

“Incendiary Weapons: Limitations and Prohibitions under the Additional Protocols, the UN Weapons Convention and Customary Law”

by Zachos A. Paliouras^{*}

Abstract: The study endeavors to provide an overview of the state of international humanitarian law (IHL) constraining the use of incendiary weapons in the context of international and non-international armed conflicts. This effort takes place with reference to three particular normative levels; the applicable “Hague” law is sought in the relevant provisions of the first two Additional Protocols to the Geneva Conventions as well as of the UNCCW, while extensive analysis is made with respect to the pertinent rules of customary international humanitarian law. In this context, the study at hand aspires to scrutinise the limitations imposed to the employment of incendiaries by revisiting the principles of distinction and of unnecessary suffering or superfluous injury while illustrating how they apply with respect to incendiaries. Moreover, the provisions of the third Protocol UNCCW which impose further constraints on incendiaries are also analysed and the extent to which they reflect customary law is discussed.

^{*} Zachos Paliouras holds an LL.B. from the School of Law, National and Kapodistrian University of Athens and an LL.M. (adv.) from the School of Law of the University of Leiden.

SYNOPSIS

I.Introductory remarks

II.Origins of incendiaries

III.Definitional approaches to incendiary weapons

IV.The principle of unnecessary suffering or superfluous injury

V.The principle of distinction

VI.The principles as applied to incendiaries

VII.....Protocol III UNCCW

VIII.....Concluding remarks

I. Introductory remarks

*“there is no branch of law in which complete clarity is more essential than in that of the laws of war, for in this field allegations of violations of the law are particularly difficult to settle by means of juridical and peaceful procedures”*¹

This paper endeavors to provide an accurate overview of the state of international humanitarian law (IHL) constraining the use of incendiary weapons in the context of international and non-international armed conflicts. To this end, a definition of incendiaries will be attempted first, while an indicative reference to the most commonly used weapons that qualify as incendiary shall be provided. Indeed, however technical this process may be deemed, it is nevertheless essential since unavoidably any weapons law assessment is incomplete should it lack concrete references to the objects whose utilization is thereby regulated.

It has been established that the juridical architecture of the so-called “Hague law” knows five particular normative structures purporting to limit the freedom of belligerents to make unrestrained use of their weaponry.² Arguably, the most effective, and thus the rarest to be found, regulatory modes available are those promulgated by disarmament instruments. These agreements provide for the prohibition of a particular weapon *per se* outlawing not only its use but its possession, stockpiling and ultimately its production as well.³ Another category of instruments constraining the means of warfare available in States’ inventories encompasses treaties that prohibit the use of a particular category or class of weapons and can be further divided into two subcategories; the first stipulates an obligation of no first use and the second an absolute duty to refrain from use even in case the adversary has breached its own obligation in this respect. Furthermore, a third type of weapons control instruments includes agreements which impose limitations on the use of means of warfare without, however, prohibiting them in all circumstances. Lastly, the employment of all weapons in both international and non-international armed conflicts is subject to certain constraints stemming from three principles of conventional and customary international humanitarian law and more specifically

¹ M. Huber, *Quelques considérations sur une révision éventuelle des Conventions de La Haye relatives à la guerre*, International Review of the Red Cross (IRRC), 439(1955), at 430.

² For a detailed analysis of these regulatory modes see F. Kalshoven, *Reflections on the Law of War. Collected Essays*, Martinus Nijhoff Publishers, 2007, at 348.

³ The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (CWC), 1974 UNTS 317, ILM 800(1993) is the most successful paradigm in that regard.

from the principle of superfluous injury or unnecessary suffering, the principle of distinction as well as from the prohibition of treacherous combat.⁴ This paper will discuss extensively the application of the first two of them as being most relevant to the employment of incendiary weapons.

As regards incendiaries, Protocol III⁵ annexed to the United Nations Convention on Certain Conventional Weapons (UNCCW)⁶ is currently the only instrument providing for constraints with specific reference to the use of this category of weapons.⁷ Therefore, incendiary weapons are only subject to the limitations stipulated by UNCCW and to those promulgated with respect to all weapons by the aforementioned customary principles of international humanitarian law. Accordingly, in the forthcoming pages an assessment of these constraints will be attempted in the context of both conventional and customary law. This paper, however, due to the lack of adequate space, will not attempt to evaluate the lawfulness of the controversial latest instances where incendiary weapons were used such as the employment of White Phosphorus (WP) munitions in Gaza by Israel and in Iraq by the United States in 2009 and in 2004 respectively. Finally, a *de lege ferenda* assessment of the international humanitarian law applicable to incendiaries will take place as a conclusion.

II. Origins of incendiary weapons

Fire has been undetachably linked to warfare since time immemorial. The Old Testament narrates ancient employments of scorched land warfare while Sun Tzu Wu in his *Art of War* refers to techniques of incendiary missile combat. Besides, Thucydides has described in detail how the Spartans used the first known flamethrower against the Athenians in 429 BC during the Peloponnesian war.⁸

⁴ See, *inter alia*, C. Greenwood, *Battlefield laser weapons in the context of the law on conventional weapons* in L. Doswald Beck, ed., *Blinding weapons*, ICRC, 1993, at 72.

⁵ Protocol on Prohibitions or Restrictions on the Use of Incendiary Weapons, Concluded at Geneva on October 10, 1980, entered into force on December 2, 1983, 1342 UNTS 171, ILM 1534(1980).

⁶ United Nations Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects, Concluded at Geneva on October 10, 1980, entered into force on December 2, 1983, 1342 UNTS 137, ILM 1523(1980).

⁷ See, *inter alia*, F. Kalshoven, *Constraints on the waging of war*, ICRC, 2001, at 163.

⁸ Specifically during the siege of Plataea. For a detailed analysis on the origins of incendiary warfare see Stockholm International Peace Research Institute (SIPRI), *Incendiary Weapons*, The MIT Press, 1975, at 15-18.

During the European Middle Ages, the Byzantine inventory's most effective weapon had been the Greek fire (ὕγρον πῦρ) or Roman fire or liquid fire, an inflammable substance the chemical composition of which still remains unknown.⁹ Indeed, historians have concluded that the chemicals used for the production of the Greek fire were known only to the Emperor and few of his officials. It is, however, uncontroversial that the Greek fire was invented in the seventh century by Kallinikos, a Greek engineer who put the weapon available to the army of Emperor Constantine IV in order to use it against the Arab fleet which unsuccessfully sieged Constantinople in 678 AD.¹⁰ The weapon had been typically employed in naval warfare sprayed from siphons installed on appropriately designed fireships. Once the liquid was discharged to the sea, it ignited, presumably by the water it self and thereby set fire to the adversary's ships.¹¹ Of course, not only the Greek fire but other incendiaries as well were widely utilized as weapons during the Middle Ages. However, even an attempt to enumerate just some of them would be superfluous for the purposes of this paper.

It has been accurately submitted that in the course of military history, incendiary weapons have been developing on two axes. Engineers have been endeavoring to design incendiary weapons so as to maximize the heat energy emitted by incendiary agents while at the same time to prolong the time of their combustion in order to achieve optimum antimaterial and antipersonnel effects.¹² Indeed, the technological advances of incendiary weapons technology was devastatingly illustrated during the two World Wars.

