

Humanizing siege warfare: Applying the principle of proportionality to sieges

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Abstract

Siege warfare and its devastating humanitarian consequences have been one of the defining features of contemporary armed conflicts. While the most apparent restriction of siege warfare appears to be provided by the prohibition against starvation of the civilian population as a method of warfare, the prevailing restrictive interpretation of this prohibition has left civilians remaining in a besieged area unprotected from the hardships they endure. This article demonstrates that shifting the focus from the prohibition against starvation to the rules regulating humanitarian relief operations does not seem helpful due to the ambiguities regarding the requirement of consent and the right of control of the besieging party. In remedying this protection gap, this article examines whether and how the principle of proportionality applies in the context of a siege. After analyzing whether the encirclement and isolation aspect of a siege can be considered an attack in the sense of Article 49(1) of Additional Protocol I (AP I), to which the proportionality principle applies, the article investigates how this principle operates in the context of a siege. It will be demonstrated that Article 57 (2)(b) of AP I requires that the proportionality of a siege must be continuously monitored.

Keywords: international humanitarian law, conduct of hostilities, siege warfare, urban warfare, starvation, principle of proportionality.

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Introduction

While human suffering might be “an unfortunate and tragic, but unavoidable consequence of war”, as observed by the US Department of Defense,¹ it has rarely been more dire than within the walls of a besieged city.² Siege warfare has been employed throughout history and is therefore often deemed an “archaic” or “medieval” method of warfare. Nevertheless, contemporary armed conflicts have been characterized by a resurgence of sieges, predominantly in urban areas.³ The sieges laid on numerous Syrian cities, such as Aleppo, Ghouta and Homs, or the Yemeni city of Ta’izz, have again drawn the attention of the international community to the devastating humanitarian consequences of this method of warfare.⁴ Since 2013, the United Nations Security Council has regularly condemned such practices.⁵

The urbanization of armed conflict undeniably exposes civilians to immense risks, and such risks are even more amplified in a besieged city.⁶ Indeed, civilians and particularly children are likely to be the first to suffer from

- 1 US Department of Defense (DoD), *Law of War Manual*, 2015, p. 17, para. 1.4.2.1.
- 2 Sean Watts, “Humanitarian Logic and the Law of Siege: A Study of the Oxford Guidance on Relief Actions”, *International Law Studies*, Vol. 95, 2019, p. 4.
- 3 Emanuela-Chiara Gillard, *Sieges, the Law and Protecting Civilians*, Chatham House Briefing, June 2019, p. 2; Gloria Gaggioli, “Are Sieges Prohibited under Contemporary IHL?”, *EJIL: Talk!*, 30 January 2019, available at: www.ejiltalk.org/joint-blog-series-on-international-law-and-armed-conflict-are-sieges-prohibited-under-contemporary-ihl/#more-16877 (all internet references were accessed in October 2021); Amos C. Fox, “The Reemergence of the Siege: An Assessment of Trends in Modern Land Warfare”, *Landpower Essay*, Vol. 18, No. 2, 2018, p. 3.
- 4 International Independent Commission of Inquiry on the Syrian Arab Republic (IICI Syria), *Sieges as a Weapon of War: Encircle, Starve, Surrender, Evacuate*, policy paper, 29 May 2018; IICI Syria, *The Siege and Recapture of Eastern Ghouta*, conference room paper, UN Doc. A/HRC/38/CRP.3, 20 June 2018; Amnesty International, *Left to Die under Siege: War Crimes and Human Rights Abuses in Eastern Ghouta, Syria*, 2015. With regard to Yemen, see *Report of the Detailed Findings of the Group of Eminent International and Regional Experts on Yemen*, UN Doc. A/HRC/42/CRP.1, 3 September 2019 (Yemen Report), pp. 82–86, paras 345–358.
- 5 The UN Security Council has repeatedly called upon all parties to “immediately lift the sieges of populated areas” and demanded that “all parties allow the delivery of humanitarian assistance ... and enable the rapid, safe and unhindered evacuation of all civilians who wish to leave”. UNSC Res. 2139, 22 February 2014; UNSC Res. 2401, 24 February 2018.
- 6 International Committee of the Red Cross (ICRC), *I Saw My City Die: Voices from the Front Lines of Urban Conflict in Iraq, Syria and Yemen*, Geneva, 12 June 2020, pp. 40–43; ICRC, *International Humanitarian Law and the Challenges of Contemporary Armed Conflicts*, Geneva, November 2019 (2019 Challenges Report), p. 16; Laurent Gisel, Pilar Gimeno Sarciada, Ken Hume and Abby Zeith, “Urban Warfare: An Age-Old Problem in Need of New Solutions”, *Humanitarian Law and Policy Blog*, 27 April 2021, available at: <https://blogs.icrc.org/law-and-policy/2021/04/27/urban-warfare/>.

starvation due to the complete isolation of the area.⁷ Additionally, the use of explosive weapons with a wide impact area has proven to be one of the major causes of injury and death among civilians and of damage to civilian objects.⁸ Beyond their direct impact, such explosive weapons are particularly harmful for civilians “trapped” in a besieged city given their long-term reverberating effects on infrastructure and services indispensable for sustaining life in such areas.⁹

Sieges inevitably involve frictions with a variety of norms of international humanitarian law (IHL) when civilians are within the besieged area.¹⁰ While the most apparent restriction of siege warfare is provided by the prohibition against starvation of civilians as a method of warfare,¹¹ under the prevailing restrictive interpretation of this prohibition sieges are considered lawful as long as their purpose is to achieve a military objective and not to starve the civilian population.¹² Moreover, while humanitarian relief operations might prevent or alleviate the suffering of civilians within a besieged area, controversy surrounds the question of whether and under what circumstances the besieging party might withhold consent to such operations.¹³ In remedying this protection gap, this article approaches the question of the legality of sieges from another perspective—namely, from the point of view of the rules on the conduct of

- 7 Yves Sandoz, Christophe Swinarski and Bruno Zimmermann (eds.), *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949*, ICRC, Geneva, 1987 (ICRC Commentary on the APs), pp. 654, 1457, paras 2094, 4797.
- 8 Since 2011 the ICRC has repeatedly expressed the opinion that “due to the significant likelihood of indiscriminate effects and despite the absence of an express legal prohibition for specific types of weapons, ... explosive weapons with a wide impact area should be avoided in densely populated areas”. ICRC, *International Humanitarian Law and the Challenges of Contemporary Armed Conflicts*, Geneva, October 2011 (2011 Challenges Report), p. 42. See also ICRC, *International Humanitarian Law and the Challenges of Contemporary Armed Conflicts*, Geneva, October 2015 (2015 Challenges Report), p. 49; 2019 Challenges Report, above note 6, p. 21.
- 9 ICRC, *Explosive Weapons in Populated Areas: Humanitarian, Legal, Technical and Military Aspects*, Report of the Expert Meeting, 22 February 2015, pp. 21–23; Isabel Robinson and Ellen Nohle, “Proportionality and Precautions in Attack: The Reverberating Effects of Using Explosive Weapons in Populated Areas”, *International Review of the Red Cross*, Vol. 98, No. 1, 2016.
- 10 E.-C. Gillard, above note 3, p. 2; G. Gaggioli, above note 3.
- 11 Protocol Additional (I) to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts, 1125 UNTS 3, 8 June 1977 (entered into force 7 December 1978) (AP I), Art. 54(1); Protocol Additional (II) to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts, 1125 UNTS 609, 8 June 1977 (entered into force 7 December 1978) (AP II), Art. 14. Applicable as customary IHL (CIHL) in both international armed conflicts (IACs) and non-international armed conflicts (NIACs). See Jean-Marie Henckaerts and Louise Doswald-Beck, *Customary International Humanitarian Law*, Vol. 1: *Rules*, Cambridge University Press, Cambridge, 2005 (ICRC Customary Law Study), pp. 186–189, available at: <https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1>.
- 12 This position is articulated in the ICRC Customary Law Study, above note 11, p. 188. See also ICRC Commentary on the APs, above note 7, p. 653, paras 2089–2090: “This rule was laid down for the benefit of civilians. Consequently, the use of blockade and siege as methods of warfare remain[s] legitimate, provided they are directed exclusively against combatants.”
- 13 AP I, Art. 70; AP II, Art. 18. Applicable as CIHL in both IACs and NIACs. See ICRC Customary Law Study, above note 11, pp. 193–200. The rules regulating humanitarian relief operations come into play when civilians are facing a lower level of deprivation than “starvation”. See Dapo Akande and Emanuela-Chiara Gillard, “Conflict-Induced Food Insecurity and the War Crime of Starvation of Civilians as a Method of Warfare: The Underlying Rules of International Humanitarian Law”, *Journal of International Criminal Justice*, Vol. 17, No. 4, 2019, p. 770; E.-C. Gillard, above note 3, p. 11.

hostilities.¹⁴ More specifically, the article examines whether the principle of proportionality applies to sieges and how this principle would operate in a siege context to protect civilians from excessive incidental harm.¹⁵

This article is structured in four sections. The first section will examine the notion of “siege warfare” together with its military imperative, while the second section will present the prevailing interpretation of the prohibition against starvation and the rules regulating humanitarian relief operations and their inadequacies in terms of providing protection to civilians within a besieged area. The third section will address an essential preliminary question before turning to the proportionality analysis as such – namely, whether a siege, and more precisely its encirclement and isolation aspect, can be considered an attack in the sense of Article 49(1) of Additional Protocol I (AP I). Three arguments will be presented to substantiate the claim that it can: first, the definition of an “attack” is sufficiently flexible to encompass sieges; second, an analogy can be made with the law of blockades; and third, there seems to be an emerging State practice of, and support among experts for, applying the principle of proportionality to sieges. The fourth section will explore how the proportionality principle would operate in times of siege warfare. It will be demonstrated that, in light of the precautionary obligation of Article 57(2)(b) of AP I, the proportionality of a siege must be continuously monitored.

