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### Proportionality in international humanitarian law

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# Chapter 10

## Chapter 10: Proportionality in Context

### 10.1 Introduction

The focus in this chapter is on providing more insight on the practical and legal context in which the proportionality rule must be applied. For that reason, first, the place of the proportionality analysis is explored in the process that is in the heart of IHL: attacking the enemy. Therefore, a short descriptive analysis of the targeting process is provided in Section 10.2, as an introduction to the way the IHL proportionality rule must be applied in practice. Subsequently, as the prohibition of disproportionate attacks under IHL is categorised as a subset of the category of indiscriminate attacks, the notion of indiscriminate attacks is briefly explored in Section 10.3. In Section 10.4, it is explored how the IHL proportionality rule, as a precautionary measure in itself, fits in the system of obligations under IHL with regard to precautionary measures protecting civilians during attacks and military operations.

### 10.2 Targeting and Proportionality

The IHL proportionality rule applies when an attack is planned and when that attack is subsequently executed during an armed conflict.<sup>1</sup> The activity of planning the use of armed force, even when used in defence, together with the actual launch of an attack, may be labelled as ‘targeting’. Targeting is “the sine qua non of warfare”.<sup>2</sup> It is therefore relevant to analyse the concept of targeting, in order to enhance the understanding of the circumstances under which the IHL proportionality rule must be applied.

Boothby aptly defines targeting as “a broad process encompassing planning and execution, including the consideration of prospective targets of attack, the accumulation of information to determine whether the attack of a particular object, person, or group of persons will meet military, legal and other requirements, the determination of which weapon and method should be used to prosecute the target, the carrying out of attacks, including those decided upon at short notice and with minimal opportunity for planning, and other associated activities.”<sup>3</sup> Defined as such, targeting covers a wide range of issues, criteria and considerations that play a role in the application of the IHL proportionality rule.

1 The term “attack” is defined under international humanitarian law as an act of “violence against the adversary, whether in offence or in defence.” See article 49 (1) API.

2 Schmitt 2012.

3 Boothby, p. 4.

Although “important discrepancies”<sup>4</sup> do exist between the rules applicable to targeting in international armed conflicts as opposed to targeting in non-international armed conflicts, for the purpose of the application of the proportionality rule, this division has mostly become irrelevant. As was established in Chapter 6, the IHL proportionality rule applies equally in both types of armed conflicts.

Targeting rules applicable in land warfare also apply to attacking targets on land from the air or from the sea.<sup>5</sup> Although the “fundamental principles of the laws of armed conflict apply equally in naval warfare,”<sup>6</sup> additional and specific rules apply to targeting in naval warfare (thus between or among ships at sea and planes in the skies above sea) as well as in particular types of operations such as peace operations. For the purpose of this chapter, it is important to note that the rules on the protection of the civilian population apply as soon as naval, space or cyberspace warfare affects the civilian population on land.<sup>7</sup>

### 10.2.1 Introduction

Targeting comes in a variety of forms. It may be conducted through a carefully pre-planned procedure involving specialised personnel, or ad-hoc, as a small unit or even an individual soldier under attack needs to decide how to respond to a given situation. For the purpose of this chapter, it is assumed that there is a military commander present who is responsible for the decision to launch an attack. This is normally the person who needs to conduct the proportionality assessment before and during the use of mostly kinetic means of striking an opponent.<sup>8</sup> The law has trusted the military commander with the responsibility to conduct the proportionality analysis and make decisions with regard to the excessiveness of civilian casualties and damage to civilian objects. This military commander is present on different levels, ranging from a high-ranking military commander at a headquarters far away from the location where the attack will impact, to an on-scene commander whose personal safety may be on the line. In fact, most of the actual fighting in warfare takes place at the tactical, small unit level and even “an infantry private deciding to engage an enemy belligerent is implementing [IHL] principles in a real-time targeting process.”<sup>9</sup> These privates have no military lawyers following them in their footsteps to provide them with legal advice.

4 Boothby, p. 5.

5 Article 49 (3) API: “The provisions of this Section apply to any land, air or sea warfare which may affect the civilian population, individual civilians or civilian objects on land. They further apply to all attacks from the sea or from the air against objectives on land but do not otherwise affect the rules of international law applicable in armed conflict at sea or in the air.”

6 Heintschel von Heinegg 2013 in Fleck, p. 478

7 For naval warfare, see generally Heintschel von Heinegg, 2013, pp 463-547, in particular p. 479 and Boothby, p. 309. See also Schmitt 2016, p. 269: “The general rules governing targeting apply equally in land, air, sea, space and cyberspace. Specialized rules may apply in particular types of operations, such as peace operations or naval warfare.”

8 This chapter understands targeting as a kinetic activity involving the use of armed force. For non-kinetic targeting, see Ducheine 2016, pp. 201-230.

9 Corn and Corn, p. 344.

However, IHL requires all types of military commanders to assess whether the launch of an attack is lawful. The proportionality analysis is part of this assessment, or targeting process.

While conducting the thinking exercise of the targeting process, the military commander is dependent on many factors. For example, the means and methods available to the military commander may differ to a large extent. A commander of an artillery battery will normally have only one or very few types of artillery shells at his disposal. An aircraft-pilot is dependent on the bombs attached to the airplane and those cannot be changed while the plane is in the air. Therefore, although the commanders may be able to adjust the fuses that detonate the bombs and grenades, the options to adjust the choice of a weapon system in order to limit collateral damage are limited in these two situations.<sup>10</sup> The same goes for smaller units, using only their rifles, (rocket-propelled) grenades or, at the most, smaller types of mortars. These latter commanders may however, be able to call in airstrikes or close air support. Higher level commanders, on the other hand, may be able to task the attack of a certain military objective to the artillery commander, the pilot, or a ground unit. To these types of commanders therefore, more options may be available when conducting a targeting process.

In addition to the availability of weapons systems, the capability to collect, interpret and compare information is also crucial to conducting a targeting process. However, the access to information may be very much dependent on the level of sophistication of the military forces of a party to an armed conflict. For example, the joint headquarters of a coalition of western States may be able to conduct air strikes through a sophisticated planning process using software systems that provide input to the decision making process on the expected damage to civilian structures and using real-time footage from unmanned drones.<sup>11</sup> The situation is different for a non-state armed group that wishes to attack a town or dwelling, or that is defending a certain part of a larger city and that may only be able to rely on the information that is visible to the naked eye, or perhaps some historical information as to where military objectives and concentrations of civilians may be found. Circumstances that influence the targeting process include time-pressure and there may be ongoing hostilities that result in a lack of information and a high level of stress.

A number of common features are found in any type of targeting process, whether by a non-state armed group (NSAG) or by regular armed forces of a State, even though “there are variables that differentiate how a specific operation’s targeting process is carried out - namely, the goal itself, the time allotted for planning, the means or capabilities, and the tools available to assess.”<sup>12</sup> This applies to any level at which a commander may be situated

10 Although sometimes the fuse of a certain bomb may be adjusted. Generally, the fuses of grenades and air-delivered munitions may be set to explode on impact, delayed, or in the air. See McNeal, p. 22.

11 See for example the Joint Targeting Toolbox (JTT), which is a system that was developed by the United States: it consists of a “suite of web-based interoperable targeting tools designed around the Joint Targeting Cycle which are used to support operations and intelligence targeting requirements at the national, theater, operational and tactical levels”, see <https://www.wpafb.af.mil/News/Article-Display/Article/401562/joint-targeting-toolbox-successfully-integrated-at-jefx-2006/>. See also software systems such as Rainstorm, see <http://www.northropgrumman.com/Capabilities/RainStorm/Documents/RainStorm.pdf>. See also below Section 10.2.4.

12 Pratzner, p. 80.

and to all types of weapon systems.<sup>13</sup> A useful targeting process, to take as the basis for further analysis of the role of the proportionality rule, is the six step targeting process proposed by Henderson. It is comprised of the following steps:

Planning phase:

1. Locate and observe the potential target and its surrounding area;
2. Assess whether the target is a valid military objective and that it is otherwise unprotected from attack by IHL;
3. Take all feasible precautions to minimise collateral damage;
4. Assess whether any expected collateral damage is proportional (...) to the anticipated military advantage to be gained from the attack;

Execution phase:

5. Take such care as is appropriate in the tactical situation to release or fire the weapon to achieve the best possible chance of hitting the selected aim point;
6. Cancel or suspend the attack should it become apparent that any one of the assessments made under steps 2 or 4 is no longer valid.<sup>14</sup>

An additional step may be to assess the result of the attack, which may in turn lead to a next phase in an ongoing operation.

### 10.2.2 Specifics of Targeting by Less Sophisticated Armed Forces

Targeting is as such not different during non-international armed conflicts compared to international armed conflicts: the objective to affect the military capability of the enemy through attacks is identical. As mentioned above, the rules applicable to the two types of armed conflict are mostly identical for the purpose of the IHL proportionality rule.<sup>15</sup> The character of the parties to the conflict however varies during the different types of armed conflicts. By its nature, one of the parties to a non-international armed conflict is a non-State armed group (NSAG). A major difference that exists between these different parties to the conflict in the context of targeting, is often the level of sophistication of those parties, in the sense of the weapons and other capabilities the fighters of these groups possess. This is particularly relevant for the purpose of an analysis of the application of the IHL proportionality rule.

