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AUTONOMOUS WEAPONS SYSTEMS, DRONES AND INTERNATIONAL LAW

This article outlines the research and development efforts of some states as regards so-called autonomous weapons systems, the legal risks arising therefrom and the advisability of agreeing to a moratorium on these efforts, with a view to giving the international community time to put into place an adequate legal framework.

It also addresses the use made of drones in practice, how in many cases this runs counter to fundamental IHL and IHRL principles, and, consequently, the need for the international community to also agree on principles to govern their correct use.

[International Humanitarian Law](#), [International Human Rights Law](#), [drones](#), [self-defence](#), [autonomous robots](#), [lethal armed robots](#), [autonomous weapons systems](#), [terrorism](#)

This article outlines the research and development efforts of some states as regards so-called autonomous weapons systems, the legal risks arising therefrom and the advisability of agreeing to a moratorium on these efforts, with a view to giving the international community time to adopt basic principles for these systems.

The present study also deals with the use of drones in international, internal and asymmetric conflicts, how in many cases this runs counter to fundamental IHL and IHRL principles, and, finally, it emphasises the necessity of principles to be agreed on internationally concerning the use of these unmanned aircraft.

Autonomous robots, drones, International Humanitarian Law, International Human Rights Law, lethal armed robots, self-defence, autonomous weapons systems, terrorism.

AUTONOMOUS WEAPONS SYSTEMS, DRONES AND INTERNATIONAL LAW

I. INTRODUCTION

It would appear that autonomous weapons systems have a promising future.

Autonomous weapons are those that are:

“Able to carry out a mission with limited human intervention or even without such intervention. Autonomous weapons, depending on the extent to which human activity is involved, can be semi-autonomous or fully autonomous. Moreover, their lethality varies. Some AWs (autonomous weapons) operate completely autonomously as part of non-lethal activities such as surveillance and reconnaissance (...). The design of future AWs will allow them to operate and lethally strike their targets in an autonomous manner without any human intervention at all (...).”¹

A similar definition of this type of weapon is used by the United States Department of Defense, the Ministry of Defence of the United Kingdom and the organisation Human Rights Watch².

Autonomous weapons systems offer significant military advantages (“huge” advantages according to the Special Rapporteur of the Council for Human Rights, Christof Heyns)³, from which robotics and legal experts⁴ have highlighted the following:

1 QUELHAS, Daniela: “La prolifération de robots-tueurs. Quelques problèmes juridiques et éthiques”, *Sentinelle*, bulletin no. 352, 16 June 2013, pp. 1-14, p. 4 [www.sentinelle-droit-international.fr].

2 *Vid.* UNITED STATES DEPARTMENT OF DEFENSE: “Autonomy in Weapons Systems”, Directive no. 3000.09, 21 November 2012, pp. 1-15 (Glossary Part II, pp. 13-14); UNITED KINGDOM MINISTRY OF DEFENCE: “The United Kingdom Approach to Unmanned Aircraft Systems”, Joint Doctrine Note 2/11, 30 March 2011, pp. 2-1 and 2-2 (paragraphs 202-203) (<http://www.gov.uk>) (accessed Thursday 5 September 2013); HUMAN RIGHTS WATCH: *Losing Humanity: the case against killer robots*, 19 November 2012, pp. 1-11, p. 3 (<http://www.hrw.org/reports/>) (accessed Thursday 5 September 2013).

3 HEYNS, Christof: Report by the Special Rapporteur on extrajudicial, summary or arbitrary executions, Christof Heyns (A/HRC/23/47), 9 April 2013, pp. 1-25 (p. 11, paragraph 50).

4 HEYNS, Christof: Report by the Special Rapporteur... Heyns cit., paragraphs 51-54; MARCHANT, Gary; ALLENBY, Braden; ARKIN, Ronald; BARRET, Edward T.; BORESTEIN, Jason; GAUDET,

- They afford better protection to armed forces themselves (saving soldiers' lives and keeping them from harm).
- They multiply the force deployed.
- They extend the battlefield (by facilitating penetration beyond enemy lines and by being able to remain in the theatre of operations for longer; far longer than people can).
- Their reaction time is quicker than that of human beings.
- They will never act out of panic, vengeance or racial hatred.
- In the future, they will be able to employ a less lethal force, thereby avoiding unnecessary deaths. Technological advances will thus offer alternatives to killing targets such as immobilisation or disarmament⁵.

Their advocates argue that it is precisely the absence of passion in this machinery that will make its actions more objective, failing to recall that reality has already proven that this rule is not always followed⁶: on 3 July 1988, Iran Air flight 655 was shot down by the US missile cruiser USS Vincennes, which was equipped with the AEGIS aerial attack defence system. Its radar had detected the plane and identified it as an Iranian F-14, in spite of the fact that many of the crew believed that it was a civil aircraft. In the end, they placed their trust in the equipment, which had not been designed to identify these planes for no reason, and fired causing 290 civilian casualties. There has even been talk of the risk of those who operate these weapons developing a "Play Station mentality" when proceeding to attack, which would dehumanise the conflict and could transform death into something trivial⁷.

Lyn M.; KITTRIE, Orde; LIN, Patrick; LUCAS, George R.; O'MEARA, Richard; SILBERMAN, Jared.: "International governance of autonomous military robots", *The Columbia Science and Technology Law Review*, XII (2010-2011), pp. 272-315, p. 275; SINGER, Peter Warren: *Wired for War. The Robotics Revolution and Conflict in the 21st Century*, New York: The Penguin Press, 2009, p. 83; ARKIN, Ronald: *Governing lethal behaviour in autonomous robots*, Chapman & Hall/CRC Press, 2009, p. xii; QUELHAS, Daniela: "La prolifération..." cit., pp. 7-8.

⁵ These weapons (KAHN, Paul W.: "Imagining warfare", *European Journal of International Law*, 24 (2013), no. 1, pp. 199-226) change, on the other hand, the traditional concept of armed conflict, whereby three concepts must be dismissed prior to their use: the traditional idea of time and combat zone; the concept of a combatant (one could be attacked while carrying out day-to-day activities) and the belief that in combat risk is reciprocal (p. 199). To examine the idea of a "global battlefield" that the use of drones has brought about in more depth, consult LUBELL, Noam and DEREJKO, Nathan: "A global battlefield? Drones and the Geographical Scope of Armed Conflict", *Journal of International Criminal Justice*, 11 (2013), pp. 65-88.

⁶ See GRUT, Chantal: "The challenge of autonomous lethal robotics to International Humanitarian Law", *Journal of Conflict and Security Law*, 18 (2013), no. 1, pp. 5-23.