Siege warfare and its military imperative

Characterizing sieges in legal terms is considerably complicated by the lack of a definition of this concept under IHL.¹⁶ Siege warfare has sometimes been termed an “operational strategy” and consists generally of a combination of two methods of warfare.¹⁷ The essence of a siege lies in the encirclement of a defended area and the subsequent isolation of the enemy forces by cutting of their channels of supply and reinforcement with a view of inducing the enemy into submission by means of starvation.¹⁸ In order to maintain pressure on the besieged forces and

14 Another approach, which will not be addressed in this article, lies in the prohibition against indiscriminate methods of warfare. See, for example, Mark Lattimer, “Can Incidental Starvation of Civilians Be Lawful under IHL?”, *EJIL: Talk!*, 26 March 2019, available at: www.ejiltalk.org/can-incident-starvation-of-civilians-be-lawful-under-ihl/; Gloria Gaggioli, “Besieging Cities and Humanitarian Access: How to Accommodate Humanitarian Needs, Legal Obligations and Operational Constraints?”, *Proceedings of the Bruges Colloquium: Legal Challenges for Protecting and Assisting in Current Armed Conflicts*, October 2019, pp. 129–130.

15 AP I, Art. 51(5)(b). Applicable as CIHL in both IACs and NIACs. See ICRC Customary Law Study, above note 11, pp. 46–50.

16 Hampson asserts that sieges are like an elephant: “you know it when you see it, but you have a problem defining it”. See Steven Hill, Françoise Hampson and Sean Watts, “Can Siege Warfare Still Be Legal?”, *Proceedings of the Bruges Colloquium: Urban Warfare*, October 2015, p. 91.

17 Dražan Djukić and Niccolò Pons, *The Companion to International Humanitarian Law*, Brill Nijhoff, Leiden and Boston, MA, 2018, p. 645; James Kraska, “Siege”, in Rüdiger Wolfrum (ed.), *Max Planck Encyclopedia of Public International Law*, December 2009, para. 1.

18 DoD, above note 1, p. 312, para. 5.19.1; US Department of the Army, *Urban Operations*, Field Manual 3-06, 2006, paras 6.12–6.14; Yoram Dinstein, *The Conduct of Hostilities under the Law of International*

to accelerate their surrender, contemporary sieges are frequently accompanied by bombardment.¹⁹

Despite their “archaic” connotations, military doctrine considers resorting to sieges essential, especially in the context of urban warfare.²⁰ While cities are of crucial strategic importance to belligerents, conducting military operations inside such complex urban environments, where military objectives are intermingled with civilians and civilian objects, has proven particularly challenging.²¹ Siege operations might offer an alternative to intense street-by-street fighting against an “entrenched” enemy and consequently avoid extensive harm among both the attacking forces and the civilian population.²² In such circumstances, the laying of a siege might conform with the obligation to take all feasible precautions in the choice of means and methods of attack to avoid or in any event to minimize incidental civilian harm.²³

The prohibition against starvation, the rules regulating humanitarian relief operations and their deficiencies

Whereas starving enemy forces is unquestionably a legitimate method of warfare,²⁴ contemporary IHL prohibits the starvation of the civilian population as a method of warfare.²⁵

Although the inclusion of this principle in the Additional Protocols was considered “innovative, and a significant progress of the law”,²⁶ the ambiguous wording of the prohibition has allowed States to adopt a permissive approach with regard to sieges that affect civilians. Moreover, while humanitarian relief

Armed Conflict, 3rd ed., Cambridge University Press, Cambridge, 2016, p. 253, para. 688; Sean Watts, *Under Siege: International Humanitarian Law and Security Council Practice concerning Urban Siege Operations*, Counterterrorism and Humanitarian Engagement Project, Harvard Law School Project on Law and Security, May 2014, p. 3.

19 2019 Challenges Report, above note 6, pp. 22–23; E.-C. Gillard, above note 3; A. C. Fox, above note 3, p. 2; J. Kraska, above note 17.

20 A. C. Fox, above note 3, pp. 3–4; Lionel M. Beehner, Benedetta Berti and Michael T. Jackson, “The Strategic Logic of Sieges in Counterinsurgencies”, *Parameters: The US Army War College Quarterly*, Vol. 47, No. 2, 2017, pp. 80–81; S. Hill, F. Hampson and S. Watts, above note 16, p. 95; S. Watts, above note 18, p. 2.

21 2019 Challenges Report, above note 6, pp. 16–18; Nathalie Durhin, “Protecting Civilians in Urban Areas: A Military Perspective on the Application of International Humanitarian Law”, *International Review of the Red Cross*, Vol. 98, No. 1, 2017, pp. 178–179.

22 2019 Challenges Report, above note 6, p. 23; S. Watts, above note 2, p. 14; A. C. Fox, above note 3, pp. 3–4; L. M. Beehner, B. Berti and M. T. Jackson, above note 20, pp. 80–81.

23 AP I, Art. 57(2)(ii). Applicable as CIHL in both IACs and NIACs. See ICRC Customary Law Study, above note 11, pp. 56–58.

24 DoD, above note 1, p. 315, para. 5.20.1; Marco Sassòli, *International Humanitarian Law: Rules, Controversies and Solutions to Problems Arising in Warfare*, Edward Elgar, Cheltenham, 2019, p. 575, para. 10.199; Stuart Casey-Maslen and Steven Haines, *Hague Law Interpreted: The Conduct of Hostilities under the Law of Armed Conflict*, Hart, Oxford, 2018, p. 244.

25 AP I, Art. 54(1); AP II, Art. 14. Applicable as CIHL in both IACs and NIACs. See ICRC Customary Law Study, above note 11, pp. 186–189.

26 ICRC Commentary on the APs, above note 7, p. 653, para. 2091.

operations might prevent or alleviate the suffering of civilians within a besieged area, controversy surrounds the question of whether and under what circumstances the besieging party might withhold consent to such operations.

Interpreting the prohibition against starvation: A permissive approach to sieges

Although some scholars have concluded that the prohibition against starvation precludes the enforcement of a siege when civilians are affected,²⁷ the majority interpretation of this prohibition considers sieges a lawful method of warfare as long as their purpose is to achieve a military objective and not to starve the civilian population.²⁸ This permissive approach towards sieges is based on a restrictive reading of Article 54(1) of AP I and Article 14 of Additional Protocol II (AP II), which refer to starvation as a “method of warfare” and a “method of combat” respectively and which are considered as merely precluding conduct the purpose of which is to starve civilians.²⁹ This interpretation finds support in the International Committee of the Red Cross (ICRC) Commentary on AP I, which provides that

[t]o use [starvation] as a method of warfare would be to provoke it deliberately, causing the population to suffer hunger, particularly by depriving it of its sources of food or of supplies. ... Starvation is referred to here as a method of warfare, i.e., a weapon to annihilate or weaken the population.³⁰

This approach is articulated in a number of military manuals and is incorporated in the *San Remo Manual on International Law Applicable to Armed Conflicts at Sea* (San Remo Manual) and the *HPCR Manual on International Law Applicable to Air and Missile Warfare* (Harvard Manual) with regard to sea and aerial blockades.³¹

27 According to Fleck, “this rule completely outlaws traditional warfare methods, such as sieges of defended towns”. Dieter Fleck, *The Handbook of International Humanitarian Law*, Oxford University Press, Oxford, 2021, p. 226. Dinstein shares the same opinion but critically adds that “a broad injunction against sieges involving civilians is unrealistic, in view of the fact that there may be no other method of warfare to bring about the capture of a defended town with a tenacious garrison and impregnable fortifications”. According to him, “the practice of States does not confirm a sweeping abolition of siege warfare affecting civilians. Possibly, a pragmatic construction of the language of Article 54 will be arrived at, whereby siege warfare will continue to be acquiesced with – notwithstanding civilian privations – at least in those circumstances when the besieging Belligerent Party is willing to assure civilians a safe passage out.” See Yoram Dinstein, above note 18, pp. 255, 256–257, paras 695, 699; Yoram Dinstein, “Siege Warfare and the Starvation of Civilians”, in Astrid J. M. Delissen and Gerard J. Tanja (eds), *Humanitarian Law of Armed Conflict: Challenges Ahead: Essays in Honour of Frits Kalshoven*, Martinus Nijhoff, Dordrecht and Boston, MA, 1991, pp. 151–152.

28 See above note 12.

29 Additional support for this narrow interpretation may be found in Article 54(2) of AP I, which provides an example of a violation of the prohibition against starvation and refers to the destruction of objects indispensable to the survival of the civilian population “for the specific purpose” of denying them for their sustenance value to the civilian population. See D. Akande and E.-C. Gillard, above note 13, p. 761; E.-C. Gillard, above note 3, p. 10.