13 Pratzner, p. 80.

14 Henderson, p. 237 (footnotes omitted).

15 See for example the customary rules as cited by the ICRC Customary Law Study with regard to targeting, such as rules 5-22. See Henckaerts and Doswald-Beck 2005a, pp. 17-71.

Many different situations may occur during which on-scene commanders or individual soldiers need to decide whether the course of action they want to pursue, or that they are ordered to execute, is proportionate. It may be that the forces that are about to launch an attack, and that are thus obliged to conduct a proportionality analysis, are part of NSAG that is technologically inferior to its opponent. This could mean that the NSAG has only a very limited capability to focus on preventing civilian casualties, compared to the more sophisticated party to the conflict they face. This may be the case as a result of the air dominance of the opposing party, including the presence of reconnaissance drones, or the types of weapons the NSAG has at its disposal, usually predominantly light and improvised weapons.<sup>16</sup> The targeting process is therefore not in all situations as sophisticated and well-structured as this chapter may at times suggest. There are however no special IHL targeting rules for less sophisticated armed forces. It has to be noted that not only NSAGs use less advanced weaponry during non-international armed conflicts. For example, the use of 'barrel-bombs' by the armed forces of some States indicates that not all States use strictly Precision Guided Munitions (PGM) during their operations.<sup>17</sup> If the target of those types of bombs is a large military objective, the use of barrel bombs is not prohibited *per se*, however the use of these types of bombs in populated areas may violate the IHL proportionality rule.

Yet, it may be imagined quite easily that NSAG encounter situations in which collateral civilian damage is possible, and thus the proportionality rule must be applied. For example, if a squad of NSAG-fighters is approaching a certain military objective of the opponent, such as a defending firing position of State forces, that they may want to attack through a RPG, it is very possible that civilian objects are located in the near vicinity of the enemy position. Also, it could be that a civilian shelter is located at such a position for the simple reason the civilians feel better protected against the violence of a NSAG if they hide from the hostilities near a defending position. Therefore, in this scenario, the NSAG has to take the possible collateral damage into account when they launch their attack (assuming it is feasible that they are aware of the presence of civilians). Furthermore, a NSAG may have acquired powerful weaponry during their operations, that they wish to use against their opponent even though the NSAG has no capabilities to reasonably be aware of the whereabouts of the civilian population. In that case, the commander of the NSAG forces needs to reconsider the initial plan of attack once the presence of the civilian population on the scene becomes apparent.

16 The use of lighter types of weapons are also less likely to result in collateral damage than more sophisticated, often heavier weapons systems such as artillery and air strikes.

17 See for example for the use of barrel bombs in the context of the armed conflict in Syria: <https://www.hrw.org/news/2015/08/05/barrel-bombs-not-isis-are-greatest-threat-syrians>. Barrel bombs are described by Human Rights Watch as improvised weapons consisting of "oil drums or similar canisters filled with explosives and metal fragments. They are dropped without guidance from helicopters hovering just above anti-aircraft range, typically hitting the ground with huge explosions and the widespread diffusion of deadly shrapnel." Other governments would drop bombs from the air in primitive ways: "Weapons experts told the organizations that the munitions used are unguided and are often rolled out manually from Antonov cargo planes or launched from other aircraft in a manner that does not allow for accurate delivery." See <https://www.hrw.org/news/2011/08/30/sudan-southern-kordofan-civilians-tell-air-strike-horror>.

As mentioned above, a less sophisticated force may not be capable of an exact analysis of the presence of civilians and civilian objects at the location of attack. This may be because of a lack of assets such as surveillance drones and satellite images, although this is true for most armed forces in the world. In addition, the lack of advanced communications systems may pose an additional challenge to the commander of a NSAG unit to acquire information about the presence of civilians. This does not mean that the commander is relieved from the obligation to verify that the target is a military objective. The rule is furthermore that the commander must do everything feasible to assess whether the planned attack will comply with the IHL proportionality rule. However, although the threshold of the necessary effort is equal to a commander with less sophisticated means at his disposal compared to a commander that does have these capabilities available, the actual options may be very limited. The result of this is that the level of uncertainty of the presence of civilians on the scene must be accepted to be higher compared to a commander with more feasible options to ascertain the absence of civilians.

### 10.2.3 Specifics of Targeting by Sophisticated Armed Forces

The targeting process is well-defined by Western States and alliances of States, such as NATO.<sup>18</sup> The United States has defined the targeting process as “the process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities.”<sup>19</sup> Another definition describes targeting as “the deliberate application of capabilities against targets to generate effects in order to achieve specific objectives. It is about the application of means (weapons) of warfare to affect addressees (people or objects) using a variety of methods (tactics) that create effects contributing to designated goals. Targeting, accordingly, represents the bridge between the ends and means of warfare.”<sup>20</sup>

For sophisticated armed forces, there are two different types of targeting processes.<sup>21</sup> First, deliberate targeting focuses on known future targets, which may be attacked either on call or on a moment previously scheduled.<sup>22</sup> The defining factor of deliberate targeting is thus that there is usually sufficient time to assess whether a certain target is a military objective and what the possible military value of the target is, as well as to gain information about possible collateral damage when it would be attacked. Secondly, dynamic targeting

18 See for example the US Joint Chiefs of Staff, Joint Publication 1-02 2010, which is available online: [www.dtic.mil/doctrine/new\\_pubs/jp1\\_02.pdf](http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf). NATO's targeting doctrine is the 2008 Allied Joint Publication AJP 3.9. This publication is however not generally available. Therefore, references in this research to AJP 3.9 are of a general descriptive nature.

19 US Joint Chiefs of Staff, Joint Pub 1-02 2010, p. 236.

20 Ducheine et al., p. 2.

21 Pratzner, p. 81, see also Jachec-Neale, pp. 200-204.

22 Scheduled deliberate targeting may be described as attacking targets that must be attacked at a specific moment in time, whereas in the case of on-call targeting, the actions are not necessarily to be addressed at a specific moment. See AJP 3-9, p. 1-2.

involves the process that needs to be followed before targets may be attacked which have been identified too late to be included in a deliberate targeting process.<sup>23</sup> The targets that are processed through the dynamic targeting process may be previously identified military objectives (for example, a missile launch installation) or persons, the location of which was previously unknown, but that becomes known to the attacker at a given moment. Dynamic targets may also be previously unknown military objectives that suddenly present themselves. A particular type of dynamic targeting is targeting against time-sensitive targets. Whether these targets can be attacked needs to be addressed as soon as possible in case they endanger friendly operations, or because the military advantage of attacking them is particularly high and the window of opportunity in which the targets can be attacked is limited.<sup>24</sup> For these types of targets, NATO has developed a quicker targeting process.

On a tactical level, ground targets can be attacked through two distinct types of air operations, namely air interdiction operations and close air support. The latter type of operations consists of airborne assets attacking military objectives in support of ground troops, and can be done by fixed-wing or helicopter assets. Normally, close air support operations are planned and executed through the dynamic targeting process, since the exact support that is needed in a ground operation usually only presents itself when the ground forces are already underway. Nonetheless, it is imaginable that a ground operation has been planned in advance including the deliverance of close air support of air assets, in which case the situation allows for following the process for deliberate targeting.

In a sophisticated targeting process, it is not only the use of explosives or other kinetic means that are considered to achieve a certain objective. Indeed, the targeting process also aims to coordinate the efforts and apply non-military assets such as information operations to achieve a similar result. As such, the targeting process “enables targeteers to plan and execute operations and activities comprehensively, efficiently, and effectively. At the same time, it enables commanders to use force (or assets and resources) more economically by providing additional options to them with which to accomplish their mission.”<sup>25</sup>

A wide variety of assets and sensors enable sophisticated forces to conduct an extensive analysis of the situation surrounding a military objective.<sup>26</sup> The identification of possible military objectives that may be targeted during an armed conflict may have taken place already in peacetime. As a result, a target ‘folder’ or ‘package’ may be available already upon the outbreak of actual hostilities.<sup>27</sup> Sophisticated armed forces may thus have a pre-approved list of military objectives that may be attacked to pursue the objectives of the leadership on the political and strategic level.<sup>28</sup> Once an armed conflict is ongoing, the analysis of

23 AJP-3.9, pp. 1-2: the dividing line is the question whether the attack is to take place within a three day period, or later.

