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CONDUCT OF HOSTILITIES: PRECAUTIONS IN ATTACK

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“Violence breeds violence ... Pure goals can never justify impure or violent action ... They say the means are after all just means. I would say means are after all everything. As the means, so the end ... If we take care of the means we are bound of reach the end sooner or later.”

Mahatma Karamchand Gandhi

Introduction

One of the most important *raison d'être* of International Law is the respect towards civilian persons and objects and the protection against the effects of war. Article 48 of Additional Protocol I (from now on ADI) to the Geneva Conventions enshrines a basic rule, requiring that parties to an armed conflict distinguish between civilian persons and objects on one side, and combatants and military on the other side, and most importantly, that attacks are directed only against military objectives.

Several concrete obligations can be assumed from this general Principle of (from now on PD), such as the prohibition of direct attacks against civilian persons and objects¹, as well as acts of violence which primary purpose is to terrorize civilian population.² Indiscriminate attacks are also forbidden. In other words, attacks that are not or cannot be directed at a specific military objective, or attacks whose desired effects can't be limited as International Humanitarian Law (from now on IHL) requires.³

Still, it is legally accepted that in war scenarios, civilian persons and objects may incidentally be affected by attacks which targeted legitimate military objectives in the first place. These realities are referred to as "collateral casualties" or collateral damage",⁴ civilians may be victims of wrong target identification as well as of unintended but inevitable side effects of an attack directed at a legitimate target, in their neighborhood. Following the Principle of Proportionality, these collateral casualties and damages are lawful under treaty and customary law, when and only they are not excessive, when compared to the actual military advantage anticipated.⁵

Apart from all this, also in the case that a lawful attack is launched, even then, precautionary measures are in order from both sides of the conflict, so that collateral effects of the hostilities on civilian persons, civilian population and objects are avoided or at least

¹ The fact that, in principle, civilian and other protected persons or objects may not be attacked does not preclude this legal protection from ceasing under exceptional circumstances.

² See, in particular, Articles 51(2) and 52(2) of Additional Protocol I to the Geneva Conventions.

³ Article 51(4) Additional Protocol I.

⁴ "Collateral casualties" and "collateral damage" are defined in Rule 13(c) of the San Remo Manual on International Law Applicable to Armed Conflicts at Sea as "the loss of life of, or injury to, civilians or other protected persons, and damage to or the destruction of the natural environment or objects that are not in themselves military objectives".

⁵ The Principle of Proportionality (Article 51/5, b of Additional Protocol I) possesses in it more than the obligation to take precautions in attack. It is, however, relevant at this point, as demonstrated by Article 57/2, a, iii. (see in this respect Cannizzaro, Enzo; *Contextualising proportionality: ius ad bellum and ius in bello in the Lebanese war*; p. 779-792).

minimized as stated by Luis Moreno Ocampo: “Under IHL and the Rome Statute, the death of civilians during an armed conflict, no matter how grave and regrettable, does not in itself constitute a war crime. IHL and the Rome Statute permit belligerents to carry out proportionate attacks against military objectives, even when it is known that some civilian deaths or injuries will occur. A crime occurs if there is an intentional attack directed against civilians (PD) (Article 8(2)(b)(i)) or an attack is launched on a military objective in the knowledge that the incidental civilian injuries would be clearly excessive in relation to the anticipated military advantage (Principle of Proportionality, Article 8(2)(b)(iv)).”⁶

This work will focus on the precautionary measures demanded from the belligerent before engaging in attack as well as during the conduction of the attack, resulting from what is predicted in ADI.⁷ Furthermore, we will try to demonstrate that this body of laws is not simply a set of rules asking for good ethical and moral behavior, but instead constitute mandatory standards of conduct. As a conclusion to our theoretical analysis of the rules, we will proceed to an analysis of one of the most modern trends in IHL, the use of robots in the field of battle, more specifically unmanned aerial vehicle (Drones) and its compliance with the rules of precaution in attack.

⁶ Ocampo, Luis Moreno, International Criminal Court, The Hague, 2006, (http://www.icc-cpi.int/NR/rdonlyres/04D143C8-19FB-466C-AB774CDB2FDEBEF7/143682/OTP_letter_to_senders_re_Iraq_9_February_2006.pdf)

⁷ In agreement with the target of application of Additional Protocol I present in Article 49/3, our work will refer just to the protection of civilian persons and objects on land, excluding precautions required in naval or air warfare (to which Article 57/4 of Additional Protocol I refers, indicating that “In the conduct of military operations at sea or in the air, each Party to the conflict shall ... take all reasonable precautions to avoid losses of civilian lives and damage to civilian objects.”)

Chapter 1

1. Conduct of Hostilities and the Principles of International Humanitarian Law

1.1 The Principle of Necessity

The Principle of Necessity was defined in article 14 of the Lieber Code, as those measures without which a military endeavor cannot be reached, and that are legal according to modern law and uses of war. Nowadays, the concept of military necessity is a result of the several elements. First, the use of force is predicted by law and not arbitrary; second it's what allows achieving the fastest total or partial submission of the enemy; third, it does not exceed what is needed to achieve that target (limitation).⁸

So, military necessity is regulated by several rules: as stated above, any attack or action must intend to help in the military defeat of the enemy; the objective/aim to be fulfilled by the attack must be a military one, and the harm caused to civilians or civilian property must be proportional and not excessive in relation to the concrete and direct military advantage anticipated.⁹

⁸ Rogers, Anthony P. V.; *Law on the Battlefield*; Melland Schill Studies in International Law, Manchester University Press, Manchester and New York, 1996, p. 3.

⁹ It is the opinion of part of the doctrine that the Principle of Necessity is a subprinciple of the Principle of Proportionality. As stated by the European Union court of justice, “*in order to ascertain whether a provision of community law is consistent with the Principle of Proportionality, it must first be determined whether the means applied weather the means applied to achieve its aim correspond to the importance of that aim and, secondly, whether they are necessary in order to achieve it*” in Office belge de l'économie et de agriculture (OBEA) v SA Nicolas Corman et fils, Case 125/83, Judgement of 1 October 1985, para. 36. In International Law the distinction between both principles exists, and that is why, the United States, relating the measures adopted against Afghanistan and Sudan, which were qualified as self defense, in its notification to the security council of the United Nations of August 1998, stated that “*The targets struck, and the timing and method of attack used, were carefully designed to minimize risks of collateral damage to civilians and to comply with international law, including the rules of necessity and proportionality*”, in UN Doc. S/1998/780, 20 August 1998.

1.2 The Principle of Distinction

The Principle of Distinction is one of the most important rules of IHL, having the responsibility of avoiding or at least reducing nasty consequences of war for the civilian population. In order to avoid the most dramatic consequences for civilians, it is of the utmost importance that combatants distinguish themselves from civilians. That is why, as the US Supreme Court stated in *Ex Parte Quirin*, “by universal agreement and practice the laws of war draws a distinction between the armed forces and the peaceful populations of belligerent nations”.¹⁰

As we know, military attacks can only target military objectives and never be directed to civilian targets, therefore, in accordance to a basic principle of customary IHL, parties to an armed conflict are obliged to draw a clear line between the civilian population and combatants and between civilian objects and military objectives. In order to spare civilians and the civilian population from hostilities and their effects, it is essential to define who and what may be attacked. The first rule regarding attacks (by acts of violence) is that the intended target must be a military objective. When the target is military objective, under additional rules, the attack may nevertheless become illegal if excessive collateral damage affecting civilians or civilian objects are to be expected. Furthermore, even when attacking a lawful target, precautionary measures to spare civilians have to be taken. While the main aim of the law is to protect persons, it is appropriate to discuss first what and who may be attacked. This permits to clarify the criteria, which make targets legitimate.

The distinction between combatants and civilians first appeared in the St. Petersburg Declaration, stating that “the only legitimate object which States should endeavor to accomplish during war is to weaken the military forces of the enemy”.¹¹ This principle is now codified in Articles 48, 51/2 and 52/2 of ADI. As predicted by the Statute of the International Criminal Court, “intentionally directing attacks against the civilian population as such or against individual civilians not taking direct part in hostilities” constitutes a war crime in international armed conflicts.¹²

In their pleadings before the International Court of Justice in the Nuclear

¹⁰ US Supreme Court, *Ex Parte Quirin*, 317 U.S. 1 (1942) at 31. Cf. Also General Assembly resolution 2765(XXV) relating “Basic Principles for the Protection of the Civilian Populations in Armed Conflicts”.