30 ICRC Commentary on the APs, above note 7, p. 653, paras 2089–2090.

31 DoD, above note 1, pp. 315–316, paras 5.20.1–5.20.2: “Starvation specifically directed against the enemy civilian population ... is prohibited.” UK Ministry of Defence (MoD), *The Joint Service Manual of the Law*

However, it must be noted that such a restrictive interpretation has not remained without criticism. Dannenbaum has argued in particular that the requirement that starvation must be pursued “as a method of warfare” merely requires that starvation is used as a method of conducting hostilities, and that no purposive element can be inferred from such a requirement.³² Based on an interpretation of the prohibition against starvation in its context (namely, in light of Article 54 of AP I and Article 14 of AP II as a whole), Dannenbaum comes to the conclusion that this prohibition also extends to situations where civilians are not starved purposefully but where starvation is the foreseeable consequence of a particular course of action.³³

While Dannenbaum’s approach is convincing and the present author endorses it, it does not correspond with the restrictive interpretation of the prohibition against starvation which prevails at the moment. However, even when the prohibition against starvation is not triggered, the rules regulating humanitarian relief operations might play a crucial role in preventing and alleviating the effects on the civilian population in a besieged area.³⁴

Preventing and alleviating starvation: Humanitarian relief actions and evacuations

The primary responsibility for meeting the needs of civilians within a besieged area lies with the party that has effective control over them – namely, the besieged party.³⁵ However, as soon as the civilian population under its control is “not

of Armed Conflict, 2004, p. 74, para. 5.27.2: “The law is not violated if military operations are not intended to cause starvation but have that incidental effect, for example, by cutting off enemy supply routes which are also used for the transportation of food, or if civilians through fear of military operations abandon agricultural land or are not prepared to risk bringing food supplies into areas where fighting is going on.” Article 102(a) of the San Remo Manual and Article 157(a) of the Harvard Manual even refer more restrictively to, respectively, the “sole purpose” and the “sole or primary purpose” of the blockade. See Louise Doswald-Beck (ed.), *San Remo Manual on International Law Applicable to Armed Conflicts at Sea*, Cambridge University Press, Cambridge, 1995 (San Remo Manual), p. 179; Program on Humanitarian Policy and Conflict Research at Harvard University (HPCR), *HPCR Manual on International Law Applicable to Air and Missile Warfare*, Cambridge University Press, Cambridge, 2013 (Harvard Manual), p. 50.

32 Tom Dannenbaum, “Encirclement, Deprivation and Humanity: Revising the San Remo Manual Provisions on Blockade”, *International Law Studies*, Vol. 97, 2021, pp. 364–365. See, similarly, D. Akande and E.-C. Gillard, above note 13, p. 765.

33 Dannenbaum proposes to amend Article 102(a) of the San Remo Manual as follows: “The declaration or establishment of a blockade is prohibited if it has the purpose or foreseeable consequence of starving the civilian population by depriving it of objects essential for its survival.” T. Dannenbaum, above note 32, pp. 364–369, 385.

34 The ICRC Commentary on AP I states: “It should be emphasized that the object of a blockade is to deprive the adversary of supplies needed to conduct hostilities, and not to starve civilians. Unfortunately, it is a well-known fact that all too often civilians, and above all children, suffer most as a result. If the effects of the blockade lead to such results, reference should be made to Art. 70 AP I.” ICRC Commentary on the APs, above note 7, p. 654, para. 2095. As pointed out in note 13 above, the rules regulating humanitarian relief operations come into play when civilians are facing a lower level of deprivation than “starvation”. See D. Akande and E.-C. Gillard, above note 13, p. 770; E.-C. Gillard, above note 3, p. 11.

35 E.-C. Gillard, above note 3, p. 11. See also M. Sassöli, above note 24, p. 575, para. 10.201.

adequately provided” with supplies essential to their survival or suffers “undue hardship”, relief actions which are humanitarian and impartial in character and conducted without any adverse distinction shall be undertaken subject to the agreement of the “Parties concerned” in international armed conflicts (IACs) and the “High Contracting Party concerned” in non-international armed conflicts (NIACs).³⁶ The ICRC Commentary on AP I provides that, alternatively, if it would be impossible to provide sufficient aid for the civilian population within the besieged area, the prohibition against starvation should dictate their evacuation.³⁷

Despite the absolute requirement of obtaining consent for relief actions to be implemented, it is now generally accepted that this decision is not left to the discretion of the parties, which may not withhold their consent arbitrarily.³⁸ The *Oxford Guidance on the Law Relating to Humanitarian Relief Operations in Situations of Armed Conflict* (Oxford Guidance) differentiates between three scenarios in which withholding of consent would be considered arbitrary: first, if it is withheld in circumstances that result in the violation by a State of its obligations under international law with respect to the civilian population in question; second, if the withholding of consent violates the principles of necessity and proportionality; and third, when consent is withheld in a manner that is unreasonable, unjust, lacking in predictability or otherwise inappropriate.³⁹ However, it must be noted that this interpretation has been rejected by Watts, who criticizes the Oxford Guidance as “unnecessarily complicating a passage that is clear and settled in its meaning”.⁴⁰ According to him, States were only willing to abandon the limited scope of Article 23 of Geneva Convention IV (GC IV) in

36 AP I, Art. 70; AP II, Art. 18. Applicable as CIHL in IACs and NIACs. See ICRC Customary Law Study, above note 11, pp. 193–200.

37 ICRC Commentary on the APs, above note 7, p. 654, para. 2096. Geneva Convention IV already contained a strong recommendation to conclude agreements for the evacuation of certain vulnerable categories of civilians from besieged and encircled areas: see Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War of 12 August 1949, 75 UNTS 287 (entered into force 21 October 1950) (GC IV), Art. 17.

38 The prohibition against arbitrary withholding of consent is derived from (1) the need to provide an effective interpretation of the relevant treaty texts, which gives effect to all aspects of those provisions and does not render parts of them redundant; (2) the intention of those who negotiated the Additional Protocols, as reflected in the drafting history of the provisions; and (3) practice subsequent to the adoption of the Protocols. See Dapo Akande and Emanuela-Chiara Gillard, *Oxford Guidance on the Law Relating to Humanitarian Relief Operations in Situations of Armed Conflict*, 26 October 2016 (Oxford Guidance), pp. 21–22, paras 43–49; Dapo Akande and Emanuela-Chiara Gillard, “Arbitrary Withholding of Consent to Humanitarian Relief Operations in Armed Conflict”, *International Law Studies*, Vol. 92, 2016, p. 489; ICRC Customary Law Study, above note 11, pp. 196–197. The ICRC Commentary on AP I emphasizes a passage by the German delegate Professor Michael Bothe from the Official Records of the Diplomatic Conference: “[The consent reservation in Article 70 of AP I] did not imply that the Parties concerned had absolute and unlimited freedom to refuse their agreement to relief actions. A Party refusing its agreement must do so for valid reasons, not for arbitrary or capricious ones.” ICRC Commentary on the APs, above note 7, p. 819, para. 2805. However, it must be noted that this interpretation has met with resistance in scholarly writings – see the main text at note 40 below.

39 Oxford Guidance, above note 38, pp. 23–25, paras 50–54.

40 S. Watts, above note 2, p. 46.

exchange for discretion to permit or reject the broader relief actions of Article 70 of AP I during sieges.⁴¹

One of the scenarios in which withholding of consent would be considered arbitrary is when doing so would violate the prohibition against starvation.⁴² Here it is sufficient to refer to the aforementioned majority interpretation of the prohibition, which merely precludes conduct the purpose of which is to starve civilians. Such an interpretation seems to be reflected in the Oxford Guidance, which states that “[w]ithholding consent to humanitarian relief operations in situations where the civilian population is inadequately supplied and the State intends to cause, contribute to, or perpetuate starvation” is arbitrary.⁴³ The ICRC seems to derive from the prohibition against starvation not only an obligation to allow civilians to leave the besieged area but also an obligation to consent to humanitarian relief operations to the benefit of those who remain.⁴⁴ Such an approach also seems to be taken in the San Remo Manual (Article 103) and the Harvard Manual (Article 158) with regard to naval and aerial blockades. In contrast, a number of military manuals conclude that if the besieging party leaves open the offer for civilians and the wounded and sick to leave the besieged area, preventing any supplies from reaching that area would not amount to a violation of the prohibition.⁴⁵

Whether or not the prohibition against starvation entails an obligation to consent to humanitarian relief operations in the context of a siege, it must be noted that consenting parties retain a right of control.⁴⁶ This allows them to verify consignments, prescribe technical arrangements, require supervision by a humanitarian organization to ensure that only civilians benefit from the assistance, and even impose temporary and geographically limited restrictions as required by military necessity.⁴⁷ In this respect, it has been submitted that a besieging party may temporarily deny the delivery of humanitarian relief when

41 *Ibid.*, p. 22.

42 Moreover, withholding consent to medical relief operations, including on the grounds that medical supplies and equipment could be used to treat wounded enemy combatants or fighters, would be arbitrary since it amounts to a violation of the fundamental rule that the wounded and sick – including enemy combatants or fighters – must receive, to the fullest extent practicable and with the least possible delay, the medical care required by their condition (see, for example, AP I, Art. 10; AP II, Art. 7). See Oxford Guidance, above note 38, p. 23, para. 51; D. Akande and E.-C. Gillard, “Arbitrary Withholding of Consent”, above note 38, p. 496; M. Sassòli, above note 24, pp. 579–580, para. 10.210.

43 Oxford Guidance, above note 38, p. 23, para. 51.

44 2019 Challenges Report, above note 6, pp. 24–25; ICRC Customary Law Study, above note 11, p. 197.