⁷ ALSTON, Philip: Report of the Special Rapporteur on extrajudicial, summary or arbitrary exe-

In addition to the technical or military advantages that autonomous weapons systems offer, other significant advantages exist. It has thus been argued that, depending on the level of artificial intelligence that the device possesses, autonomous weapons are a third as expensive as manned vehicles and cost two-thirds as much to operate than those operated by humans⁸. Moreover, autonomous weapons systems, by preventing casualties on their own side and simultaneously removing war and its more dramatic consequences from the meticulous and commonly not particularly benevolent media attention it otherwise receives, clearly reduce the “political cost” of the use of force. This inspires an unsettling reflection, namely that this type of weapon may lead the general public to lose interest in warfare, thereby leaving the decisions on the use of force in the hands of politicians⁹ -as it is their problem- “without the constraint of their people’s response to loss of human life.”¹⁰ That is to say, sparing them the arrival ceremonies that are repeated over and over on television channels as coffins are brought back from the front.

Military advantages and a lower economic and political cost explain why some countries are channelling so many resources into researching autonomous weapons. At present, more than 15 of them (such as the United States, the United Kingdom, Israel, Russia and China) are developing or have procured “military robotics technology”¹¹. Without a doubt, drones and autonomous weapons have a future. Since 2009, the United States Air Force has been conducting a programme (that in principle is due to be extended until 2049) with the aim of maintaining this increased reliance on autonomous weapons, which, once programmed, are capable of achieving their objectives without any form of human intervention¹².

cutions, Philip Alston., A/HRC/14/24/Add.6, 28 May 2010, paragraph 79.

8 HOLMES, Stanley: “Planes that know what to bomb: smart robotic jet fighters may be delivered by 2008”, *Business Week*, Issue 3757, 12 November 2001, pp. 91-94 (cited by Guetlein, Michael A.: *Lethal Autonomous Weapon: Ethical and Doctrinal Implications*, Naval War College, Newport RI, 14 February 2005, pp. 1-31, p. 2, note 11)

9 <http://www.dtic.mil/>, accessed 8 September 2013). Krishnan, Armin: *Killer robots: legality and ethicality of Autonomous Weapons*, Ashgate, Farnham (United Kingdom) and Burlington (United States), 2009, p. 150.

10 SECRETARY-GENERAL: *Role of science and technology in the context of international security and disarmament. Report of the Secretary-General (A/53/202)*, 28 July 1998, pp. 1-27, p. 18 (paragraph 98).

11 SHARKEY, Noel E.: “The inevitability of autonomous robot warfare”, *International Review of the Red Cross*, 94 (2012), Number 886, pp. 787-799, p. 788.

12 *Vid.* UNITED STATES AIR FORCE: *United States Air Force. Unmanned Aircraft Systems Flight Plan 2009-2047*, Headquarters U.S. Air Force, Washington D.C., 18 May 2009, pp. 1-82 (www.global.security.org [accessed on Sunday 8 September 2013]).

When these facts are taken into account, it does not appear to be realistic to expect states to forego these systems, or for them to simply commit themselves to stopping all research into how they may be developed and refined. It seems that the specific proposal made in this vein this year by the Special Rapporteur of the Human Rights Council, Christof Heyns, recommending that states establish national moratoria¹³, will face tremendous difficulties before it is successful¹⁴. Nevertheless, civil society is already taking action to control such systems: in 2009, ICRAC (International Committee for Robot Arms Control)¹⁵ was created in order to reflect on the danger posed by these weapons. In addition, a British NGO, Article 36¹⁶, works to prevent their development and deployment. Likewise, the United Nations is becoming increasingly more active on the issue: in January 2013, Ben Emmerson, Special Rapporteur on Counter-Terrorism and Human Rights, began to look into drone strikes against civilians in various countries and, in August 2013, as part of his visit to Pakistan, the Secretary-General of the organisation called for control of their use to be guided by international law.

As has already been noted, some states allocate a great deal of resources to developing autonomous weapons systems for aerial, terrestrial and maritime use¹⁷. Yet it is currently impossible to know when or within what timeframe we will see the emergence of autonomous robots that are ready for use. Two conclusions are nevertheless admissible:

- Firstly, autonomous robots with full lethal force have not yet been deployed.
- Secondly, autonomous robots are nonetheless already used with varying degrees of autonomy and lethal force. These include, *inter alia*, the Sensor Fuzed Weapon (SFW) system, the Phalanx system, the C-RAM or the Northrop Grumman X-47 B from the United States, Israel's Harpy, the United Kingdom's Taranis or the Samsung Techwin robots in the demilitarised zone that separates the two

13 *Vid. infra*, see section 3 of this text.

14 Daniela Quelhas, for instance, states that: "until now, the Special Rapporteur's proposals are not strictly supported apart from by a coalition of non-governmental organisations, including Human Rights Watch, Amnesty International and Handicap International" ("La prolifération de robots-tueurs... cit., p. 3).

15 See their website: <http://www.icrac.net>

16 <http://www.article36.org>. It takes its name from Article 36 of Additional Protocol I (1977) to the Geneva Conventions that requires states to verify the legality, in accordance with International Humanitarian Law, of the new weapons that these states study, develop or acquire.

17 UNITED STATES AIR FORCE: United States Air Force. Unmanned Aircraft Systems Flight Plan 2009-2047 cit., pp. 41 ff.

Koreas¹⁸.

If one day these weapons systems are deployed, experts believe that they will act in tandem with human beings for a certain time, carrying out tasks or specific missions¹⁹. It is more than likely that, depending on how the practical applications of drones pans out, these robots will also be utilised to commit “targeted killings”²⁰.

2. Legal and ethical problems that these pose.

Autonomous weapons systems, especially those designed to be lethal, raise two essential questions: *on the one hand*, their capacity to adapt to the standards enshrined in International Humanitarian Law (IHL) and in International Human Rights Law (IHRL) (if deployed in a context of armed conflict) or International Human Rights Law (IHRL) (in other situations); and, *on the other hand*, concerning allocation of responsibility (of an individual or state) in cases where a lethal autonomous robot carries out an act that breaches the international legal standards in force.

Obviously, the use of force by means of these robots is also subject to the rules of *ius ad bellum*²¹.

2.1. Autonomous Weapons Systems, IHL and IHRL.

While there are robotics experts who welcome the possibility of creating IT programs equipped with an “ethical governor” that forces autonomous robots to respect IHL standards²², other specialists are not certain that this is possible.

18 For other systems and more details and other references on these projects see: Gueltein, Michael A.: “Lethal Autonomous Weapons...” cit., p. 2; ARKIN, Ronald.: *Governing Lethal Behaviour: Embedding Ethics in a Hybrid Deliberative/Reactive Robot Architecture* (Technical Report GIT-GVU-07—11), pp. 1-117, p. 5 (at <http://www.cc.gatech.edu> [accessed Sunday 8 September 2013]); HEYNS, Christof: *Report of the Special Rapporteur...Christof Heyns* cit., pp. 9-10, paragraph 45; HIN-YAN LIU: “Categorization and legality of autonomous and remote weapons systems”, *International Review of the Red Cross*, 94 (2012), Number 886, pp. 627-652, pp. 630-632; QUELHAS, Daniela: “Prolifération des robots-tueurs...” cit., pp. 4-5.

19 ARKIN, Ronald: “Governing lethal behaviour...” cit., loc. cit.

20 In this regard, Special Rapporteur Heyns (*Report of the Special Rapporteur...Christof Heyns* cit., p. 10, paragraph 47).