¹¹ Preamble of St. Petersburg Declaration, 1868.

¹² Article 8/2, b, i, Rome Statute of the International Criminal Court.

Weapons case, several States invoked the PD. In its advisory opinion in the Nuclear Weapons case, the Court stated that the PD was one of the “cardinal principles” of IHL and one of the “intransgressible principles of international customary law”.¹³

When the International Committee of the Red Cross (from now on ICRC) appealed to the parties to the conflict in the Middle East in October 1973, meaning, before the adoption of ADI, to respect the distinction between combatants and civilians, the States concerned (Egypt, Iraq, Israel and Syria) replied favorably.¹⁴

¹³ *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 1. C.J. Reports 1996, p. 257.

¹⁴ See ICRC, Customary IHL Database, (https://www.icrc.org/customary-ihl/eng/docs/v1_cha_chapter1_rule1#refFn_90_17)

1.3 The Principle of Precaution

This Principle is the object of this work, therefore, it shall be explained and discussed further ahead.

Humanity is a guiding principle that limits actions that might other ways have been justifiable under military necessity. Why do we make such a strong, yet simple statement? For a simple reason, because some of the existent doctrine relating the set of precautions enumerated in Article 57 of ADI affirms that each State is in fact free to organize its national defense, and IHL just formulates recommendations, knowing that an imposed obligation might not be respected.¹⁵

But, we will seek to demonstrate, that the rules forming this principle have developed from mere recommendations into mandatory standardized procedures and behaviors that form altogether a certain conduct and that are put in practice whenever a decision to attack or not has to be taken.

¹⁵ Deyra, Michael, *Direito Internacional Humanitário*, Procuradoria-Geral da República, Gabinete de Documentação e Direito Comparado, p. 50.

1.4 The Principle of Proportionality

The Principle of Proportionality seeks the balance between the military necessity and humanity. This principle is to be found in Lieber Code and is part of customary IHL, as for example in what self-defense relating *jus ad bellum* is concerned. In practice, what this principle stands for is a special attention by the attackers to take all feasible measures in the planning of the attack, ensuring the minimum risk possible for civilian populations.

So, before an attack, a commander should consider the military advantage and the collateral damage that will probably result from the attack. The commander has to verify the nature of the targets to be attacked, ensuring they are military targets and take all possible precautions to avoid collateral damage. If there are several options, he should compare the different attack methods and chose the less excessive one which is compatible with the military success. The main target of this principle is to protect the civilians that are non-intentionally attacked. Its practical application is however very difficult for the concepts that form this principle (such as the value of human life and military necessity) are quite subjective. It is indeed understandable that in some war situations, deciding if an attack will or will not have an excessive damage, might be an extremely complicated task. Especially if we consider that the balance between excessive collateral damage and military advantage, is very thin and extremely subjective.¹⁶

¹⁶ For further information, please consult Rodrigues de Freitas, Joana O.; *O Princípio da Proporcionalidade no Direito dos Conflitos Armados: Utopia ou Regra de Conduta?*; in *Conflitos Armados, Gestão Pós-Conflitual e Reconstrução*, Andavira, Santiago de Compostela, 2011, p. 108 ff.

Chapter 2 – Precautions in attack

§ 1 The birth and evolution of the precautions in attack

The obligation to warn of an upcoming attack in armed conflict situations was stipulated in the first treaties on the law of war (so that the civilian population could evacuate). However, the general obligation to take precautions in attack was only codified quite late.¹⁷ As a matter of fact, before the ADI was adopted, the opinions stating that the obligation also known as “Rule 15”¹⁸ was binding on every attacker, derived from a broad interpretation of the Hague Conventions from 1899 and 1907 as well as the 1949 Geneva Conventions and customary law.

The rules concerning precautions in attack in the case of an international armed conflict are set out in the Article 57 of API. It is important to keep in mind that Article 57 is not the only rule relating the precautions to be observed by an attacker. Although we can see this article as the primary source, it’s important to remember that several treaties relating the use of specific means of warfare also rule upon the obligation to take precautionary measures. However these rules apply solely preexisting ADI obligations relating specific weapons.

We will now shortly describe the several different precautions to be observed in attack, while trying to give a short explanation on an important characteristic of all these precautions, and give some real life examples every now-and-then, which should be a present background whenever the discussion is precautions in attack. We will start by referring to the “feasible” limitation of these precautions, so that the reader can have a better understanding of what is demanded, and in what measure, from the parties to an armed conflict.

¹⁷ The International Committee of the Red Cross stated, in its report preceding the Conference of Government Experts of 1971, that the obligation to take precautions in attack “has been affirmed by publicists for a long time, but without being expressed in a very precise manner in the provisions of international law in force”.

¹⁸ Henckaerts, Jean-Marie; Doswald-Beck, Louise; *Customary International Humanitarian Law*; Volume I: Rules, International Committee of the Red Cross, Cambridge University Press, 2005, p. 51.

1. Precautions in Conduct of Hostilities

1.1. The “feasibility” of the precautions

The feasibility of the precautions described above is in our opinion a well thought way of saying that each party to a conflict has to do everything within their reach to protect civilian population and objects. Why was the abstract and hard to explain expression “feasible” chosen? We think this expression was chosen precisely for its abstract characteristics, for its numerous interpretation possibilities depending on each situation and players in it. It is just obvious that a feasible precaution for the United States of America armed forces may not be practicable or practically possible for a militia which is the other party on a given armed conflict, for certain circumstances, such as, for example, lack of highly developed technologic means available. In order to take a precaution, that precaution has to be feasible, and this feasibility is analyzed on the basis of humanitarian and military considerations. As India explained in its vote on Article 57 of the 1977 ADI:

“India voted in favour of this article on the clear understanding that it will apply in accordance with the limits of capability, practical possibility and feasibility of each Party to the conflict. As the capability of Parties to a conflict to make distinction will depend upon the means and methods available to each Party generally or in particular situations, this article does not require a Party to undertake to do something which is not within its means or methods or its capability. In its practical application, a Party would be required to do whatever is practical and possible.”¹⁹

So, it is possible to understand that the feasibility of a precaution in attack must be interpreted as an indication that the obligation imposed by the text of Article 57, take place under the condition or circumstances that allow (or to some extent, do not allow) Articles 57 precautions to be put in practice, after an analysis of available information, and the absolute needs (military necessity) of the belligerents, namely, the success of military operations. The duty to take precautions when attacking is not absolute. Belligerents have, however, the obligation (legal and moral) to proceed in good faith as too tacking the necessary precautions, although people acting in good faith may still make mistakes.²⁰

¹⁹ India, Statement at the CDDH, *Official Records*, Vol. VI, CDDH/SR. 42, 27 May 1977, p. 228.

²⁰ Fenrick, William J.; *Targeting and proportionality during the NATO bombing campaign against Yugoslavia*; EJIL, Vol. 12, (2001), p. 501.

1.2. The obligation to take constant care, in the conduct of military operations, in order to spare civilian population, civilians, and civilian objects

This obligation directly derives from the fundamental PD that we explained before. However this first duty is quite abstract, forming a kind of introduction to this article. In accordance to the ICRC Commentary on API, the following paragraphs of this article are dedicated to “the practical application of this principle”.²¹ So, it is clear that the first obligation of Article 57 is meant to build a “bridge” between the general PD and the practicalities of the precautions to be taken in attack.

There is in fact a direct link between Article 57 number 1 and its following paragraphs. However, it’s not right to state that paragraph 1 does not have its unique legal effect. Although it makes sense to say, at this point, that in our opinion, it makes perfect sense to interpret this duty in conjunction with the more concrete obligations listed in the following paragraphs, it does not mean in our opinion, that this is mandatory in order for this abstract rule to have legal weight.

Examining the chosen words of Article 57 tells us that the target idea or scope of the duty from paragraph I is wider than the one present in the subsequent paragraphs. To confirm this idea we just need to compare the language used in the second paragraph, which clearly states that it applies only in the event of an “attack”,²² meaning, an act of violence against the enemy, with the more opened idea in the first paragraph, namely “military operations”, which may well be the movement of troops, and other military maneuvers, before or in between any military combat.²³ We can therefore conclude that the broader field of application of this first rule may well give birth to concrete legal obligations.

²¹ Commentary on Additional Protocol I (p. 680, para. 2191). As mentioned before, in its study on customary international humanitarian law, the ICRC confirms this obligation in Rule 15 (the first rule in Chapter 5 devoted to precautions in attack), the commentary states: “This is a basic rule to which more content is given by the specific obligations contained in Rules 16–21” (Above note 18, p. 51).