24 AJP 3.9, p. 1-3.

25 Ducheine et al., p. 3

26 Pratzner, p. 82.

27 Henderson, p. 239.

28 See for example the list drawn up by Reynolds, p. 100.

the ‘pattern of life’ at the location of the military objective provides the opportunity to determine exactly which type of weapon may be used to reach an optimal effect, while minimizing the risk to civilians, and the optimal time window in which the objective may be best attacked to avoid or at least minimise collateral damage, as well as maximising the military advantage of the attack. Targeteers<sup>29</sup> will also have a software system available that enables them to predict how the use of a certain weapon system or type of bomb will affect the target as well as its immediate surroundings. These software systems are capable of producing Collateral Damage Estimates, which offers contemporary military commanders unprecedented possibilities to match the optimal type of weapon with a view of minimising collateral damage. Especially if there is sufficient time to conduct extensive surveillance, or even a reconnaissance mission on the ground, the deliberate planning process, augmented with good quality intelligence, may present an optimal profile of the target and enable the planners to take all other feasible precautionary measures to limit collateral civilian damage. At the same time, the deliberate planning process provides targeteers the opportunity to verify thoroughly whether a certain object is a military objective, as well as whether it may be expected to be sufficiently military advantageous indeed at that moment in time to destroy the object. The quality of this process is not only dependent on the factors that were already mentioned: time and available information and intelligence, but in addition, “competency in the targeting tradecraft; and (...) the mental agility to change the plan as the environment evolves”<sup>30</sup> is required to maximise the effects of the deliberate planning process.

For time-sensitive targeting, the situation is slightly different, because the time factor does usually not allow for an extensive effort as there is in the situation of deliberate planning. The importance of this factor cannot be overstated: “[a]lthough information and communications technology (ICT) has enabled many lower end functions to be automated, there are necessary steps - command direction and course checks, legal reviews, proper vetting of individual targets, etc. - that demand time to properly complete.”<sup>31</sup> Sophisticated armed forces or alliances will normally already have a list available of possible military objectives that may be targeted through time-sensitive targeting. These lists of time-sensitive military objectives enable targeteers to address certain sub-questions in advance. This may shorten the decision process to assess whether the target can be attacked, as soon as a time-sensitive target has actually ‘popped up’. Nonetheless, although the time-sensitive targeting process aims to take much less time than the deliberate planning process, that does not mean that it is subject to less stringent legal obligations. To name just two examples, the positive identification of the target as a military objective as well as the obligation to take feasible precautionary measures, remains applicable. The information that is needed to take decisions with regard to the identification of a target as a military objective, or the

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29 Targeteers are persons with a special qualification to predict the effect of certain types of weapons or on the way targets may most effectively be attacked.

30 Pratzner, p. 82.

31 Pratzner, p. 82.

presence of civilians and civilian objects in the vicinity of the target, may be supplied by others than the attacking force.<sup>32</sup> This may sometimes present a problem as far as time-sensitive targeting is concerned, because there may be no time to verify this information. As far as taking precautionary measures is concerned, Henderson provides a useful example how this may play out in practice when conducted under time pressure:

“an infantry soldier who is under fire from enemy combatants cannot be expected to take the same steps to improve the accuracy of his or her shot as would be expected of a sniper in a camouflaged position whose presence is unknown to the enemy.”<sup>33</sup>

#### 10.2.4 Targeting and Collateral Damage Estimate Methodology

Any targeting process involves a number of steps, both in the planning and execution stage of an attack. The proportionality rule applies both during the planning as well as during the execution phase of an attack. Some armed forces or coalitions of armed forces possess procedures and assets that assist in making well-informed proportionality assessments prior to launching attacks. These attacks are primarily conducted by air-to-surface weapons and artillery. Collateral Damage Estimate (CDE) methodology used by the US<sup>34</sup> as well as NATO, allows planners, targeteers and commanders to make rather precise predictions on the impact area of certain types of bombs.<sup>35</sup> CDE methodology thus enables assessing the number of civilians that may be expected to be affected by the planned attack. This concerns the casualties expected to be done by the bomb, consisting of the result of pressure wave, fragmentation, blast and the crater that will be caused. In other words: “the commander and his subordinates place a point on a map representing the target, draw an effects radius around that target, and assess what known collateral concerns exist within that radius.”<sup>36</sup>

Foremost, obviously, the CDE methodology assists in determining the impact of the used weapons, particularly whether damage to civilian objects and civilian casualties may be expected. It therefore also requires a determination whether the military objective has an additional civilian function, and how close civilian objects are to the intended point of

32 Henderson, p. 235.

33 Henderson p. 236.

34 Osinga and Roorda, p. 62: “The United States introduced a computer program, nicknamed “BugSplat”, to calculate the risk that bomb blast and fragments might affect civilian objects near a pre-planned target. Each potential target could be examined for proximity to civilians or civilian property. Officially named the Fast Assessment Strike Tool—Collateral Damage (FAST-CD), it generated blob-like images resembling squashed insects that precisely modelled the potential damage produced by a particular type and size of bomb, dropped by a particular aircraft flying at a particular altitude. FAST-CD took account of the characteristics of terrain and the objects being struck in order to forecast an often irregular pattern of damage. If the predicted risk of collateral damage was deemed too high, targeting specialists could attempt substituting either a smaller weapon or one with a delayed fuse—which lets a bomb penetrate first and then detonate—or try changing the type of aircraft or its angle of attack.”

35 Werres, p. 47-50.

36 McNeal, p. 14.

impact of a certain type of weapon. It is therefore the primary function of the computer program integrated in the CDE methodology, to assist in assessing the expected collateral damage of a planned attack.<sup>37</sup> Despite the name of the CDE methodology, however, the use of this computerised model also makes it possible to predict the extent to which the military objective will be destroyed, killed or disabled. This may assist in assessing the expected military advantage of a certain attack, although the actual expected military advantage may also be dependent on other factors. The computer model is not the only tool that commanders must use when assessing the military advantage: they also need to use their common sense and assess other factors such as, in the case of a co-ordinated attack, the progress reached in other strikes.

According to the planning tool that the CDE methodology is, there are levels one to five of expected collateral damage.<sup>38</sup> These five levels determine who must take the ultimate decision on the execution of the attack. In case the CDE methodology calculates that collateral damage may be expected from a planned, attack, the CDE methodology can subsequently assist in the commander's duty to do everything feasible to avoid, or at least minimizing collateral civilian damage.<sup>39</sup> The methodology furthermore takes into account possible risk to causing environmental damage, as well as whether risk exists for causing a plume of a chemical, biological or radiological nature. Also, when it is clear in the planning stage that an object is a dual-use object, it is always placed in the highest category.<sup>40</sup> Whenever according to the CDE methodology civilian casualties cannot be excluded, the authority to approve the attack moves up the chain of command, at least to the level of a general.<sup>41</sup> The five levels dictate in which cases a further analysis may need to be executed into the effects of using alternative weapons systems to attack the target under scrutiny. That means that in the first CDE level, it is determined whether any collateral damage is expected. If this is not the case, the CDE process is finished, and the attack may proceed. If there some collateral damage is expected, the process moves to the second level, where it is assessed whether weaponeering options can mitigate the expected collateral damage. This process repeats itself, while during each CDE level an analysis is conducted whether a particular attack may be launched, or based on

37 One tool that is used by US CDE methodology is the Population Density Reference Table. This table "lists data from the intelligence community and other sources and methods and allows for estimates of the population density per 1,000 square feet per day, night, and special events for any given collateral structure based on its functionality (...)" See McNeal, pp. 26-27.

38 See for example Wright, p. 832.

39 As required by the obligations concerning precautionary measures, see article 57 (2)(a)(ii) API.

40 Werres, p. 49.

41 In the US practice for pre-planned strikes conducted in the context of operation ISAF in Afghanistan, "the President of the United States or the Secretary of Defense must approve any pre-planned ISAF strike where 1 civilian casualty or greater is expected.". See McNeal, p. 2. When this is the case depends to large extent on the so-called 'Non-Combatant Casualty Cut-Off Value' (NCV), which has been proclaimed at the outset of the operation. In case, the NCV is one, for example, the decision to launch the attack moves up the chain of command as soon as one single civilian casualty is expected from a planned attack. It may however also be the case that the NCV is determined to be ten, in which case lower commanders may decide to launch the attack without seeking approval from higher authorities as long as they expect nine or fewer civilian casualties to occur. See McNeal, p. 26. As an example, McNeal notes that during the major combat operation Iraqi Freedom in 2003, the NCV was thirty non-combatant casualties. See McNeal, p. 27.

failing the parameters for that level, the planned target must be assessed in a higher level in the CDE process before it may be launched.