More specifically, during the Great War both sides resorted extensively to the use of WP-based incendiary hand grenades, artillery and mortar shells.¹³ Moreover, the flamethrower was for the first time extensively used on the battlefield by the German infantry while aerial bombardments with incendiary bombs resulted to great loss of civilian life.¹⁴ Even more destructive was the use of incendiaries during World War II. In particular, target area bombing strategies relied heavily on the use of bombs containing metal, non-metal or oil-based incendiary agents such as magnesium, WP and various classes of thickened oils respectively. In the most lethal instances of

⁹ For a concise analysis on Greek fire see A. Roland, *Secrecy, Technology and War: Greek Fire and the Defense of Byzantium, 678-1204*, Technology and Culture, 33(1992), at 655 *et seq.*

¹⁰ *Id.*, at 657.

¹¹ *Id.*, at 658.

¹² See SIPRI, *supra* note 8, at 87.

¹³ *Id.*, at 22.

¹⁴ See W. Hays Parks, *The Protocol on Incendiary Weapons*, IRRC, 279(1990), at 535.

carpet bombing, bombers delivered indiscriminately a combination of high explosive and incendiary bombs based on magnesium, WP and napalm agents. The untold suffering of the civilian populations particularly in Hamburg, Dresden and Tokyo, where firestorms devastated life in an unprecedented extent, highlights tragically the indiscriminate effects of the aerial delivery of incendiaries. With respect to land warfare, the use of incendiary munitions of all available kinds by the belligerents was widespread while the use of portable and mechanized flamethrowers was extensive in virtually all theaters of the war.¹⁵

Further progress in military technology made incendiary weapons available in the inventories of most States and their employment has been a common feature of both international and non-international armed conflicts since 1945. Indeed, napalm bombs benefited the United States in Korea and in Vietnam while the antimaterial and antipersonnel utilities of air delivered incendiaries were further demonstrated during the most recent armed conflicts. More concretely, White Phosphorus munitions were utilized by the United States in Iraq for the purposes of the operation *Desert Storm* in 1991 as well as in the context of the operation *Iraqi Freedom* in 2004.¹⁶ Further, incendiary cluster munitions were employed by NATO during the operation *Allied Force* in 1999,¹⁷ while recently the Israeli Defense Forces admitted that they used WP artillery shells during the operation *Cast Lead* in 2008 and 2009.¹⁸ Definitely, these are just some of the occasions of large scale employment of incendiary weapons after the Second World War. In any case, the aforementioned instances highlight the ever increasing tendency of States to resort to incendiaries for antimaterial as well as for antipersonnel purposes. Unsurprisingly, humanitarian awareness in this respect has risen considerably during the last decades. In particular, the devastating effects of incendiaries to persons and to the environment as illustrated during the Vietnam war invigorated the legal debate on these weapons.

III. Definitional approaches to incendiary weapons

The preceding paragraphs summarized some of the uses made to weapons primarily designed to have incendiary effects. However, any assessment of incendiaries under

¹⁵ For a thorough summary of the use of incendiaries during WWII, see SIPRI, *supra* note 8, at 30 *et seq.*

¹⁶ See R. Reyhani, *The legality of the use of white phosphorus by the United States military during the 2004 Fallujah assaults*, *Journal of Law and Social Change*, (JLSC), 10(2007), at 1 *et seq.*

¹⁷ See H. Krieger, *The Kosovo conflict and international law: Documentation 1974-1999*, Cambridge University Press, 2001, at xliii.

¹⁸ See Human Rights Watch, *Rain of fire: Israel's unlawful use of white phosphorus in Gaza*, 2009.

international humanitarian law would be incomplete without a legal definition of this class of weaponry. To this end, one should first be aware of certain fundamental technical characteristics of the incendiary weapons currently available. In that regard, it has been submitted that there are four types of incendiaries.¹⁹ The first type includes the so-called thermite or thermate (TH) weapons whose incendiary agents are based on mixtures of powdered ferric oxides, of granular aluminum, of barium nitrate or of triethylaluminium. The primary use of those incendiaries has been anti material.²⁰ The second type concerns weapons that are similar to thermites and contain magnesium agents (MG) while the third encompasses weapons with incendiary agents based on combustible hydrocarbons, including the various classes of oils and thickened gasoline, such as napalm. Thickened oil incendiaries are more effective against “soft” targets.²¹ The last type includes weapons designed to deliver WP.

As regards the legal definition of incendiaries, the first approach was made in 1971 by the United Nations Secretary General who submitted that incendiary weapons are those weapons containing “*substances which affect their target primarily through the action of flame and/or heat derived from self-supporting and/or self-propagating exothermic chemical reactions*”.²² However, the only conventional definition of incendiary weapons is provided by Article 1(1) of Protocol III UNCCW which stipulates that “*Incendiary weapon means any weapon or munition which is primarily designed to set fire to objects or to cause burn injury to persons through the action of flame, heat, or a combination thereof, produced by a chemical reaction of a substance delivered on the target*”. It is of particular interest to note that the draftsmen of the Protocol almost reiterated the definition given to incendiaries in 1974 by the ICRC Lucerne Conference of Government Experts on the Use of Certain Conventional Weapons.²³ Moreover, subparagraph a of the aforementioned provision contains a non-exhaustive²⁴ enumeration of possible forms that incendiary weapons can take such as flamethrowers, fougasses, shells, rockets, grenades, mines and

¹⁹ See United States Departments of the Army, the Navy, the Air Force and Commandant Marine Corps, Field Manual No. 8-285 of December 22, 1995, at Chapter 9. For a detailed categorization of incendiary agents see *Report on the work of experts on Weapons that may Cause Unnecessary Suffering or have Indiscriminate Effects*, ICRC, 1973, at 55-57.

²⁰ See W. Hays Parks, *supra* note 14, at 544-545.

²¹ *Id.*

²² See Report of the UN Secretary General, *Napalm and other Incendiary Weapons and all Aspects of their Possible Use*, 1973, UN Doc. A/8803/Rev. 1, at 30.

²³ See F. Kalshoven, *supra* note 2, at 388.

²⁴ See W.H. Boothby, *Weapons and the law of armed conflict*, Oxford University Press, 2009, at 201.

bombs. It is apparent that the inclusion of the phrase *primarily designed* in the definition mentioned above, rules out the qualification as incendiary of any weapon designed to deliver incendiary agents the primary purpose of which is not to set fire to objects or to cause burn injuries. In other words, the infliction of the aforementioned effects must be the prime military utility of any weapon which is to fall within the scope of the Protocol.²⁵ Accordingly, Art. 1(1)(b) provides that “*Incendiary weapons do not include: (i) Munitions which may have incidental incendiary effects, such as illuminants, tracers, smoke or signaling systems; (ii) Munitions designed to combine penetration, blast or fragmentation effects with an additional incendiary effect, such as armour-piercing projectiles, fragmentation shells, explosive bombs and similar combined-effects munitions in which the incendiary effect is not specifically designed to cause burn injury to persons, but to be used against military objectives, such as armoured vehicles, aircraft and installations or facilities*”. Arguably, subparagraph b(i) concerning the first category of weapons excluded *expressis verbis* from the scope of the Protocol, can be easily construed since it encompasses munitions the incendiary effects of which are incidental and thus not their prime designed utility. In this respect, subparagraphs a and b(i) are mutually exclusive and thus the latter is admittedly redundant. Subparagraph b(ii), however, calls for a more demanding interpretation. Indeed, the category of weapons envisaged therein is pertinent to combined-effects munitions (CEM)²⁶ designed to have as their primary purpose both to *set fire to objects* and to cause *penetration, blast or fragmentation effects*.²⁷ Insofar as certain CEM have incendiary antimaterial effects as one of their primary design features, they fall within paragraph 1 and therefore the Protocol would be thereby applicable in the absence of subparagraph b(ii) which in this respect narrows the scope of application of the instrument. Therefore, the use of armour-piercing projectiles of pyrophoric nature such as depleted uranium munitions is not governed by the Protocol.²⁸

However essential the aforementioned definition may be in terms of legal certainty, it must be borne in mind that it is operable only within the *ratione materiae* scope of

²⁵ *Id.*

²⁶ See W. Hays Parks, *supra* note 14, at 545.

