDIX A.

example, if intelligence shows that a segment of the civilian population supports the enemy in certain ways (e.g., through money or information), then the commander can assign values to civilians in advance of making proportionality decisions. In sum, CCV will provide commanders not only with more information to measure CCV, but also a repeatable system for filtering and applying the information during targeting.

III. COMPARATIVE CIVILIAN VALUES

A. Defining Comparative Civilian Values

Treating all civilians alike leads to commanders making imprecise decisions. Commanders must instead have a methodical system that allows for comparative civilian value. However, CCV does not create a proportionality equation. CCV is simply a useful tool to allow the commander to distinguish between various types of civilians.

The CCV chart is designed to be simple.¹⁶⁸ To calculate CCV, one finds where a given civilian's identity and activity intersect.¹⁶⁹ Of course, the categories in the CCV chart are but one suggestion.¹⁷⁰ Commanders will, and should, adjust the categories as the mission and politics dictate. Before discussing the CCV chart, this section addresses the need for accurate information and the chart's assumptions.

First, intelligence staff must collect sufficient information on expected civilian casualties. Ideally, analysts would know as much, if not more, about civilians than the target. But the battlefield is complex. There is a practical limit to intelligence sources, particularly human intelligence ("HUMINT").¹⁷¹ Even in the United States, neither the

¹⁶⁸ Major General Carl von Clausewitz once wrote, "Simplicity in planning fosters energy in execution. Strong determination in carrying through a simple idea is the surest route to success. The winning simplicity we seek, the simplicity of genius, is the result of intense mental engagement." Willie Pietersen, *Von Clausewitz on War: Six Lessons for the Modern Strategist*, COLOM. BUS. SCH. IDEAS & INSIGHTS (Feb. 12, 2016) (quoting Carl von Clausewitz), <https://www8.gsb.columbia.edu/articles/node/1788/von-clausewitz-on-war-six-lessons-for-the-modern-strategist> [<https://perma.cc/2HL2-WKYB>].

¹⁶⁹ This Article uses *identity* instead of *status* because *status* connotes the determination of whether a detainee is a combatant, or if they are civilians/unprivileged belligerents. See Law of War, *supra* note 24, §§ 2.4., 3.4.2, 3.5.3, 4.18.3, 4.19.3.2.

¹⁷⁰ See *infra* APPENDIX A.

¹⁷¹ Satellite images may not lead to detailed information on civilians. See *Can Satellites See You? Can You See a Satellite?*, NOAA (Nov. 27, 2017), <https://www.nesdis.noaa.gov/news/can-satellites-see-you-can-you-see-satellite>

government,¹⁷² nor Google,¹⁷³ knows everything about its citizens. Thus, collecting sufficient information on the battlefield will require prioritization of high-demand, low-availability assets.¹⁷⁴

Further, the CCV chart requires that the practitioner make three assumptions. First, the comparative value framework will be created by responsible United States military commanders for specific regions. As such, commanders should add, subtract, or modify categories depending on the region, political directive, and current intelligence. As information changes, so too will the default CCV. Second, when there is no information available other than an age estimate, the commander will apply standardized values of 2.0 for infants, 1.5 for children, and 1.0 for adults. Finally, when there is doubt, commanders should assume the higher value.¹⁷⁵ This section now turns to the two factors—*identity* and *activity*—that help define CCV.

[<https://perma.cc/GZ47-8ZSQ>]. HUMINT, on the other hand, can provide very detailed information. See *Human Intelligence*, DIA, <https://www.dia.mil/Careers-Internships/Career-Fields/Human-Intelligence/> [<https://perma.cc/2FBA-GATC>] (last visited Mar. 30, 2022).

¹⁷² Or, at the least, it would take a lot of processing time and man-hours to classify, sort, and analyze such information. See Dennis Anon, *What Does the US Government Know About You?*, PRIVACY.NET (Feb. 17, 2018), <https://privacy.net/us-government-surveillance-spying-data-collection/> [<https://perma.cc/LU2Z-TLVF>]; cf. Mohammad Fazel Zarandi, Jonathan S. Feinstein & Edward H. Kaplan, *Yale Study Finds Twice as Many Undocumented Immigrants as Previous Estimates*, YALE INSIGHTS (Sept. 21, 2018), <https://insights.som.yale.edu/insights/yale-study-finds-twice-as-many-undocumented-immigrants-as-previous-estimates> [<https://perma.cc/G5EP-PDWL>] (showing that the United States lacks comprehensive information on immigrants in the United States).

¹⁷³ See Aaron Holmes, *Clicking this Link Lets You See What Google Thinks It Knows About You Based on Your Search History—and Some of Its Predictions Are Eerily Accurate*, INSIDER (Mar. 19, 2020, 12:35 PM), <https://www.businessinsider.com/what-does-google-know-about-me-search-history-delete-2019-10> [<https://perma.cc/C6YC-SR6J>].

¹⁷⁴ See, e.g., Timothy S. McWilliams & Nicholas J. Schlosser, *The Battle For Fallujah*, HISTORY DIV.: U.S. MARINE CORPS, <https://www.usmcu.edu/Portals/218/FALLUJAH.pdf> [<https://perma.cc/8XAX-A2WQ>] (last visited Sept. 16, 2022) (discussing the massive intelligence operation in the Battle of Fallujah); Larry Lewis & Ryan Goodman, *Civilian Casualties: We Need Better Estimates—Not Just Better Numbers*, JUST SEC. (Mar. 22, 2018), <https://www.justsecurity.org/54181/civilian-casualties-estimates-not-numbers/> [<https://perma.cc/3PF9-LGCQ>] (explaining the intelligence capabilities of the Gorgon Stare).