The software system that is used to make the CDE assessments is “grounded in scientific evidence derived from research, experiments, history, and battlefield intelligence, and (...) designed to adapt to time-critical events.”<sup>42</sup> Furthermore, it is constantly updated with the effects of existing bombs in different conditions, or by new types of weapons. This implies that the accuracy of the predictions of the software is improving constantly, especially when the methodology is used during a longer period within the context of a particular operation, since more accurate information becomes available of the effects of the different types of weapons on the surface and buildings specific for that particular area.<sup>43</sup> Eventually, according to McNeal, the US practice of collateral damage estimation and mitigation “is intended to ensure that there will be a less than 10 percent probability of serious or lethal wounds to non-combatants.”<sup>44</sup>

In order to maximise the probability of the calculated and deemed acceptable effects to ultimately occur, the ‘worst case’ scenario of a certain attack is often taken as the basis of the calculations. That means that normally, the actual collateral effects of an attack are less severe than expected based on the calculation of the CDE methodology.<sup>45</sup> Of course, there may also be factors that impact the proportionality assessment negatively and that cannot be calculated through computer programs. An example is what happens when a target is hit that functions as a weapons storage. If precise information on the quantity of explosive material present at the location is lacking, it seems hardly possible to predict the impact of even a small explosive on the target, because of the secondary detonation of the stored explosives that will follow. In addition, in case a military objective is located next to a busy street, the presence of civilians on that street is also difficult to predict through a computer program. Of course, the program may be able to calculate based on general assumptions that there are less people on the streets at night than there would be during the day. But the actual circumstances at the time of the attack may be very different than the situation the computer is programmed to assume. It is therefore important for planners, targeteers and commanders to bear in mind that collateral damage estimates must always be interpreted through sound human judgement, in order to prevent inherent flaws of computerised systems from nullifying the obligations posed by the proportionality rule.

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42 McNeal, p. 5.

43 McNeal, p. 15.

44 McNeal, p. 1.

45 McNeal, p. 20.

### 10.2.5 Sub-Conclusion

It may be concluded from the discussion above that the IHL proportionality rule must be integrated in any decision making progress in the context of the planning and execution of armed force. The legal obligation applies equally to a private firing his weapon as to an attack that is planned in a high joint military headquarters, through an institutionalised procedure conducted by highly trained and skilled targeteers and military commanders. It starts by armed forces to consider whether any incidental collateral damage may be expected from any planned attack. If that is the case, first the distinction rule needs to be applied, and subsequently a proportionality assessment needs to be conducted.

### 10.3 Indiscriminate Attacks and Proportionality

Having explored the targeting process of which the proportionality assessment is part in practical terms, the next step is to assess the place of the IHL proportionality rule in legal terms. According to the definition of a disproportionate attack, it is a subset of the wider category of indiscriminate attacks. Therefore, it is to this category that the analysis now turns.

The starting point for a discussion of the notion of indiscriminate attacks is its definition in treaty law. Article 51(4) API prohibits as indiscriminate attacks:

- a. Those which are not directed at a specific military objective;
- b. Those which employ a method or means of combat which cannot be directed at a specific military objective; or
- c. Those which employ a method or means of combat the effects of which cannot be limited as required by API.

And consequently, in each such case, are of a nature to strike military objectives and civilians or civilian objects without distinction.

Article 51(5) API adds as examples of the attacks mentioned in section 4 of the same article:

(a) an attack by bombardment by any methods or means which treats as a single military objective a number of clearly separated and distinct military objectives located in a city, town, village or other area containing a similar concentration of civilians or civilian objects, and (b) disproportionate attacks.

In addition to the definition in API, customary IHL also contains the prohibition on indiscriminate attacks. The ICRC Customary Law Study states that indiscriminate attacks are prohibited under customary IHL in both international and non-international armed conflicts (Rule 11). Rule 12 repeats the definition of indiscriminate attacks found in article 51(4) sub a, b and c API, with the exception that the scope of sub c (methods and means of combat the effects of which cannot be limited as required by API) is extended under customary IHL to include

the entire corpus of IHL, not only API. This latter extension makes sense given the fact that API is not the only treaty that deals with weapons that may be regulated by this prohibition, as well as the fact that international customary law may also contain prohibitions on certain means and methods of warfare.

The temporal scope of the prohibition of indiscriminate attacks is obvious. It applies throughout the targeting process, so the assessment must be made in advance to planned attacks, as well as during the execution phase of the attack. As is the case for the evaluation of the expected collateral damage and military gain from an attack, the circumstances ruling at the time and the information that was reasonably available to the persons planning and executing the attack dictate, whether they could foresee the planned attack to be indiscriminate. As a preventive framework, IHL dictates that commanders take due regard before launching an attack, but IHL certainly does not rule out the possibility that an attack that had devastating results for the civilian population was *bona fide* expected to be a discriminate attack when it was planned and ordered to be launched. Therefore, attacks that seem indiscriminate in hindsight may not always have appeared as such when they were planned. This fact makes it very difficult for anybody else than the people who planned and executed the attack to have sufficient information to make a well-founded claim that any attack was indeed indiscriminate. It is therefore very difficult to prove that the prohibition of indiscriminate attacks was violated. Criminal tribunals<sup>46</sup> or fact-finding commissions can only look into what actually happened in hindsight, thus on the basis of the result of the attack. Their main problem therefore is that a violation of this prohibition can only be proven if sufficient information is available about the way the attack was planned in advance and whether it was executed in accordance with a plan that would not violate the prohibition. The ICRC commentary states in this regard that “in relation to criminal law the Protocol requires intent and, moreover, with regard to indiscriminate attacks, the element of prior knowledge of the predictable result.”<sup>47</sup>

The purpose of the prohibition on indiscriminate attacks is summarised by the ICRC Commentary: “it confirms the unlawful character of certain regrettable practices during the Second World War and subsequent armed conflicts. Far too often the purpose of attacks was to destroy all life in a particular area or to raze a town to the ground without this resulting, in most cases, in any substantial military advantages.”<sup>48</sup> The indiscriminate attacks prohibited in article 51(4)(a) and (b) seem to be primarily attacks carried out by attackers who ‘just don’t care’. These attacks are planned and carried out by persons who seem not primarily interested in trying to hit the military forces of their opponent, but just anything they can hit regardless of its status or protection. This implies that these prohibited indiscriminate attacks violate the distinction obligations as well as the military necessity principle because

46 See for example Pontzi, and Moneta, for a discussion of prosecuting individuals criminally for indiscriminate attacks in the context of the ICTY.

47 See Sandoz et al., para 1934 on p. 617.

48 See Sandoz et al., para 1946 on p. 619.

no military advantage can be attained (unless it happens by accident) by attacks that are not directed at military objectives as prohibited in article 51(4) a and b. The attacks prohibited by article 51(4) sub c and the examples mentioned in article 51(5) a and b, on the other hand, are directed at a military objective, but are indiscriminate nonetheless.

The prohibition of indiscriminate attacks covers (1) attacks that fail to take into account whether the target may have a protected status under IHL; (2) attacks using means and methods that are indiscriminate; (3) attacks using means and methods whose effects cannot be contained (such as water, fire, poisonous wells); (4) attacks that fail to treat singular military objectives as separate targets but instead attack an area that also contains civilians and objects and (5) disproportionate attacks. The question remains whether there are more examples other than the five mentioned above. Not covered by the prohibition are attacks that have indiscriminate effects, but were not planned or executed in advance with the reasonable expectation that they would have these effects that seem indiscriminate in hindsight. This is an inherent characteristic of the way IHL works to prevent destructive effects of warfare on the civilian population. The fact that an attack may sometimes seem to have been indiscriminate in hindsight, judged by the destruction of civilian objects and injury to civilians it caused, can not be taken as the only basis to evaluate the legality of an attack because IHL does not prohibit the launching of an attack that was not reasonably expected to have these effects when it was planned. Rather, it could be the result of an honest mistake or weapons systems malfunction. In practice, it may be difficult to prove whether the attacker indeed had no reason to expect indiscriminate effects to result from the attack, but it would be impossible for military commanders to conduct attacks if they would be held responsible for the effects of an attack on the civilian population when at the time they were planning that attack, they had no reason to believe these effects would occur.

It has been noted that the way the prohibition of indiscriminate attacks has been drafted is 'unsatisfactory' because it "confuses the distinction and proportionality principles."<sup>49</sup> This is because a disproportionate attack is explicitly mentioned as an example of an indiscriminate attack. Since the latter category of attacks is referred to as attacks which "consequently, in each such case, are of a nature to strike military objectives and civilians or civilian objects without distinction", this seems to intermingle distinction and proportionality. In the sequence of the planning and execution of an attack, it is indeed illogical to conclude that disproportionate attacks violate the distinction principle. It would have been clearer if the article would have recognised that once the attacker has distinguished between military objectives and civilian objects and the civilian population, and the attack has been directed strictly to a military objective, the principle of distinction has been complied with. The issue of the proportionality of the attack would subsequently be assessed without giving rise to the possibility that the distinction rule may be violated.

It seems in a broader sense, that the prohibition on indiscriminate attacks basically requires attackers to use the weapons they were entrusted wisely, and think before they act. The prohibition serves to remind any attacker that military necessity allows the use of means and methods in armed conflict, but that with the availability of weaponry, there is also a duty to only launch discriminate attacks. In general, military commanders can prevent their attacks from being indiscriminate by taking appropriate precautions in attack. Since the proportionality rule is also a precaution in itself, the following section discusses the place of the proportionality rule in the obligations with regard to precautions in attack.