²⁷ See O.T. Gibbons, *Uses and effects of depleted uranium munitions: Towards a moratorium on use*, Yearbook of International Humanitarian Law, (YIHL), 7(2004), at 225-226.

²⁸ *Id.*

Protocol III UNCCW and binds only States Parties thereto.²⁹ Therefore, an inquiry into the current state of customary international humanitarian law is crucial in order to ascertain whether a definition of incendiary weapons is provided outside the frame of conventional law. In this respect, the ICRC study on international humanitarian law has dedicated to incendiary weapons Rules 84 and 85 which are, however, silent as to the definition of this particular class of weaponry.³⁰ Given the fact that the promulgated purpose of this authoritative statement of customary IHL is to capture the full spectrum of the rules that have acquired the status of customary international law³¹ it would be erroneous to assume that a rule on the definition of incendiaries has been accidentally omitted by the authors of the ICRC study.

In any case, a detailed assessment of whether or not there is a customary definition of incendiary weapons based on the well-established methodology of detecting State practice and *opinio juris* would be superfluous for the purposes of this paper. It suffices to observe, however, that the definition provided by Art. 1(1) Protocol III and in particular the “primary purpose” element promulgated therein is obviously aligned to definitional approaches submitted as early as 1971.³² Therefore, it appears that little doubt should remain as to the customary nature of that “basic” definition. Arguably, this is not necessarily the case with subparagraph b(ii) since the exclusion of incendiary CEMs from the notion of incendiaries is a *novum* introduced by the Protocol.

IV. The principle of unnecessary suffering or superfluous injury

It has been authoritatively submitted that the prohibition of using weapons of a nature to cause unnecessary suffering or superfluous injury is one of the cardinal principles

²⁹ Article 34 of the Vienna Convention on the Law of Treaties, done at Vienna on May 23, 1969, entered into force on January 27, 1980, 1135 UNTS 331, ILM 679(1969), stipulates that “[a] treaty does not create either obligations or rights for a third State without its consent”. Currently, 113 States are Parties to Protocol III UNCCW (see <http://www.unog.ch/_80256ee600585943.nsf/%28httpPages%29/3ce7cfc0aa4a7548c12571c00039cb0c?OpenDocument&ExpandSection=1#_Section1>, last accessed May 15, 2011).

³⁰ See J.M. Henckaerts, L. Doswald-Beck, eds., *Customary International Humanitarian Law*, Vol. 1, Rules, Cambridge University Press, ICRC, 2005, Rules 84-85.

³¹ See M. Bothe, *Customary international humanitarian law: Some reflections on the ICRC study*, YIHL, 8 (2005), at 144.

³² See *supra*, at 5.

of international humanitarian law.³³ The unnecessary suffering or superfluous injury principle has been admittedly formulated as an elaboration of a fundamental rule of international humanitarian law according to which the belligerents have a limited right to choose means and methods of warfare.³⁴ Arguably, the precise normative content of that principle is indeed of corollary importance for the legal assessment of any particular category of weaponry and it is still the subject of much controversy since several interpretative approaches have been supported and each every one of them leads inevitably to different conclusions as to the legality of certain weapons.³⁵ The following paragraphs will hopefully shed some light to the application of the principle to incendiary weapons.

The principle was formally appeared for the first time³⁶ in the Preamble of the 1868 St. Petersburg Declaration Renouncing the Use, in Time of War, of Explosive Projectiles Under 400 Grammes Weight, the second and the fourth preambular paragraphs of which promulgated that the weakening of the military forces of the enemy, which is “*the only legitimate object which States should endeavour to accomplish during war [...] would be exceeded by the employment of arms which uselessly aggravate the sufferings of disabled men, or render their death inevitable;*”. The principle was further elaborated by the draftsmen of the 1874 Brussels Project of an International Declaration concerning the Laws and Customs of War, whose Article 13(e) prohibited “*L'emploi d'armes, de projectiles ou de matières propres à causer des maux superflus, ainsi que l'usage des projectiles prohibés par la déclaration de St-Petersbourg de 1868*” which was translated into English as a prohibition of “*the employment of arms, projectiles or material calculated to cause unnecessary suffering, as well as the use of projectiles prohibited by the Declaration of St. Petersburg of 1868*”. Notably, the unfortunate English translation of the term “*maux superflus*” only into the term *unnecessary suffering* failed to convey the full breadth of the meaning of the French phrase which includes both physical injury and moral suffering,³⁷ whereas the English term *suffering* may with difficulty capture physical

³³ See *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, ICJ Reports 1996, para. 78.

³⁴ See M. Sassòli, A.A. Bouvier, A. Quintin, *How does Law Protect in War?*, Vol. I, Outline of International Humanitarian Law, ICRC, Third Edition, Chapter 9, at 33.

³⁵ *Id.*

³⁶ See F. Kalshoven, *supra* note 7, at 41.

³⁷ See Report on the work of experts on Weapons that may Cause Unnecessary Suffering or have Indiscriminate Effects, *supra* note 19, at 12.

damages.³⁸ Conversely, the same term was translated into just *superfluous injury* in the 1899 and 1907 Hague Regulations,³⁹ a term which cannot convey moral suffering.⁴⁰ Regrettably, the erroneous English translations of the term “*maux superflus*” survived for a little more than a century giving thus rise to misinterpretations which are still detrimental to the protective scope of the principle.⁴¹ Ultimately, the adoption of the English version of Additional Protocol I in 1977⁴² resolved this interpretive misunderstanding by translating the term “*maux superflus*” into *unnecessary suffering or superfluous injury*.⁴³

In 1899, the principle of unnecessary suffering or superfluous injury acquired for the first time⁴⁴ conventional normative value since Article 23(e) of the Hague Convention (II) with Respect to the Laws and Customs of War on Land and its annex: Regulations Concerning the Laws and Customs of War on Land outlawed the employment “*des armes, des projectiles ou des matières propres à causer des maux superflus*;”. According to the English translation of the authentic text, the prohibition concerned the employment of “*arms, projectiles, or material of a nature to cause superfluous injury*”. The exact same wording of the principle was further reiterated in Article 23 (e) of the 1907 Hague Convention (IV) with Respect to the Laws and Customs of War on Land and its annex: Regulations Concerning the Laws and Customs of War on Land. With respect to the aforementioned provisions, one should first notice that whereas the authentic French text of the 1874 Brussels Project is identical to that used by both the 1899 and the 1907 Hague Regulations, the English translation of the former is different to that of the two latter instruments. In particular, with respect to arms, projectiles or material, the French texts employ the phrase “*propres à causer*” unnecessary suffering or superfluous injury while the English translations of the aforementioned instruments use the phrases *calculated to cause*

³⁸ For a concise analysis in this respect see, *inter alia*, H. Meyrowitz, *The principle of unnecessary suffering or superfluous injury: From the Declaration of St. Petersburg of 1868 to Additional Protocol 1 of 1977*, IRRC, 299(1994), at 104.

³⁹ See *infra*.

⁴⁰ See H. Meyrowitz, *supra* note 38, at 104.

⁴¹ *Id.*

⁴² Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), adopted on June 8, 1977 at Geneva, entered into force on December 7, 1978, 1125 UNTS 3, ILM 1391(1977).