²² The same logic applies, by analogy, to the third paragraph.

²³ “The term “military operations” should be understood to mean any movements, maneuvers and other activities whatsoever carried out by the armed forces with a view to combat”; Commentary on Additional Protocol I (p. 680, para. 2191). This opinion can be contradicted because it could, liberate Article 57 from its strict context of precautions in attack, which is clearly stated by the title, being its only object. But this doesn’t mean that we are trying to deny that the link between distinction and precautions in the first paragraph.

1.3. The obligation to verify that the objectives to be attacked are of military nature

This obligation, found in Article 57/2, a, i presents the duty of target verification, which is as well an important part of the PD, creating a practical barrier between combatants and non-combatants. This rule seeks to ensure the safety of civilian populations and objects by requiring from those who plan or decide to attack, to do everything “within their power” (feasibility) to make sure that the target to be attacked is one of strictly military nature.

The obligation to verify the nature of what or who is to be attacked demands technical resources with quality, or better said; the better the reconnaissance methods and means, the more accurate will the information relating the potential target be.²⁴ But the obligation under analysis should not, or cannot be interpreted as demanding the belligerents to possess sophisticated means of reconnaissance, as many of the parties to the conflicts do not possess such modern and sophisticated means, as we well know.

What this obligation indeed requires is that a commander only decides to engage in attack, after the most effective means at their disposal have been used systematically, so that the information over which his decision is based, is the most reliable possible, making him believe for sure that the nature of the target is a military one. So, seems to be obvious that this rule does not set an obligation to deliver a result,²⁵ but it demands that in case of uncertainty, additional information has to be analyzed before the order of attack is given.²⁶ What exactly does this mean? This means that an attack being ordered having a simple suspicion as far as the military nature of the target is concerned, amounts ipso facto to a disrespect and violation of the PD.²⁷

Besides the above stated, relating the information to be put together before an order to attack is given, not only information relating the nature of the objective, but also information such as

²⁴ Quoted by Quéguiner, Jean-François in *Precautions under the law governing the conduct of hostilities*, International review of the Red Cross, December 2006, p. 797 “In accordance to Article 57/2, a, i, this verification has to take place at the moment of planning or deciding to attack. However, if some time has passed between the planning and deciding moment and the beginning of attack, then there is an obligation to update and review the information available in order to be sure that no change of circumstances has led to a change in the nature of the target (Urbina, Jorge J., *Derecho Internacional Humanitario*, La Coruña, 2000, p. 241)”.

²⁵ Above note 24, p.798. “As noted by Yoram Dinstein in, *The Conduct of Hostilities under the Law of International Armed Conflict*, Cambridge University Press, Cambridge, 2004, p. 126: “*Palpably, no absolute certainty can be guaranteed in the process of ascertaining the military character of an objective selected for attack, but there is an obligation of due diligence and acting in good faith*”.”

²⁶ Commentary on Additional Protocol I (p. 680, para. 2195).

²⁷ Lack of information in these cases cannot be seen as exempting reasons, and it can therefore be qualified as war crimes. (Oeter, Stefan; *Methods and means of combat*; in Dieter Fleck, *The Handbook of Humanitarian Law in Armed Conflicts*, Oxford University Press, Oxford, 1995, p. 457).

the near surroundings of the target are of the utmost importance, in order to have a clear image of the conditions that will trigger the obligation to apply the Principle of Proportionality. And at this point it's important to mention, situations where this verifications and careful planning cannot take place, due to lack of time to complete demanding attack planning procedures; such as the "emerging targets". In cases such as these, the determination of the military nature of the potential target as well as its possible collateral casualties and damage, is made according to special procedures based on criteria that is predetermined. The fact that these predetermined procedures exist and are put in practice, is directly connected with the feasible effort we mentioned before.²⁸ It is however known and quite logically, in our opinion, that the process of assessing collateral damage works better when relating pre-planned targets, when compared to the process in relation to emerging targets, often resulting in disproportionate bombings, due of course, to the lack of time to conduct effective planning and assessment.

As we know, identifying a potential target and estimating the collateral damage that can result of an attack is a complex task, and those who make the final decision will have to rely on indirect information which may be provided by reconnaissance (human, satellite, airplanes or other) services or intelligence. There are of course several levels of liability in this chain of decision-making, and one decides according to the information given by another (who has the prior step in the chain), so if let's say intelligence passes on information which is unreliable or leads to mistakes, then, they shall be held responsible, as the ones who decide cannot be expected to have personal knowledge of the target to be attacked.

²⁸ According to Human Rights Watch, in *Iraq operations* (2003) the United States had two different ways of acting, depending on the circumstances: when there was time to conduct a study of the target, they followed a careful procedure, planning and assessment. However, when the strike is one of an emerging target, having to be carried out as fast as possible, they applied special procedures.

1.4. The obligation to avoid, or at least limit, loss or damage to the civilian

This obligation may seem logic-less, as it appears to be a simple practical consequence of the Principle of Proportionality. It is also quite easy to consider it a rule applying to the war (bombings for example) taking place in densely populated areas, such as cities or villages. However there is nothing that indicates such an interpretation to be supported in the text of the Article, neither in ICRCs 1987 commentary on this article. So, it is in our opinion incorrect to limit the application of this duty to just conflicts taking place in densely populated areas, and it should therefore be seen as a rule which demands more than just the improvement of accuracy in bombing situations. This is quite easy to understand when we think for example in the timings of attack, for this provision can absolutely be interpreted as setting a restriction on attack timings, as mentioned in the ICRC Commentary on ADI relating the bombing raids from the Allies against the factories located in German occupied territories. The attacks were carried out at times when the factories were not working, as the idea was to destroy those factories and not killing the people working in them. This sets an example of which precautions were thought behind Article 57/2, a, ii, more specifically relating the precautions of methods of attack. So the aim of this rule is to spare civilian population and objects by choosing an attack timing which limits collateral damage as much as possible.

Of course this rule can also serve as a limitation of the location of attacks, ensuring, when possible that densely populated areas are not attacked, when from such an attack heavy collateral casualties may result.

As far as the means of combat are concerned, the rule states that parties to a conflict have to use the most precise weapons available (such as precision-guided munitions) when there is a possibility of collateral damage resulting from the attack to be carried out. As most legal doctrine seems to think, the choice of weapons concerns the belligerent parties, in accordance to its military interests. Furthermore, no provision in the Law of Armed Conflicts (from now on LAC) sets regulations as to which weapons must be used in a attack of a certain target. The law simply says that a balance between unnecessary suffering and military necessity should be met so that the concept of proportionality is respected.²⁹ The same applies, for example, to the different kinds of ammunition which are allowed or forbidden.

²⁹ Infeld, Danielle L.; *Precision-guided munitions demonstrated their pinpoint accuracy in desert storm; but is a country obligated to use precision technology to minimize collateral civilian injury and damage?*; *George Washington Journal of International Law and Economics*, Vol. 26, 1992, p. 134-5. This can also be found in the Australian military manual, Australian Defence Force Manual on the Law of Armed Conflict, ADFP 37, 1994: *“The existence of precision guided weapons...in a military*

However, the demand to use the most precise means of attack has its contradictions, as this obligation would require all the parties to have these so called precise weapons available in their arsenals, and this is obviously not the reality, which brings us to another question. Knowing that the standards of protection are different, as they depend on the belligerent's weaponry technological sophistication, it is important to consider the IHL Principle of Equality of the parties to a conflict.³⁰ So, on the one hand this could cause situations of disadvantage among the belligerents, but , on the other hand, and considering that the main purpose of IHL is to protect human life (we mean civilian population and objects) from the effects of war, as much as possible, “suggesting that a party with the technological ability to exercise great care in attack need not do so because its opponent is not similarly equipped runs counter to such purposes”.³¹

The duty of precautions to be taken in attack when feasible recognizes that the lawfulness of the attacks will be judged with the help of certain standards of measurement, mostly such as technological and economic development of each party.³²

In the end, what is to be understood relating the means of warfare, is that whenever a state possesses precise weapons in their arsenal and its use is possible in practice, then those advanced systems have to be used. But there is no legal duty stating states have to buy the cutting edge technologic advanced weaponry, even if they have the means to purchase those systems.³³

inventory does not mean that they must necessarily be used in preference to conventional weapons even though the latter may cause collateral damage. In many cases, conventional weapons may be used to bomb legitimate military targets without violating LOAC [law of armed conflict] requirements. It is a command decision as to which weapon to use; this decision will be guided by the basic principles of LOAC; military necessity, unnecessary suffering and proportionality” (para. 834).