#### 10.4 Precautions in Attack and Proportionality

The proportionality rule is not only included in IHL as a prohibition in the context of indiscriminate attacks, but also as an obligation commanders need to take into account in the planning and execution of attacks. The obligations with regard to precautions in attack are wider however than only the proportionality rule.<sup>50</sup> This section discusses the place of the IHL proportionality rule in the obligations with regard to precautionary measures. Section 10.4.1 introduces the issue, explaining the relation between the IHL proportionality rule and precautionary measures. In addition, the difference between active and passive precautionary measures is explained. Section 10.4.2 addresses the ‘feasibility’ standard that is included in a number of precautionary obligations. Section 10.4.3 discusses the personal scope of the obligation to take precautionary measures. and to what extent information needs to be collected by the persons who have the obligation to take precautionary measures. In addition, it is useful to reflect on the evaluation of precautionary measures. These general issues are examined in the following sections.

##### 10.4.1 Introduction

The rule of proportionality in IHL is codified in the 1977 Additional Protocol I, as is discussed in Chapter 6. After it was formulated in the context of precautionary measures, it was subsequently copied to the article containing the prohibition of indiscriminate attacks.<sup>51</sup> The proportionality rule is a precautionary measure in itself, in the sense that it is aimed at limiting collateral civilian damage during attacks. The precautions in attack are an important part of the targeting process described above. The precautionary measures fit in different phases of the targeting process and they guide the sequence of steps of which the targeting process is comprised. As Corn observes: “the precautions obligation will often involve more

50 See generally: Corn 2014, Sassòli and Quintin, Queguiner 2006, Henderson pp. 155-196 and Van den Boogaard and Vermeer, which is partly based on this chapter as well as other chapters in Part IV. Furthermore, Section 10.4.6 of this chapter served as the basis of Van Den Boogaard 2018a.

51 Rogers 2008, p. 191.

objective considerations than application of the proportionality obligation: precautions involve a series of concrete steps in a coherent targeting process that can be applied in a systematic manner.<sup>52</sup> Therefore, the approach of precautionary measures is much more process-driven, resulting in an effective implementation of substantive rules of IHL.<sup>53</sup> The suggestion that proportionality only needs to be assessed in either the precautions phase or at the time an attack is actually launched, must be rejected. Proportionality analysis must be done throughout the targeting process, from planning to the actually pushing of the button,<sup>54</sup> and even beyond, during the execution of the attack.

The rules with regard to precautions in attack are codified in article 57 of API. Article 57 API is placed in Part IV of API, which has as its topic the “Civilian population” and the stated objective of Section I of this part of API is the “General Protection against the Effect of Hostilities”. Thus, without losing sight of considerations of military necessity, the provisions of this part of API must be read with that objective in the back of our heads. In addition, the ICRC has identified the precautionary measures as rules of customary IHL applicable in both international armed conflicts as in non-international armed conflicts.<sup>55</sup> The precautions in attack obligations may be generally divided into two parts: a general obligation to take ‘constant care’ to spare the civilian population in military operations during armed conflict (Article 57 (1) API) and a list of specific obligations that operate to implement the general obligation during the specific situation of attacks (Article 57 (2) and (3) API).<sup>56</sup> It must be noted in addition that precautionary obligations can also be derived from other rules, such as the specific regulations that apply for attacking works and installations containing dangerous forces “if such attack may cause the release of dangerous forces and consequent severe losses among the civilian population.”<sup>57</sup> Corn suggests that the obligations to take precautionary

52 Corn 2014, p. 424.

53 Corn 2014, p. 465.

54 Shamash, p. 112-113.

55 Henckaerts and Doswald-Beck 2005a, Rules 15-21.

56 Article 57 (2) API reads: “With respect to attacks, the following precautions shall be taken:

(a) those who plan or decide upon an attack shall:

(i) do everything feasible to verify that the objectives to be attacked are neither civilians nor civilian objects and are not subject to special protection but are military objectives within the meaning of paragraph 2 of Article 52 and that it is not prohibited by the provisions of this Protocol to attack them;

(ii) take all feasible precautions 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;

(iii) refrain from deciding to launch any attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated;

(b) an attack shall be cancelled or suspended if it becomes apparent that the objective is not a military one or is subject to special protection or that the attack may be expected to 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;

(c) effective advance warning shall be given of attacks which may affect the civilian population, unless circumstances do not permit.”

Article 57 (3) API reads: “When a choice is possible between several military objectives for obtaining a similar military advantage, the objective to be selected shall be that the attack on which may be expected to cause the least danger to civilian lives and to civilian objects.”

57 See article 56 API and Henckaerts & Doswald-Beck 2005a, Rule 42.

measures “should be understood to include a broad range of measures”<sup>58</sup> that also includes measures such as training military lawyers in IHL and the targeting process.<sup>59</sup>

Armed conflict is a situation during which all parties to it take turns in launching attacks, conducting a defensive move, and executing a counter attack. For an analysis of the context of the IHL proportionality rule, the focus is on the precautionary measures *attackers* are obliged to take in the conduct of their military operations. That does not take away the fact that parties to the conflict have a similar obligation when they are on the defending side. That obligation, codified in article 58 API, refers to the precautions against the effects of attacks, or ‘passive precautions’.<sup>60</sup> It states that the parties to an armed conflict shall, to the maximum extent feasible:

- a. Without prejudice to the prohibition of deportation of civilians, endeavour to remove the civilian population, individual civilians and civilian objects under their control from military objectives;
- b. avoid locating military objectives within or near densely populated areas; and
- c. take the other necessary precautions to protect the civilian population, individual civilians and civilian objects under their control against the dangers resulting from military operations.

Article 58 API is complemented by the prohibition of human shields as codified in article 51 (7) AP.<sup>61</sup> It has to be noted that although the obligations on precautionary measures against the effects in attack are worded quite clearly, they are also restricted by a specific reference to military necessity and the specific circumstances of the situation. Obligations of the passive precautions of the defender are thus restricted to doing that what is “to the maximum extent feasible”. Similar wordings appear in the obligations to take precautions in attack, as will be further elaborated below. Subsequently, the analysis turns to the obligation to take constant care for the protection of civilians in all military operations.

The precautions discussed below refer to the precautions to the dangers to the civilians on land. This follows from article 49 (3) API. However, article 57 (4) states that “[i]n the conduct of military operations at sea or in the air, each Party to the conflict shall, in conformity with its rights and duties under the rules of international law applicable in armed conflict, take all reasonable precautions to avoid losses of civilian lives and damage to civilian objects.”

58 Corn 2014, p. 465.

59 Corn 2014, p. 465.

60 See Jensen.

61 Article 51(7) API reads: [t]he presence or movements of the civilian population or individual civilians shall not be used to render certain points or areas immune from military operations, in particular in attempts to shield military objectives from attacks or to shield, favour or impede military operations. The Parties to the conflict shall not direct the movement of the civilian population or individual civilians in order to attempt to shield military objectives from attacks or to shield military objectives from attacks or to shield military operations.” This is also a rule of customary international humanitarian law applicable both in international armed conflicts as in non-international armed conflicts. See also Quéguiner 2006, p. 811-812 and Henckaerts and Doswald-Beck 2005a, Rule 22.

This provision serves to underscore that for operations between aircrafts, between war ships or among aircrafts and war ships, where collateral civilian damage is normally absent, the effects on the civilian population and civilian objects must nonetheless be taken into account.<sup>62</sup>

#### 10.4.2 'Feasible' Precautions

Some of the precautionary obligations of Article 57 AP I are contingent on an element of feasibility. This concerns the specific precautionary measures of article 57 (2) (a) (i) and article 57 (2) (a) (ii). According to the treaty text, the other precautionary obligations are not limited by a feasibility requirement, and thus at least in theory, these measures would have to be taken whether or not it is feasible to do so. The rules on precautions in attack in customary IHL as identified by the ICRC, however, seem to be inserting the element of feasibility equally in the latter group of obligations.<sup>63</sup>

How the word 'feasible' must be understood is dependent on the respective specific precautionary measure it applies to. In general, however, it may be said that the word feasible must be understood as a reality check: it simply means that the obligation applies to the extent possible under the relevant circumstances. There is no absolute obligation for military commanders to do everything that is imaginable from the point of view of a larger planning staff that has all the information that may be found of the specific circumstances available and plenty of time to deliberate on all imaginable measures that could be taken to minimise civilian casualties. Rather, it depends on the circumstances: whether there is time-pressure, the availability of personnel to examine different options, the importance of the target, the tempo and moment of the ongoing operation, what the opponent is doing and so forth. There is a specific reference here to a military necessity exception and thus the obligation to take precautionary measures in order to avoid civilian collateral damage "is not absolute."<sup>64</sup> But a genuine effort has to be made.<sup>65</sup>

The ICRC proposed two alternatives in their draft-article on precautions in 1972: to use the words "ensure" and "all reasonable steps" in the text regarding the verification and proportionality obligations. With regard to the obligation on the choice of weapons and methods, the ICRC included the term "all necessary precautions". Ultimately, however, the word 'feasible' was accepted by the majority of States and preferred over other words. The feasibility of the precautionary measures was consequently used consistently throughout

62 Sandoz et.al., para 2230, pp. 687-688.

63 Rule 15 reads: "In the conduct of military operations, constant care must be taken to spare the civilian population, civilians and civilian objects. *All feasible precautions* must be taken to avoid, and in any event to minimize, incidental loss of civilian life, injury to civilians and damage to civilian objects." (emphasis added) But arguably, that does not apply to the State parties to API for those precautionary measures that contain no specific reference to feasibility.