45 Danish Ministry of Defence, *Military Manual on International Law relevant to Danish Armed Forces in International Operations*, 2020, p. 419: “Furthermore, it is important that the civilian population is not forced against its will to remain in the besieged town but has a chance to leave it. Only if the civilian population has received an offer to leave the town but nevertheless chooses to stay may the supply of vital necessities be cut off temporarily.” MoD, above note 31, p. 88, para. 5.34.3: “The military authorities of the besieged area might decide not to agree to the evacuation of civilians or the civilians themselves might decide to stay where they are. In those circumstances, so long as the besieging commander left open his offer to allow civilians and the wounded and sick to leave the besieged area, he would be justified in preventing any supplies from reaching that area.” See also Y. Dinstein, above note 18, pp. 255–256; Y. Dinstein, above note 27, p. 151.

46 See, in particular, AP I, Art. 70(3); GC IV, Art. 23(2–5); ICRC Customary Law Study, above note 11, pp. 193–200; Oxford Guidance, above note 38, pp. 28–29, paras 65–72.

47 M. Sassòli, above note 24, p. 581, para. 10.213.

there are reasonable grounds to believe that the consignments may be diverted by the besieged party.⁴⁸ Although the denial of consent may not go beyond what military necessity demands,⁴⁹ this could be interpreted as allowing the besieging party to withhold consent for the entire duration of the siege if the diversion threat would be expected to persist.

The need for an additional layer of protection: The principle of proportionality

By characterizing the effect of starving the civilian population as not constituting a “method of warfare” but as merely incidental to achieving the military objective of starving the besieged enemy forces, the protection offered by Article 54(1) of AP I and Article 14 of AP II has been significantly diminished. Indeed, it might be exceptionally difficult to establish such a purpose from the side of the besieging force.⁵⁰ Moreover, shifting the focus from the prohibition against starvation to the rules regulating humanitarian relief operations does not seem helpful due to the ambiguities regarding the requirement of consent and the right of control of the besieging party. In attempting to remedy this protection gap, the following section will demonstrate that the principle of proportionality applies in the context of siege warfare and protects the civilian population from excessive incidental civilian harm.

Does the principle of proportionality apply in the context of sieges?

A siege as an attack in the sense of Article 49(1) of AP I

The notion of “attacks” forms the heart of the rules which are traditionally referred to as “Hague law” and which aim at protecting the civilian population and, to a

48 Michael N. Schmitt, Kieran Tinkler and Durward Johnson, “The UN Yemen Report and Siege Warfare”, *Just Security*, 12 September 2019, available at: www.justsecurity.org/66137/the-un-yemen-report-and-siege-warfare/. See also D. Akande and E.-C. Gillard, “Arbitrary Withholding of Consent”, above note 38; Michael Bothe, Karl Josef Partsch and Waldemar A. Solf, *New Rules for Victims of Armed Conflicts: Commentary on the Two 1977 Protocols Additional to the Geneva Conventions of 1949*, 2nd ed., Brill Nijhoff, Leiden and Boston, MA, 2013, p. 485; Kevin J. Riordan, “Shelling, Sniping and Starvation: The Law of Armed Conflict and the Lessons of the Siege of Sarajevo”, *Victoria University of Wellington Law Review*, Vol. 41, No. 2, 2010, pp. 176–177; Ruth Abril Stoffels, “Legal Regulation of Humanitarian Assistance in Armed Conflict: Achievements and Gaps”, *International Review of the Red Cross*, Vol. 86, No. 855, 2004, p. 542. The US and UK military manuals provide that the besieging party may deny consent when there are serious reasons for fearing that the consignments may be diverted from their destination, the control may not be effective or a definite advantage may accrue to the military efforts or economy of the enemy. DoD, above note 1, pp. 313–314, para. 5.19.3; MoD, above note 31, pp. 220–221, para. 9.12.1.

49 D. Akande and E.-C. Gillard, “Arbitrary Withholding of Consent”, above note 38, p. 499.

50 Margherita Stevoli, “Famine as a Collateral Damage of War”, *Journal of International Humanitarian Legal Studies*, Vol. 11, No. 1, 2020, p. 167; G. Gaggioli, above note 3; G. Gaggioli, above note 14, pp. 123–124.

much more limited extent, combatants or fighters from the effects of hostilities.⁵¹ These rules must be distinguished from the norms of “Geneva law”, which protect persons and objects in the power of a party to the conflict.⁵² This fundamental distinction has important practical consequences since a party may not conduct hostilities against, and thus not direct “attacks” against, persons or objects in its power.⁵³ Indeed, under Geneva law, persons *hors de combat* or in the power of a party to the conflict must be treated humanely at all times, and objects controlled by a party are protected against “wanton” destruction.⁵⁴

While the fundamental principles of the law governing the conduct of hostilities apply to the wider notion of “military operations”, its more detailed rules, including the principle of proportionality, only apply to “attacks” as defined in Article 49(1) of AP I.⁵⁵ Therefore, the crux of the matter is whether a siege can be considered an attack—that is, an act of violence against the

- 51 M. Sassòli, above note 24, pp. 26–27, paras 3.28–3.29; S. Casey-Maslen and S. Haines, above note 24, p. 73; Michael N. Schmitt, “‘Attack’ as a Term of Art in International Law: The Cyber Operations Context”, in Christian Czosseck, Rain Ottis and Katharina Ziolkowski (eds), *Proceedings of the 4th International Conference on Cyber Conflict*, NATO CCD COE Publications, Tallinn, 2012, p. 285.
- 52 International Court of Justice, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 1996, p. 34, para. 75. The notion of “attack” and the fundamental distinction between “Hague law” and “Geneva law” has recently attracted considerable scholarly attention in light of the *Ntaganda* case law of the International Criminal Court (ICC). While the Appeals Chamber rejected the prosecutor’s appeal that the notion of attack has a special meaning in relation to Articles 8(2)(e)(iv) and 8(2)(b)(ix) of the Rome Statute and is not restricted to the conduct of hostilities, three out of five judges seem to endorse the prosecution’s argument of rejecting the narrow interpretation of “attack” under IHL in favour of a broader, ordinary meaning. It has been submitted that such an interpretation severs the link between the Rome Statute and the underlying IHL rules and creates overlaps between Hague and Geneva law war crimes within the Rome Statute. ICC, *The Prosecutor v. Bosco Ntaganda*, Case No. ICC-01/04-02/06 A A2, Judgement (Appeals Chamber), 30 March 2021, pp. 419–427, paras 1154–1168. See also Abhimanyu George Jain, “The Ntaganda Appeal Judgment and the Meaning of ‘Attack’ in Conduct of Hostilities War Crimes”, *EJIL: Talk!*, 2 April 2021, available at: www.ejiltalk.org/the-ntaganda-appeal-judgment-and-the-meaning-of-attack-in-conduct-of-hostilities-war-crimes/; Ori Pomson, “Ntaganda Appeals Chamber Judgement Divided on Meaning of ‘Attack’”, *Articles of War*, 12 May 2021, available at: www.lieber.westpoint.edu/category/attack-symposium/.
- 53 Several *amici curiae* have reiterated this in their observations to the ICC Appeals Chamber. See ICC, *The Prosecutor v. Bosco Ntaganda*, Case No. ICC-01/04-02/06 A2, Amicus Curiae Observations by Prof. Geoffrey S. Corn *et al.*, Pursuant to Rule 103 of the Rules of Procedure and Evidence on the Merits of the Legal Questions Presented in “Order Inviting Expressions of Interest as Amici Curiae in Judicial Proceedings (Pursuant to Rule 103 of the Rules of Procedure and Evidence)” of 24 July 2020 (ICC-01/04-02/06-2554) (Appeals Chamber), 18 September 2020, p. 4, para. 6; ICC, *The Prosecutor v. Bosco Ntaganda*, Case No. ICC-01/04-02/06 A2, Amicus Curiae Observations by Prof. Roger O’Keefe, Pursuant to Rule 103 of the Rules of Procedure and Evidence on the Merits of the Legal Questions Presented in “Order Inviting Expressions of Interest as Amici Curiae in Judicial Proceedings (Pursuant to Rule 103 of the Rules of Procedure and Evidence)” of 24 July 2020 (ICC-01/04-02/06-2554) (Appeals Chamber), 17 September 2020, pp. 5–6, para. 6; M. Sassòli, above note 24, pp. 27–28, para. 3.32.
- 54 The prohibition against the destruction or seizure of the property of an adversary unless for reasons of imperative military necessity and the rule that all civilians and persons *hors de combat* must be treated humanely apply as CIHL in both IACs and NIACs. See ICRC Customary Law Study, above note 11, pp. 175–177, 306–308.
- 55 ICRC Commentary on the APs, above note 7, p. 600, para. 1875; M. Sassòli, above note 24, p. 349, para. 8.295; M. N. Schmitt, above note 51, p. 285.

adversary, whether in offence or defence.⁵⁶ Although it is uncontroversial that the rules on the conduct of hostilities apply to kinetic attacks such as bombardments carried out during a siege,⁵⁷ views diverge on the crucial question of whether the encirclement and isolation aspect of a siege can be considered an attack in the sense of Article 49(1).⁵⁸ Various convincing arguments have been presented to substantiate the claim that it can indeed be considered thus.⁵⁹

Interpreting the notion of “attack” in light of its context and object and purpose

The first argument that has been presented is that Article 49(1) of AP I, which defines attacks as acts of violence against the adversary whether in offence or defence, is sufficiently broad and flexible to include siege.⁶⁰ Consequently, it must be determined how the elements of this definition, and in particular the notion of an “act of violence”, should be interpreted.