³⁰ *“It seems illogical to presume that the handful of states with precision weapons – such as the United States, Britain and, to a lesser degree, Russia – should be held to a higher standard of law”*; Canestaro, Nathan A.; *Legal and Policy Constraints on the Conduct of Aerial Precision Warfare*; *Vanderbilt Journal of Transnational Law*, Vol. 37, 2004, p. 465. For Yoram Dinstein, “*Such claims would introduce an inadmissible discriminatory bias either in favour of, or against, more developed belligerent States equipped with expensive ordnance at the cutting edge of modern technology”* (above note 25, p. 126).

³¹ Schmitt, Michael N.; *The Impact of High and Low-Tech Warfare on the Principle of Distinction*; Briefing Paper, November 2003, Program on Humanitarian Policy and Conflict Research at Harvard University, p. 10.

³² Jaworski, Eric; *Military Necessity and Civilian Immunity: Where is the Balance?*, *Chinese Journal of International Law*, 2003, p. 201. The author notes that the application of relative standards also apply to other areas of international law (such as environmental law), so different standards apply according to the contracting parties (for example the different timings decided for different countries relating the decrease of Co2 emissions. Less developed countries are given more time to reduce its emissions.).

³³ Above note 31, p. 10. The author contemplates a possibility of determining a state's obligation to own precision-guided weapons in relation to a percentage of GNP or defense credits. Adding, like we stated, that states would probably not accept a legal duty limiting discretion by setting their own budgets.

1.5. The obligation to cancel or suspend an attack if it is likely that it will constitute a violation of the Principle of Proportionality, that the objective is subject to special protection or that the objective is not a military one

At the first glance, this provision is not innovative as the duties resulting from it are provided in other rules of IHL. Furthermore it seems obvious that in case of change in the targets qualities or characteristics, which may mean a violation of the rules we mention before, the attack gets canceled or suspended. However this rule makes sense if we consider the gap of time (and consequently the alteration in the circumstances) that might exist between the decision to attack and the execution of that attack, as well as the fact that the ones who make the decision of engaging in attack and the ones that execute the attack are not the same people. By considering this possibility, this provision tells us, that the demanded standard of conduct is applicable at all operational levels.³⁴

This rule sets a personal duty on every member of the armed forces to suspend or cancel an attack when it is found out, during the course of operations, information which they did not have at the planning time. When, for example, aircrew executing an attack in order to destroy what is believed to be a military target, but discover, while flying over the target, that the target to be attacked is indeed a protected site (showing a protective emblem),³⁵ the pilots are then under the obligation of suspending the operations, report to their superiors and request for confirmation of the nature of the target before carrying out the attack. With today's technology, the same applies in case a jetfighter pilot, for example, has already dropped precision laser-guided weapons, and notices that the site being attacked is so near to civilian houses that it might probably take civilian lives, then the pilot shall remove the weapons from the target, choosing to let them explode somewhere, where civilian population and objects will not be harmed.

According to this obligation, an order to attack given by a commander is never definite, meaning that soldiers carrying out operations in the field share the responsibility of the cautions defined in these Articles Paragraphs and therefore cannot avoid responsibility for wrongful acts violating the law by just stating they were following orders.

³⁴ The International Committee of the Red Cross Commentary on this duty states this rule applies to the planning or deciding staff, but also (and primarily) to the belligerents executing the order (Commentary on Additional Protocol I, p. 686, para. 2220). In this respect, see *Fight it Right* (ICRC, Geneva, 1999), giving special notice to this rule for it applies at several ranking levels (the ones who plan as well as the ones who execute it), (p. 71, para. 1103.1c).

³⁵ As an example, a Red Cross or Red Crescent (symbolizing, let's say a campaign hospital), or a cultural property emblem (such as the ones from UNESCO, for example), installations containing dangerous forces, and others.

Relating the proportionality of the attack, let's say in a big military operation, it's impossible to ask every soldier taking part in it (tank drivers, pilots, and others) to measure the military advantage expected from the operation against collateral casualties and damage that may result of the attack, for at least logistical reasons. In a case such as this, the proportionality has to be calculated based on the attack as a whole. However, in certain circumstances, the attack seen as a whole may be in accordance with the proportionality requirements and still some of the soldiers may consider their action to be out of proportionality boundaries, but in such case, criminal responsibility will fall on the ones who decided and gave the orders to attack, according to Article 85/3 of ADI.³⁶

But, and having as basis Article 57/2, in case soldiers carrying out an attack verify that an incorrect judgment has been made in relation to the targets nature, or new circumstances and information completely change the circumstances under which the decision to attack has been made, then forcing the soldiers to obey the commands received from their commanders would be contrary to the aim and letter of this rule. So, if facing such a situation, the soldier has to assume its commanders have made a mistake as far as the judgment of the rule of proportionality is concerned, or that they had incorrect/inaccurate information relating the site to be targeted, as a result of this assumption, cancel or suspend the attack and inform its superiors.

³⁶Michael Bothe et al.; *New Rules for Victims of Armed Conflicts*; Martinus Nijhoff, The Hague, 1982 , p. 366–7, para. 2.8.1.3.

1.6. The obligation to choose the military objective involving the minimal danger to civilian lives and civilian objects

According to the New Delhi Draft Rules of 1956, more precisely Article 8/a, 2, whenever several objectives can be chosen, to get a specific military advantage, the deciding authority has to choose the one that represents the minimal danger to civilian population. It might seem that this provision is in fact a recommendation rather than an obligation, as all military objectives are (in a normal scenario) legitimate targets,³⁷ however, the rule set in Article 57/3 extends its scope to civilian objects (when comparing to the New Delhi rule) and constitutes a binding legal obligation, having been established in several military manuals.³⁸ A clear example as a situation where this rule applies is when a military authority has to decide between attacking a telephone or attacking its transmission lines (assuming they are located far from civilians and civilian objects). The decision-making body should in this case choose to attack the transmission lines (once again assuming similar military advantage would result from one or the other option).³⁹

³⁷ Kalshoven, Frits and Zegveld, Liesbeth; *Constraints on the Waging of War*, ICRC, Geneva, 2001, p. 9.

³⁸ For a list of military manuals where this obligation is present (as other elements of practice), see Henckaerts and Doswald-Beck, above note 18, Vol. II (Practice), Part 1, p. 413–18.

³⁹ Likewise opinion is given by Eric David by saying that the radio and television tower could not be seen as indispensable to the Federal Republic of Yugoslavia's communication network for hundreds of relay stations existed in the country ('Respect for the Principle of Distinction in the Kosovo war', *YIHL*, Vol. 3, 2000, p. 90–1).

1.7. The obligation of warning before an upcoming attack that may affect the civilian population

This obligation was first set forth in Article 19 of the Lieber Code, requiring that the enemy is to be informed “of their intention to bombard a place, so that the non-combatants, and especially the women and children, may be removed before the bombardment commences”. Of course, years ago, this represented no loss in military advantage as the only bombings were made by artillery and so, there was no value in the element of surprise, as there was no possibility of protecting the military objectives from being attacked. So, on the side of the attacker, this rule made sense years ago, but not anymore, due to evolution of warfare such as aerial bombardment, in which the element of surprise plays an important role,⁴⁰ many times making the difference between winning or losing (especially because of modern anti-aircraft defenses).

But the fact is that this rule survived the evolution and reached our modern codifications.⁴¹ Nevertheless, and admitting this was and still is a very important precaution in attack (allowing to save many human lives), this rule is not absolute. And the reason for that is that it is not possible to destroy or seriously compromise the chances of success of a military operation based on this rule. That is why ADI states that a warning is to be given “unless circumstances do not permit”, meaning that certain situations may excuse parties to follow this rule.⁴²

One question remains. Is it enough to give an “abstract” warning (consisting normally of a list of sites considered by the enemy as lawful military objectives)? The answer is unclear at this point. However it is sure that a belligerent is not obliged to issue several warnings of the danger resulting from the proximity to a clearly defined military objective. So after the general warning at the beginning of hostilities, and a repetition of that during the war, will comply with the spirit and duty set forth in this rule.⁴³ There are obviously specific rules

⁴⁰ Rowe, Peter “Kosovo 1999: “The air campaign – Have the provisions of Additional Protocol I withstood the test?”, IRRIC, No. 837, 2000, p. 154, quoting Theodor Meron, *War Crimes Law Comes of Age*, Clarendon Press, Oxford, 1998.