21 In this regard see the reflections made on the matter concerning drones (*infra* section 4.4 of this article).

22 MARCHANT, Gary; ALLENBY, Braden; ARKIN, Ronald; BARRETT, Edward T.; BORENSTEIN, Jason; GAUDET, Lyn M.; KITTRIE, Orde; LIN, Patrick; LUCAS, George R.; O’MEARA, Richard;

In particular, the latter group believe that there are factors that exist that prevent or make it extraordinarily difficult for these autonomous weapons systems to heed both (A) IHL standards relating to the distinction between lawful targets within this legal framework and those that are not lawful and (B) standards that entail the principle of proportionality. The first set of standards, as is well known, seek to protect the civilian population from indiscriminate attacks while the second set call for a prior assessment of the potential damage to the non-combatant or protected population compared to the military advantage that the attack aims to achieve.

A) With regard to the *principle of non-distinction*, it has been said that, due to deficient technological suitability of the sensors that currently exist, the inability to understand the context, the difficulties linked to applying the status of non-combatant in practice (by means of an IT program) and the inability to interpret intentions and emotions, it would be extremely difficult for an autonomous robot to comply with the IHL provisions governing its own use; let alone to identify, in situations of asymmetric conflict, who is and who is not a combatant²³.

Noel E. Sharkey, Professor of Artificial Intelligence and Robotics at the University of Sheffield (United Kingdom) is particularly categorical on the matter. This British expert considers that today's robots lack the main requisite elements for compliance with the principle of distinction to be guaranteed:

- They have neither the adequate sensors nor the vision systems required to distinguish between combatants and civilians, in particular in asymmetric or assimilated conflicts, or to recognise injured combatants who have surrendered or those who are in a mental state for which the principle of distinction is applicable.
- It is not possible, due to the vagueness of the legal definitions contained within the Geneva Conventions of 1949, as well as those within Additional Protocol I to the Geneva Conventions of 1977 concerning international armed conflicts (such as “civilians” or necessary concepts such as “common sense”), to incorporate the essence of the principle of non-discrimination into the programming language of a computer.

SILBERMAN, Jared: “International governance...” cit., p. 280; SINGER, Peter Warren: *Wired for War...* cit., p. 398; ARKIN, Ronald: *Governing lethal behaviour...* cit., p. 127.

23 *Vid. ad ex.* SHARKEY, Noel E.: “Grounds for Discrimination: Autonomous Robot Weapons”, RUSI Defence Systems, October 2008, pp. 86-89, pp. 88-89 (<http://www.rusi.org/downloads/assets/23sharkey.pdf>; accessed Monday 9 September 2013); ASARO, Peter: “On banning Autonomous Weapons Systems: Human rights, automation and the dehumanisation of lethal decision-making”, *International Review of the Red Cross*, 94 (2012), Number 886, pp. 687-709, pp. 696 ff.; DINSTEIN, Yoram: “The Principle of Distinction and Cyber War in International Armed Conflicts”, *Journal of Conflict and Security Law*, Volume 17 (2012), Issue 2, pp. 261-277 and HUMAN RIGHTS WATCH: *Losing humanity...* cit., p. 31.

- In addition, thirdly, despite eventually equipping robots with mechanisms to distinguish between civilians and military combatants, these devices lack the capacity to reach human levels of common sense that are indispensable for the correct application of the principle of non-discrimination. Professor Sharkey says that he is extremely sceptical even about it ever being possible -despite expected technological breakthroughs- to reach this extreme²⁴.

B) It is not certain that the assessment of the specific circumstances required in order to apply the *principle of proportionality* correctly is something that autonomous weapons systems are able to undertake. In fact, its application is underpinned by concepts such as “good faith” or the aforementioned “common sense”, and we are not in a position today to know whether these types of concepts are able to be “assumed and understood” by the IT programs that feed into these systems²⁵. Professor Sharkey admits that though it is possible for robots to be programmed to observe, in some respects, the principle of proportionality (in particular the “easy proportionality problem”), or to minimise collateral damage by selecting appropriate weapons or munitions and properly directing them, it is not possible today -and he does not believe this will be the case in the future- to guarantee respect for the “hard proportionality problem”, that is to say: knowing when damage to civilians exceeds or outstrips the military advantage provided by the attack; in that case, this is a “qualitative and subjective decision” that only a human being may make.²⁶

Taking into account the express wording of Articles 51.5 and 57.2 of the 1977 Additional Protocol I to the Geneva Conventions, applicable to armed conflicts, it is difficult to imagine how a “machine” -or the IT program directing it- will be able to envision how to attack or decide not to strike when the probable damage to civilians is “excessive in relation to the concrete and direct military advantage anticipated” (Article 51.5.b)²⁷. It is particularly difficult to imagine how a “machine” can adapt to account for changing conditions on the ground. (For instance, for those of us who are not robotics or

24 “The inevitability of autonomous...” cit., pp. 788-789.

25 *Vid. ad ex.* LIN, Patrick; BEKEY, George and ABNEY, Keith: “Robots in War: Issues of Risk and Ethics”, in Capurro R. and Nagenborg, M. (Edts): *Ethics and Robotics*, Heidelberg: AKA Verlag, 2009, pp. 49-67, pp. 57-58 (this chapter is also available at <http://www.digitalcommons.calpoly.edu>; accessed Monday 9 September 2013); SHARKEY, Noel E.: “Automated Killers and the Computing Profession”, *Computer*, Volume 40 (2007), Issue 11, pp. 122-124, p. 124 (<http://www.computer.org>; accessed Monday 9 September 2013); WAGNER, Markus: “The Dehumanization of International Humanitarian Law: Legal, Ethical and Political Implications of Autonomous Weapon Systems”, pp. 1-60, pp. 28-38 (<http://www.robots.law.miami.edu>; accessed Monday 9 September 2013).

26 “The inevitability of autonomous...” cit., p. 789.

27 BOE (Official State Gazette) of 26 July 1989. *Vid.* WAGNER, Markus: “Beyond the drone debate: autonomy in tomorrow’s battlespace”, *Proceedings of the 106th annual meeting (Confronting complexity)*, American Society of International Law, 106 (March 2012), pp. 80-84.

artificial intelligence experts, if the robot's IT program orders it to identify and destroy enemy tanks, can the device anticipate not doing so if the tank is purposely located next to a school or a mosque?)

In view of these circumstances, experts such as Kastan believe that whatever technological advances may come about, the relevant analysis and assessment of the principle of proportionality will have to be left to human beings initially and not to robots²⁸. At least, that is, until these weapons ensure compliance with the three laws that Isaac Asimov demands of his science-fiction robots²⁹.

Thus, there can today be no assurance that these so-called lethal autonomous robots may be adjusted to certain key IHL provisions, yet neither that it will prove impossible, with technological progress, to incorporate the “ethical governor” into the IT systems of these devices that is required for them to act in conformity with IHL or IHRL at all times.