⁴³ See P. Eberlin, H.P. Gasser, C.F. Wenger in Y. Sandoz, C. Swinarski, B. Zimmermann, ed., *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949*, Martinus Nijhoff Publishers, 1987, at 407.

⁴⁴ See F. Kalshoven, *supra* note 7, at 41.

and *of a nature to cause* interchangeably. It has been submitted that only the former English phrase conveys the meaning of the phrase “*propres à causer*” and that an adoption of the latter would fly in the face of the normative context of the rule, since the use of the phrase *calculated to cause* demonstrates clearly that the principle should be applied statically.⁴⁵ However, given the fact that the principle has been incorporated in Additional Protocol I as well as in UNCCW with the phrasing *of a nature to cause* renders this discussion rather superfluous.⁴⁶

In 1977, the principle was once more conventionally reaffirmed by Article 35(2) API which stipulates that “*it is prohibited to employ weapons, projectiles and material and methods of warfare of a nature to cause superfluous injury or unnecessary suffering*”. Furthermore, the exact same wording was adopted by the draftsmen of the third preambular paragraph of UNCCW.

In the context of an interpretative approach to the rule, it has been argued that the principle does not prohibit *per se* the use of any weapon whatsoever and to that effect specific agreements are required.⁴⁷ However, this assertion flagrantly misconstrues the normative nature of the general principles of Hague law whose very function is to operate as an absolute regulatory *minimum* to the employment of all weapons and *a fortiori* of those whose use is not governed by any *lex specialis régime*.⁴⁸ Moreover, there is no doubt that the lawfulness of the use of any particular piece of weaponry should be assessed with reference to whether or not its employment causes unnecessary suffering or superfluous injury. Taking into account, however, that the nature of any weapon is by definition such as to cause both suffering and injury, it is essential to identify the comparator which operates as a yardstick in determining what amount and quality of suffering and injury is in any given case necessary and needed.⁴⁹ In this respect, the various formulations of the principle have been silent. Professor Meyrowitz has suggested that this comparator can be elucidated in the light of the second and third preambular paragraphs of the 1868 St. Petersburg Declaration which promulgate that “*the only legitimate object which States should endeavour to accomplish during war is to weaken the military forces of the enemy*” and that “*for*

⁴⁵ See W.H. Boothby, *supra* note 24, at . See also *infra* at 13-14.

⁴⁶ See Commentary on the Additional Protocols, *supra* note 43, at 406.

⁴⁷ The submissions of France and Russia in the nuclear weapons advisory opinion are elucidating in this respect. The Court, however, seems to have asserted otherwise since it stated that “the pattern *until now* has been for weapons of mass destruction to be declared illegal by specific instruments” (emphasis added). See *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, *supra* note 33, paras. 136-171 and 57 respectively.

⁴⁸ See M. Sassòli, A.A. Bouvier, A. Quintin, *supra* note 34, at 33-34.

⁴⁹ See H. Meyrowitz, *supra* note 38, at 106.

this purpose it is sufficient to disable the greatest possible number of men".⁵⁰ Indeed, the aforementioned reasoning has been incorporated in the modern notion of military necessity which is ultimately the implied comparator in the principle of unnecessary suffering or superfluous injury.⁵¹ Hence, it has been accurately submitted that "*it is prohibited to use any means or methods which exceed what is necessary for rendering the enemy hors de combat*".⁵² Of course, the objective of rendering the enemy "*hors de combat*" is not limited to disable the adversary's infantry but it rather encompasses the launch of various types of attacks against a wide spectrum of military objectives.⁵³

Another question that the wording of the principle of unnecessary suffering or superfluous injury leaves unanswered is whether the adjectives *unnecessary* and *superfluous* should be construed on the basis of quantitative or/and qualitative criteria. In other words, it should be clarified whether the decisive factor in this respect is the number of victims caused by the employment of a particular weapon or rather the severeness of the injuries and the degree of suffering of each particular of these victims.⁵⁴ In this respect, it has been argued that even though both criteria are encompassed under the notion of "*maux superflus*", the qualitative criterion is necessarily predominant since its assessment in legal terms presupposes qualitative evaluations.⁵⁵

Lastly, and notwithstanding the importance of the aforementioned observations, it should be stressed that the main point of controversy with respect to the interpretation of the principle of unnecessary suffering or superfluous injury arguably concerns the question of whether it operates statically or variably. More concretely, the principle is silent as to whether it constraints the employment of certain weapons *in abstracto*, on the basis of generic assertions of suffering, injury and military advantage, regardless of its concrete use in each particular instance and thus regardless of *in*

⁵⁰ *Id.*

⁵¹ See Commentary on the Additional Protocols, *supra* note 43, at 408. See also M. Aubert, *The International Committee of the Red Cross and the Problem of Excessively Injurious or Indiscriminate Weapons*, IRRC, 279 (1990), at 477.

⁵² See Commentary on the Additional Protocols, *supra* note 43, at 400.

⁵³ See C. Greenwood, *The law of war (international humanitarian law)* in M. Evans, ed., *International Law*, Oxford University Press, 2006, at 796.

⁵⁴ See D. Turns, *Weapons in the ICRC Study on Customary International Humanitarian Law*, *Journal of Conflict and Security Law (JCSL)*, 11(2006), at 212-213.

⁵⁵ See H. Meyrowitz, *supra* note 38, at 112.

concreto assertions to that effect.⁵⁶ The case could well be that the principle operates in the exact opposite manner or even in a way whereby both tests would have to be applied. In that regard, it has been submitted that the wording of the principle and in particular the phrase “*propres à causer*” suggests that the equilibrium between the military advantage offered by any given weapon and the level of suffering and injury caused by its employment should be determined with reference to the generic design characteristics of the weapon.⁵⁷ Thus, the lawfulness of the employment of any weapon should be determined “*by comparing the nature and scale of the generic military advantage to be anticipated from the weapon in the applications for which it is designed to be used with the pattern of injury and suffering associated with the normal, intended use of the weapon*” since misuses and employments not inherent to the design of the weapon should not be taken into account in the assessment.⁵⁸

As regards the aforementioned submission, one would certainly agree that the phrase “*propres à causer*” indeed rules out the weighting of a weapon’s lawfulness based on results that are extraordinary to its regular employment. Moreover, there is nothing in the wording of the principle that would exclude its static application as described *supra*. However, it would be erroneous to assume that an application of the principle with respect to the ordinary proprieties of a weapon can only take place *in abstracto* and not *in concreto*. On the contrary, it has been argued that a systematic interpretation of Article 35(2) API constitutes the variable application of the principle imperative.⁵⁹ Indeed, the customary rule of interpretation reflected in Article 31(1) VCLT⁶⁰ stipulates that any term of a treaty must be interpreted in its context and thus in the light of the other provisions contained therein. As regards the case at hand, the provisions of Art. 52(2) API are relevant in the sense that the normative mechanism envisaged therein is based on a parallel operation of a constant and of a variable element.⁶¹ In particular, military objectives are defined at two levels; *in abstracto* as well as *in concreto* since “[...] *military objectives are limited to those objects which*

⁵⁶ See W.J. Fenrick, *The Conventional Weapons Convention: A modest but useful treaty*, IRRC, 279(1990), at 498 *et seq.*

⁵⁷ See W.H. Boothby, *supra* note 24, at 58.

⁵⁸ *Id.*, at 63.

⁵⁹ See H. Meyrowitz, *supra* note 38, at 112 *et seq.*

⁶⁰ API was concluded prior to the entry into force of the VCLT. However, the provisions of the former relating to treaty interpretation, which reflect preexisting customary law are applicable with respect to the Protocol. For the customary nature of the principles of interpretation see M.N. Shaw, *International Law*, Cambridge University Press, 2008, at 903. See also case regarding *Certain Questions of Mutual Assistance in Criminal Matters*, Djibouti v. France, Judgment, ICJ Reports 2008, at 222.