The centrality of violence in the definition of attacks is supported in both the ICRC Commentary on AP I, which explains that “attack means combat action”, and in the commentary by Bothe, Partsch and Solf, which clarifies that “the term ‘acts of violence’ denotes physical force”.⁶¹ However, nowadays it is well settled that the violent essence of an act must be understood in terms of consequences rather than referring to the nature of the means or method of attack.⁶² Indeed, it is uncontroversial that the use of chemical, biological or radiological weapons constitutes an attack even though the use of such weapons does not involve kinetic force.⁶³

56 An alternative argument could be made on the basis of what Kleffner has termed “a broader notion of proportionality as a general principle of the law of armed conflict”. Jann K. Kleffner, “Military Collaterals and *Ius in Bello* Proportionality”, *Israel Yearbook on Human Rights*, Vol. 48, 2018, p. 57.

57 DoD, above note 1, p. 313, para. 5.19.4; Norwegian Ministry of Defence, *Manual of the Law of Armed Conflict*, 2013, p. 197, para. 9.8; Australian Defence Force, *Law of Armed Conflict*, Australian Defence Doctrine Publication 06.4, 2006, para. 7.35; MoD, above note 31, p. 87, para. 5.34; E.-C. Gillard, above note 3, p. 4; S. Watts, above note 18, pp. 5–15.

58 E.-C. Gillard, above note 3, p. 8.

59 See, in particular, G. Gaggioli, above note 3; G. Gaggioli, above note 14, p. 127.

60 G. Gaggioli, above note 3; G. Gaggioli, above note 14, p. 127.

61 ICRC Commentary on the APs, above note 7, p. 603, para. 1880; M. Bothe, K. J. Partsch and W. A. Solf, above note 48, pp. 328–329.

62 Y. Dinstein, above note 18, pp. 2–3, para. 6; William H. Boothby, *The Law of Targeting*, Oxford University Press, Oxford, 2012, pp. 81, 384; Cordula Droegge, “Get Off My Cloud: Cyber Warfare, International Humanitarian Law, and the Protection of Civilians”, *International Review of the Red Cross*, Vol. 94, No. 886, 2012, p. 557. See also M. Bothe, K. J. Partsch and W. A. Solf, above note 48, p. 328: “Article 49 provides a definition of ‘attacks’, a term which applies to those aspects of military operations which most directly affect the safety of the civilian population and the integrity of civilian objects.”

63 With regard to chemical weapons, see International Criminal Tribunal for the former Yugoslavia (ICTY), *The Prosecutor v. Duško Tadić*, Case No. IT-94-1-AR72, Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction (Appeals Chamber), 2 October 1995, paras 120, 124; M. N. Schmitt, above note 51, p. 290; C. Droegge, above note 62, p. 557.

This consequence-based approach has been developed particularly in the field of cyber warfare.⁶⁴ According to Rule 92 of the *Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations*, “a cyber-attack is a cyber operation, whether offensive or defensive, that is reasonably expected to cause injury or death to persons or damage or destruction to objects”.⁶⁵ The Manual further confirms that “acts of violence should not be understood as limited to activities that release kinetic force” and that “the crux of the notion lies in the effects that are caused”.⁶⁶ The ICRC has taken a similar position and argues that “cyber operations expected to cause death, injury or physical damage constitute attacks under IHL”.⁶⁷ In keeping with this approach, the International Criminal Court (ICC) has recently held that “in characterizing a certain conduct as an ‘attack’, what matters is the consequences of the act, and particularly whether injury, death, damage or destruction are intended or foreseeable consequences thereof”.⁶⁸

Such an interpretation conforms with the customary rule that treaties shall be interpreted in good faith, in accordance with the ordinary meaning to be given to the terms of the treaty, in their context and in light of the treaty’s object and purpose.⁶⁹ Indeed, a careful evaluation of the rules on the conduct of hostilities applicable to attacks illustrates that the concern was not so much with the nature

64 See, for example, Laurent Gisel, Tilman Rodenhäuser and Knut Dörmann, “Twenty Years On: International Humanitarian Law and the Protection of Civilians against the Effects of Cyber Operations during Armed Conflicts”, *International Review of the Red Cross*, Vol. 102, No. 913, 2020, p. 312; Terry D. Gill, “International Humanitarian Law Applied to Cyber-Warfare: Precautions, Proportionality and the Notion of ‘Attack’ under the Humanitarian Law of Armed Conflict”, in Nicholas Tsagourias and Russell Buchan (eds.), *Research Handbook on International Law and Cyberspace*, Edward Elgar, Cheltenham, 2015, pp. 374–375; Marco Roscini, *Cyber Operations and the Use of Force in International Law*, Oxford University Press, Oxford, 2014, pp. 179–180; Heather Harrison Dinness, *Cyber Warfare and the Laws of War*, Cambridge University Press, Cambridge, 2012, p. 197; C. Droege, above note 62, p. 557; M. N. Schmitt, above note 51, pp. 290–291; M. N. Schmitt, “Wired Warfare: Computer Network Attack and *Jus in Bello*”, *International Review of the Red Cross*, Vol. 84, No. 846, 2002, p. 377.

65 Michael N. Schmitt (ed.), *Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations*, Cambridge University Press, Cambridge, 2017 (*Tallinn Manual 2.0*), p. 415. For a similar definition, see Yoram Dinstein and Arne Willy Dahl, *Oslo Manual on Select Topics of the Law of Armed Conflict: Rules and Commentary*, Springer, Berlin, 2020, p. 22, Rule 24.

66 *Tallinn Manual 2.0*, above note 65, p. 415, para. 3.

67 ICRC, *International Humanitarian Law and Cyber Operations during Armed Conflicts*, ICRC position paper submitted to the Open-Ended Working Group on Developments in the Field of Information and Telecommunications in the Context of International Security and the Group of Governmental Experts on Advancing Responsible State Behaviour in Cyberspace in the Context of International Security, November 2019, p. 7; 2015 Challenges Report, above note 8, p. 41; 2011 Challenges Report, above note 8, p. 37.

68 ICC, *The Prosecutor v. Bosco Ntaganda*, Case No. ICC-01/04-02/06, Decision on the Confirmation of Charges (Pre-Trial Chamber II), 9 June 2014, pp. 17–18, para. 46. See also ICC, *Ntaganda*, Amicus Curiae Observations by Prof. Geoffrey S. Corn *et al.*, above note 53, p. 5, para. 13: “An ‘attack’ must involve an act reasonably expected to produce physical injury or damage to a person(s) or object(s). ‘Attack’ requires the employment of force (kinetic or not) against persons or objects to produce violent consequences. Violent consequences, in turn, are understood as death or injury in the case of persons, or physical damage or destruction in the case of objects.”

69 Vienna Convention on the Law of Treaties of 23 May 1969, 1155 UNTS 331 (entered into force 27 January 1980), Art. 31(1).

of the acts, but rather with the consequences they might entail.⁷⁰ Moreover, a restrictive understanding of the notion of attack would be hard to reconcile with the object and purpose of AP I, which is to ensure the protection of the civilian population and civilian objects against the effects of hostilities.⁷¹

However, it must be noted that for an “act of violence” to amount to an attack in the sense of Article 49(1) of AP I, the act must be directed “against the adversary”. This requirement has been interpreted as requiring that the act of violence must be executed with the motivation to cause harm to the adversary or other persons or objects in the conduct of hostilities. Such an interpretation has been proposed to prevent the possibility that, for example, the provision of air-delivered supplies which inadvertently causes injury or damage, or manoeuvre damage to roads and fields, could be considered an attack.⁷² This requirement proves rather unproblematic in the context of a siege, given a siege’s objective to induce the enemy into submission by means of starvation.⁷³

In light of this consequence-based approach, a siege, or more precisely its encirclement and isolation aspect, which is not characterized by its kinetic nature as such but rather by its violent consequences (namely, the starvation of both enemy forces and civilians in the besieged area), can be considered an attack in the sense of Article 49(1).

Reasoning by analogy to the law of blockades

As a second argument, an analogy can be made to naval and aerial blockades, with which sieges display a number of similarities and where the principle of proportionality has become part and parcel of the applicable legal framework.⁷⁴ Although blockades are rooted in siege warfare, they are today generally employed as a method of economic warfare aimed at disrupting the targeted

70 For instance, civilians enjoy general protection against dangers arising from military operations (AP I, Art. 51(1)). The principle of proportionality offers protection against attacks which might be expected to result in excessive incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof (AP I, Art. 51(5)(b)). Attackers should take all feasible precautionary measures in the choice of means and methods of attack with a view to avoiding, and in any event to minimizing, incidental loss of civilian life, injury to civilians and damage to civilian objects (AP I, Art. 57(2)(ii)), and when a choice is possible between several military objectives for obtaining a similar military advantage, the objective which may be expected to cause the least danger to civilian lives and to civilian objects shall be selected (AP I, Art. 57(3)). See also M. N. Schmitt, above note 51, pp. 290–291; M. N. Schmitt, above note 64, pp. 377–378.

71 2015 Challenges Report, above note 8, p. 41; L. Gisel, T. Rodenhäuser and K. Dörmann, above note 64, p. 313; M. N. Schmitt, above note 51, p. 290.