⁴¹ To access military manuals as well as other elements of state diplomatic and military practice, check Henckaerts and Doswald-Beck, above note 18, Vol. II (Practice), Part 1, p. 400–13.

⁴² The sentence used in Additional Protocol I was taken from in Article 5/2 of Protocol II to the 1980 Conventional Weapons Convention, and in the Protocol’s amended text of 3 May 1996 (Article 3/11, concerning general restrictions on the use of mines, booby-traps and other devices, and Article 6/4, relating more specifically to remotely delivered mines).

⁴³ As stated in the Commentary on Additional Protocol I (p. 686–7, para. 2224 and 2225): “Warnings may also have a general character. A belligerent could, for example, give notice by radio that he will attack certain types of installations or factories. A warning could also contain a list of the objectives that will be attacked.” However, more accurate warnings could be considered, like pilots during the

relating when and how the warnings should be given, and even more logical, the warnings cannot be given too much in advance, as they might then (after some time) not be considerable plausible anymore, or too late, as the population needs a certain amount of time in order to evacuate.⁴⁴ Of course, and considering this rule is or might be a big help in respecting the precautions in attack and one of the most important targets of IHL, the fact that a party to a conflict complies with this rule, does not exempt that same party of obeying the other precautions en attack, under the risk, that doing so, would be incoherent with the general PD as the whole of Article 57.

The Commission of Inquiry on Lebanon confirmed this unequivocally:

“Obligations with respect to the PD and the conduct of hostilities remain applicable even if civilians remain in the zone of operations after a warning has been given A warning to evacuate does not relieve the military of their ongoing obligation to take all feasible precautions to protect civilians who remain behind, and this includes their property.”⁴⁵

It is (at least nowadays) accepted that Human Rights Law and IHL share some of the same core objectives and ideas, culminating in the protection and dignity of human life.⁴⁶

It is also generally accepted that IHL and Human Rights Law are complementary legal regimes, albeit with a different scope of application. While human rights law is deemed to apply at all times (and thus constitutes the *lex generalis*), the application of IHL is triggered by the occurrence of armed conflict (thus constituting the *lex specialis*).⁴⁷

Second World War used to do, flying at very low altitudes over the targets before attacking, so that civilians had time to protect themselves.

⁴⁴ As Yoram Dinstein states relating this, it's important to remember that, as the only idea of the warning was to allow evacuation of the civilian population, “warnings must not be misleading or deceptive; no ruses of war are acceptable in this context” (above note 25 , p. 128).

⁴⁵ Report of the Commission of inquiry on Lebanon, Report of the Commission of Inquiry on Lebanon, established pursuant to Human Rights Council Resolution S-2/1, A/HRC/3/2, 23 November 2006, para. 151 and 158.

⁴⁶ Above note 16, p. 92-3

⁴⁷ International Committee of the Red Cross, *International Humanitarian Law and the challenges of contemporary armed conflicts*, Report, 31st International Conference of the Red Cross and Red Crescent, Geneva, October 2011, pp. 14

Chapter 3 – New Technologies and Warfare

§ 1 Short note on New Technologies and Warfare

We don't question the fact that IHL applies to modern warfare and technology, as the Article 36 of Additional Protocol I suggests. However, for example the Convention on Certain Conventional Weapons from 1980⁴⁸ did not predict the use of unmanned aircraft as a weapon of war, thus it is known that the use of Autonomous Weapon Systems is increasing in today's armed conflicts, bringing with it serious moral, ethical and legal issues.

Insofar applying rules that were thought and created years before the last technological developments in the war industry, and that did not on one side predict such developments in war technology and on the other side predict the configuration of battlefield we have today (we mean the increasing distance of soldiers from the field of battle by being substituted by machines), might have as consequence that those rules are not clear enough in order to be correctly interpreted in the context of the specific technological characteristics of today's weaponry technology, resulting in a misinterpretation regarding the predictable humanitarian impact this might have. The resulting uncertainty as to the applicable legal standards, in conjunction with the rapid development and proliferation of drone and robotic technology and the perceived lack of transparency and accountability in current policies, has the potential of polarizing the international community, undermining the rule of law and, ultimately, of destabilizing the international security environment as a whole. In the end, and considering that the existing law did and could not predict the use of weaponry with the technology available today, there are 2 options. Either we adapt the interpretation of the existing law by applying its principles, or new law has to be created in order to specifically regulate the advances in technology. For the time being, the first option makes more sense, as creating a new set of rules to apply to a specific technology that develops and changes extremely fast would be an utopic task from the regulator point of view.

⁴⁸Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects ([http://www.unog.ch/80256EE600585943/\(httpPages\)/4F0DEF093B4860B4C1257180004B1B30?OpenDocument](http://www.unog.ch/80256EE600585943/(httpPages)/4F0DEF093B4860B4C1257180004B1B30?OpenDocument))

Drones are a specific type of unmanned robot, namely unmanned aerial vehicles that were first used for reconnaissance and surveillance purposes and later started being used as attack machines, having now a strike role as semi-autonomous weapons.⁴⁹

Robotic weapons, in which “unmanned combat aerial vehicles” (armed drones) are included, can be divided into three basic categories, depending on the degree of direct control exercised by a human operator.

First the most simple machines, the Human controlled (“human-in-the-loop”) systems: machines which are remotely controlled by a human operator. While such robots may be able to independently perform selected tasks delegated to them by their operator (such as navigation, systems control, target detection, and weapons guidance), they cannot attack without the real time command of their human operator.

The second category of robots are the Human supervised (“human-on-the-loop”) systems: Robotic weapons which can carry out a targeting process independently from human command, but which remain under the real-time supervision of a human operator who can override any decision to attack.

And the most complex category, the Autonomous (“human-out-of-the-loop”) systems: Robotic weapons which can search, identify, select, and attack targets without real time control by a human operator. Such weapon systems can be described as “automated” when their capability to autonomously detect and attack targets is confined to a comparatively restricted, predefined and controlled environment. When they are capable of autonomously performing these tasks in an open and unpredictable environment they are described as “fully autonomous”. This small explanation of the three types of systems represents in a way the chronological timeline the world has been assisting relating the development of technology in war, as the machines used in armed conflicts tend to be more “independent” (autonomous) every day.⁵⁰

We will provide in-depth legal distinction between the consequences of the use of the different (level) of robot machines as far as IHL is concerned.

⁴⁹ Davies, Sean, *Drone warfare and the Geneva Convention*, Engineering and Technology Magazine, August 2011, (<http://eandt.theiet.org/magazine/2011/08/just-war.cfm>)

⁵⁰ Melzer, Nils, *HUMAN RIGHTS IMPLICATIONS OF THE USAGE OF DRONES AND UNMANNED ROBOTS IN WARFARE*, European Parliament Subcommittee on Human Rights, Brussels, May 2013, p. 6.

1. The Military Use of Drones, brief contextualization

It is common sense that in many situations it is difficult for ground forces to obtain accurate intelligence in the fuss of the battle. The same is valid for jet fighter planes, as they might not be able to fly at low altitudes due to the high risk of being shot down.

It is proven that Drones are able to provide the military with accurate information and are optimized for aerial surveillance, reason why they started being used on a regular basis. With the technology they possess, the military is able to receive accurate information on a given target possibility, making it possible for the decision makers to conduct an analysis with knowledge of the context in which the attack will take place, the site and its surroundings, being then able to ask themselves the questions that need to be answered in order to comply with the rules of necessity, proportionality, distinction and precaution before deciding to attack or not, depending on the answers result of those questions.

With the information provided by the Drones, it is possible to distinguish between civilians and belligerents, as well as understanding the geographic situation of the target and its surroundings, in order to understand the proximity of civilians and civilian objects. These machines provide crucial intelligence that allows the responsible people to make an informed and carefully thought decision, in the light of the mandatory standard of conduct⁵¹ that has to be respected in order for an attack to be legal.⁵² So Drones enhance the ability of military forces to undertake precautions in attack.⁵³ All this should be taken in account when establishing which foreseeable consequences may result from the attack in terms of collateral damage. After these considerations, the deciding commander should analyze if the military advantage achieved with the attack is worth the foreseeable loss of human life and patrimony, from a human, legal and ethical point of view. However, it is also a fact that the physical distance that separates the location which is under Drone surveillance and the location from where the Drone is being controlled by an operation team, sometimes, thousands of miles away and the lack of notion of the Drone operating team of the real environment of the location that will be subject to an attack, of which the only knowledge they have is through their live video and audio feeds⁵⁴, is most certainly an intelligence disadvantage, which may

⁵¹ Article 57 of ADI

⁵² Alston, Philip; *Study on targeted killings*, Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions, Commission on Human Rights, United Nations, May 2010, para. 82.