⁶¹ See H. Meyrowitz, *supra* note 38, at 112.

by their nature, location, purpose or use make an effective contribution [...]” (constant element) “and whose [...] destruction [...] in the circumstances ruling at the time, offers a definite military advantage.” (variable element). A *mutatis mutandis* application of the aforementioned mechanism to the principle of unnecessary suffering or superfluous injury, as proposed by Professor Meyrowitz would arguably lead to the following interpretation: It is lawful to employ weapons whose generic properties do not normally cause unnecessary suffering or superfluous injury as compared to the anticipated military advantage offered by their designated employment, and whose employment in the circumstance ruling at the time is not reasonably expected to cause unnecessary suffering or superfluous injury as compared to the anticipated military advantage offered by their designed employment.

Indeed, in further elaboration of the aforementioned variable application of the principle it has been submitted that “*in deciding whether the use of a particular weapon or method of warfare contravenes the unnecessary suffering principle, the crucial question is whether other weapons or methods of warfare available at the time would achieve the same military goal as effectively while causing less suffering or injury*”.⁶² Besides, it has been accurately supported that the *in abstracto* application of the principle is indeed problematic since the aspects under consideration are highly dissimilar and thus unsusceptible of being compared.⁶³ Hence, only an *in concreto* application of the principle would possibly save its normative value. Interestingly and even though the ICRC study on customary IHL does not *expressis verbis* promulgate the interpretative approach mentioned above, it does nevertheless implicitly adopt it as it is apparent from the formulation of Rule 85 on incendiaries which stipulates that “[t]he anti-personnel use of incendiary weapons is prohibited, unless it is not feasible to use a less harmful weapon to render a person hors de combat”.

With respect to the customary nature of the principle of unnecessary suffering as regards international armed conflicts, there is no doubt that Rule 70 of the ICRC study which reiterates Art. 35(2) API reflects the current state of international humanitarian law.⁶⁴ Indeed, the study provides extensive evidence of State practice and *opinio juris* in support of this statement. At this point it should be also noted that indisputably the principle had reached the status of customary international law even

⁶² See C. Greenwood, *supra* note 53, at 796. In support of this view see also Y. Dinstein, *The Conduct of Hostilities under the Law of International Armed Conflict*, Cambridge University Press, 2004, at 60.

⁶³ See M.N. Shaw, *The United Nations Convention on Prohibition or Restrictions on the Use of Certain Conventional Weapons*, *Review of International Studies (RIS)*, 9(1983), at 114.

⁶⁴ See W.H. Boothby, *supra* note 24, at 67.

before its incorporation in the Additional Protocol I.⁶⁵ In that regard, the application of the principle to incendiary weapons in particular, as a matter of customary IHL, as submitted by Rule 85 of the ICRC study has to be seen as fully justified, since it has been already demonstrated that the aforementioned assertion of the ICRC is equally accurate with respect to all weapons and not only to incendiaries. Therefore, the fierce critiques raised by some commentators against Rule 85 are without any merit whatsoever.⁶⁶

Arguably, from a humanitarian standpoint it seems entirely unjustified to assert that the rules of international humanitarian law that constraint the use of weapons during international armed conflicts are not equally applicable in the context of non-international armed conflicts as well.⁶⁷ However, from a legal perspective this has been the case since the founding days of the Hague law due to the reluctance of States to submit to an international regulation of the means and methods of warfare that they employ within their territories against non-State actors. However, during the last few years there has been a tendency of assimilation between the legal regimes governing international and non-international armed conflicts.⁶⁸ It should be further noticed that Additional Protocol I and all the relevant instruments in this respect, that reflect the principle of unnecessary suffering or superfluous injury are inapplicable to non-international armed conflicts, with the notable exemption of the UNCCW.⁶⁹ Moreover, Additional Protocol II⁷⁰ does not provide for any concrete constraint on the employment of weapons.⁷¹ Therefore, it is of crucial importance to assess whether the principle forms part of customary IHL with respect to non-international armed conflicts.

In 1995, the International Criminal Tribunal for the Former Yugoslavia (ICTY) stated in the *Tadić* case that “*elementary considerations of humanity and common sense make it preposterous that [the] use by States of weapons prohibited in armed*

⁶⁵ See Commentary on the Additional Protocols, *supra* note 43, at 409.

⁶⁶ See W. Hays Parks, *The ICRC Customary Law Study: A preliminary assessment*, Proceedings of the American Society of International Law, 99(2005), at 210.

⁶⁷ See E. Crawford, *Unequal before the Law: The Case for the Elimination of the Distinction between International and Non-international Armed Conflicts*, Leiden Journal of International Law (LJIL), 20(2007), at 443.

⁶⁸ *Id.*

⁶⁹ see *infra* at 22.

⁷⁰ Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II), adopted on June 8, 1977 at Geneva, entered into force on December 7, 1978, 1125 UNTS 609, ILM 1442(1977).

⁷¹ See W.H. Boothby, *supra* note 24, at 319-320.

conflicts between themselves be allowed when States try to put down rebellion by their own nationals or on their own territory. What is inhumane, and consequently proscribed, in international wars, cannot but be inhumane and inadmissible in civil strife".⁷² It is apparent that the aforementioned assertion lacks of concrete legal grounds, reflecting merely humanitarian concerns. It is, however, obvious that the ICTY somehow implies the operation of the Martens clause in a manner that would extend the protective scope of the fundamental principles of the Hague law to conflicts of a non-international character. Ten years later, Rule 70 of the ICRC study concluded that the principle of unnecessary suffering applies also with respect to non-international armed conflicts. The ICRC relied primarily on the affirmation of the principle in military manuals as well as on the fact that "[n]o State has indicated that it may use means or methods of warfare causing unnecessary suffering in any type of armed conflict".⁷³ Without entering into a detailed discussion on the methodological shortcomings of the aforementioned statement, it should be noted that commentators are divided as to its accuracy.⁷⁴

V. The principle of distinction

The principle of discrimination (or distinction) has a two-fold character in the context of international humanitarian law. Its first expression can be summarized in the axiom that civilians may not be the object of attacks, *unless and for such time as they take direct part in hostilities*. This fundamental rule prohibits direct attacks against civilians and it was reaffirmed by the draftsmen of the Additional Protocols of 1977 in Article 51(1)(2) API as well as in Article 13(2)(3) APII. Indisputably, this prohibition had acquired the status of customary international law well before the conclusion of the aforementioned instruments and even before the drafting of the 1949 Geneva Convention (IV) Relative to the Protection of Civilian Persons in Time of War⁷⁵ whose whole context is structured on the basis of the general protection of the civilian population.⁷⁶ However, the second aspect of the principle pursuant to

⁷² ICTY, *The Prosecutor v. Duško Tadić aka "Dule"*, Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction, Appeals Chamber, 2 October 1995, Case No. IT-94-1-AR72, § 119. ILM 35(1996).

⁷³ See ICRC study, *supra* note 30, at 239-240.

⁷⁴ For a well-founded critique see D. Turns, *supra* note 54, at 212. *Contra*, W.H. Boothby, *supra* note 24, at 67.

⁷⁵ Adopted on August 12, 1949 at Geneva, entered into force on October 21, 1950, 75 UNTS 287.