On the basis of a conclusion that seems unquestionable to us, namely that if autonomous weapons systems are not in a position to comply with IHL -or if applicable, IHRL- requirements then they should be prohibited³⁰, the most basic sense of caution would counsel calm reflection and fostering a discussion that would lead to some basic principles to regulate these terrible weapons (*vid. infra* section 3 of this text).

2.2. *Autonomous weapons systems and allocation of responsibility*

If an autonomous robot carries out a strike in violation of IHL or IHRL, who should be held responsible?

The implicit conduct constituting the internationally wrongful act is not the work of a human being. In principle, it thus seems problematic to apply rules on the responsibility attributable to a state provided for in international law for the actions of human beings (states are held responsible for conduct constituting a breach of an international obligation that they are bound by that is committed by their organs, the organs of another state or of an international organisation placed at their disposal, of persons who follow governmental instructions or who are under their control when they commit the unlawful act, and, if relevant, when the state adopts the unlawful act

28 KASTAN, Benjamin: “Autonomous Weapons Systems: A coming legal ‘singularity’”, *Journal of Law, Technology & Policy*, 2013, No. 1, pp. 45-82, pp. 61-62 (electronic version may be consulted at <http://ssrn.com/abstract=2037808>, accessed Monday 9 September 2013).

29 “First Law: A robot may not injure a human being or, through inaction, allow a human being to come to harm. Second Law: A robot must obey the orders given to it by human beings, except where such orders would conflict with the First Law. Third Law: A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.”

30 In the same context, Report of the Special Rapporteur... Christof Heyns cit., p. 13, paragraph 63.

committed by people who are not held responsible pursuant to these provisions as its own)³¹.

Should a state be held responsible when the party who sends out or who orders the robot to carry out its mission, or who launches it, is one of its organs or a person whose conduct may be attributed to the state in question (what Professor Sharkey calls “the last point of contact”)?³² Is the state liable if the robot’s IT program has been designed by one of its organs or a person whose conduct may be attributed to it? Is this the case if the robot (designed by a third party or with a third-party program) is used by the state’s army or its operational units or by a person whose conduct may be liable under international law?

What happens to individual responsibility? IHL stipulates that military commanders shall be held liable if:

“they knew, or had information which should have enabled them to conclude in the circumstances at the time, that he was committing or was going to commit such a breach [reference is made to the Geneva Conventions or the Protocol itself] and if they did not take all feasible measures within their power to prevent or repress the breach”³³.

Yet it remains unclear whether military commanders, as Special Rapporteur Heyns asserts, “will be in a position to understand the complex programming of LARs [lethal autonomous robotics] sufficiently well to warrant criminal liability”³⁴

It cannot be excluded, given their nature -and if they are not banned- that these autonomous weapons systems would be governed by a regime of strict or absolute liability.

At any rate, besides this, the ambiguity that exists regarding the attribution of liability in the case of violations of international law likewise imposes the need for these weapons systems to be the subject of an in-depth examination that would establish the applicable legal framework.

31 Articles 4-11 of the Draft Articles of the International Law Commission (ILC) on Responsibility of States for Internationally Wrongful Acts, International Law Commission. Report on the work undertaken in its 53rd session (23 April to 1 June and 2 July to 10 August 2001). General Assembly: Official records. Fifty-sixth session. Supplement No. 10 (56/10), United Nations, New York, 2001, pp. 10-405. For a commentary on these records see: GUTIÉRREZ ESPADA, Cesáreo: El hecho ilícito internacional, Madrid: Dykinson, 2005, pp. 75-108.

32 “The inevitability of autonomous...” cit., pp. 790.

33 Article 86.2 of Protocol I.

34 Report of the Special Rapporteur...Christof Heyns cit., p. 16, paragraph 78.

3. Formal proposals for a moratorium already exist (without much chance of success).

The essence of the situation described above boils down to the serious concerns that exist as to the current state of the art of robotics and information technology, and whether these weapons systems could eventually be programmed in such a way that, while maintaining their functions, they would adjust these to existing IHL standards, and where applicable relevant IHRL standards, and, if so, how to accomplish this with certainty. Given this state of affairs, it would be wise to adopt a “wait and see” approach, that is to say, to take the time required to calmly consider how to undertake such a task. The time is now ripe, now, while there is still time³⁵.

As early as 2010, the Special Rapporteur, Philip Alston, who preceded the incumbent, Mr Heyns, suggested in his report that this was the route to follow by calling for the creation of a group of experts in robotics and the analysis of the extent to which these weapons systems would potentially comply with IHL and IHRL³⁶. In the April 2013 report, Christof Heyns maintains this approach, and essentially makes two fundamental recommendations:

1) Calling on “all States to declare and implement national moratoria on at least the testing, production, assembly, transfer, acquisition, deployment and use of LARs until such time as an internationally agreed upon framework on the future of LARs has been established”. The International Committee of the Red Cross (ICRC) also

35 As the Special Rapporteur of the United Nations Human Rights Council puts it in his report from April 2013: “In contrast to other revolutions in military affairs, where serious reflection mostly began after the emergence of new methods of warfare, there is now an opportunity collectively to pause, and to engage with the risks posed by LARs in a proactive way” (Report of the Special Rapporteur... Christof Heyns cit., p. 7, paragraph 33).

36 “For this purpose, the Secretary-General should convene a group of military and civilian representatives from States, leading authorities in human rights and humanitarian law, applied philosophers and ethicists, scientists and developers to advise on measures and guidelines designed to promote that goal. The group should consider what approaches might be adopted to ensure that such technologies will comply with applicable human rights and humanitarian law requirements, including:

a) That any unmanned or robotic weapons system have the same, or better, safety standards as a comparable manned system;

b) Requirements for testing the reliability and performance of the technology before its deployment; and

c) Inclusion of recording systems and other technology that would permit effective investigation of and accountability for alleged wrongful uses of force” (ALSTON, Philip: Interim Report by the Special Rapporteur on extrajudicial, summary or arbitrary executions [A/65/321], 23 August 2010, pp. 1-25, p. 25, paragraph 48).

defends the need, before it is too late, “to ensure informed discussion of the issues involved”, that is: “a legal framework”³⁷.

2) Plus, the convening of “as a matter of priority, a High Level Panel on LARs consisting of experts from different fields such as law, robotics, computer science, military operations, diplomacy, conflict management, ethics and philosophy.” This panel was to publish a report “within a year” that would contain various elements including the following:

- “Propose a framework to enable the international community to address effectively the legal and policy issues arising in relation to LARs, and make concrete substantive and procedural recommendations in that regard; in its work the Panel should endeavour to facilitate a broad-based international dialogue”.
- “Assessment of the adequacy or shortcomings of existing international and domestic legal frameworks governing LARs”³⁸.