⁵³ Michael N. Schmitt, *Precision Attack and International Humanitarian Law*, International Review of the Red Cross, Sept. 2005, p. 446 ff.

⁵⁴ Furthermore, because of the distance separating battleground and drone operational staff, being the only contact the staff has with reality, their computer screen and speakers, they might develop a “videogame” mentality of the killings. In short, they lack the “real feel” of being part of an armed conflict. This might have as consequence, the fact that the result of the conflict, which is in the end loss

in certain cases lead to decisions based on wrong impressions or even make targeting easier and abuses more likely. The States have the responsibility to provide training programs for drone operators who have never been faced with the reality of a battlefield panorama, subject to the risks of fighting a war in first person, in order to teach them respect for IHL and respective safeguards for compliance with its rules and limits.

In relation to the growing distance between the soldiers and the battlefields and to the asymmetry it creates between those parties with financial resources to have this kind of technology and thus keep the men out of danger, and the belligerents that still fight their wars in a more classical way. Anyway, as morbid as it might seem, it is in our opinion important that the ones conducting an attack are able to see the results of their actions “with their own eyes”, hopefully gaining awareness over their actions, by seeing the direct influence of their actions in other human beings lives. At this point we have to ask ourselves one question. The soldiers conducting the attack are (generally) not the ones that decide to attack. Deciding level staff is generally not close to the “frontline” where all action takes place and as we mentioned before the trend is, not only staff with commanding roles, but gradually every soldier is taken away from the field of battle. So it is only natural that the soldiers conducting an attack in the field or behind the controls of a drone, by following superior orders have themselves the obligation of respecting and re-evaluating the situation in light of the rules of IHL, by suspending an attack and therefore maybe even acting against the orders of a superior. Nevertheless, they are obliged to do so in accordance with IHL, and by not doing it, apart from the responsibility of the deciding commander, they may also incur in individual international responsibility in light of IHL rules. All these consequences are a possibility when it becomes proven that the rules of distinction, proportionality (and therefore necessarily necessity and military advantage) and feasible precautions in attack have not been respected, having resulted in the killing of civilians other than the lawful target, which would be considered an arbitrary deprivation of life under Human Rights Law and could result as mentioned above, in individual criminal liability⁵⁵.

Going back to the point referred to before, relating the displacement of the soldiers from the field of battle, the use of drones it is of great concern in the sense that these machines make it

of human life, is no longer seen with the seriousness and reality it should be seen with. This makes us assume, that this lack of reality in the conduction of armed attacks will develop in a progressive disrespect of the rules of distinction, necessity, precaution and especially proportionality.

⁵⁵ Murray Wardrop, *Unmanned Drones Could be Banned, Says Senior Judge*, The Telegraph, 6 July 2009 (<http://www.telegraph.co.uk/news/uknews/defence/5755446/Unmanned-drones-could-be-banned-says-senior-judge.html>)

easier to kill without risk to a State's forces⁵⁶, and so, policy makers and commanders will be tempted to interpret the legal limitations on who can be killed, and under what circumstances, too expansively. States must ensure that the criteria they apply to determine who, what, where and when can be targeted, meaning, what is a lawful attack. The rules that have to be followed before and during an attack do not change according to the chosen weapon, but instead the weapon can choose according to the target and the weapons availability (for example choosing a weapon with greater precision capability).⁵⁷ However the demanded caution demanded from the deciding officer and later from the soldiers pursuing the attack, has to be present at all times. And considering the fact that a drone is not able to choose the target, activate and fire its weapons, these steps that lead into the fulfillment of an attack will be taken by a man, which means that in the end, from a legal standpoint, the use of a weapon fired from a unmanned aerial vehicle versus one fired from some remote platform with a human pilot makes no difference in battle (we repeat, as long as the drone is controlled by a human). The legal rules for determining lawfulness of the target and anticipated collateral damage are identical.⁵⁸

⁵⁶ According to Patrick Lin, director of ethics and emerging sciences group in California Polytechnic State University, one of the advantages of drones in armed conflicts, is the fact that its use removes humans from the battlefield, meaning less risk of losing human life. On the other side, the fact that less human life is threatened by entering an armed conflict, might have as result a lowering the existing barriers to start a war, meaning in the practice that International actors will rush into conflicts without exhausting non-violent options, contrary to what IHL demands, (<http://eandt.theiet.org/magazine/2011/08/just-war.cfm>).

⁵⁷ Above note 52, para. 80.

⁵⁸ Anderson, Kenneth. "Rise of the Drones: Unmanned Systems and the Future of War." Written Testimony Submitted to Subcommittee on National Security and Foreign Affairs, Committee on Oversight and Government Reform, US House of Representatives. Subcommittee Hearing, 2010, p. 3.; Kellenberger, Jakob; *International Humanitarian Law and New Weapon Technologies*, 34th Round Table on current issues of international humanitarian law, International Review of the Red Cross, San Remo, September 2011, p. 810 ff.

2. Does the Military use of Drones observe the standard of conduct introduced by the Principle of Precaution?

It is true that IHL places limits on the weapons States may use, and weapons that are prohibited (such as biological weapons).⁵⁹ However, like we stated before, a missile fired from a drone is no different from any other commonly used weapon, including a gun fired by a soldier or a helicopter or gunship that fires missiles or even a jet fighter that fires a laser guided missile. The difference lies on whether the plane has a pilot inside it or not.⁶⁰ A Drone, as we know, doesn't have any pilot inside it, but it works as a normal F-14. So the question here is not what a Drone does, but instead, how it does it. The critical legal question is: whether its specific use complies with IHL by respecting its core "values" such as the respect for distinction, proportionality, and precaution.

Obviously, any weapon system can deliberately be used in a manner violating humanitarian law. It is therefore important to distinguish the legality of a weapon system as such (law of weaponry) from the legality of the way it is being used in a particular operation (law of targeting). The present question of the legality of a weapon system as such turns on whether, in the normal operational circumstances for which it has been designed, that system is capable of being used in compliance with humanitarian law. This determination has either already been made in the framework of existing treaties prohibiting or regulating specific weapon systems, or it must be made based on the fundamental principles governing the lawfulness of weapons under humanitarian law.⁶¹

In recent years, due to the use of drones and other unmanned robots in combat scenarios, situations of extreme violence and suffering have increased exponentially, and States continue to invest significantly into increasing the operational autonomy of such systems. Although the legal principles resulting from these normative frameworks are universally recognized, their precise application and interpretation with regard to the use of armed drones and other robotic weapons gives rise to a number of controversies. Some of these controversies relate to the lawfulness of robotic weapons technology as such, whereas others relate to the circumstances and manner in which such technology is being used in current State practice and this question should be taken in account in the use of any kind of

⁵⁹ The general prohibition under IHL is against weapons that violate the PD or cause unnecessary suffering (Proportionality)

⁶⁰ Blank, Laurie R.; *After "Top Gun": How Drone Strikes Impact the Law of War*, University of Pennsylvania Journal of International Law, 2012, p. 9.

⁶¹ Above note 50, p. 27.

weapon. It is not enough that a deciding commander asks the questions predicted in Article 57 of API relating distinction, proportionality (and therefore necessarily evaluating necessity and military advantage) and precaution, but he has to provide the answers that in the eyes of the law allow him to proceed with the attack.

As said above, if we consider the fact that drones have outstanding surveillance capability and greater precision when compared to other weapons, in theory they can better prevent collateral damage and loss of life. There is no doubt that these machines possess a technology that allows its users to direct their attacks more precisely against military objectives and so reducing loss of civilian life and damage to civilian objects. However, when looking at the use of drones as weapons of attack and no longer just surveillance machines, the fact is that the precision, accuracy and legality of the strike will depend on the human intelligence upon which the targeting decision is based.⁶²

On the other hand the questions that we mentioned before absolutely have to be asked and answered if the attack is to be made in accordance with the law.⁶³ The norms that rule the attack are a mandatory standard of conduct which any military decision maker has to follow before giving the order to attack and not just a mere recommendation, under the assumption that any attack will obey these rules. Moreover, it is established that this rule is a norm of customary international law.