⁷⁶ See J.S. Pictet, *IV Geneva Convention Relative to the Protection of Civilian Persons in Time of War. Commentary*, ICRC, 1958, at 158.

which indiscriminate attacks are prohibited has been one of the innovations of Additional Protocol I since it was promulgated for the first time in Article 51(4) thereof.⁷⁷ It should be noted that whereas the prohibition of direct attacks against the civilian population is relevant only in the context of Geneva law, the prohibition of indiscriminate attacks is of crucial for the assessment of the lawfulness of the employment of weaponry.⁷⁸

Article 51 (4)(b)(c) provides that “[i]ndiscriminate attacks are prohibited. Indiscriminate attacks are: those which employ a method or means of combat which cannot be directed at a specific military objective; [...] those which employ a method or means of combat the effects of which cannot be limited as required by this Protocol; and consequently [...] are of a nature to strike without distinction”. Therefore, it is quite obvious that the employment of any weapon “which cannot be directed at a specific military objective or the effects of which cannot be limited as required by Additional Protocol I and consequently are of a nature to strike military objectives and civilians or civilian objects without distinction”.⁷⁹ Accordingly, in further elaboration of the rule, it has been submitted that the constraint provided by Art. 51 (4)(b)(c) API prohibits the use of weapons which in their designed normal use are incapable of being delivered with any certainty to their targets as well as of weapons whose effects cannot be reliably expected to be limited as required by IHL.⁸⁰ Hence, taking into account the “average anticipated use” principle of weapons law, it would be unreasonable to assert that only weapons entirely incapable of distinguishing are outlawed by virtue of the aforementioned provision.⁸¹

At this point, it has to be mentioned that unlike with what has been already submitted with respect to the principle of superfluous injury or unnecessary suffering,⁸² the principle of distinction does not operate variably, i.e. with reference to the circumstances ruling at the time of the employment of the weapon. As a consequence, the principle of distinction does not impose a potential prohibition to the use of all weapons but only of those whose designational “DNA” is at odds with

⁷⁷ See, *inter alia*, F. Kalshoven, *Arms, armaments and international law*, *Recueil des Cours*, 191(1985-II), at 236. *Contra*, however, Report on the work of experts on Weapons that may Cause Unnecessary Suffering or have Indiscriminate Effects, *supra* note 19, at 13.

⁷⁸ See W.H. Boothby, *supra* note 24, at 77.

⁷⁹ See UK Ministry of Defence, *The Manual of the Law of Armed Conflict*, Oxford University Press, 2004, para. 6.4.

⁸⁰ See Report on the work of experts on Weapons that may Cause Unnecessary Suffering or have Indiscriminate Effects, *supra* note 19, at 13.

⁸¹ See W.H. Boothby, *supra* note 24, at 81.

⁸² See *supra*, at 11-13.

Art. 51 (4)(b)(c) API. Of course, this submission is not to deny that, as a matter of Geneva law, the employment of any weapon in circumstances where its delivery against a specific military objective cannot be reasonably expected to be discriminate, i.e. directed against that particular objective, would amount to a breach of Art. 51 (4) (b)(a) API which prohibits attacks *not directed at a specific military objective*. Lastly, with respect to paragraph 5(a) of the same Article, it should be noted that the enumeration of attacks that are considered to be indiscriminate is not an exhaustive one.⁸³

It has not been seriously contested that the rule envisaged in Art. 51 (4)(b)(c), at some point after the adoption of Additional Protocol I was crystallized into customary international humanitarian law.⁸⁴ Accordingly, Rule 71 of the ICRC study on customary IHL states that “*the use of weapons which are by nature indiscriminate is prohibited*”. The study, indeed provides a rich record of State practice but unfortunately omits to elaborate further the principle and does not proceed beyond the wording of Additional Protocol I.

Finally, as regards the applicability of the principle of discrimination to non-international armed conflicts, it should be first noted that the general observations already submitted by this paper regarding the status of weapons law in conflicts of that type are relevant in this respect as well.⁸⁵ Notably, the ICRC study concludes that the principle binds States even in the context of non-international armed conflicts on a reasoning basis similar to that employed with respect to the applicability of the principle of unnecessary suffering or superfluous injury to the same type of conflicts. Indeed, the ICRC found that “[n]o official contrary practice was found with respect to either international or non-international armed conflicts” while “no State has indicated that it may use indiscriminate weapons in any type of armed conflict”.⁸⁶ Moreover, the study justifies its assertion⁸⁷ with the argument that, since the aspect of the principle of distinction which refers to the prohibition of indiscriminate attacks stems directly from the prohibition of directing attacks against civilians and civilian objects,⁸⁸ the former constitutes part of customary IHL in non-international armed

⁸³ See Commentary on the Additional Protocols, *supra* note 43, at 626.

⁸⁴ See *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, *supra* note 33, para. 226. See also D. Turns, *supra* note 54, at 213.

⁸⁵ See *supra* at 15.

⁸⁶ See ICRC study, *supra* note 30, at 247.

⁸⁷ *Id.*

⁸⁸ See Report on the work of experts on Weapons that may Cause Unnecessary Suffering or have Indiscriminate Effects, *supra* note 19, at 13.

conflicts because the latter, which is reflected in Article 13(2) APII, has indisputably reached the status of customary law.⁸⁹ However, the prohibition of indiscriminate attacks, which has “*a significance of its own*”⁹⁰ cannot be considered to be “contained” within the primary rule of distinction, since, as it has been demonstrated *supra*, its evolution followed a separate process. Therefore, one could only base such an assertion on State practice and *opinio juris* which in this respect have not been adequately elucidated by the study.⁹¹

VI. The application of the principles to incendiaries

The preceding analysis on the principle of unnecessary suffering or superfluous injury has highlighted that they can only be applied with reference to a particular weapon and not to a class of weapons which by definition encompasses different pieces of weaponry. It has been also demonstrated already that the generic term “incendiary weapons” refers to a variety of arms, projectiles and munitions that are designed to be used in various different ways in a wide spectrum of combat circumstances. Even the inflammable agents that these weapons deliver to their targets differ significantly from one another as per their chemical composition and properties.⁹² Therefore, the assessment of the whole class of incendiaries under the fundamental principles of weapons law would inevitably lead to oversimplifications intolerable in the context of international humanitarian law.⁹³ Furthermore, a scrutiny of each particular weapon which qualifies as incendiary under the aforementioned principle, would admittedly fall outside this paper’s scope. Without prejudice to the observations mentioned above, through the forthcoming paragraphs it will be attempted to shed some light to the compatibility of the most common characteristics of incendiaries with the basic principles of weapons law and in particular with the principle of unnecessary suffering or superfluous injury.

It would not be an exaggeration to support that if there is one tactical advantage common to all incendiaries is that all of them inflict a deeply rooted instinctive fear of fire to the persons that are about to experience the destructive force of these

⁸⁹ See Commentary on the Additional Protocols, *supra* note 43, at 1448.

⁹⁰ See M. Bothe, “*War Crimes*” in A. Cassese, P. Gaeta & J.R.W.D. Jones, eds., *The Rome Statute of the International Criminal Court: A Commentary*, Vol. I, 2002, at 408.

⁹¹ *Contra* W.H. Boothby, *supra* note 24, at 82.

⁹² See *supra*, at 5.