72 ICC, *Ntaganda*, Amicus Curiae Observations by Prof. Geoffrey S. Corn *et al.*, above note 53, p. 6, para. 15; Dick Jackson, “Motive and Control in Defining Attacks”, *Articles of War*, 11 November 2020, available at: www.lieber.westpoint.edu/motive-control-attacks/; Chris Jenks, “Motive Matters: The Meaning of Attack under IHL and the Rome Statute”, *Opinio Juris*, 26 October 2020, available at: <https://opiniojuris.org/2020/10/26/motive-matters-the-meaning-of-attack-under-ihl-the-rome-statute/>.

73 DoD, above note 1, p. 312, para. 5.19.1; US Department of the Army, above note 18, paras 6.12–6.14; Yoram Dinstein, above note 18, p. 253, para. 688; S. Watts, above note 18, p. 3.

74 G. Gaggioli, above note 3; G. Gaggioli, above note 14, p. 127.

State's economy and consequently reducing its ability to wage war.⁷⁵ In a naval or aerial blockade, a belligerent party prevents both enemy and neutral vessels and aircraft from entering or exiting specified ports, airports or coastal areas belonging to, occupied by or under the control of the opposing party.⁷⁶ It has been submitted that the effects of blockade in blocking all forms of commerce, whether inbound or outbound, can resemble a siege in inflicting starvation.⁷⁷

In closing the gap left by the restrictive interpretation of the prohibition against starvation, which only extends to blockades with respectively “the sole” or “the sole or primary” purpose of starving the civilian population,⁷⁸ both the San Remo Manual and the Harvard Manual require that the blockading party adheres to the principle of proportionality.⁷⁹ This progressive development has widely resonated and influenced not only the practice of States, as reflected in their military manuals,⁸⁰ but also the findings of Commissions of Inquiry.⁸¹ Although both the San Remo and Harvard Manuals remain silent on the question of whether a blockade can be considered an attack in the sense of Article 49(1) of AP I,⁸² this development provides a strong argument for applying the proportionality principle to siege warfare, which is characterized by similar harmful consequences.

Emerging State practice and support among experts

Finally, there appears to be growing support, not only in State practice but also among experts and legal scholars, that the proportionality principle constrains the

- 75 Phillip Drew, “Can We Starve the Civilians? Exploring the Dichotomy between the Traditional Law of Maritime Blockade and Humanitarian Initiatives”, *International Law Studies*, Vol. 95, 2019, p. 303; Phillip Drew, *The Law of Maritime Blockade: Past, Present, and Future*, Oxford University Press, Oxford, 2017, p. 6; Wolff Heintschel von Heinegg, “Blockade”, in Rüdiger Wolfrum (ed.), *Max Planck Encyclopedia of Public International Law*, October 2015, para. 1.
- 76 P. Drew, *The Law of Maritime Blockade*, above note 75, pp. 4–5; Y. Dinstein, above note 18, p. 257, para. 700; W. Heintschel von Heinegg, above note 75; Wolff Heintschel von Heinegg, “Blockades and Interdictions”, in Marc Weller (ed.), *The Oxford Handbook of the Use of Force in International Law*, Oxford University Press, Oxford, 2015, p. 927.
- 77 D. Fleck, above note 27, p. 234; Y. Dinstein, above note 18, p. 258, para. 704.
- 78 San Remo Manual, above note 31, Art. 102(a); Harvard Manual, above note 31, Art. 157(a).
- 79 San Remo Manual, above note 31, Art. 102(b); Harvard Manual, above note 31, Art. 157(b).
- 80 See, for example, Danish Ministry of Defence, above note 45, pp. 564, 597; US Department of the Navy, Office of the Chief of Naval Operations, *The Commander's Handbook on the Law of Naval Operations*, 2017, para. 7.7.2.5; Australian Defence Force, above note 57, para. 6.65; MoD, above note 31, para. 13.74; Canada, Office of the Judge Advocate General, *Joint Doctrine Manual: Law of Armed Conflict at the Operational and Tactical Levels*, 2001, para. 850.
- 81 *Report of the Secretary-General's Panel of Inquiry on the 31 May 2010 Flotilla Incident*, September 2011, p. 72, para. 162; *Report of the International Fact-Finding Mission to Investigate Violations of International Law, Including International Humanitarian and Human Rights Law, Resulting from the Israeli Attacks on the Flotilla of Ships Carrying Humanitarian Assistance*, UN Doc. A/HRC/15/21, 27 September 2010, p. 13, para. 53; *Report of the Public Commission to Examine the Maritime Incident of 31 May 2010*, Part 1, January 2011, pp. 90–102, paras 87–97; *Report of the Commission of Inquiry on Lebanon*, UN Doc. A/HRC/3/2, 23 November 2006, p. 64, para. 275.
- 82 HPCR, *Commentary on the HPCR Manual on International Law Applicable to Air and Missile Warfare*, Cambridge University Press, Cambridge, 2013, p. 297; San Remo Manual, above note 31, p. 179; T. Dannenbaum, above note 32, pp. 336–337. For the opinion that a blockade does amount to an attack in the sense of Article 49(1) of AP I, see P. Drew, *The Law of Maritime Blockade*, above note 75, p. 99.

possibility of enforcing a siege. Such a position was, for example, adopted by the Group of Eminent International and Regional Experts on Yemen in their 2019 report addressed to the Human Rights Council.⁸³ Moreover, reference can be made to the US *Law of War Manual*, which provides that “[m]ilitary action intended to starve enemy forces ... must not be taken where it is expected to result in incidental harm to the civilian population that is excessive in relation to the military advantage anticipated to be gained.”⁸⁴

How does the principle of proportionality operate in the context of a siege?

The principle of proportionality is perhaps one of the most apparent manifestations of the delicate balance between the competing principles of military necessity and humanity that characterizes all norms of IHL.⁸⁵ It recognizes that causing incidental civilian harm in the conduct of hostilities is often unavoidable, but it limits the extent of incidental civilian harm that is permissible by spelling out how these two fundamental principles must be balanced.⁸⁶ In this respect, the proportionality principle prohibits “attacks which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.”⁸⁷

83 Yemen Report, above note 4, pp. 178–179, para. 746. See also *Report of the United Nations High Commissioner for Human Rights Containing the Findings of the Group of Independent Eminent International and Regional Experts and a Summary of Technical Assistance Provided by the Office of the High Commissioner to the National Commission of Inquiry*, A/HRC/39/43, 17 August 2018, p. 9, para. 58: “Given the severe humanitarian impact that the de facto blockades have had on the civilian population and in the absence of any verifiable military impact, they constitute a violation of the proportionality rule of international humanitarian law.” This approach has been endorsed by Schmitt, Tinkler and Johnson, who hold that “sieges are lawful so long as directed at enemy forces (and not intended to starve the civilian population), compliant with the rule of proportionality, and consistent with the requirement to take precautions in attack”. M. N. Schmitt, K. Tinkler and D. Johnson, above note 48. Benvenisti recently made a similar argument with regard to the prolonged siege and blockade of Gaza; according to him, “the laws of siege and blockade, especially in the long run, must weigh against the military purpose of the blockade the full scope of damage—whether direct or collateral—suffered by the civilian population”. See Eyal Benvenisti, “The International Law of Prolonged Sieges and Blockades: Gaza as a Case Study”, *International Law Studies*, Vol. 97, 2021, p. 981.

84 DoD, above note 1, pp. 315–316, paras 5.20.1–5.20.2.

85 According to the ICRC Commentary on AP I, “the entire law of armed conflict is, of course, the result of an equitable balance between the necessities of war and humanitarian requirements. There is no implicit clause in the [Geneva] Conventions which would give priority to military requirements. The principles of the Conventions are precisely aimed at determining where the limits lie; the principle of proportionality contributes to this.” ICRC Commentary on the APs, above note 7, p. 683, para. 2206. See also E.-C. Gillard, *Proportionality in the Conduct of Hostilities: The Incidental Harm Side of the Assessment*, Chatham House, December 2018, p. 3, para. 1; Michael N. Schmitt, “Military Necessity and Humanity in International Humanitarian Law: Preserving the Delicate Balance”, *Virginia Journal of International Law*, Vol. 50, No. 4, 2010, p. 804.

86 Michael N. Schmitt, “Targeting in Operational Law”, in Terry D. Gill and Dieter Fleck (eds.), *The Handbook of the International Law of Military Operations*, Oxford University Press, Oxford, 2015, p. 283, para. 16.06.

87 AP I, Art. 51(5)(b). Applicable as CIHL in both IACs and NIACs. See ICRC Customary Law Study, above note 11, pp. 46–51.

While Article 51(5)(b) of AP I qualifies a violation of the principle of proportionality as an indiscriminate attack, the principle also appears in Article 57(2) of AP I as one of the precautionary measures that an attacker must take. According to Article 57(2)(a)(iii), an attacker must refrain from deciding to launch any attack which would violate the proportionality principle. This entails an obligation to do everything feasible to assess whether an attack would violate this principle.⁸⁸ Finally, Article 57(2)(b) obliges an attacker to do everything feasible to cancel or suspend an attack when it becomes apparent that the proportionality principle would be violated.⁸⁹ This section will investigate how these interconnected and mutually reinforcing obligations operate in the context of siege warfare.⁹⁰

Challenges in applying the principle of proportionality to sieges

The existence of the principle of proportionality as a norm is undisputed, and States and their armed forces consider it a serious limitation on their military activity.⁹¹ However, it has been observed that “[t]he main problem with the principle of proportionality is not whether or not it exists but what it means and how it is to be applied”.⁹² Indeed, determining what must be included within the two sides of the assessment and how these are to be balanced is a challenging endeavour.⁹³ Perhaps the most challenging aspect of the proportionality analysis lies in the fact that it requires an *ex ante* evaluation of whether the “expected” incidental civilian harm would be excessive in relation to the concrete and direct military advantage “anticipated”.⁹⁴ Moreover, what has to be balanced are not the respective values of the military advantage and incidental harm *in abstracto*, but these values and their respective certainty and likelihood based on the information reasonably available to the military commander at the time of the attack.⁹⁵

88 Applicable as CIHL in both IACs and NIACs. See ICRC Customary Law Study, above note 11, pp. 58–60.

89 Applicable as CIHL in both IACs and NIACs. See *ibid.*, pp. 60–62.

90 DoD, above note 1, p. 249, para. 5.10.5.

91 Amichai Cohen and David Zlotogorski, *Proportionality in International Humanitarian Law: Consequences, Precautions, and Procedures*, Oxford University Press, Oxford, 2021, p. 3.