¹⁷⁵ No commander should assign values below the default without credible information. See Daniel Irwin & David R. Mendel, *Chapter 7—Standards for Evaluating Source Reliability and Information Credibility in Intelligence Production, in ASSESSMENT AND COMMUNICATION OF UNCERTAINTY IN INTELLIGENCE TO SUPPORT DECISION-MAKING* (David R. Mendel ed. 2020).

1. Identity

In the CCV chart, there are eight categories for *identity*: (1) children under one-year-old; (2) children between one and twelve-years-old, (3) pregnant women; (4) VIPs (5) children thirteen to fifteen-years-old; (6) persons older than retirement age (fifty-five-years-old); (7) persons of fighting age (sixteen to fifty-five-years-old); and (8) individuals with a belligerent as a family member.¹⁷⁶ Each of these categories has a baseline value. For example, an infant under one would have a baseline value of 2.0, a child aged one to twelve is given a 1.5,¹⁷⁷ and a person between sixteen and fifty-five has a 1.0. This does not mean that two adults equal one infant. It means that commanders should afford more protective value to infants killed in military strikes than an adult between sixteen and fifty-five.

Moreover, all *identity* values, except for the category of having a belligerent as a family member, are 1.0 or greater. The higher numbers do not necessarily mean that a civilian with a greater number is more deserving of protection than others. It means that the commander has greater reason to avoid harming infants and children compared to an adult who has family members who are belligerents. Using higher numbers for civilians' identities also helps to mitigate the concern that a civilian would be unduly penalized if an analyst makes a wrong assessment. For example, if an analyst falsely classifies a pregnant, adult female as being not pregnant and having a brother who is a belligerent, that female would have a proposed CCV of 0.9 compared to her actual CCV of 1.3.

2. Activity

The second aspect of the CCV chart is *activity*. To begin, no civilian on the CCV chart is subject to being targeted regardless of their

¹⁷⁶ See *infra* APPENDIX A.

¹⁷⁷ I have assigned different values for infants (less than one), children between one and twelve, and children between thirteen and fifteen. Infants have a much higher value than children. And older children, comparatively, are not equal to younger children. Teenagers aged thirteen to fifteen are more likely to be belligerents. See P.W. Singer, *Child Soldiers: The New Faces of War*, AM. EDUCATOR (2006), <https://www.aft.org/periodical/american-educator/winter-2005-2006/child-soldiers> [https://perma.cc/JN3N-CAK6] (citing that 23% of armed organizations worldwide use children fifteen and younger in combat, and that the average age of child soldiers is between twelve and thirteen). I have assumed that children between one and twelve are not fighters. Finally, as a default matter, children should have a higher value than persons generally of fighting age (sixteen or older).

activities. Civilians have not necessarily taken a direct part in hostilities, executed a continuous combat function, or shown membership in an acknowledged OAG.¹⁷⁸ If so, they would no longer be immune from targeting.¹⁷⁹ There are eight categories and the values descend from an individual who is aggressively non-engaging with the enemy (1.5), to one who provides major support to belligerents (0.5).¹⁸⁰ Some categories, like whether the person is an involuntary human shield or if the individual has provided no support to belligerents, are self-explanatory. For the others, commanders will have to develop criteria to determine whether a person has provided minor, moderate, or major support to the enemy.¹⁸¹

The calculation of specific values for *activity* is similar to the process used for *identity*. For instance, a civilian who avoids assisting the enemy gets a baseline value of 1.5, while one who has given major support to the enemy has a 0.5 value. To emphasize, CCV does not say that a person who aggressively avoids helping the enemy is worth more than those who are voluntary human shields.¹⁸² The point is that civilians who are acting as voluntary human shields should not count the same in the commander's mental calculation as civilians who have done everything possible not to help belligerents.

3. Application

For CCV, one finds the intersection of *identity* and *activity*. Then, in all categories except children and pregnant women, the practitioner subtracts 0.1 for men.¹⁸³ Two contrasting scenarios illustrate why CCV

¹⁷⁸ Law of War, *supra* note 24, § 4.18.1.

¹⁷⁹ See *id.* § 5.5.

¹⁸⁰ “Aggressively non-engaging” means a civilian who avoids assisting the enemy. For example, by moving out of an area where a terrorist group has claimed authority, or by refusing to allow the enemy the benefit of their home or business. Cf. STEFAN HEIBNER, PETER R. NEUMANN, JOHN HOLLAND-MCCOWAN & RAJAN BASRA, CALIPHATE IN DECLINE: AN ESTIMATE OF ISLAMIC STATE’S FINANCIAL FORTUNES (2017).

¹⁸¹ Indeed, there may be situations where civilians may not be targeted because they have not taken a direct part in hostilities, yet their level of support to the enemy is significant. See Geoffrey S. Corn, *Unarmed but How Dangerous? Civilian Augmentees, the Law of Armed Conflict, and the Search for A More Effective Test for Permissible Civilian Battlefield Functions*, 2 J. NAT’L SEC. L. & POL’Y 257, 279–86 (2008).

¹⁸² See *infra* APPENDIX A.