⁹³ See F. Kalshoven, *supra* note 7, at 355.

weapons.⁹⁴ It must be borne in mind, however, that this additional mental suffering caused by antipersonnel employments of incendiary weapons is a qualitative factor that needs to be taken into account in the context of any *in abstracto* or *in concreto* weighting of the military advantage offered by the use of any incendiary weapon in relation to the psychological suffering caused thereby.⁹⁵

Another generic characteristic of the anti-personnel use of incendiaries which distinguishes them from other weapons classes is that they harm their target through the infliction of deep burns whereas most of other weapons are designed to damage internal organs through penetration.⁹⁶ There is sufficient evidence to suggest that “*the medical treatment of severe burns such as caused by incendiary weapons is more costly, difficult, tedious and demanding [...] than the treatment of most other types of injury or sickness*”.⁹⁷ Moreover, it should be noted that incendiary weapons delivering white phosphorus agents have, additionally to thermal effects, toxic effects as well that cause lethal and extremely painful chemical burns.⁹⁸ Of course, most incendiaries, such as for instance napalm bombs, may cause asphyxia or poisoning to human beings through the emission of toxic combustion byproducts and/or through the consumption of oxygen entailed by combustion in the vicinity of the target.⁹⁹ What actually distinguishes WP from other incendiary agents in this respect is its very nature as a systemic poison.¹⁰⁰ Interestingly, it has been submitted that the antipersonnel applications of WP offer no important military advantages.¹⁰¹ Therefore, without prejudice to the submissions that weapons designed to deliver WP are *per se* prohibited as falling within the scope of the 1993 chemical weapons convention,¹⁰² for the purposes of this paper it suffices to observe that the level of injury caused by the employment of such weapons is even higher than that caused by the use of other incendiaries and this fact should not be disregarded in WP assessments under the principle of unnecessary suffering or superfluous injury.

⁹⁴ See Report on the work of experts on Weapons that may Cause Unnecessary Suffering or have Indiscriminate Effects, *supra* note 19, at 58-59.

⁹⁵ See I.J. MacLeod, A.P.V. Rogers, *The use of white phosphorus and the law of war*, YIHL, 10(2007), at 76.

⁹⁶ See SIPRI, *supra* note 8, at 122.

⁹⁷ *Id.*, at 186.

⁹⁸ See I.J. MacLeod, A.P.V. Rogers, *supra* note 95, at 77.

⁹⁹ See Report on the work of experts on Weapons that may Cause Unnecessary Suffering or have Indiscriminate Effects, *supra* note 19, at 63.

¹⁰⁰ See SIPRI, *supra* note 8, at 209.

¹⁰¹ See W. Hays-Parks, *supra* note 14, at 544.

¹⁰² See I.J. MacLeod, A.P.V. Rogers, *supra* note 95, at 87.

From the aforementioned analysis becomes apparent that incendiary weapons are indeed more injurious than most of the rest conventional weapons. Indeed, belligerents in the modern battlefield regularly possess less injurious means for the purposes of rendering their adversaries *hors de combat*. Therefore, the ICRC's statement that "*The anti-personnel use of incendiary weapons is prohibited, unless it is not feasible to use a less harmful weapon to render a person hors de combat*" should be regarded as an obvious *in concreto* application of the principle of unnecessary suffering or superfluous injury.¹⁰³ It is unclear, however, whether an *in abstracto* application of the principle would render unlawful most if not all incendiaries. Put differently, it is necessary to assert, on the basis of the designed features of incendiaries, whether the degree of suffering and injury caused by the average employment of an incendiary weapon is disproportionate to the military advantages that these weapons normally offer. In this respect, it has already been submitted that the operation of the principle of unnecessary suffering or superfluous injury is inherently problematic.¹⁰⁴ In any case, as early as in 1932, the Disarmament Conference of the League of Nations concluded that "*the cruelty inherent in the uses of these appliances causes suffering that cannot be regarded as necessary from a military standpoint*".¹⁰⁵ Besides, the ICRC study on customary international humanitarian law confirms that certain States consider that the employment of incendiaries is indeed prohibited as a matter of an *in abstracto* application of the principle of unnecessary suffering or superfluous injury.¹⁰⁶ It should be also noted that paragraph 6.2 of UN Secretary-General's Bulletin of August 6, 1999 prohibits *expressis verbis* the employment of incendiary weapons by the armed forces engaged in operations under United Nations command and control.¹⁰⁷ However, it has been argued that both the antipersonnel and antimaterial use of incendiaries is not subject to an *in abstracto* prohibition¹⁰⁸ since "*more than 2 000 years of use as a tool of war was clear evidence [...] that incendiary weapons were not illegal per se*".¹⁰⁹ In this respect though it must be observed that such an assertion is systematically erroneous due to the very nature of the prohibitions imposed by the general principles of

¹⁰³ See Rule 75, ICRC study on customary international humanitarian law, *supra* at 15.

¹⁰⁴ See *supra*, at 13.

¹⁰⁵ See SIPRI, *supra* note 8, at 186.

¹⁰⁶ See ICRC study, *supra* note 30, at 243-244.

¹⁰⁷ See UN Secretary-General's Bulletin on the observance by United Nations forces of international humanitarian law, UN Doc. ST/SGB/1999/13.

¹⁰⁸ See W.H. Boothby, *supra* note 24, at 40.

¹⁰⁹ See W. Hays-Parks, *supra* note 14, at 538.

weapons law; no classes of weapons are subject to their constraints but merely particular pieces of weaponry.¹¹⁰

With particular reference to the compatibility of incendiaries with the principle of distinction, it has been accurately stated that incendiaries have “*a tendency towards indiscriminateness*”¹¹¹ since fire, which is caused by the thermal properties of incendiary agents, constitutes an effect that is “*par excellence*” unsusceptible to reliable limitation as required by Art. 51(4)(c) API. In that regard, the delivery of incendiary agents located in an environment where fire could not be easily confined would fly in the face of the principle. Lastly it should be mentioned that the ICRC study on customary IHL found that several States have supported the view that incendiaries are *in abstracto* prohibited as incapable to distinct.¹¹²

VII. Protocol III UNCCW

The United Nations Convention on Certain Conventional Weapons was drafted not only in order to lay down concrete provisions that would clarify the application of the principle of unnecessary suffering or superfluous injury with respect to certain conventional weapons but admittedly in order to impose further constraints to the use thereof.¹¹³ Indeed, preambular paragraph 9 of the Convention declares the intention of the States Parties “*to prohibit or restrict further the use of certain conventional weapons*”. Interestingly enough, the Convention itself contains only procedural provisions while the substantive weapons law is provided by its annexed Protocols.¹¹⁴ Accordingly, each Protocol provides for specific constraints on the use a particular class of weaponry. This “umbrella” modular structure was deemed preferable since it would allow the gradual inclusion of more categories of weapons the specific regulation of whose was not feasible at the time of the negotiation of the

¹¹⁰ See *supra*, at 19.

¹¹¹ See Report on the work of experts on Weapons that may Cause Unnecessary Suffering or have Indiscriminate Effects, *supra* note 19, at 63.

¹¹² See ICRC study, *supra* note 30, at 249-250.

¹¹³ See M.N. Shaw, *The United Nations Convention on Prohibition or Restrictions on the Use of Certain Conventional Weapons*, Review of International Studies (RIS), 9(1983), at 114.

¹¹⁴ Currently, there are five annexed Protocols: Protocol I on non-detectable fragments, Protocol II on mines, body-traps and other devices, Protocol III on incendiary weapons, Protocol IV on blinding laser weapons and Protocol V on explosive remnants of war.

Convention.¹¹⁵ As regards the Convention's scope of application, Amended Article 1 (1)(2) stipulates that the Convention as well as its annexed Protocols apply equally to international and non-international armed conflicts.¹¹⁶

Notably, the adoption of rules restraining further the use of incendiary weapons has been considered by some commentators as the "*raison d'être*" of the Convention.¹¹⁷ Annexed Protocol III UNCCW comprises two Articles, the first of which provides certain definitions and the second lays down four rules aiming at the protection of civilians from incendiary attacks. Paragraph 1 which defines incendiary weapons for the purposes of the instrument has been already analyzed in this paper.¹¹⁸

Article 2(1) PIII, by stipulating that civilians and civilian objects shall not be directly attacked with incendiary weapons, reaffirms the basic principle of distinction reflected in Arts. 51(2) API and 13(2) APII.¹¹⁹ Arguably, redundancy is not a major issue when it comes to weaponry constraints.