92 *Final Report to the Prosecutor by the Committee Established to Review the NATO Bombing Campaign against the Federal Republic of Yugoslavia*, 13 June 2000 (Yugoslavia Report), para. 48.

93 E.-C. Gillard, above note 85, p. 3, para. 2. According to Dinsteine, “these difficulties are disquieting. Still, it would be wrong to believe that weighing the expected collateral damage as against the anticipated military advantage is not doable.” Y. Dinsteine, above note 18, p. 159, para. 426.

94 D. Fleck, above note 27, p. 262; Michael N. Schmitt, “International Humanitarian Law and the Conduct of Hostilities”, in Ben Saul and Dapo Akande (eds.), *The Oxford Guide to International Humanitarian Law*, Oxford University Press, Oxford, 2020, p. 153; Y. Dinsteine, above note 18, p. 157, para. 423.

95 ICTY, *The Prosecutor v. Ante Gotovine et al.*, Case No. IT-06-90-T, Prosecution’s Public Redacted Final Trial Brief (Trial Chamber), 2 August 2010, para. 549. See also ICTY, *The Prosecutor v. Stanislav Galić*, Case No. IT-98-29-T, Judgment (Trial Chamber), 5 December 2003, para. 58: “In determining whether an attack was proportionate it is necessary to 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, could have expected excessive civilian casualties to result from the attack.” M. Sassòli, above note 24, p. 362, para. 8.322; Laurent Gisel, *The Principle of Proportionality in the Rules Governing the Conduct of Hostilities under International Humanitarian Law*, report of the International Expert Meeting, ICRC and Université Laval, 22 June 2016, p. 57.

In this respect, a number of scholars have expressed reservations concerning the viability of applying the principle of proportionality in the context of blockades, which are of equal relevance with regard to sieges. Dannenbaum has submitted that the principle of proportionality's ordinary weaknesses, and particularly its *ex ante* nature, are exacerbated by the nature of blockades and sieges.⁹⁶ First, he argues that in contrast to targeting operations, which are generally short in duration and limited in scope, blockades or sieges may affect the entire civilian population of a city or even a country for a longer period of time. Moreover, their effects might intersect with numerous other contextual factors which will only become clear over time.⁹⁷ Similarly, Drew has held that

[w]hile in a kinetic attack it is generally relatively easy to determine the damage that will likely be caused within a certain radius of a weapon's detonation point, there is truly no way to approximate the effects of an operation that may last several years, particularly in situations where the harm to civilians becomes exponentially worse with time.⁹⁸

Second and more fundamentally, Dannenbaum questions how, if at all, incidental civilian harm already caused by the encirclement should be incorporated in the proportionality assessment of the continuation of a siege.⁹⁹ This question is inspired by the currently ongoing debate on the continuous application of the principle of proportionality under *jus ad bellum*.¹⁰⁰ Although the precise content of the proportionality principle under *jus ad bellum* is unclear,¹⁰¹ the majority of scholars seems to reject "a static approach"¹⁰² of *ad bellum* proportionality in favour of some form of continuous application of this principle.¹⁰³ If proportionality under *jus ad bellum* is considered as subjecting the use of

96 T. Dannenbaum, above note 32, p. 339.

97 *Ibid.*, pp. 339–340;

98 P. Drew, *The Law of Maritime Blockade*, above note 75, p. 109.

99 T. Dannenbaum, above note 32, pp. 340–341.

100 Eliav Lieblich, "On the Continuous and Concurrent Application of *Ad Bellum* and *In Bello* Proportionality", in Claus Kreß and Robert Lawless (eds), *Necessity and Proportionality in International Peace and Security Law*, Oxford University Press, Oxford, 2021, pp. 69–70. This question also features in what Lubell and Cohen have termed "strategic proportionality" as *lex ferenda* and which requires an ongoing assessment of the use of force throughout the conflict, balancing the overall harm against the strategic objectives. See Noam Lubell and Amichai Cohen, "Strategic Proportionality: Limitations on the Use of Force in Modern Armed Conflicts", *International Law Studies*, Vol. 96, 2020, p. 162.

101 E. Lieblich, above note 100, p. 61. See also Dapo Akande and Thomas Liefänder, "Clarifying Necessity, Imminence and Proportionality in the Law of Self-Defense", *American Journal of International Law*, Vol. 107, No. 3, 2013, pp. 566–568.

102 In contemporary international law, one of the foremost proponents of the "static approach" is Yoram Dinstein. See Yoram Dinstein, *War, Aggression and Self-Defence*, 6th ed., Cambridge University Press, Cambridge, 2017, pp. 282–283.

103 Raphaël van Steenberghe, "Proportionality under *Jus ad Bellum* and *Jus in Bello*: Clarifying Their Relationship", *Israel Law Review*, Vol. 45, No. 1, 2012, p. 113; Judith Gail Gardam, "Proportionality and Force in International Law", *American Journal of International Law*, Vol. 87, No. 3, 1993, p. 404; Christopher Greenwood, "The Relationship between *Ius ad Bellum* and *Ius in Bello*", *Review of International Studies*, Vol. 9, 1989.

defensive force to a continuous harm–benefit analysis, the question arises as to how the already inflicted harm should be integrated into the proportionality assessment.¹⁰⁴ Different approaches exist in this regard. The “quota view” requires an initial proportionality assessment, and the subsequent continuous assessment of whether the accumulated harm throughout the conflict has exceeded the benefit of achieving the just cause. The “prospective view”, on the other hand, considers past harms as “sunk costs” which are irrelevant to the continuous forward-looking proportionality assessment.¹⁰⁵ In what follows, these two interrelated challenges with regard to the application of the principle of proportionality under *jus in bello* in the context of siege warfare will be addressed. In doing so, the focus will lie on what Cohen and Zlotogorski have termed the “procedural aspects of the principle of proportionality” – namely, the precautionary measures which should be taken before and during a siege in order to monitor its proportionality.¹⁰⁶

From an *ex ante* assessment to the continuous monitoring of a siege

Article 57(2)(b) of AP I provides that an attacking party must do everything feasible to cancel or “suspend” an attack if it becomes “apparent” that it would violate the principle of proportionality.¹⁰⁷ It follows from this provision that the proportionality of an attack should be assessed not only in the planning phase but also in the successive phase when the decision to launch the attack has already been taken and, more importantly, when the attack is being carried out and can still be stopped.¹⁰⁸ In the context of sieges, which consist of the encirclement and isolation of an area for a certain period of time, this provision thus requires not only an analysis of the proportionality of the siege prior to its

104 E. Lieblich, above note 100, p. 69.

105 *Ibid.*; Jeff McMahan, “Proportionality and Time”, *Ethics*, Vol. 125, No. 3, 2015, pp. 701–705.

106 A. Cohen and D. Zlotogorski, above note 91, p. 177.

107 Applicable as CIHL in both IACs and NIACs. See ICRC Customary Law Study, above note 11, pp. 60–62.

108 Gillard argues that “the frequency with which a proportionality assessment must be conducted in the course of an attack depends on the context and nature of the attack”. E.-C. Gillard, above note 85, p. 46, para. 164. According to Cannizzaro, Article 57(2)(a)(iii) of AP I entails “an obligation to consider proportionality also in the successive phase in which the decision has already been taken or the attack has already been launched”. Enzo Cannizzaro, “Proportionality in the Law of Armed Conflict”, in Andrew Clapham and Paola Gaeta (eds), *The Oxford Handbook of International Law in Armed Conflict*, Oxford University Press, Oxford, 2014, p. 335. Also see Amnesty International, *NATO/Federal Republic of Yugoslavia: “Collateral Damage” or Unlawful Killings? Violations of the Laws of War by NATO during Operation Allied Force*, June 2000, p. 33: “Yet, even if the pilot was, for some reason, unable to ascertain that no train was travelling towards the bridge at the time of the first attack, he was fully aware that the train was on the bridge when he dropped the second bomb, whether smoke obscured its exact whereabouts or not. This decision to proceed with the second attack appears to have violated Article 57 of Protocol I which requires an attack to be cancelled or suspended if it becomes clear that the objective is a not a military one ... or that the attack may be expected to cause incidental loss of civilian life ... which would be excessive in relation to the concrete and direct military advantage anticipated.”

initiation but also the continuous monitoring of its proportionality throughout the duration of the siege.¹⁰⁹

The continuous monitoring of the proportionality of a siege should be guided by the precautionary obligation of Article 57(2)(a)(iii) of AP I, which requires those who plan and decide upon an attack to do everything feasible to obtain information that will allow for a meaningful assessment of “the reasonably foreseeable incidental effects” on the civilian population.¹¹⁰ It has been submitted that belligerents should have a system in place to effectively gather and analyze relevant information.¹¹¹ This should include “lessons learned” from past experiences, information in the public domain, and information that can be acquired by the belligerents’ intelligence-gathering systems.¹¹² Moreover, if expert resources are reasonably available, they must be consulted.¹¹³