64 Fenrick 2001, p. 501.

65 Quéguiner 2006, p. 809-810.

the obligations for taking precautionary measures of those who plan or decide upon an attack. In particular it was felt that ‘feasible’ was preferred over ‘reasonable’, as it imposed “a higher positive obligation to take such measures.”<sup>66</sup> On the other hand, it was decided that the word ‘ensure’ imposed a standard that was too strict. Therefore, the result is that the highest standard with regard to the protection of the civilian population that proved to be possible was that of feasibility. Of course, the protective standard of feasibility satisfies the general goal of IHL to protect civilians. Simultaneously, the word takes the principle of military necessity into account, because that principle inherently implies that damage to civilians and civilian objects has to be avoided in case it is not necessary to “weaken the military forces of the enemy”<sup>67</sup>. The general obligation to take precautionary measures to spare the civilian population is thus an expression of restrictive military necessity.<sup>68</sup> In addition, the use of the word ‘feasible’ recognizes that if military considerations do not allow to take precautionary measures, the attacker cannot be obliged to do so. The United Kingdom (UK) issued a declaration of understanding of the word feasible in this regard, which states that the word ‘feasible’ should be understood to mean “that which is practicable or practically possible, taking into account all the circumstances ruling at the time, including humanitarian and military considerations.”<sup>69</sup> This explanation of the word feasible is subsequently used consistently by States.<sup>70</sup> Moreover, the UK declaration has been inserted *verbatim* in Article 3(4) of the 1996 Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices as amended (Protocol II to the 1980 CCW Convention).<sup>71</sup> Examples of which circumstances must be taken into account according to the UK may be found in the UK Military Manual and that same article of Protocol II to the 1980 CCW Convention. These circumstances include the importance of the target and the accuracy and radius of effect of the available weapons.<sup>72</sup>

It is clear that the rules on precautionary measures oblige the parties to the conflict to prefer the absolute avoidance of civilian losses over the acceptance that some civilian damage will occur and merely strive to minimise its magnitude. The feasibility requirement of the precautionary measures implies that such avoidance is dependent on the available resources during the conduct of the military operation. This may concern, in the case of air

66 Sassòli and Quintin, p. 82. See also the commentary to Rule 15, noting that a standard of reasonableness is “a little less far-reaching” than that of feasibility.

67 St. Petersburg Declaration Renouncing the Use, in Time of War, of Explosive Projectiles Under 400 Grammes Weight (1868), para. 3.

68 Sassòli and Quintin note that “[t]he principle of military necessity as a prohibitive rule implies that civilian losses must be avoided whenever possible.” See Sassòli and Quintin, p. 75.

69 The United Kingdom’s declaration of understanding reprinted in Roberts and Guelff, n47, 511. See also Art 2 of the 1995 Protocol on Blinding Laser Weapons (Protocol IV to the 1980 Conventional Weapons Convention) stipulating that feasible precautions include “practical measures”.

70 Rule 15, Henckaerts and Doswald-Beck 2005a.

71 Article 3 (4) Protocol II to CCW reads: “All feasible precautions shall be taken to protect civilians from the effects of weapons to which this Article applies. Feasible precautions are those precautions which are practicable or practically possible taking into account all circumstances ruling at the time, including humanitarian and military considerations.”

72 United Kingdom, Ministry of Defence, pp. 83-84.

warfare, the use of precision weapons, such as laser-guided missiles and drones. Indeed, in some situations the obligations of precaution “cannot be fulfilled without using precision guided weapons.”<sup>73</sup> Similarly, certain methods of warfare may be unfit to obtain destroy certain military objectives, and obtain the military advantage associated with that military objectives. For example, it may be impossible to attack a certain person in an urban area because the proportionality obligations preclude the use of a large artillery projectile in that area, and the only other option may be to send a squad of special forces. If such forces are unavailable to the military commander on the scene, the military objective is simply out of reach for the commander to attack, even if the military objective remains in the same place for an extended period of time.

### 10.4.3 Personal Scope

The next relevant general issue with regard to taking precautionary measures is the personal scope of the obligation, or, in other words: to *who* does the obligation apply? Whereas the general assumption is often that the obligations are placed in the hands of the military commander, the character of the precautionary measures is such that they would need to apply to a broader group of persons in order to meaningfully play their role. Boothby notes in this regard that “it may not always be realistic to expect subordinate level commanders to balance factors some of which are unknown to them.”<sup>74</sup> A number of States expressed their reluctance regarding an overly broad application of the precautionary obligations. For example, the Swiss government made a reservation upon ratification of API to the effect that “this provision only creates obligations for commanding officers at the level of batallion or group or above.”<sup>75</sup> Furthermore, the Government of the UK made a statement upon ratification of API that the obligation to cancel or suspend the attack when it is not proportionate, only applies to “those who have the authority and practical possibility.”<sup>76</sup>

However, it is equally true that subordinate level commanders may be faced with a situation which was not foreseen by higher level commanders, such as human shields, as may not be uncommon in the dynamics of today’s urban warfare. It may thus be that the commanders present on the scene are presented with a different picture than the one assumed by their superiors. In such cases, the subordinate level commanders are not absolved from their own responsibility to comply with the obligation to take feasible precautionary measures, if only to report the situation and to check whether their orders need to be adapted given the new information.

73 HPCR Manual on air and missile warfare, rule 8. See also Boothby, p. 124-125 and O. Gross, p. 1.

74 Boothby, p. 120.

75 Sandoz et al., para 2197, on p. 681. The declaration is now withdrawn.

76 The UK Declaration is available on the website of the ICRC, see <https://www.icrc.org/applic/ihl/ihl.nsf/Notification.xsp?action=openDocument&documentId=oAgEo3FoFzEE757CC1256402003FB6D2>

Henderson notes that “the obligations in article 57 API apply to all personnel who have the authority and practical possibility to affect the course of an attack.”<sup>77</sup> Indeed, it is submitted that “the obligation to take precautions in attack applies to all forms of attack”<sup>78</sup> and “apply where they can be met”<sup>79</sup> and they are not dependent on “the authority under rules, regulations and instructions.”<sup>80</sup> Therefore, taking precautionary measures is required in all military operations and at every level of the military hierarchy<sup>81</sup> and they must be taken by anyone who has the authority and practical possibility to do so.<sup>82</sup>

#### 10.4.4 Collecting Information

The civilian population is endangered as much by bad information as it is by bad decisions. An attack that complies with all precautionary measures may result in devastating effects for the civilian population if it is based on incorrect information with regard to the presence of civilians. Therefore, the basic obligations to take constant care and feasible precautions create a continuing duty “to assign a high priority to the collection, collation, evaluation and dissemination of timely target intelligence”<sup>83</sup> with a view to making a decision pertaining to the planning or execution of further military operations. The intelligence that is gathered in advance of a military operation should therefore not only be focussed on information regarding the identification of military objectives and the military advantage of attacking them. Information on the context of the military objective must also be gathered, including particularly information on the likelihood of damage to civilian objects and civilian casualties.

It is obvious that responsible military commanders prefer to base their decisions on a complete picture of the situation in the area where they are conducting their operations. It is however unrealistic to expect that picture to be complete and a further blurring occurs by the chaos that is inherent to armed conflict. It is therefore submitted that the available information and decisions following from it must be assessed in accordance with a standard of reasonableness. Commanders must take decisions during their operations and they are not always in the luxurious position that they can rely on information collected, analysed and combined in real-time by a variety of sophisticated sensors. For most NSAGs, advanced systems gathering information on the activities of the adversary on the battlefield may be

77 Henderson, p. 157.

78 Henderson, p. 159.

79 Henderson, p. 160.

80 Sassòli and Quintin, p. 111.

81 Report, 12 May 2005, Expert Meeting “Targeting Military Objectives”, organized by the University Centre for International Humanitarian Law, Geneva, p. 17, available at [http://www.geneva-academy.ch/docs/expert-meetings/2005/1rappport\\_objectif\\_militaire.pdf](http://www.geneva-academy.ch/docs/expert-meetings/2005/1rappport_objectif_militaire.pdf).