Further, paragraph 2 provides that "*it is prohibited in all circumstances to make any military objective located within a concentration of civilians the object of attack by air-delivered incendiary weapons*" while Art. 1(2) defines the term "concentration of civilians" as "*any concentration of civilians, be it permanent or temporary, such as in inhabited parts of cities, or inhabited towns or villages, or as in camps or columns of refugees or evacuees, or groups of nomads*". First, it must be observed that the provision only prohibits the delivery of incendiaries from aerial platforms and not from the ground or the sea. Indeed, an application of the interpretative principle *expressio unius est exclusio alterius* would leave no reasonable doubt in this respect.¹²⁰ Additionally, the phrase *in any circumstances* emphasizes that the employment of air-delivered incendiaries against military objectives located within civilian concentrations is prohibited even in cases where the attack would violate neither the principle of distinction nor the principle of unnecessary suffering or

¹¹⁵ See S.A. Solomou, *The United Nations Convention on Certain Conventional Weapons: Its recent development and increasing significance*, YIHL, 6(2003), at 351.

¹¹⁶ For a thorough insight to the UNCCW Second Review Conference which achieved the expansion of the application of the Convention and its annexed Protocols to non-international armed conflicts, see R.J. Mathews, *The Second Review Conference of the 1980 Convention on Certain Conventional Weapons*, YIHL, 4(2001), at 406 et seq.

¹¹⁷ See W. Hays Parks, *Conventional Weapons and Weapons Reviews*, YIHL, 8(2005), at 77.

¹¹⁸ See *supra*, at 5-6.

¹¹⁹ See D. Plattner, *The 1980 Convention on Conventional Weapons and the applicability of rules governing means of combat in a non-international armed conflict*, IRRC, 279(1990), at 561.

¹²⁰ For the application of the principle by the International Court of Justice, see E. Gordon, *The World Court and the interpretation of constitutive treaties*, American Journal of International Law, (AJIL), 59(1965), at 805.

superfluous injury, i.e. even if the delivery of the incendiary weapon is the only available way to destroy the target.¹²¹ Besides, it has been accurately submitted that the inclusion of this phrase does not rule out belligerent reprisals since the exclusion thereof can only be concluded if explicit language is used to that effect.¹²²

Paragraph 3 stipulates that “*it is further prohibited to make any military objective located within a concentration of civilians the object of attack by means of incendiary weapons other than air-delivered incendiary weapons, except when such military objective is clearly separated from the concentration of civilians and all feasible precautions are taken with a view to limiting the incendiary effects to the military objective and to avoiding, and in any event to minimizing, incidental loss of civilian life, injury to civilians and damage to civilian objects*”. This rather straightforward provision covers the employment of incendiaries within civilian concentrations that are left outside the scope of paragraph 2 and namely attacks launched from the land or the sea. It has to be mentioned that a well-cited commentator has misinterpreted the rule by stating that it merely reaffirms the applicability of Art. 57 (2)(a) API on precautionary measures with respect to incendiary attacks.¹²³ However, as W. Boothby has amply put it, the employment of incendiary weapons against military objectives within civilian concentrations is “*subject to a tightly expressed exception prohibited*” by virtue of the aforementioned provision.¹²⁴ Indeed, the use of incendiaries under Art. 2(3) PIII is lawful only if two cumulative conditions are met; namely, the target should be “clearly separated from the concentration of civilians” while all the precautions stipulated in Art. 57 (2)(a) API must have been taken.¹²⁵ It is thus apparent, Art. 2(3) PIII not only requires precautions but additionally renders unlawful any incendiary attack falling within its scope and directed against military objectives not clearly separated. Arguably, clear separation in practice means that civilians should be either absent from the vicinity of the target or protected in bunkers or natural reliefs.¹²⁶ Essentially, the extra constraint that the provision mentioned above imposes to incendiary attacks within civilian concentrations in relation with other attacks, is the requirement of clear separation of the military objective from the concentration.

¹²¹ See F. Kalshoven, *supra* note 77, at 258.

¹²² See W.H. Boothby, *supra* note 24, at 54.

¹²³ See W. Hays-Parks, *supra* note 14, at 549.

¹²⁴ See W.H. Boothby, *supra* note 24, at 204.

¹²⁵ *Id.*

¹²⁶ See W.J. Fenrick, *New developments in the law concerning the use of conventional weapons in armed conflict*, *Canadian Yearbook of International Law*, (CYIL), 19(1981), at 249-250.

Paragraph 4 simply reiterates the obligation of belligerents to direct their attacks only against military objectives laid down in Art. 52(2) API.¹²⁷ Admittedly, the preceding analysis renders accurate the observation that Protocol III UNCCW does not provide for any rules whatsoever regarding the protection of combatants or fighters from the employment of incendiary weapons.¹²⁸

Lastly, it has to be assessed whether or not the aforementioned rules constitute part of customary international humanitarian law. In this respect it has been submitted that the provisions of Protocol III “*to the extent they are new rules, they are binding only upon States Parties*”.¹²⁹ Accordingly, the ICRC study on customary IHL concludes that “*it is more difficult to conclude that the detailed rules in Article 2(2)–(4) of Protocol III are also customary international law*”.¹³⁰ The only extra constraint on the use of incendiaries that the ICRC study asserts that has acquired the status of customary international humanitarian law in the context of international and non-international armed conflicts, is a somewhat increased standard of precautions in their employment. Indeed, Rule 84 states that “*If incendiary weapons are used, particular care must be taken to avoid, and in any event to minimise, incidental loss of civilian life, injury to civilians and damage to civilian objects*”.

VIII. Concluding remarks

The preceding paragraphs purported to provide a summary of the full body of the rules of international humanitarian law applicable with respect to the employment of incendiary weapons. As illustrated by this paper, it should be concluded that most uses of incendiaries in international armed conflicts arguably reside along the margins of lawfulness, in particular as regards their antipersonnel applications. In the context of non-international armed conflicts, the constraints on incendiary weapons would be limited to those stemming from the applications of the principle of unnecessary suffering or superfluous injury, should the Convention on certain conventional weapons had not provided for an enhanced framework regarding the protection of civilians from incendiary attacks. Arguably, the UNCCW has expanded the constraints on the use of incendiary weapons in such an extent that it could be argued that almost any employment of this class of weaponry in an urban

¹²⁷ See D. Plattner, *supra* note 119, at 561.

¹²⁸ See Commentary on the Additional Protocols, *supra* note 43, at 406.

¹²⁹ See W. Hays Parks, *Conventional Weapons and Weapons Reviews*, YIHL, 8(2005), at 79.

¹³⁰ See ICRC study, *supra* note 30, at 288.

environment is unlawful. However, it should be observed that the major shortcoming of an otherwise indispensable instrument is its admitted failure to protect combatants and fighters from the fierce effects of incendiary weapons. Indeed, from a humanitarian perspective, the fact that combatants enjoy only the protection provided by the general principles of weapons law is regrettable, especially if one takes into account the intense harm caused by the antipersonnel applications of incendiaries. In any case, it is hoped that the resonance of Protocol III UNCCW will contribute so that the rules promulgated therein to acquire the customary nature they lack, at least according to the ICRC study on customary international humanitarian law.