This is certainly not the only conclusion that could potentially be drawn, as there are authors, extremely renowned experts in the field of robotics and artificial intelligence, who, after analysing the state of the art in this field and its shortcomings, as well as forecasts as to how this technology will develop in the following fifteen years, maintain that the only “the morally correct course of action is to ban autonomous lethal targeting by robots”³⁹, since they are a form of weapon whose capacity to fully adjust to the fundamental principles of IHL cannot be guaranteed. As a result, the State parties to Protocol I of the Geneva Conventions (1977) with the technological capacity *for* and the political will *to* acquire these robots would be directly challenged with respect to these “new weapons” in Article 36 of the text. The potential prohibition of this type of autonomous weapon would not in fact be a particularly novel approach. In 1967, for example, the Outer Space Treaty provided for *ex ante* prohibition of the use and deployment of nuclear weapons and other weapons of mass destruction in outer space⁴⁰.

37 International Humanitarian Law and the challenges of contemporary armed conflicts. Report. Document prepared by the ICRC, Geneva, October 2011. The 31st International Conference of the Red Cross and Red Crescent, Geneva (Switzerland), 28 November-1 December 2011, EN, (31/C/II/5.1.2), pp. 1-53, p. 40.

38 Report of the Special Rapporteur...Christof Heyns cit. (note 3), p. 24, paragraphs 113 and 114, letters c and d.

39 SHARKEY, Noel E.: “The inevitability of autonomous...” cit., p. 791. In the same vein, ASARO, Peter: “On banning...” cit., pp. 708-709.

40 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 27 January 1967, Article 4 (BOE (Official State Gazette), 4 February 1969). *Vid. ad ex.* GUTIÉRREZ ESPADA, Cesáreo: “La militarización del espacio parece ya inevitable (La nueva National Space Policy [2006] de los Estados Unidos de America)”, Anuario

There are also those who, accepting the premise that autonomous weapons systems can comply with IHL with even greater precision than human beings, and considering that this area of international law currently in force neither envisages nor presumes the complexity of these new weapons, call for this body of law to be adapted to this new reality and for it to regulate the use of these lethal autonomous robots. In so doing, deployment of these weapons would conform to the reformed legal parameters in force and prevent impunity⁴¹. It should be noted in any case that this last position, like the first, requires prior study of all available options.

All the same, the authors believe that the proposal put forward by the Special Rapporteur is the most advisable. Since, without ruling out any positive impact that this type of new weapon may have, and without wishing to reject out of hand the possibility of a technological breakthrough that allows for them to be subject to the basic principles of IHL, at least in certain circumstances, he emphasises one central idea: that it is necessary to clarify the essential legal framework that would be in place for their use before permitting their deployment and more widespread application.

4. Drones are currently subject to highly topical debate.

4.1. Drones and Autonomous Weapons Systems.

Drones are unmanned aircraft that nonetheless rely on human intervention, which plays a decisive role in the missions they are employed in. Two people operate these devices: a pilot and a sensor technician. Both work remotely, from bases that may or may not be in the same country that the aircraft takes off from. The largest drone base in the United States Air Force is, in fact, on its own territory, in the Nevada desert. The Pentagon is extending its drone base network: in the Seychelles, in Djibouti and most recently in Ethiopia, which allows for attacks on enemies in Asia, the Arabian Peninsula or the Horn of Africa⁴².

Autonomous weapons differ from drones in the degree to which they are able to undertake their activities without any human intervention, following nothing but

Español de Derecho Internacional, XXII (2006), pp. 91-129; ID.: “La política de los Estados Unidos sobre el uso militar del espacio. De Bush (2006) a Obama (2010), Revista Electrónica de Estudios Internacionales, no. 20 (2010), pp. 1-16 (www.reeci.org).

41 HIN-YAN LIU: “Categorization...” cit., pp. 637 ff., 649 ff.

42 Alandete, David: “El ascenso de los drones”, 1 November 2011, pp. 1-11, pp. 1-3 (www.blogs.elpais.com; accessed Monday 16 September 2013).

the instructions of the IT program that directs them⁴³. Although their autonomy is currently limited, there are those who believe that in the future these robots will even be able to make their own decisions after analysing the circumstances⁴⁴.

4.2. United States practice in its “war against terror”.

The use of these unmanned aerial vehicles, equipped with cameras to enable precision scanning of the zone below, as well as with missiles in many cases, was conceived for warfare, to put it in such a way, between 1999 and 2001. It was at any rate 9/11, paired with the “war against terror”, started by the Bush administration, which was the turning point for these devices that went from being a control and surveillance instrument to a lethal weapon. Their deployment for military and counter-terrorism purposes has seen “explosive growth”, according to the terms used by the United States Department of Defense⁴⁵.

In his first year in office alone, Barak Obama authorised more drone attacks (2009 and 54 attacks) than his predecessor had between 2004 and 2008. In 2010, these amounted to 122, and in 2011, to no less than 72 according to information from the New American Foundation, considered to be an “open and informed source of reference on the topic”⁴⁶. The number of deaths due to drone missiles from 2009 to 2011 ranges from between 1,324 and 2,348 depending on the source; when President Bush was in office from 2004 to 2008, there were between 377 and 544 deaths. It is no wonder, then, that US analyst Peter Bergen has declared that drones are “Obama’s weapon of choice” in the fight against terrorism. In fact, as we will observe in the following section, the US President has defended his choice and pledged to continue to rely on them until Al Qaeda and all

43 See the definition of the US Department of Defense contained within Directive 3000.09 (infra following section): “a weapon system that, once activated, can select and engage targets without further intervention by a human operator”.

44 See KELLENBERGER, Jakob: International Humanitarian Law and new weapon technologies, keynote address given at 34th Round Table on Current Issues of International Humanitarian Law, San Remo, 8-10 September 2011, available at <http://www.ihl.org>. In addition, others consider it to be something closer to reality that one might think (GRUT, Chantal: “The challenge of...”, cit., pp. 6-7).

45 UNITED STATES DEPARTMENT OF DEFENCE: *U.S. Unmanned Systems Integrated Roadmap (fiscal years 2009-2034)*, Washington DC, 2009, p. 2; a subsequent edition confirms this: ID.: *U.S. Unmanned Systems Integrated Roadmap (FY 2011-2036)*, Washington DC, 2011, p. 1 (<http://www.dtic.mil>; accessed 15 September). The first recorded US attack against terrorists by means of drones took place in November 2002 in Yemen.

46 REINARES, F.: “El contraterrorismo del presidente Obama ¿ha sido distinto al de Bush?, ¿cuáles son los resultados?”, ARI 67/2012, 19/19/2012, pp. 1-5, p. 2 (www.realinstitutoelcano.org). Or, to put it another way, drone deployment frequency has gone from one launched every forty days under George W. Bush to one launched every four days under B. Obama (The strategic effects of a lethal drone policy, American Security Project, <http://americansecurityproject.org/issues/asymmetric-operations/the-strategic-effects-of-a-lethal-drones-policy/>).

associated forces are destroyed wherever they are to be found (Afghanistan, Pakistan, Yemen, Somalia, etc.).