82 See also Section 11.2 below.

83 Bothe et al., p. 405.

absent in its entirety. Nonetheless, those deciding are obliged to “make a reasonable effort to discover pertinent information.”<sup>84</sup> Hence, the ‘reasonable military commander’ approach can be equally applied to the obligation to take precautionary measures.<sup>85</sup>

According to the ICRC Study on Customary IHL, decisions with regard to precautions in attack must be based on “the information from all sources which is available [...] at the relevant time.”<sup>86</sup> The ICRC has taken the position that the endeavour of acquiring information on which decisions are based “must be made in good faith and in view of all information that can be said to be reasonably available in the specific situation.”<sup>87</sup>

Ultimately, the collection of information is extremely situational dependent. Even military forces equipped with the most modern weapons and surveillance systems do not always have these assets available to reach absolute certainty on whether an object constitutes a military objective. It must be realised that the law does not require absolute certainty for those planning and deciding on attacks. But that does not give commanders a free pass to merely rely on speculations or assumptions when planning military operations, but rather an increased duty to verify information as it becomes available in the course of an operation. The information on which a decision is based must therefore be up to date, which means that it must be as current as can reasonably be expected given the circumstances, which also means that the capacity and capability to verify play an important role. The collection of the information must in particular be aimed at verifying the nature and location of the military objective, the presence of civilians, and the likelihood of a meaningful change in these circumstances. This also implies that it is not at all times required to update the information continuously, although drones and other technological developments may be able to provide real time information in today’s conflicts which enhance “considerably the possibility of gleaning accurate information about the battlefield.”<sup>88</sup> However, military forces equipped with more limited operational capabilities as far as the available reconnaissance and observation systems are concerned, cannot always be expected to be able to implement their precautionary obligations to the same level of parties to the conflict equipped with more advanced weapons systems.

84 P. Barber, p. 689, adding that “[i]t is not possible to determine exactly what ‘everything feasible’ incorporates, but if normal intelligence gathering methods that had proven reliable in the past had been used on this occasion, it is probable that this would meet the required standard. If normal intelligence methods were ignored or not used when available, then it is likely that liability could ensue.” In support of this position, see Schmitt 2007, p. 163, and Henderson, p. 165. In support of the application of the feasible standard to the commander in case of lack of information, see Sassòli and Quintin, p. 82-83.

85 See Chapter 11.

86 Rule 15, Henckaerts and Doswald-Beck 2005a, p. 55.

87 Melzer 2009, p. 75.

88 Dinstein 2010, p. 140.

#### 10.4.5 The Obligation of Constant Care

The objective of Section I of Part IV of API is repeated in the body of the text of article 57, in the first paragraph, stating that “in the conduct of military operations, constant care shall be taken to spare the civilian population, civilians and civilian objects.” Furthermore, with regard to non-international armed conflict, note should be taken of Article 13(1) APII, which reads: “The civilian population and individual civilians shall enjoy general protection against the dangers arising from military operations.”

The obligation to take constant care is not intended to lead to the conclusion that civilians may not be affected by military operations at all. As Dinstein observed: “[c]ivilians almost always suffer in wartime. (...) In wartime, there are inevitable scarcities of foodstuffs (indeed food, clothing, petrol and other essentials may be actually be rationed); buses and trains may not run on time, curfews and blackouts may impinge on the quality of life, etc.”<sup>89</sup> In addition, the malfunction of a weapons system, human errors and faulty intelligence may cause much suffering among the civilian population, but is not necessarily caused by a lack of taking precautionary measures.<sup>90</sup>

The general obligation of taking constant care has a broader scope than the remaining specific precautionary measures. According to the text of the article, as well as rule 15 identified by the ICRC Customary IHL Study, the obligation of constant care applies to the broader concept of ‘military operations’, whereas the application of the other specific precautionary measures is restricted to the special military operation of ‘attacks’. Attacks are specifically defined in article 49 API, whereas the term military operations is not defined in API.<sup>91</sup> In general, however, other military operations than attacks could include sweeping mines or other explosives; detention operations and logistic operations. Some types of military operations, such as simply moving a unit from one location to another, may sometimes be merely be a logistical affair, whereas sometimes it is used as a manoeuvre in an offensive operation. In the first situation, it may be no problem that a road through a populated area is used, whereas in the latter situation, it may be better to use a route that avoids populated areas. In the latter situation, the ‘active’ precautionary measures of article 57 coincide with the obligations of ‘passive’ precautionary measures of article 58 API.

Quéguiner makes the point that the obligation constitutes an independent legal obligation and cannot be seen as “merely inspirational”<sup>92</sup> to the other more concrete precautionary measures. Thus, despite its general wording, the obligation to take constant care of the civilian population expresses the obligation for commanders to reconsider, even when an operation would lead to proportionate civilian damage. And as such the rule is

89 Dinstein 2010, p. 135.

90 Dinstein 2010, p. 135.

91 The ICRC Commentary states that: “The term “military operations” should be understood to mean any movements, manoeuvres and other activities whatsoever carried out by the armed forces with a view to combat”, see Sandoz et al., para. 2191 on p. 680.

92 Quéguiner 2006, pp. 796-797.

meant to provide an additional layer of protection for the civilian population during military operations.

#### 10.4.6 Specific Precautionary Obligations

The first, and crucial specific precautionary measure is codified in article 57(2)(a)(i) API. It deals with the obligation to verify whether a planned target is indeed a military objective. It states that with respect to attacks, those who plan or decide upon an attack shall “do everything feasible to verify that the objectives to be attacked are neither civilians nor civilian objects and are not subject to special protection but are military objectives within the meaning of paragraph 2 of Article 52 and that it is not prohibited by the provisions of this Protocol to attack them”. The rule is also identified as a rule of customary IHL.<sup>93</sup> This precautionary measure works to reinforce more specifically the general obligation to take constant care to spare the civilian obligation. Therefore, it dictates that attacks must be aimed at military objectives. This obligation is therefore closely associated with the principle of distinction. Furthermore, special protections that apply to persons and objects also need to be taken into account. This concerns in particular medical units (Article 12 AP I), cultural objects and places of worship (Article 53 AP I) and works and installations containing dangerous forces (Article 56 AP I).

The second specific precaution proscribes that all feasible precautions need to be taken with a view to avoiding, and in any event minimise collateral damage, emphasizing the overall goal of precautions in attack.<sup>94</sup> It underlines that in the course of planning or deciding on an attack, it must be contemplated whether it is possible to avoid affecting the civilian population in achieving the military objective of an attack. The ICRC Customary Law Study states that “[t]his rule must be applied independently of the simultaneous application of the principle of proportionality”<sup>95</sup> as included in rule 14 of the Study. This means that it is not sufficient to stay within the parameters that the proportionality principle proscribes, but that also a good-faith effort needs to be carried out to avoid collateral damage in the first place. When the military advantage that is sought cannot be achieved without injuring civilians and causing damage to civilian objects, the rule dictates that the choice of means and methods of attack must be adapted, if feasible, in order to minimise the collateral damage. One may question the scope of this obligation. Obviously, as was mentioned above, the required standard is that the precautions must be ‘feasible’. This means that the feasibility depends on the availability of options with regard to the weapons that can be used (bigger or smaller explosive, detonation before or upon impact or delayed-fuse etc.), or the

93 See Henckaerts and Doswald-Beck 2005a, Rule 16.

94 See Article 57(2)(a)(ii) API and Rule 17 (ii), in Henckaerts and Doswald-Beck: “those who plan or decide upon shall - take all feasible precautions 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”

95 Henckaerts and Doswald-Beck 2005a, p. 57.

way the attack is conducted (ground troops or aerial attack; an isolated pin-point attack or as part of a larger and more-encompassing operation; which route is used towards the military objective, etc.).

The third specific precautionary obligation states in Subparagraph (2)(b) of Article 57 AP I that an attack shall be cancelled or suspended if it becomes apparent that:

1. the objective is not a military one, or
2. is subject to special protection, or
3. the effect is expected to be disproportionate

This obligation imposes a continued obligation to monitor the objective under attack and it tells the military commander that the responsibility to minimise damage to the civilian population does not end once the attack has been initiated. Instead, the commander must, also when the attack has long been underway, continue to consider its effects on (1) the civilian population and (2) objects and persons under special protection. These persons could also include wounded adversaries. In addition, the military commander needs to continuously monitor that the expected further damage that will be done to civilian infrastructure and the civilian casualties the further execution of the attack may be expected to cause, is still not excessive compared to the military advantage of the attack.

In a military headquarters where a large attack is being commanded, there may be a massive amount of information coming in that cannot always be expected to be processed, analysed and re-distributed timely to realistically change the existing plan of attack. The new information may however lead to the conclusion that the target of the attack is not a military objective, or subject to special protection. This may result in a new obligation for the commander to suspend or cancel the attack, if that is possible, or to the obligation to abort the attack when it is already (partly) under way. This may be very difficult for certain types of weapons systems, such as loitering 'fire and forget' systems.

A second factor, apart from the availability of new information, that may invoke the application of subparagraph b, is the factual development of an attack. When viewed on the operational level, the success, or lack of success, of other parts of the attack may lead to the conclusion that the proportionality equation has changed so considerably, that it may become illegal to further pursue the planned attack. This may be the result of the fact that the military advantage that was expected from the attack has either already been attained, or because it became evident that it has become impossible to attain that military advantage at all. When the proportionality equation has shifted sufficiently significant in that situation, the attack must be discontinued.