¹⁸³ Unless, of course, the responsible commander decides differently. Given the use of a slant that differentiates between men and women, it’s fair to say that at least

can aid commanders to make more informed and objective proportionality decisions. For each scenario, the target is the same: a mid-level leader of ISIS, and there are three male adults and two female adult civilians in the blast radius of the weapon planned to be used against the ISIS fighter. Each group's civilians have different identities and activities. Under the current CDM methodology, each groups' slant is 3/2/0 (three adult men, two adult women, and no children). Applying CCV pursuant to Appendix A, however, yields:

Scenario 1

1. Male, 35, indirect support to belligerents; brother is a belligerent (0.6)
2. Female, 25, acting as voluntary human shield (0.5)¹⁸⁴
3. Male, 65, belligerent in the past (0.9)
4. Female, 17, occasional message runner for belligerents (0.7)
5. Male, 40, allows belligerents to use his house for resting (0.5)

CCV = 3.2

Scenario 2

1. Male, 18, aggressively avoids belligerents (1.4)
2. Female, 16, involuntary human shield (1.3)
3. Female, 30, pregnant, no support to belligerents (1.4)
4. Male, 20, local politician, no support to belligerents (1.2)
5. Male, 50, mayor of village, aggressively non-engaging (1.9)

CCV = 7.2

Both scenarios have the same number of men and women. Yet under CCV methodology, the second CCV is over double the first. Individually, each attack's CCV has limited relevance. Even with a low CCV in Scenario 1, the commander may still decide that the strike is proportional. However, he will have done so only after seeing a more complete picture of the civilian casualties. The alternative to the CCV would be for intelligence to provide the commander with a

in the Middle East, commanders might accord more value to women than men. See, e.g., Khan, *supra* note 8.

¹⁸⁴ See, e.g., Geneva Centre for Security Policy, *Security and Law Webinar: Human Shields—A History of People in the Line of Fire*, YOUTUBE (Oct. 12, 2020), <https://www.youtube.com/watch?v=RR7VYdzzzX4> [https://perma.cc/L3JY-6KU6] (discussing voluntary human shields); Law of War, *supra* note 24, § 5.12.3.4.

simple slant: 3/2/0. Yet, the slant numbers tell the commander very little about the civilians' identities or activities.

Compared to Scenario 2, the civilians in Scenario 1 have given much more support to belligerents. The commander under Scenario 2 may have a harder time making the same proportionality decision as in Scenario 1 because these civilians have refused to support the ISIS caliphate, two are being held as involuntary human shields, and one person is a local leader. Of course, the commander may still approve the strike if the strike's military value outweighs the anticipated civilian casualties. Even so, the commander will, as in Scenario 1, have a greater appreciation for who may die than what a 3/2/0 slant offers.

B. Comparative Civilian Values and the Targeting Process

CCV methodology can and should play a more significant role in the United States' targeting process. At minimum, CCV can supplement the current method of counting civilians. Targeteers can expand the threshold question, “[a]re there protected or collateral objects, civilian or noncombatant personnel, involuntary or unwitting human shields, or significant environmental concerns[?]”¹⁸⁵ Specifically, intelligence analysts can provide additional information on civilians beyond whether they are being used as human shields.¹⁸⁶ Asking for more information will spark further intelligence collection instead of waiting until CDM Phase 5—when there is less time and more pressure.¹⁸⁷

That is not to say that commanders do not carefully analyze all possible information on expected civilian casualties—they normally do.¹⁸⁸ However, if commanders only get information on expected civilian casualties at the end of the targeting process, they may not get as much data had they asked earlier. Even if commanders receive timely information on the gender and rough ages of casualties, they have no easy way to quantify that information.¹⁸⁹ With CCV, commanders will be able to build a more complete picture on expected civilian casualties.

¹⁸⁵ Collateral Damage Estimation Methodology, *supra* note 122, at D-A-6.

¹⁸⁶ See *id.* at B-8.

¹⁸⁷ See *id.* at D-1.

¹⁸⁸ See Geoffrey S. Corn, *Targeting, Command Judgment, and a Proposed Quantum of Information Component: A Fourth Amendment Lesson in Contextual Reasonableness*, 77 BROOK. L. REV. 437, 460–76 (2012).

¹⁸⁹ See *supra* Section II.B.

Framing matters.¹⁹⁰ Introducing CCV at the onset of CDM will adjust how commanders frame the targeting problem. In-depth analysis of expected civilian damage already occurs after determining what level of damage on the target is required to achieve the commander's intent, where targeting staff consider civilians (albeit briefly) when they start CDM.¹⁹¹ But until that point in the process, the focus is on the target. This Article does not dispute the wisdom of putting emphasis on the target; indeed, CDM should do so because successfully attacking the target is the commander's primary consideration.¹⁹² Under the current process, the commander does not frame the problem as, how do we fulfill our responsibility to protect civilians while prosecuting the target? Rather, the commander properly frames the problem as, how do we achieve desired effects on target without causing excessive harm to civilians?—the standard required by LOAC.¹⁹³

The commander, however, should make the proportionality decision as objectively as possible. Commanders should not wait until the end of the CDM process to understand the full effects of the strike on civilians. In fact, every step of CDM speaks in probabilities and chances.¹⁹⁴ Probabilities include weapon reliability and effects; how many civilians are present; positive target identification; presence (or absence) of secondary blasts; and reliability of the delivery system.¹⁹⁵ Planting the idea of who and what kind of civilians may be affected by the target's attack will ultimately help commanders make balanced proportionality decisions.

For example, take an enemy command, control, and communications node in a lightly constructed urban building. Analysts apply target development and determine that the structure is a valid military objective. Further, the target building is surrounded by structures on all sides within ten meters. These surrounding buildings house an

¹⁹⁰ Edward G. Goetz, *Words Matter: The Importance of Issue Framing and the Case of Affordable Housing*, 74 J. AM. PLAN. ASS'N 222 (2008).