In practical terms this set of rules is divided in two levels. On one hand, the so called objective side of this principle, according to which some questions relating the attack have to be asked and answered, and on the other hand a more subjective side which means when analyzing proportionality, for example, the military decision maker ordering the attack must subjectively evaluate whether the expected collateral damage is excessive in relation to the anticipated military advantage to be gained. These subjective judgements must be made regarding whether all feasible precautions have indeed been taken.⁶⁴ The extent to which precautions in attack are “feasible” depends on factors such as the availability of intelligence on the target and its surroundings, the level of control exercised over the territory, the choice and sophistication of available weapons, the urgency of the attack and the security risks which additional precautionary measures may entail for the attacking forces or the civilian population.⁶⁵ When all feasible precautionary measures have been taken and doubt persists as

⁶² Above note 52, para. 81.

⁶³ National Military Manuals on the Law of Armed Conflicts, Forum for International Criminal and Humanitarian Law, International Peace Research Institute, Oslo, 2008, p. 142 ff.

⁶⁴ Nasu, Hitoshi; Mclaughlin, Robert; *New Technologies and the Law of Armed Conflict*, The Australian National University College of Law, Canberra, 2014, p. 223.

⁶⁵ “Feasible” precautions are defined as “those precautions which are practicable or practically possible taking into account all circumstances ruling at the time, including humanitarian and military

to the status or activities of the targeted persons or of bystanders, they must be presumed to be protected against direct attack.⁶⁶ If drone attacks are to have any chance of success, they must be planned and organized with pin-point accuracy and based on excellent intelligence. Compared to many types of more traditional military operations, targeted drone attacks have very little tolerance for improvisation, and even minor unexpected events may lead to failure, erroneous targeting or excessive incidental harm. Decisions to carry out a drone attack are not typically taken under the time pressure and personal stress of immediate combat operations, but targeted sites are often watched and analyzed for several days or weeks before being attacked. In many circumstances, the long loiter capacity of drone may significantly extend the period at the disposal of operators to verify targets, assess the likelihood of collateral harm and clarify other factors before taking the decision to attack. As a general rule, the context of targeted killing through drone-attacks allows - and therefore also requires - a particularly high level of precaution.⁶⁷ Nevertheless, the often difficult circumstances of armed conflict also require a degree of tolerance for errors made “within the limits of honest judgment on the basis of the conditions prevailing at the time”.¹⁰¹ In no case, however, does the law of hostilities permit the targeting of individuals based on the mere suspicion that they may qualify as a legitimate military target, such as appears to be the case with the current US policy of “signature strikes”. The distinctive criterion between “mere suspicion” and erroneous “honest judgment” is not only the degree of subjective conviction or doubt held by the responsible State agent, but also the objective reasonableness of that subjective conviction in view of the circumstances prevailing at the time.⁶⁸

The integration of this set of rules in the national military manuals is of the utmost importance in order to make this principle and its rules better known to the ones that have to apply and respect them in the end, the military staff. No matter the influence politics and politicians may have in the conduct and decisions that lead to wars and attacks, the ones that possess responsibility in the last instance, the ones that “pull the trigger”, are and will continue being

considerations”. Art. 3 (4) CCW Prot.II (1980); Art. 1(5) CCW Prot.III (1980); Art. 3(10) CCW Amended Prot.II (1996). See also ICRC, Customary Humanitarian Law, Vol. I, Rule 15, p. 54.

⁶⁶ Art. 50(1) Protocol I. ICRC, Interpretive Guidance DPH, Section VIII.2.

⁶⁷ In developing guidelines for the lawfulness for targeted killing against civilians directly participating in hostilities, the Israeli High Court of Justice formulated the requirement of precaution as follows: “(F)irst, well based information is needed before categorizing a civilian as falling into one of the discussed categories. Innocent civilians are not to be harmed (...). Information which has been most thoroughly verified is needed regarding the identity and activity of the civilian who is allegedly taking part in the hostilities (...). (...) The burden of proof on the attacking army is heavy (...). In the case of doubt, careful verification is needed before an attack is made” (Israeli High Court of Justice, The Public Committee Against Torture et al. v. The Government of Israel et al. (HCJ 769/02), Judgment of 13 December 2006, § 40).

⁶⁸ Above note 50, p. 23-24.

the soldiers. On the other hand, a military manual should demystify the set of IHL rules, as they are often too general to be used as a guide for practical behaviors in combat.

Furthermore, the abstract notions of a rule of IHL can be set aside in a military manual, by relating the international regulations to the practical situations in which the military finds itself and to the context and capacities of their units.

The manuals should not simply paraphrase the law, but give clear and practical instructions on how to respect the law by providing guidance in a realistic and practical way. The UK manual is a good example of what we mean by realistic and practical guidance, as it addresses existing policies and draws consequences from them. In the case of the precautions in attack, the manual has a veritable checklist for consultation during target selection by a commander in his efforts to comply with the “legal obligation to do everything feasible to verify that the proposed target is not protected from an attack”⁶⁹:

1. whether he can personally verify the target;
2. instructions from higher authority about objects which are not to be targeted;
3. intelligence reports, aerial or satellite reconnaissance pictures, and any other information in his possession about the nature of the proposed target;
4. any rules of engagement imposed by higher authority under which he is required to operate;
5. the risks to his own forces necessitated by target verification.

It has been noted that challenges to the responsible operation of such a system include the limited capacity of an operator to process a large volume of data, including contradictory data at a given time (“information overload”), and the supervision of more than one such system at a time, leading to questions about the operator’s ability to fully comply with the relevant rules of IHL in those circumstances. Armed drones pose a major threat to the general prohibition on the inter-state use of force and to respect for human rights. On the battlefield, in a situation of armed conflict, the use of armed drones may be able to satisfy the fundamental IHL rules of distinction and proportionality (although attributing international criminal responsibility for their unlawful use may prove a significant challenge). Away from the battlefield, the use of drone strikes will often amount the violation of fundamental human rights. Greater clarity

⁶⁹ *The joint service manual of the law of armed conflict* (UK Manual) *op. cit.*, §5.32.2, p. 82 (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/27874/JSP3832004Edition.pdf)

on the applicable legal regime along with restraints to prevent the further autonomization of drone technology is urgently needed.⁷⁰

For the time being, no currently operational drone can reliably distinguish between legitimate military targets and civilian persons and objects, take precautions to avoid erroneous targeting, or assess the proportionality of expected collateral civilian harm. In order to become fully autonomous robots, drones would have to be equipped with highly accurate and discriminative sensing and vision systems capable of reliably identifying intended targets based on very limited and often misleading information. Moreover, a fully autonomous drone-robot would need “situational awareness” (artificial intelligence) enabling it to evaluate an extremely complex set of unpredictable circumstances and, through independent reasoning, come to an appropriate conclusion in line with its mission goals, applicable law and underlying military and humanitarian values. As has been pointed out, such fully autonomous robotic systems belong to the realm of “hope ware” rather than software and, save for a technological quantum leap, are unlikely to become reality for several decades to come.⁷¹ Even intermediate human-supervised systems, in which autonomous targeting decisions taken by drones can be overridden by a human controller (“man on the loop”), can be problematic in practice. First, the technological challenges to autonomous target identification and selection are essentially the same and, second, such systems generally require the human controller to decide within a few seconds or less on the appropriateness of an extremely complex robotic targeting decision without being able to sufficiently review, process and understand the underlying data. In any case, for the foreseeable future, the lawful application of military force through armed drones will always require the direct involvement of a human controller.⁷²

Technological means to reduce civilian loss of life exist and are being used by a growing number of States. But are the rules of distinction, proportionality, necessity and precaution being observed? The question of the increasing asymmetry in the wars being fought also plays a key role in the growing number of civilian casualties. As more and more States possess and use drone technology, and on the other side, non-State actors do not have such weapon systems, the strategy, of the weaker armed parties has to change as they can no longer “hit” the forces of the other side who are increasingly being removed from the field of battle. The strategy being adopted by the weaker belligerent is the one we can see nowadays in the

⁷⁰ Maslen, S. Casey; *Pandora's box? Drone strikes under jus ad bellum, jus in bello, and international human rights law*, International review of the Red Cross, 2012, p.597.

⁷¹ Sharkey, *The Automation and Proliferation of Military Drones and the Protection of Civilians*, p. 235 ff.