Back in 2011, the National Strategy for Counterterrorism, approved by Obama on 28 June, identified the Al Qaeda organisation as a key target for United States efforts, describing its struggle to tackle this organisation as “war” and listing amongst its basic principles the decision to pursue this struggle wherever it may be, as well as eliminating the “safehavens” where the organisation trains and plots its actions. As part of this fight, the United States will harness in “a broad, sustained, and integrated campaign (...) every tool of American power—military, civilian, and the power of our values (...)”⁴⁷. Drones enjoy a privileged position amongst all of these tools. Directive 3000.09⁴⁸ was approved on 21 November 2012 and, as stated in its first section, it “establishes DoD [Department of Defense] policy and assigns responsibilities for the development and use of autonomous and semi-autonomous functions in weapon systems” (bullet point a) and “establishes guidelines designed to minimize the probability and consequences of failures” in these systems (bullet point b). These points notwithstanding, the directive is not restrictive in terms of its content. It appears to be aimed at encouraging the use of these weapons since the only reference to limits being imposed on their use comes in section 4 b, which states that those who authorise the use of these systems “must do so with appropriate care and in accordance with the law of war, [and] applicable treaties (...)”. The document generally underscores the need to maintain adequate levels of human control over this weaponry, yet at no point in the text is any intention of abandoning them expressed⁴⁹.

Ever since Congress declared itself at war with Al Qaeda and its supporters in the wake of the 9/11 attacks, drones have become a usual method for ending the lives of Taliban leaders and even those of US nationals who belong to the terrorist organisation or its associates⁵⁰. “Targets” are selected in two ways:

- Every Tuesday, members of the United States national security system meet with the president of the nation to examine which terrorists are suspected of

47 National Strategy for Counterterrorism, The White House, June 2011, pp. 1-19, pp. 2, 8-9, 19 (www.whitehouse.gov, accessed Monday 2 September 2013).

48 Cited above (*supra* footnote 2) (available at <http://www.dtic.mil/whs/directives/correspdf/300009p.pdf>)

49 Regarding the Directive, see “Review of the 2012 US Policy on autonomy in weapons systems”, Human Rights Watch and Harvard Law School of International Human Rights Clinic, April 2013, http://www.hrw.org/sites/default/files/related_material/2013_arms_killerrobotsdodmemo.pdf

50 The US Department of Justice has approved guidelines for the use of lethal force against its nationals (DEPARTMENT OF JUSTICE WHITE PAPER: Lawfulness of a Lethal Operation Directed Against a U.S. Citizen Who Is a Senior Operational Leader of Al-Qa’ida or Associated Force, Draft 8 November 2011, pp 1-16 (<http://www.fas.org>; accessed Sunday 15 September 2013).

posing a threat to the country's security. Following the discussion, a list of names is drawn up and signed by the President. This lists those who will be the target of a missile fired by one of these devices when the right moment arrives. No specific information as to the methods used to draft this list of names has emerged.

- The people named on these lists also include those whose conduct could suggest membership of a terrorist organisation that poses a threat to the security of the United States (Al Qaeda or its associates). To this end, these people are investigated (telephone tapping, tracking etc.) in order to determine “patterns of behaviour” leading to the supposition that they belong to one of these organisations. This means, according to Grégoire Chamayou, that “reports based on the activity” of a person may indicate that “their actions have made it clear, over time, that they represent a threat”⁵¹, for which reason they may be eliminated.

Ultimately, once the target has been selected and the time is right, a missile is fired without the distance thereto being of any consequence.

4.3. The “new” US strategy as part of its fight against terrorism.

The speech President Obama gave on 23 May 2013 at the National Defense University has been interpreted as a turning point in the counter-terrorism policy of his administration as defined in the aforementioned 2011 National Strategy for Counterterrorism. This is the case to a certain degree; nevertheless, the essence remains unchanged, as the reader will soon see.

The President's speech hinges on his main achievement, the death of Osama bin Laden, the highest leader of Al Qaeda⁵². It also declares that the United States is winning its war against this organisation: “Al Qaeda (...) is on the path to defeat. Their remaining operatives spend more time thinking about their own safety than plotting against us”⁵³. Nonetheless, the threat certainly remains⁵⁴ (it should be noted that at the time the speech was given, the attack on the Boston marathon on 15 April 2013 was still very fresh in people's minds) and the United States will continue to fight it:

51 CHAMAYOU, Grégoire: *Théorie du drone*, Paris: Éditions La Fabrique, 2013, pp. 76-77.

52 “For President Obama (...), having put an end to Osama bin Laden's life is a success” (REINARES, F.: “El contraterrorismo del presidente Obama...” cit., p. 1.

53 Remarks by the President at the National Defense University, pp. 1-5, p. 2 ([www.whitehouse.gov](http://www.whitehouse.gov/Briefing-Room), Briefing Room tab; last accessed 15 September 2013).

54 “But we have to recognize that the threat has shifted and evolved (...) [since] 9/11.” (Remarks by the President... cit. p. 1.)

“We must define our effort not as a boundless ‘global war on terror,’ but rather as a series of persistent, targeted efforts to dismantle specific networks of violent extremists that threaten America.”⁵⁵

He mentions Afghanistan, Pakistan, Yemen, Somalia and Mali too. President Obama reiterates that the least costly and most precise option (between those of launching “special operations”, “conventional airpower or missiles” or the “invasions of these territories”) is that of resorting to armed drone strikes. Strikes that, like his predecessor, he considers to be in line with international law as they carried out in a context of a war fought against Al Qaeda in which United States is acting in self-defence. He has declared that he intends to pursue this policy (resorting to drones to attack the leaders of Al Qaeda and its associates near and far) and that he will act by it “against [all] terrorists who pose a continuing and imminent threat to the American people”⁵⁶.

President Obama does certainly specify that these actions against “Al Qaeda and its associated forces” will be carried out alongside “consultations with partners, and respect for state sovereignty”. He also adds that the United States will act, faced with imminent terrorist threats, whatever its source, “when there are no other governments capable of effectively addressing the threat”. It is equally true that he asserts “that before any strike is taken, there must be near-certainty that no civilians will be killed or injured” and that, whenever and wherever possible, the preferred choice should be to detain and interrogate terrorists. He makes it clear, however, that “doing nothing is not an option”⁵⁷.

All in all, the “new” counter-terrorism strategy, is not actually all that new: drone attacks will continue in the face of the terrorist threat that Al Qaeda and its associates pose in any part of the planet, with the authorisation of the territorial state if possible (but in any case if this state cannot tackle -or does not want to tackle- this threat) and they will see to it that there are no civilian victims (yet whilst accepting that this may indeed occur, as is most probably the case in light of this practice).

This position clearly exceeds the requirements that international law demands of a state in order for its armed activities to fall under the right to self-defence⁵⁸ and also,

55 Remarks by the President... cit. p. 2.

56 *Ibidem*, p. 3.

57 *Ibidem*, pp. 3.4

58 Daniela QUELHAS, for instance, shares the same view: “The speech announces the ‘global war against terror’ underway for ten years now and which President Obama claims to want to put an end to. However, this return to moderation in no way implies the total abandon of the concepts advocated by the Bush administration, as shown by the conservation of a broad concept of self-defence” (“La nouvelle Stratégie globale de lutte contre le terrorisme du Président Obama, entre rupture et continuité”, *Sentinelle*, bulletin no. 349, 26 May 2013, pp. 1-20, p. 10). Regarding the surprise continuity (and deepening) of Obama’s counter-terrorism policy compared to that of Bush, much reviled in some

as the text will later elucidate, the existing standards for *ius in bello* and IHRL (*infra* section 4.4 as follows).