¹⁹¹ See Section I.B.2.

¹⁹² See Collateral Damage Estimation Methodology, *supra* note 122, at D-A-30–36.

¹⁹³ See Section I.A.2.

¹⁹⁴ See Collateral Damage Estimation Methodology, *supra* note 122, at D-A-7–36.

¹⁹⁵ See, e.g., Khan, *supra* note 8; Lewis & Goodman, *supra* note 174.

indeterminate number of civilians and weaponeering initially calls for a two-thousand-pound high explosive bomb, instantaneous fuzing.¹⁹⁶

Knowing that there are civilians in the surrounding buildings is a start. But, the targeteers would likely not ask any follow-up questions about these civilians if there is the ability to mitigate potential casualties with weapon selection.¹⁹⁷ Yet, there is always some risk.¹⁹⁸ What if instead of the bomb penetrating and then exploding, the bomb explodes five meters above the building? As a result, the bomb's blast and fragmentation would likely impact the surrounding buildings. Thus, having more information, including CCV, about applicable civilians would assist the commander's decision-making.

Most importantly, not all civilians are equal on the battlefield.¹⁹⁹ Perhaps every civilian in the surrounding building is an adult male who has fought the United States in past conflicts or currently provides major support to belligerents. On the other hand, the civilians could be mainly women and children, who have actively avoided aiding the enemy, or are kept against their will to serve as human shields. This information should enter the commander's internal calculations. Instead of an afterthought, CCV should be considered side-by-side with information showing the military advantage of the strike. It will force commanders and their staffs to better understand beforehand what kind of civilians may be killed.

C. Comparative Civilian Values and the Law of Armed Conflict

LOAC requires that commanders make a subjective decision: to attack targets but not "in a way that is unreasonable or excessive."²⁰⁰ Yet neither "unreasonable" nor "excessive" is defined. Two questions arise. First, is it beneficial for commanders to seek a more objective

¹⁹⁶ Alyssa Newcomb, Dan Good & Susanna Kim, *Video Shows Actual Air Strike in Iraq*, ABC NEWS (Aug. 9, 2014, 12:09 PM), <https://abcnews.go.com/International/watch-airstrike-iraq-looked/story?id=24914182> [https://perma.cc/6SSD-XHGC] (showing F/A-18s dropping laser-guided bombs with instantaneous fuzing).

¹⁹⁷ See, e.g., Collateral Damage Estimation Methodology, *supra* note 122, at D-A-18–20 (selecting a precision-guided munition with delay fuzing).

¹⁹⁸ British Movietone, *Fragmentation Bombs*, YOUTUBE at 1:41 (July 21, 2015), <https://www.youtube.com/watch?v=4cah1K3WXzg> [https://perma.cc/5K94-ZDRJ] (showing proximity, or variable-time fuzing, where the bomb detonates above the target).

¹⁹⁹ See Sloane, *supra* note 14; DOWNES, *supra* note 15.

²⁰⁰ See Law of War, *supra* note 24, § 5.10; *supra* Section I.A.2.a.

way to decide? And second, is CCV a step in the right direction? This Article answers yes to both questions.

1. LOAC Contemplates a Subjective Decision

While LOAC permits commanders to use objective factors in applying proportionality, the principle contemplates largely subjective decisions.²⁰¹ The underlying requirement for proportionality is that attacks must not lead to excessive civilian casualties.²⁰² The characterization of the proportionality decision as wholly subjective stems from the difficulty of commanders to quantify these decisions.²⁰³ In fact, the DoD Law of War Manual describes the proportionality decision as “involv[ing] difficult and subjective comparisons.”²⁰⁴

The proportionality decision is also difficult due to the lack of measurable standards. Yet the decision involves some objective factors. Merriam-Webster defines *objective* as “expressing or dealing with facts or conditions as perceived without distortion by personal feelings, prejudices, or interpretations.”²⁰⁵ Thus, under this definition, LOAC essentially calls for a subjective-objective proportionality

²⁰¹ See Law of War, *supra* note 24, § 5.10; Jason D. Wright, “Excessive” Ambiguity: *Analysing and Refining the Proportionality Standard*, 84 INT’L REV. OF THE RED CROSS 819, 840 (2012) (stating that a “purely objective standard . . . appears to have little support in the existing academic literature”).

²⁰² Law of War, *supra* note 24, § 5.10.

²⁰³ See Marco Sassoli, *Autonomous Weapons and International Humanitarian Law: Advantages, Open Technical Questions and Legal Issues to Be Clarified*, 90 INT’L L. STUD. 308, 334 (2014) (“The question is, however, whether this is simply a description of the unfortunate reality, while recognizing that the determination should ideally be as objective as possible, or whether this is a normative proposition that the determination should be subjective.”).

²⁰⁴ Law of War, *supra* note 24, § 2.4.1.2; see also Robert D. Sloane, *Puzzles of Proportion and the “Reasonable Military Commander”: Reflections on the Law, Ethics, and Geopolitics of Proportionality*, 6 HARV. NAT’L SEC. J. 299, 321–22 (2015) (“Unfortunately, most applications of the principle of proportionality are not quite so clear cut. It is much easier to formulate the principle of proportionality in general terms than it is to apply it to a particular set of circumstances because the comparison is often between unlike quantities and values. One cannot easily assess the value of innocent human lives . . . ”).