A fourth specific precautionary obligation is found in Article 57 (2) (c) AP I, which provides that "effective advance warning shall be given of attacks which may affect the civilian population, unless circumstances do not permit." This rule is also of a customary nature in

both international and non-international armed conflicts according to the ICRC Customary Law Study.<sup>96</sup>

The objective of warning the civilian population is “to give civilians the chance to protect themselves”<sup>97</sup> in situations where an impending attack may put them into danger. Therefore, the obligation extends to situations where it is uncertain whether civilians will be affected by the attack and that the attack is expected to result in more than only inconveniences. To achieve that objective, it is essential that the duty to give warning is taken into account throughout the different stages of the targeting process, and deliberated continuously as an inherent part of the process of choosing between the available options of attack. Warnings are potentially most effective during operations against targets that are situated in populated areas. This however does not relieve attackers from their duty to warn before attacking a military objective where a small number of civilians is expected to be present. An important element of the duty to warn is that the warning must be ‘effective’. Whether a warning may be considered effective depends on the circumstances of the planned attack. The has been stated in this context that: “effectiveness must be judged from the perspective of the concerned civilians, namely whether the warning enables them to actually take measures enhancing their protection against the danger arising from military operations.”<sup>98</sup> These warnings may be general or, unless circumstances do not permit, specific. The warning must preferably be clear, timely and not consist of misleading or unclear instructions to the civilian population how they may escape from being affected by an impending attack.

An example of circumstances that ‘do not permit’ the attacker to warn the civilian population is a situation in which the accomplishment of the mission depends on the element of surprise. Of course, although warning the civilian population of an upcoming bombardment allows them to escape from the effects of the attack, the same goes for soldiers of opposing forces. Therefore, the element of surprising the enemy may often be applicable in situations aiming to kill members of enemy forces. Therefore, the duty to warn is more likely to arise in situations where military objectives are targeted that are not easily relocated. In addition, a warning is not required if issuing the warning would jeopardise the safety of the attacking forces if the situation leaves no time for the attacker to issue a warning. However, also in situations of a time-sensitive attack, the military advantage of attacking the military objective concerned must be sufficient in order to justify refraining from issuing a warning. Here, the more general rule of Article 57(1) AP I to take constant care to spare the civilian population comes into play, as well as Article 57(2)(a)(ii) AP I. A final exception to the obligation to issue an effective warning is the situation in which giving a warning is simply impossible. After all, in some situations there are simply no realistic options to convey a warning to the civilian population.

96 Henckaerts and Doswald-Beck 2005a, Rule 20. This section served as the basis of Van Den Boogaard 2018a.

97 Sandoz et al., para 2225, on p. 687.

98 Presentation of an expert during a meeting of the ILA Expert Group “The conduct of hostilities under international humanitarian law - challenges of 21st century warfare” in November 2013, on file with the author.

Warnings give the civilian population the possibility to leave an area where hostilities are planned to take place. Putting measures in place to warn the civilian population is thus an important component of the process of planning military operations, particularly in urban areas. However, even in a pre-planned operation, the exact location of intense fighting may not always be predictable since it is dependent also on the conduct of the opposing forces. Still, the obligation to warn can only be meaningfully fulfilled if several options to warn the civilian population are taken into account before an operation is launched. It seems therefore mandatory for military commanders or planners to include methods that would enable the civilian population to be warned in the planning process of any future operations.<sup>99</sup>

There is a clear relation between the duty to warn and the proportionality rule. First, like the other obligations to take precautions in attack in order to minimise civilian casualties or damage, the obligation to warn the civilian is a practical measure that enables military commanders to implement the principles of distinction and proportionality and it thus increases the protection of the civilian population. There is however an additional relationship between the obligation to issue an effective warning and the proportionality rule under IHL. It may be that it follows from the proportionality assessment that the civilian collateral damage of a certain attack is excessive compared to the expected military gain. If however, after a specific warning the civilian population has largely left the area, the residual collateral damage may be deemed no longer to be excessive. This effective warning may thus have made an attack legally possible that would otherwise have been illegal because of excessive collateral damage. An ironic fact is that those civilian casualties that do result from this attack, would not have occurred when no warning would have been given, because then it may have been assumed that the military commander would have cancelled the attack. As such, however, that is certainly within the boundaries of IHL. In fact, assuming that an effective warning has led to the evacuation of the civilian population from an area where subsequently hostilities take place is beneficial from an operational point of view. This is because the fact that the number of civilians present in the area has decreased also increased the attackers' possibilities to conduct attacks on the adversary, since there are fewer civilians present. The obligation to warn is thus also a "useful tool in the hands of commanders for gaining more freedom of action."<sup>100</sup>

The last specific precautionary measure contained in article 57 API refers implicitly to the proportionality rule. Article 57(3) and Rule 21 of the ICRC's Customary IHL Study reads: "[w]hen a choice is possible between several military objectives for obtaining a similar military advantage, the objective to be selected shall be that the attack on which may be expected to cause the least danger to civilian lives and to civilian objects." The rule is formulated identical in its conventional and customary IHL version. This rule therefore deals with 'target selection', and is in many ways challenging to apply.

99 As Corn notes: "The feasibility for issuing warnings prior to attack, to include when, how, and to whom, should be factored into all courses of action, and not just raised as a consideration after they have been developed." See Corn 2014, p. 439.

100 Baruch and Neumann, p. 373.

First of all, for this rule to be applicable, military commanders would need to identify lawful military objectives that have a similar military advantage. This may seem easy if identical military objectives are planned to be attacked, such as two tanks. But even in this simple example, there may be a larger military advantage in attacking the tank in the front of a column, because the military advantage that follows from the attack is both the destruction of the tank, and the blockade of the road by that tank. In this context, the focus must be not only on the military advantage of destroying the target, but on the expected effect of attacking the planned targets. In the example of the tank, the effect of destroying the first tank while a column of military vehicles is crossing a bridge or a dam is much more than only the destruction of the tank, since it may result in halting the column for a considerable time, perhaps even pinning it down, which would make it easy to destroy the other tanks.

#### 10.4.7 Sub-Conclusion

The precautions in attack consist of a number of coherent legal obligations, which form an extensive framework of checks the commander needs to take into account in order to shield civilians and civilian objects from the effects of hostilities.<sup>101</sup> The proportionality rule is only one of these measures. Even in the event all precautionary requirements are complied with, “there is an additional obligation not to undertake the attack if it is apparent that the civilian losses and damage to civilian objects are likely to be excessive in light of the anticipated military advantage.”<sup>102</sup> Conversely, in case an attacker has refrained from taking the practicable possible precautions, a proportionate attack may still lead to a violation of the precautions rule, if civilian casualties and damage could have been avoided or minimised by taking precautionary measures.<sup>103</sup> One could say that in this regard that the proportionality rule is a secondary rule that only enters the scene when it is impossible to take precautionary measures which are expected to avoid collateral damage.

### 10.5 Proportionality in Context

The rules concerning targeting, indiscriminate attacks and the duty to take precautions in attack are obviously also rules of common sense for professional soldiers. Minimising civilian casualties and damage to civilian objects is consistent with professional military values simply because it does not bring about any military advantage, or, as some argue, consistent with a principle of chivalry.<sup>104</sup> Given the sequence of steps in targeting procedures

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101 See for example Rogers' checklist, Rogers 2004, pp. 113-117.

102 Gardam 2004, p. 98.

103 Margalit, p. 158.

104 Gill 2013, p. 43.

as explained above, the proportionality assessment must be made several times during the process of planning and executing an attack. If it is clear at the outset of a targeting process that a planned attack is expected to cause excessive collateral damage, it would be pointless to continue planning the attack. This concerns the precautionary proportionality rule of article 57 (2) (a) (iii) API. Furthermore, proportionality is the final check before the attack is carried out, as contained in the prohibition of article 51 (5) (b) API. Lastly, even after it has been decided that the attack is launched, the proportionality rule remains applicable. If it becomes clear during the execution phase of an attack that excessive civilian damage is expected, article 57 (2) (b) API dictates that the attack must be cancelled or suspended.

Seen from the viewpoint of a military commander who is engaged in armed conflict, there are a number of courses of action he (or she) could take. Even during armed conflict, commanders may be passive and wait until an attack occurs on their unit and fight back when that happens or they could be active and plan and subsequently launch an attack themselves. Which course of action is taken, obviously also depends on the actions of the opposing force and the orders handed down from the chain of command. These are all operational considerations, but the IHL proportionality rule must be considered in all these situations. However the question remains how the proportionality rule may be applied in practice. To shed more light on that question, the next step is to analyse the different components that play a role in the proportionality assessment. Heated debates in literature concerning the interpretation of these components show that the application of the IHL proportionality rule in practice is no simple task.