4.4 Drones and international law.

In principle, a weapon that were to cause indiscriminate harm or unnecessary suffering, or which were unable to respect the principle of proportionality would not be able to be employed legally in the light of international law. The International Court of Justice (ICJ), states this, referring specifically to nuclear weapons, and in terms generally applicable to any form of weapon capable of having indiscriminate effects, in its Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons (1996). It adds that, in practice, the prohibition of weapons that have such effects is enshrined in IHL treaties and that the two mentioned are “cardinal” and “intransgressible” principles of International Humanitarian Law, by which all states are thus bound⁵⁹.

Drones are not expressly prohibited by any international rule. As a result, we share the view that declaring drones illicit, given that by their very nature they are not able to adjust to the key principles of IHL, “would lack a legal basis”⁶⁰. It is the way in which drones -rather than the devices themselves- are used by some states, most notably the United States, that raises extremely serious doubts (so to speak) about their conformity with a) the *ius ad bellum* and, with regard to the *ius in bello*, b) IHL, as well as c) IHRL too.

A) The use of force by a drone with a view, as is the case, to killing a terrorist from Al Qaeda or its associates, without a ground for justification as upheld by international law would constitute *at least* illegal use of armed force⁶¹. The right to self-defence

respects (drones in particular) see REINARES, Fernando: “El contrterrorismo del Presidente Obama...” cit., pp. 1-5.

59 Advisory Opinion of 8 June 1996 on the Legality of the Threat or Use of Nuclear Weapons, ICJ Reports pp. 226-266, p. 257, paragraphs 78 and 79. The Statute of the International Criminal Court also establishes, by referring to weapons or projectiles that have indiscriminate effects or cause unnecessary suffering, that their use constitutes a war crime “provided that such weapons, projectiles and material and methods of warfare are the subject of a comprehensive prohibition and are included in an annex to this Statute (...)” (Article 8.2.b.xx, Statute of the International Criminal Court drafted in Rome on 17 June 1998, BOE no. 126, 27 May 2002, p. 18824-18860.

60 POZO SERRANO, Pilar: “La utilización de los drones en los conflictos actuales: una perspectiva del derecho internacional”, May 2011, position paper no. 37/2011, pp. 1-9, p. 7 (www.iecee.es, accessed 11 September 2013). In an interview on 15 May 2013, the President of the ICRC, Peter Mauser, strongly maintained that: “drones are not expressly prohibited, nor are they considered to be inherently indiscriminate or perfidious” (“The use of armed drones must comply with laws”, interview, <http://www.icrc.org>, “Resource centre” tab, accessed Wednesday 11 September 2013).

61 This attack, as unlawful as it may be, would not appear to meet the requirements of severity,

could be one of these grounds. Yet the conditions thereof require that in order to justify the drone strike in this way, the terrorist in question must be leading an ongoing armed attack against, say, to put it generally, the United States, or to admit what seems to be taking place, they have to be preparing an *imminent* armed attack against the United States. It is not enough for the terrorist to be preparing an isolated terrorist attack, albeit an imminent one, or one that cannot be described as an armed attack⁶². The arguments that the United States and its president use to justify the use of drones against Al Qaeda and its associates do not seem to account for this ever so fundamental aspect. Neither does it seem that the requirement of Article 51 of the UN Charter, whereby the state that intends to act in self-defence must immediately notify the Security Council of the measures that this state has taken in the exercise of this right⁶³, has ever been respected.

B) For the United States, the use of drones against members of Al Qaeda can be justified since it qualifies its fight against terrorism as an armed conflict⁶⁴, whereby, whilst this is compatible with the basic principles of International Humanitarian Law and International Human Rights Law, it is in no way unlawful. However, is this indeed the case?

Like for autonomous robots and for similar reasons, the principles of (a) discrimination and (b) proportionality are those that raise the most serious concerns. Both come into

generality and intensity needed in order to talk of an act of aggression (the following should be remembered: the position of the ICJ in its ruling of 6 November 2003 in a case concerning oil platforms, paragraphs 73-77 (*ICJ Reports 2003*); the prior condemnation by the Security Council of an aggression when an Israeli commando unit, formed by nine members, travelled to Tunis and killed one of the leaders of the Palestine Liberation Organisation (PLO), which appears to be an isolated incident in this respect (Resolution 611, 25 April 1988, for which 14 votes were cast in favour and the United States abstained).

62 The same view is taken by, for instance, CASEY-MASLEN, Stuart: “Pandora’s box? Drones strikes under *jus ad bellum*, *jus in bello*, and International Human Rights Law”, *International Review of the Red Cross*, 94 (2012), Number 886, pp. 597-625, p. 605. For the concepts of *armed attack*, *imminent armed attack* and *latent* armed attack, as well as the admissibility of the right to self-defence when justifying armed response actions against non-state actors see: GUTIÉRREZ ESPADA, Cesáreo y CERVELL HORTAL, María José: *El Derecho Internacional en la encrucijada*. Curso General de Derecho Internacional Público, Madrid: Trotta, 2012 (3rd edition), pp.

63 In fact, states, such as Pakistan, who did not oppose the use of drones on their territory some years ago, are now wholeheartedly doing so, considering them to be a violation of their sovereignty and territorial integrity and expressing the view that they are not an adequate instrument as part of the fight against terrorism (see the declarations of Ben Emmerson, Special Rapporteur on Counter-Terrorism and Human Rights, made in March 2013 following a visit to the country to gather information on the use of drones (www.ohchr.org, in News and Events, 14 March 2013).

64 Made clear by its Supreme Court in the well-known case *Hamdan v. Rumsfeld* (548 US 557, 2006) where this is expressly affirmed. Obama stressed the idea in his speech in March 2013 at the National Defense University (op. cit. footnote 54).

play in a situation of armed conflict, for which IHL is applicable.

a) As for the *principle of discrimination*, a drone could *a priori* fulfil the requirements derived therefrom as an operator would be able to see in real time whether civilians were present or not up until a few minutes or even seconds before the attack. Of course, this does not provide one hundred percent certainty, as the use of drones in practice has shown over and over again in Afghanistan and other places⁶⁵. Yet, as a whole, there seems to be a majority view that a drone is able to adapt (acting with caution and good faith) to the requirements of the concept of distinction or discrimination. The “precautionary” approach would advise, for instance, not to attack if a video shows somebody digging a hole at a roadside, despite the fact that one cannot be wholly certain that this person is not planting an improvised explosive device there⁶⁶. In accordance with the principle that this article shall examine, drones may only strike (of course while respecting *ius ad bellum*) military and civilian targets if “they participate in hostilities”, and while also respecting the principle of proportionality. If this is not the case, their activities constitute a violation of IHL, which in practice has occurred with drones on more than one occasion⁶⁷. If a drone attack targets a civilian whose direct participation in hostilities cannot be proved, the state that launches the missile is thus carrying out a targeted killing. Consequently, determining if a civilian is participating in these hostilities is a basic requirement in order to ascertain whether he or she loses the protection afforded to the civilian population by IHL. Plus, this is not particularly straightforward in the case of terrorists.⁶⁸

65 *Vid. ad ex.* the practice mentioned by CASEY-MASLEN, Stuart: “Pandora’s box?...” cit., p. 607.