²⁰⁵ *Objective*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/dictionary/objective> [https://perma.cc/P7WT-CPB7] (last visited Mar. 7, 2022).

decision.²⁰⁶ That is why the standard used to evaluate a commander's decision is that of a "reasonable military commander."²⁰⁷

LOAC, however, does not contemplate that the commander's proportionality decision relies on personal biases.²⁰⁸ The assumption is that the commander uses facts²⁰⁹ to determine whether the attack is "expected to cause death or injury to civilians, damage to civilian objects, or both, and whether the attack would be excessive in relation to the expected military advantage."²¹⁰ Weighing the factors may ultimately be a subjective decision, but the factors themselves are objective.²¹¹

Measuring collateral damage and military advantage cannot be done by even a well-programmed machine.²¹² Nicholas Mull, the Director of the Civilian Harm Mitigation Program at the Defense Institute of International Legal Studies, argues that it is impossible for a machine to make a "full and appropriate" proportionality decision.²¹³

²⁰⁶ "When the ICRC Commentary states that a commander must use 'common sense and good faith,' this does not, in my view, mean that the decision must be subjective." Sassoli, *supra* note 203, at 335; see Wright, *supra* note 201, at 840 (discussing the "subjective-objective hybrid standard").

²⁰⁷ See discussion *supra* Section I.A.2.

²⁰⁸ See Law of War, *supra* note 24, § 5.10.2.1.

²⁰⁹ See Henderson & Reece, *supra* note 79, at 845–46.

²¹⁰ Yoram Dinstein, *Distinction and Loss of Civilian Protection in International Armed Conflicts*, 84 INT'L L. STUD. 183, 186 (2008). The commander, should he be hauled before a commission to explain his decision, will not fare well if he says that he approved the attack because he just felt like it. He must provide clearly articulated, reasonable explanations that are grounded in facts. See Law of War, *supra* note 24, § 5.10.2.2.

²¹¹ But see Dale Stephens & Michael W. Lewis, *The Law of Armed Conflict—A Contemporary Critique*, 6 MELB. J. INT'L L. 55, 74 (2005). Stephens and Lewis contend that the proportionality analysis is subjective because a commander's decision is essentially a value judgment. *Id.* They state that the proportionality decision depends on the commander's individual value judgments as to the military value of a target and the value of civilian lives possibly killed in the attack. *Id.*

²¹² See Adrian Cho, 'Huge Leap Forward': Computer that Mimics Human Brain Beats Professional at Game of Go, SCIENCE (Jan. 27, 2016), <https://www.science.org/content/article/huge-leap-forward-computer-mimics-human-brain-beats-professional-game-go> [https://perma.cc/D2P6-SJ5M]. But see Matthew Hutson, How Much Can Your Brain Actually Process? Don't Ask., SLATE (Mar. 29, 2016, 11:29 AM), <https://slate.com/technology/2016/03/how-big-is-the-brain-who-knows-even-our-best-efforts-to-calculate-its-capacity-are-flawed-and-meaningless.html> [https://perma.cc/E4Y5-ST9T] (discussing how computers will never be able to truly mimic the human mind).

²¹³ Nicholas W. Mull, *The Roboticization of Warfare with Lethal Autonomous Weapon Systems (Laws): Mandate of Humanity or Threat to It?*, 40 HOUS. J. INT'L L. 461, 508–10 (2018).

He claims that pure objectivity is impossible because a commander must factor in dynamic changes in the battlefield, political influences, and intangible factors like warrior culture, humanity, and social pressures not to cause the death of civilians.²¹⁴

Indeed, because the proportionality decision encompasses so many factors, commanders need a better framework for assessing the value of civilian lives. CCV can do so by giving commanders more objective information. Otherwise, each individual commander, with their own value system, will arrive at different decisions.²¹⁵ Thus, even if the proportionality decision is ultimately subjective, targeting will benefit from CCV.

2. How Comparative Civilian Values Support LOAC

An objective system for comparative values will support LOAC. If commanders employ CCV, it will minimize disparities between individual commanders' decisions as to what number and/or type of civilian deaths are unreasonable or excessive compared to the strike's military advantage. Granted, higher echelon leaders provide guidance to commanders in terms of NCV or ROE.²¹⁶ Yet that guidance still leaves room for commanders to make the proportionality decision using their own value system. While some may argue that letting commanders make these decisions based on their own values is a good thing because a given commander may pay greater attention to the principle of humanity,²¹⁷ an opposite argument can be made. Nothing stops commanders from significantly marginalizing civilian value.²¹⁸ For that reason, a more objective system is needed.

CCV will reduce commanders' reliance on cognitive biases by leveling the playing field to some extent. It may not prevent all disparities because the commander must ultimately decide if expected civilian casualties are excessive or unreasonable.²¹⁹ But, CCV will help. Decision-makers will see that in some situations, the strike may kill civilians with very high CCV. In others, the strike may kill civilians

²¹⁴ *Id.*

²¹⁵ See Adams, *supra* note 92, at 160–61, 165; Feinstein, *supra* note 141, at 252; Bayles, *supra* note 142, at 20.

²¹⁶ See JOINT PUBLICATION 1-04, *supra* note 137, at GL-3, 5; Law of War, *supra* note 24, § 1.6.5.

²¹⁷ See Whittemore, *supra* note 93, at 624–26.

²¹⁸ See Remnick, *supra* note 1.

²¹⁹ See Section I.A.2.

with low values. CCV will not make commanders' decisions for them, but it will create a baseline that is not present in the current system.

Further, CCV is one step towards making the proportionality decision into an objective process. The United States generally desires predictability when carrying out military operations.²²⁰ That does not mean that the United States wants commanders to think and act in lockstep.²²¹ Individual commanders can always disobey unconstitutional orders because the military oath requires service members to uphold the Constitution of the United States.²²² But CCV will promote uniformity and repeatability in the proportionality decision.