⁷² US Department of Defense, “Unmanned Systems Integrated Roadmap FY2011-2036”, p. 17

media. They bring the fights to urban areas, avoiding direct confrontation in open spaces, and targeting civilians, as they are the most accessible targets.

Conclusions

It is the general opinion, with which we agree, that modern warfare, such as precision-guided attacks are a step forward in avoiding the harm to civilian population and objects. Although the progress in law is typically slower than the advances in weaponry technology, efforts should be made to act within the limits of the law by applying its principles to the reality of current means and methods of combat. This is a positive trend, as long as those interpretations do not ignore the realities of military necessity.

However, in order for IHL to be respected by those who are affected by it, it's important that, exaggerated expectations are not created allowing unreasonable demands on the armed forces. Insofar a balance between humanitarian causes and military necessity has to continue being seen as an International Law concern.

Furthermore IHL has to be sensible to the fact that precision weaponry is not the same for the parties participating in armed conflicts, and as a result of this fact, the weaker equipped belligerent may try to compensate his disadvantages with methods (brutal ones in some cases) that violate the pillars of IHL. The law doesn't force the parties to acquire the latest technology, but does instead demand that the parties with access to technology that allows the attack to be more precise in order to spare innocent people lives, uses the available technology. On the other hand parties that do not have access to that kind of technologically advanced weaponry might try to get an exemption based on their limited power.⁷³

Without any doubt, from a technological point of view, attacks by human controlled drones ("man in the loop") can be directed at specific military objectives and, in principle, the effects of such attacks on the target and the civilian population can be limited as required by humanitarian law. Therefore, currently operational armed drones do not, as such, constitute an indiscriminate mean of warfare prohibited under humanitarian law.⁷⁴ Civilians and civilian objects that are attacked by armed drones, or when there is an attack resulting in excessive collateral damage towards civilians, this violation is not caused by technology malfunction or inability of drones to be used in respect for the law, instead due to military staff or drone operators that did not comply with the rules of distinction, proportionality and precaution. So it is a disrespect of law of targeting and not of the law that regulates weaponry.⁷⁵

⁷³ Above note 53, p. 453 ff.

⁷⁴ Alston, Philip; *The CIA and Targeted Killings Beyond Borders*, New York University School of Law September 2011, p. 324 (http://harvardnsj.org/wp-content/uploads/2011/02/Vol.-2_Alston1.pdf)

⁷⁵ Boothby, William H.; *The Law of Targeting*; Oxford University Press, 2012, p. 281

In the case of fully autonomous armed drones (human-out-of-the-loop”) in which the machines themselves have decisive power without intervention of operators, the conclusion is different.

Currently no war robot has the technology allowing it to distinguish between military targets and innocent civilians, taking the needed precautions in order not to attack wrong targets, and especially the capacity of calculating the proportionality of the military advantage versus expected collateral damage. Even in a situation where the battlefield is for example the sea or desert, where there are no civilians, the war robot is not capable of distinguishing medical staff and prisoners of war, both protected by law, from other lawful targetable military personnel.

So a fully autonomous drone, under their current technological capabilities is unable to comply with the law of targeting and would therefore be an indiscriminate weapon, forbidden under IHL.

It is known that weaponry industry will never stop developing and the law governing its use must “tag along” with these developments and at some point create human, ethical and moral barriers. Other ways, with the predictable technological advance in the industry of war, if limits are not raised, we face the risk of going backwards in the path of evolution (de-evolution), to the point where battles were fought with no rules to limit them⁷⁶ where the shed of blood was seen as nothing but a normal consequence, and where there was no place for humanity, dignity and value for human life. Therefore, the rules applying to armed conflict will or should be developed based of course on the same principles applying today, at some point, as the way wars are being fought will never be the same and the means and methods of combat will never stop developing.

But we suppose this development will not be enough to humanize armed conflicts. Rules without consequences, for the ones breaking it remain but a *dead letter* – a simple theoretical exercise. The rules have to be respected, and so, the biggest challenge that IHL faces at this point and in coming time, is the implementation of these rules. And that is why individual responsibility plays such an important role.

We don't question the fact that it is important to act on a diplomatic level. But now more than ever, the respect for the rules of war depend on the actions of each individual with a role in the conflict, from those in the top of the chain of command, to the ones fighting on the battlefield.

As is known, the Geneva Conventions require the States to prosecute offenders, no matter their nationality or the place where they committed the offences. These rules have to

⁷⁶ Such as the one whose result Henry Dunant describes in his “A Memory of Solferino”

be followed and put in practice so that in the future there will be no place where war criminals can hide from the *hand of justice*. The instrument of individual responsibility plays a significant role in the education of respect for human life by those enrolling in an armed conflict.

As a matter of curiosity, rules of distinction, precaution and proportionality do not establish a theoretical separation of the precautions that have to be respected by the parties to a conflict. Both the attacking and the defending party have to respect and protect as best as possible human life and civilian objects. The existing separation is just a practical one which ultimately leads to a common end, the protection of those not participating or no longer participating in the combat.

Following this line of thought, and knowing that the defender also has its share and responsibility in the application of the above mentioned rules, namely in evacuating civilian population from the vicinity of possible military targets, we arrive to the conclusion that the responsibility for application of the precautionary rules at war rest on the shoulders of all those participating in the conflict and consequently, it seems obvious that neither the attacker, nor the defender may exempt themselves of the responsibility to protect, by stating that its opposition did not respect these rules of IHL. This means that the respect of these obligations by one of the belligerents does not depend on the conduct of the other party of the conflict.⁷⁷

We face a shared responsibility, from which the parties cannot free themselves by the mere disrespect towards these rules from the other side. In practical terms, what this means is that if the defender fails to evacuate the civilians from the vicinity of a military objective, the attacker will still have to consider in the pre attacking judgment and application of the rules of proportionality and take the necessary precautions.⁷⁸ However the defender will fall under the

⁷⁷ According to the 1976 US Air Force Pamphlet (pp. 5–8), “The requirement to distinguish between combatants and civilians, and between military objectives and civilian objects, imposes obligations on all the parties to the conflict to establish and maintain the distinctions. This is true whatever the legal status of the territory on or over which combatant activity occurs.” There is a different opinion to this statement with which we do not agree. See Marco Sassoli, “Targeting: The scope and utility of the concept of military objectives for the protection of civilians in contemporary armed conflicts”, in David Wippman and Matthew Evangelista (eds.), *New Wars, New Laws? Applying the Laws of War in 21st-Century Conflicts*, Transnational Publishers, Ardsley, New York, 2005, who states, “Customary law and treaties clearly do not impose obligations on the defender comparable to those of a belligerent launching an attack. The defender may simply not abuse the obligations of the attacker to render its military objectives immune from attack”, p. 209.

⁷⁸ Having remarked that modern technological societies have made it much more difficult to apply the measures required by Article 58 of Additional Protocol I, the Committee appointed by the ICTY Prosecutor to determine whether an inquiry should be made into the NATO bombing campaign against the Federal Republic of Yugoslavia (1999) stated, “Civilians present within or near military objectives must, however, be taken into account in the proportionality equation even if a party to the conflict has failed to exercise its obligation to remove them.”

scope of international responsibility, assuming of course the attack was directed at a legitimate military objective.⁷⁹

In order to bring to an end our considerations relating the use of fully autonomous war robots, we do not think that these machines can operate according to the rules of IHL and even Human Rights Law. Apart from the fact that a machine is not capable of having the human subjectivity to analyze, case-by-case, if an attack is in accordance with the rules of proportionality, precaution and distinction, as it lacks the human nature needed to consider such legal, moral and ethical considerations. And we do not believe that some form of extraordinarily developed artificial intelligence (is not wrong to say at a human level) will be achieved in a foreseeable future.

Furthermore, another question arises. In case of a breach of the rules of armed conflict who will be facing individual responsibility? Moreover, if the responsibility cannot be determined in accordance to the rules of IHL and Human Rights Law, won't it be a breach in the law, human dignity and ethics to use such technologies? And is it acceptable, from a moral point of view to delegate the power of taking lives to any kind of machine?

In our opinion, the use of this kind of technology cannot possibly happen in respect of the law. A machine lacks human reasoning, ethical and moral principles as well as the notion of dignity, in order to be able to fully respect the rules of law in armed conflicts.

⁷⁹ “A party to a conflict which places its own citizens in positions of danger by failing to carry out the separation of military activities from civilian activities necessarily accepts, under international law, the results of otherwise lawful attacks upon valid military objectives in the territory”, US Air Force Pamphlet, 1976, p. 5–13.

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