To institutionalize a system of continuous monitoring, an analogy can be made to the battle damage assessments that some States’ armed forces already conduct *after* an attack in order to determine its military impact and, increasingly, its civilian impact.¹¹⁴ Such assessments can reveal the accuracy of the party’s estimations and consequently refine future proportionality assessments.¹¹⁵ It must be noted that contrary to the proportionality principle under *jus ad bellum*, the proportionality assessment under *jus in bello* is essentially anticipatory and therefore precludes that information on the civilian harm actually caused and the actual military impact of an attack will result in the conclusion that the attack was disproportional.¹¹⁶

109 G. Gaggioli, above note 3; G. Gaggioli, above note 14, p. 129. This approach of continuous monitoring of proportionality has also been advocated by a number of scholars in the context of blockades. See Amichai Cohen and Yuval Shany, “The Turkel Commission’s Flotilla Report (Part One): Some Critical Remarks”, *EJIL: Talk!*, 28 January 2011, available at: www.ejiltalk.org/the-turkel-commissions-flotilla-report-part-one-some-critical-remarks/; Matthew L. Tucker, “Mitigating Collateral Damage to the Natural Environment in Naval Warfare: An Examination of the Israeli Naval Blockade of 2006”, *Naval Law Review*, Vol. 57, 2009, p. 177.

110 Applicable as CIHL in both IACs and NIACs. See ICRC Customary Law Study, above note 11, pp. 58–60.

111 Yugoslavia Report, above note 92, para. 29. According to Gillard, “[t]he report was probably referring to the first part of Art. 57(2)(a)(i) AP I, which requires belligerents to verify that the objectives to be attacked are not civilian. However, the obligation to verify also requires them to ensure the attack would not violate the rule of proportionality.” E.-C. Gillard, above note 85, p. 47, para. 168.

112 E.-C. Gillard, above note 85, p. 47, para. 168; L. Gisel, above note 95, p. 48; I. Robinson and E. Nohle, above note 9, pp. 120–121. Horowitz notes: “Putting in place civilian harm complaint and investigation mechanisms, as well as ensuring they are properly resourced, ha[s] also been proven to improve civilian harm mitigation techniques.” Jonathan Horowitz, “Precautionary Measures in Urban Warfare: A Commander’s Obligation to Obtain Information”, *Humanitarian Law and Policy Blog*, 10 January 2019, available at: <https://blogs.icrc.org/law-and-policy/2019/01/10/joint-blog-series-precautionary-measures-urban-warfare-commander-s-obligation-obtain-information/>.

113 L. Gisel, above note 95, p. 48.

114 See, for example, European Union Military Committee, *Avoiding and Minimizing Collateral Damage in EU-Led Military Operations Concept*, 3 February 2016, p. 14, paras 47–50; DoD, above note 1, pp. 252–253, para. 5.11.1.3; US Department of the Army, *Protection of Civilians*, Army Techniques Publication 3-07.6, 2015, p. 5.58–5.59; Australian Defence Force, *Targeting*, Australian Defence Doctrine Publication 3.14, 2009, para. 4.32; E.-C. Gillard, above note 85, p. 49, para. 172.

115 E.-C. Gillard, above note 85, pp. 48–49, paras 171–173.

116 ICTY, *Galić*, above note 95, fn. 109; M. N. Schmitt, above note 94, p. 153; M. Sassòli, above note 24, p. 362, para. 8.322; Y. Dinstein, above note 18, p. 157, para. 423; Ian Henderson, *The Contemporary Law of Targeting: Military Objectives, Proportionality and Precautions in Attack under Additional Protocol I*, Martinus Nijhoff, Leiden and Boston, MA, 2009, p. 226.

Similarly, in the context of a siege, continuously monitoring the incidental civilian harm caused by the siege and its impact on the besieged forces cannot lead to the conclusion that the siege has violated the principle of proportionality but merely informs the commander of the besieging party in his or her proportionality assessment regarding the continuation of the siege.¹¹⁷ For example, if the commander of the besieging force is confronted with a sudden increase of civilian death and illness due to starvation, this might inform him or her that continuing the siege would be disproportionate due to the fact that the civilian harm might be expected to rise if the siege continues.

The “circumstances ruling at the time” of the proportionality assessment will impact what kind of incidental effects may be objectively foreseeable. Therefore, it becomes possible to account for various contextual factors, such as previous hostilities, the protracted nature of the conflict, or economic sanctions or blockades which might intersect with the effects of the siege, provided they are “reasonably known”.¹¹⁸ For example, if the commander knows that previous bombardments have severely damaged the electricity network of the besieged area and thereby disrupted the functioning of the city’s only water treatment plant, the number of civilians expected to starve during the siege or by continuing the siege will rise. During protracted conflicts such as those in Syria and Yemen, it is reasonably known that essential services and infrastructure have seriously deteriorated over the years, thereby making the civilian population more vulnerable to starvation when siege is laid.¹¹⁹

It must be noted that a besieging party must only comply with these precautionary obligations “to the extent feasible”. In a declaration submitted upon ratification of AP I, several States expressed their position that “feasible” is to be understood as “that which is practicable or practically possible, taking into account all circumstances ruling at the time including humanitarian and military considerations”.¹²⁰ However, it has been argued that “[a]s sieges are by nature relatively ‘static’, more significant precautions may be considered feasible for

117 However, note the subtle but significant difference in both the San Remo Manual and Harvard Manual, which require comparing whether the damage or suffering to the civilian population “is, or may be expected to be”, excessive in relation to the concrete and direct military advantage anticipated from the blockade. San Remo Manual, above note 31, Art. 102(b); Harvard Manual, above note 31, Art. 157(b) (emphasis added).

118 I. Robinson and Ellen Nohle, above note 9, pp. 124–125.

119 For an analysis of the impact of protracted armed conflict on essential urban services, see ICRC, *Urban Services during Protracted Armed Conflict: A Call for a Better Approach to Assisting Affected People*, Geneva, 2015, pp. 21–28; I. Robinson and E. Nohle, above note 9.

120 See the nearly identical interpretive declarations of Belgium, Canada, France, Germany, Ireland, Italy, the Netherlands, Spain, the UK, and the United States upon ratification of AP I. Jean-Marie Henckaerts and Louise Doswald-Beck (eds), *Customary International Humanitarian Law*, Vol. 2: *Practice*, Cambridge University Press, Cambridge, 2005, pp. 357–358, available at: <https://ihl-databases.icrc.org/customary-ihl/eng/docs/v2>. See also Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons which May Be deemed to Be Excessively Injurious or to Have Indiscriminate Effects (with Protocols I, II and III), 1342 UNTS 137, 10 October 1980 (entered into force 2 December 1983), Protocol II, Art. 3(4), and Protocol III, Art. 1(5); Jean-François Quéguiner, “Precautions under the Law Governing the Conduct of Hostilities”, *International Review of the Red Cross*, Vol. 88, No. 864, 2006, p. 810.

besieging forces than during more dynamic operations”.¹²¹ Nevertheless, the lack of “boots on the ground” by the besieging force in the besieged area poses difficulties with regard to intelligence-gathering.¹²²

Conclusion

Siege warfare and its devastating humanitarian consequences have been one of the defining features of contemporary armed conflicts. While the most apparent restriction of siege warfare is provided by the prohibition against starvation of civilians as a method of warfare, States’ restrictive interpretation of this prohibition has resulted in a permissive approach towards sieges which affect civilians “incidentally”. This article has demonstrated that shifting the focus from the prohibition against starvation to the rules regulating humanitarian relief operations does not seem helpful due to the ambiguities regarding the requirement of consent and the right of control of the besieging party.

However, this article has also demonstrated that civilians who remain within a besieged city are not without legal protection from the hardships they endure. In this respect, this article has submitted that civilians who remain within a besieged area are protected against excessive incidental civilian harm under the proportionality principle. Three arguments have been presented to substantiate the claim that a siege can be considered an attack in the sense of Article 49(1) of AP I, which is constrained by the principle of proportionality. First, it has been demonstrated that under the consequence-based interpretation of an “act of violence”, a siege can be considered such an attack. Second, an analogy can be made with the law of blockades, with which sieges display a number of similarities and where the proportionality principle has become part and parcel of the applicable legal framework. Third, there seems to be an emerging State practice of, and support among experts for, applying the principle of proportionality to sieges.

Although the anticipatory nature of the principle of proportionality poses distinct challenges when applied in the context of siege warfare, this article has attempted to clarify how the principle can be operationalized during sieges. It has been demonstrated that Article 57(2)(b) of AP I requires not only an analysis of the proportionality of a siege prior to its initiation but also the continuous monitoring of the proportionality throughout the duration of the siege.

121 E.-C. Gillard, above note 3, p. 6. See also I. Robinson and E. Nohle, above note 9, p. 139: “An issue related to the quantity and quality of information that a commander can feasibly be expected to take into account when analyzing the expected incidental damage of an attack is the relevance of the operational context.”

122 According to Durhin, “[t]he quality of intelligence is enhanced by the physical presence of human gatherers (conventional or special forces) in the theatre of operations. In the case of ‘no boots on the ground’ operations, this human intelligence is lacking, and it is unrealistic to think that technology alone can resolve this deficiency.” N. Durhin, above note 21, p. 190.