Indeed, as autonomous weapons become more prevalent on the battlefield, commanders must be knowledgeable about how to quantify military value and civilian harm. CCV will give commanders a better objective sense of who and what civilians may be killed in a strike. Because LOAC does not require absolute subjectivity in the proportionality decision, the United States can and should make the commander's choice more informed and objective.

IV. CRITICISMS

This Article raises three likely criticisms. The first criticism asks, are not all civilian lives of equal worth? Then, this section addresses the argument that commanders will not be able to obtain sufficient information to apply CCV. The final criticism is the question of whether CCV will always be feasible.

A. Not All Civilian Lives Are Equal

The first criticism is that CCV's objectivity runs counter to basic human principles. Specifically, one of the core principles of CCV is the idea that civilians are not equal. Critics may thus ask why this Article advocates for the United States to differentiate between

²²⁰ See Heather Reed, *Wartime Sourcing: Building Capability and Predictability Through Continuity*, MIL. REV. 62, 62–69 (2011).

²²¹ See DEPLOYABLE TRAINING DIVISION, JOINT STAFF J7, MISSION COMMAND 1 (2d ed. 2020) (discussing mission command, “the conduct of military operations through decentralized execution based upon mission-type orders”).

²²² See Joseph Chapa, *The Oath of Office and the Insurrection*, WAR ROOM—U.S. ARMY WAR COLL. (Jan. 7, 2022), <https://warroom.armywarcollege.edu/articles/oath-of-office/> [https://perma.cc/D3DK-TQFM].

civilians.²²³ Should commanders not try to eliminate all risk of civilian casualties? Ideally, yes, but the notion that everyone is equal or that the United States can avoid civilian casualties is unrealistic.²²⁴

Adding to this criticism, one may wonder why this Article proposes assigning a value less than 1.0 for a civilian. For example, take a situation where CCV yields 0.8 for two civilians.²²⁵ Would that tell the commander that they could accept two civilian deaths for killing one combatant? No. The low CCV only says that these two civilians have less comparative value based on their identity and activity.

The following example helps illustrate CCV's benefit. Imagine that a commander has the assets for one strike but there are two possible targets with equal military value. The first strike may kill ten civilians ages thirty to thirty-five, who spend their free time posting on social media that the United States is evil. The second strike would also kill ten civilians. But here, the men are sixty to seventy and have purposely avoided aiding the enemy. Under the current framework, the commander would see the same collateral damage number: ten. With a more objective method, the first set's comparative value would be 5.9 instead of 11.9. This disparity would allow the commander to make a more informed, objective decision as to which group to attack.

However, CCV will not make decisions for commanders, and it may be impossible to create an exact mathematical formula.²²⁶ Yet the current system, which assigns whole numbers to men, women, and children, already measures civilian casualties to some extent. CCV will merely refine this process.

²²³ *U.S. Evacuated 10 Civilians During Raid, Pentagon Says*, N.Y. TIMES (Feb. 4, 2022), <https://www.nytimes.com/live/2022/02/03/world/us-raid-syria-isis> [<https://perma.cc/3TUU-UFEF>]; Biden, *supra* note 2.

²²⁴ See, e.g., Romo, *supra* note 6; Schmitt & Hubbard, *supra* note 7; Khan, *supra* note 8; Liebermann, *supra* note 8; Martinez, *supra* note 9. Consider military operations in populated areas. See Peter Maurer, *War in Cities: What is at Stake?*, INT'L COMM. OF THE RED CROSS (Apr. 4, 2017), <https://www.icrc.org/en/document/war-cities-what-stake-0> [<https://perma.cc/F78G-MSUR>] ("Two thirds of the global population is predicted to be living in cities by 2030, and urban centres are under pressure as they struggle to absorb this rapid increase. At the same time, armed conflicts are increasingly fought in urban environments with some 50 million people bearing the brunt of the consequences." (emphasis omitted)). Indeed, the ICRC explains that "most people killed in urban conflict are civilians." *Id.*

²²⁵ See *infra* APPENDIX A (two men aged 20 who have given major support to belligerents).

²²⁶ Feinstein, *supra* note 141.

B. An Information Deficit Is Not Fatal

A second criticism is that there would be insufficient information for commanders to assign relative values. A comprehensive comparative value assignment would demand complete and accurate information on civilians such as their age, history, actions, mindset, and other factors. Yet the United States has difficulty even tracking the numbers of civilians on the battlefield.²²⁷ However, one does not have to demand perfection before trying to implement a better system.²²⁸ Even conceding that it is extremely difficult, if not impossible, to obtain a complete informational picture,²²⁹ the U.S. military should shift more time and resources to fleshing out the identities and activities of relevant civilians.

To that end, information collection is driven by priorities. If commanders demand more intelligence collection on civilians who may potentially suffer injury or death in strikes, then commanders will receive more information. Indeed, the United States has carried out airstrikes in some parts of the world for decades.²³⁰ If military intelligence can develop detailed information on the location, composition, and importance of targets for a certain region,²³¹ then there should also be capacity to collect more data on civilians. Of course, many of the *identity* and *activity* categories require extensive intelligence collection.²³² But there is already significant intelligence work necessary to

²²⁷ Lewis & Goodman, *supra* note 174.

²²⁸ George Patton was attributed with the quote, “[a] good plan, violently executed now, is better than a perfect plan next week.” Maxwell Wessel, *A Good Plan*, SAP.iO (June 16, 2017), <https://bit.ly/35hQMeg> [<https://perma.cc/3YGS-2U29>].

²²⁹ See Timothy P. Hanratty, Robert J. Hammell II, Barry A. Bodt, Eric G. Heilman & John C. Dumer, Enhancing Battlefield Situational Awareness through Fuzzy-Based Value of Information, in 46th HAW. INT’L CONFERENCE ON SYS. SCIS., 2013, at 1402 (explaining how the unparallel growth in battlefield data has led to an “information overload dilemma”).

²³⁰ See Sarhang Hamasaeed & Garrett Nada, *Iraq Timeline: Since the 2003 War*, U.S. INST. OF PEACE (May 29, 2020), <https://www.usip.org/iraq-timeline-2003-war> [<https://perma.cc/QFT2-AN8Q>]; Neta C. Crawford, *Afghanistan’s Rising Civilian Death Toll Due to Airstrikes, 2017–2020*, WATSON INST. INT’L & PUB. AFFS. (2020), <https://watson.brown.edu/costsofwar/papers/2020/AirstrikesAfghanistan> [<https://perma.cc/D2ND-RVD5>].

²³¹ See HUM. RTS. WATCH, OFF TARGET: THE CONDUCT OF THE WAR AND CIVILIAN CASUALTIES IN IRAQ 16–61 (2003).

²³² An example of this is whether a civilian has fought the United States in the past or if a woman is pregnant.

see if a building is a military objective²³³ or whether a person is a terrorist.²³⁴ This information could be harnessed in part to help create databases on civilians. In fact, the United States is exploring automated systems that integrate cyberspace and tactical information networks through the Internet of Things to collect target-centric data.²³⁵ The military could use some of that same technology for civilian-centric information gathering.

Despite the challenges in collecting information on civilians, any additional information gathered on civilians is helpful. Even if analysts can determine only some aspects of a civilian's identity or activity, the commander will be able to make a more informed, objective proportionality decision.²³⁶

C. Comparative Civilian Values Can Apply in Self-Defense and Dynamic Targeting

The final criticism addressed by this Article is based on when CCV applies. One may wonder if assigning comparative values for civilians is not feasible in certain situations, such as self-defense or dynamic targeting. Yet, seeking and using comparative values should not be limited to preplanned targeting.²³⁷ For self-defense, nothing in LOAC restricts a commander from acting in self-defense, even if that necessitates executing a strike on a protected site like a mosque or attacking an area where there are likely to be civilian casualties.²³⁸ Thus, the inability to complete full CDM or CCV would not violate LOAC because the commander would be taking feasible precautions and applying the principle of proportionality.

²³³ See Law of War, *supra* note 24, § 5.7.1.2 (describing that an object is either a military object or not; the term "dual-use" is not helpful).

²³⁴ See Thomas Spahr, *Adapting Intelligence to the New Afghanistan*, WAR ON THE ROCKS (Sept. 30, 2021), <https://warontherocks.com/2021/09/adapting-intelligence-to-the-new-afghanistan/> [https://perma.cc/WQU2-7YUX].

²³⁵ See T.S. Allen, *Finding the Enemy on the Data-Swept Battlefield of 2035*, 100 MIL. REV. 28, 28 (2020) ("The transformation of tactical intelligence to become cyberspace-centric is already underway."). Indeed, "because of the proliferation of networked devices that automatically broadcast staggering amounts of data in the IoT, the find phase of the targeting process will be cyber-centric." *Id.* at 36.

²³⁶ See *infra* APPENDIX A.

²³⁷ See Eric C. Husby, *A Balancing Act: In Pursuit of Proportionality in Self-Defense for on-Scene Commanders*, ARMY LAW. 6, 9–14 (May 2012) (discussing proportionality in self-defense situations).

²³⁸ See, e.g., RULES OF ENGAGEMENT (Paramount Pictures 2000) (Marine unit defending a U.S. embassy returns fire in self-defense).

Likewise, dynamic targeting should not prohibit CCV.²³⁹ During dynamic targeting, targeteers may not have time to undergo full CDM,²⁴⁰ but commanders can at least apply rough CCV.²⁴¹ Imagine if a unit comes under fire from a building and withdraws to a safe distance. The unit cannot bypass the building, so they call on-call Close Air Support aircraft to attack the building. Assuming that the unit is safe from enemy fire, there is time for limited CDM and CCV. Even if the only information available is the number of men, women, and children, the commander can apply default CCV.²⁴² Should commanders receive additional information, they could develop a more refined CCV. Thus, just as urgent situations now lead to hasty CDE,²⁴³ CCV can likewise apply during dynamic or self-defense targeting.

CONCLUSION

United States commanders lack the tools to make a fully informed, objective decision as to whether an attack is proportional.²⁴⁴ Granted, the decision is a subjective one and commanders must make these decisions to the best of their ability. But these decisions can be too subjective given the limited information usually collected on civilians (i.e., gender and rough age). They may be the product of cognitive biases, may be made while the commander is under extreme stress, or may be made with incomplete information.²⁴⁵ Currently, CDM provides the commander with limited information on civilians. The lack of information about civilians means that commanders make

²³⁹ Dynamic targeting is the process of engaging targets “identified too late or not selected for action in time to be included in deliberate targeting.” DoD Dictionary, *supra* note 154, at 67; see also AIR LAND SEA APPLICATION CTR., MULTI-SERVICE TACTICS, TECHNIQUES, AND PROCEDURES FOR DYNAMIC TARGETING 3-2.3 (2022).

²⁴⁰ Collateral Damage Estimation Methodology, *supra* note 122, at GL-7 (defining time-sensitive target).

²⁴¹ See *id.* at D-A-36 (discussing field CDE).

²⁴² See *id.*; *infra* APPENDIX A (default values: infants 2.0, children 1.5, adults 1.0).

²⁴³ Collateral Damage Estimation Methodology, *supra* note 122, at D-A-36.

²⁴⁴ See, e.g., Michael J. Shapiro, ‘*The Fog of War*’, 36 SEC. DIALOGUE 233, 234 (2005) (“War is the realm of uncertainty” and it is “wrapped in a fog of greater or lesser uncertainty.”) (quoting CARL VON CLAUSEWITZ, ON WAR 101 (Michael Howard & Peter Paret eds., trans., Princeton Univ. Press 1984) (1832)).

²⁴⁵ Additionally, the commander might exercise restraint in a particular attack to better achieve later objectives. See Geoffrey S. Corn, Laurie R. Blank, Chris Jenks, & Eric Talbot Jensen, *Belligerent Targeting and the Invalidity of a Least Harmful Means Rule*, 89 INT’L L. STUD. 536, 563 (2013).

decisions colored by their biases and preferences,²⁴⁶ which is why CCV is vital.

Further, not all civilians have equal value in targeting. CCV may seem cruel, but so is war. As General William Tecumseh Sherman penned in his memoirs, “[w]ar is cruelty, and you cannot refine it . . .”²⁴⁷ So long as there are conflicts and, in particular, military forces target objectives in urban areas,²⁴⁸ there will continue to be the risk of civilian casualties. Thus, before making the proportionality decision, commanders must have a full picture of whom they are killing. CCV will aid commanders in achieving this goal.

²⁴⁶ See *id.* at 543–48.

²⁴⁷ 2 WILLIAM T. SHERMAN, MEMOIRS OF GENERAL WILLIAM T. SHERMAN 126 (2d. ed. 1904).

²⁴⁸ See, e.g., John Spencer, *The Eight Rules of Urban Warfare and Why We Must Work to Change Them*, MOD. WAR INST. (Jan. 12, 2021), <https://mwi.usma.edu/the-eight-rules-of-urban-warfare-and-why-we-must-work-to-change-them/> [<https://perma.cc/B67Y-TGAP>].

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APPENDIX A: CIVILIAN COMPARATIVE VALUE²⁴⁹

Identity ➡	Chi- ldre n < 1 (2.0)	Chi- ldren 1–12 (1.5)	Preg- nant (1.4)	VIP in local com- mu- nity ²⁵⁰ (1.3)	Chi- ldren 13– 15 (1.2)	Per- sons past re- tire- ment (> 55) (1.1)	Fight- ing age (16- 55) (1.0)	Fa- mil- y me- mb- er a bel- lig- er- ent (0.9)
Activity ⬇								
Aggres- sively non-en- gag- ing²⁵¹ (1.5)	N/A	2.3	2.1	2.0	1.8	1.6	1.5	1.4
Invol- untary human shield (1.25)	2.5	2.0	1.8	1.6	1.5	1.4	1.3	1.1
No sup- port to belliger- ents (1.0)	2.0	1.5	1.4	1.3	1.2	1.1	1.0	0.9
Past support to	N/A	N/A	1.3	1.2	1.1	1.0	0.9	0.8

²⁴⁹ This CCV chart is only an example.²⁵⁰ An example of a VIP would be a mayor, imam, or any other influential figure.²⁵¹ For the explanation of “aggressively non-engaging,” see *supra* note 180.

belliger-ents but none now²⁵² (0.9)								
Indirect support to belliger-ents²⁵³ (e.g., propaganda) (0.8)	N/A	N/A	1.1	1.0	1.0	0.9	0.8	0.7
Minor support to belliger-ents (e.g., run mes-sages) (0.7)	N/A	N/A	1.0	0.9	0.8	0.8	0.7	0.6
Moder-ate sup-port to belliger-ents (e.g., let use of home as base) (0.6)	N/A	N/A	0.9	0.8	0.7	0.7	0.6	0.5

²⁵² “Past support to belligerents but none now” distinguishes a person who performs a continuous combat function from one who has committed a one-time act.

²⁵³ Some examples of indirect support could be blogging, preaching, or sending money to an organization that supports a terrorist group. See e.g., *The Role of Charities and NGO's in the Financing of Terrorist Activities: Hearing Before the S. Comm. on International Trade and Finance*, 107th Cong. (2002) (statement of Quintan Wiktorowicz, Assistant Professor, Rhodes College).

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LIVES IN THE BALANCE

167

Major support to belligerents (e.g., voluntary human shield) (0.5)	N/A	N/A	0.7	0.6	0.6	0.5	0.5	0.4
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Instructions:

1. Find *identity* on top row. Find *activity* in left column. See where *identity* and *activity* intersect. The resulting value is CCV.
2. Values assume female gender. With exception of Children < 1, Children 1 < 12, and Pregnant categories, subtract **0.1** for males. For example, an individual of fighting age, no support to belligerents would result in **1.0** for women and **0.9** for men.

Assumptions:

1. When only know rough ages, use default value of **2.0** for an infant (0 < 1 years), **1.5** for a child (1 < 15 years), and **1.0** for an adult (16 years and up).
2. Resolve doubts or ambiguities with higher values, but only if there is an actual ambiguity. For example, if the only fact known about a civilian is that they are a female adult, use default value (1.0)—do not assume that they are aggressively non-engaging and pregnant (2.1). On the other hand, if ambiguous whether civilian has given minor support to enemy or no support, use higher value (base value of 1.0 compared to 0.7).