66 A scenario described by the authors cited below to suggest that a drone will not always be able to fully “see” this and therefore to draw a distinction (GEISS, Robin and SIEGRIST, Michael: “Has the armed conflict in Afghanistan affected the rules on the conduct of hostilities?”, *International Review of the Red Cross*, March 2011, Number 881 from the original version, pp. 1-39. p. 38).

67 The case of the Taliban leader Baitullah Mehsud is particularly insidious: on 23 June 2009, the CIA killed Wali Mehsud, one of the Taliban commanders in Pakistan, so that his funeral, which they presumed would be attended by Baitullah Mehsud, who occupied the highest position within the organisation, would serve as a trap to kill the latter. Taliban leaders and many civilians were expected to attend the funeral in question (estimates put the number of attendees at approximately 5,000). A drone struck the ceremony, at which the Taliban leader they sought was in fact present, and the resulting death toll stood at 83 people. Of those, 45 of were civilians, including 10 children and 4 tribal leaders. As fate would have it, Baitullah Mehsud escaped unharmed and was killed six weeks later together with his wife in a fresh attack carried out by the CIA (WOODS, Chris and LAMB, Christine: “CIA tactics in Pakistan include targeting rescuers and funerals”, 4 February 2012, <http://www.thebureauinvestigates.com>, last accessed Sunday 15 September 2013).

68 The International Committee of the Red Cross attempted to shed some light on the matter in its 2009 interpretive guidance on the notion of direct participation in hostilities, available at: <http://www.icrc.org/eng/resources/documents/publication/p0990.htm>. Israel’s Supreme Court also had the opportunity to rule on this issue in 2006 (*Supreme Court of Israel, Public Committee against torture in Israel et al. v. Government of Israel et al.*, HCJ 769/02, 11 December 2005). The ruling questions

It seems more difficult, given the current state of the art, for wholly autonomous devices to respect this principle. As a means of compensating for this potential inability, some have proposed that the robots deployed only fire at machines (and not at human beings)⁶⁹, but this also brings its own complexities. For instance, what would happen if one attempted to fire at a tank located in the middle of an inhabited area, or any other environment where the civilian population is present?

b) Moreover, drones must respect the principle of proportionality, both in international armed conflicts (Additional Protocol I to the Geneva Conventions, Articles 51.5.b and 57.2) and in internal ones (under customary international law), according to which the damage caused by the attack must not be greater than the expected military advantage. Assessing this requirement will not always be straightforward task for soldiers, let alone for drones⁷⁰. The Tribunal for the Former Yugoslavia (ICTY), for example, estimates that determining what is proportionate depends on the criterion of “reasonable person”, that is to say, “whether a reasonably well-informed person in the circumstances of the actual perpetrator, making reasonable use of the information available to him or her, could have expected excessive civilian casualties to result from the attack”⁷¹. Would a robot not controlled by any human being be able to do this?

At any rate, in such situations of doubt, “the interests of the civilian population should prevail”⁷² and there are examples in practice of scenarios where flagrant violations of the principle of proportionality occur⁷³.

C) Outside the framework of an internal or international armed conflict (Afghanistan), it is IHRL that is applicable to the use of drones (as in Pakistan or Yemen). This calls for, first and foremost, respect for the right to life of every human being (enshrined in

the legality of Israel’s actions during the Second Intifada. The Supreme Court understood that this could be seen to be an international armed conflict and civilians who had not participated directly in hostilities were therefore protected (paragraph 39 of the ruling), but that the permanent members of terrorist groups or those who participated directly in a terrorist act lost this condition.

69 In fact, this is what, for example, the Phalanx system does. It has been designed to fire at missile warheads when targeting a vessel in the middle of the ocean.

70 “Studies have shown that disconnecting a person, especially by means of distance (be it physical or emotional) from a potential adversary makes targeting easier and abuses more likely” as well as a lack of full compliance with the principle of proportionality (as recognised by the ICRC in its report from October 2011: *International Humanitarian Law and the challenges of contemporary armed conflicts*. cit., p. 39).

71 *Prosecutor v. Galic.*, Judgement, ICTY-98-29 (5 December 2003).

72 SANDOZ, Yves; SWINARSKI, Christophe and ZIMMERMANN, Bruno (Edts): *Commentary on the Additional Protocols*, Geneva: ICRC, 1987, paragraphs 1979-1980.

73 See the example mentioned by CaseY-maSlén, Stuart: “Pandora’s box?...” cit., p. 613.

Article 6 of the International Covenant on Civil and Political Rights of 1966), which may only be limited subject to strict conditions. Thus, Principle 9 of the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials establishes that these:

“shall not use firearms against persons except in self-defence or defence of others against the imminent threat of death or serious injury, to prevent the perpetration of a particularly serious crime involving grave threat to life, to arrest a person presenting such a danger and resisting their authority, or to prevent his or her escape, and only when less extreme means are insufficient to achieve these objectives. In any event, intentional lethal use of firearms may only be made when strictly unavoidable in order to protect life”⁷⁴.

Principles that the General Assembly of the United Nations “welcomes”, as well as inviting “governments to respect them and to take them into account within the framework of their national legislation and practice”⁷⁵.

The issue of “imminence” is imperative in the case of drone strikes. This is in particular due to the risk of excessive subjectivity and a lack of transparency as to who is on the lists (in the US) to be assassinated and why⁷⁶.

Everybody also has the right to a fair trial and to not be subjected to inhumane or degrading treatment. An armed drone strike leading to a “targeted killing” or an “extrajudicial execution” clearly does not fulfil these requirements.

In fact, the rigidity of IHRL in relation to cases of legitimate use of force, applicable in situations where there is no armed conflict (international or internal), will make it all the more difficult to justify drone strikes against people or groups of people, whether or not they are terrorists⁷⁷. Moreover, other related matters that call them into question are beginning to be brought to national courts. In one case in the United Kingdom, Noor Khan, son of a Pakistani tribal leader, took the matter to court in 2011 following the death of his father in a CIA-led drone strike⁷⁸. It should further

74 Adopted by the Eighth United Nations Congress on the Prevention of Crime and the Treatment of Offenders, held in Havana (Cuba) from 27 August to 7 September 1990 (<http://www2-ohchr.org>; last accessed Friday 13 September 2013).

75 A/45/166. Human rights in the administration of justice, 18 December 1990, paragraph 4.

76 CASEY-MASLEN, Stuart: “Pandora’s box?...” cit., p. 619.

77 “Outside the context of armed conflict, the use of drones for targeted killing is almost never likely to be legal”, states the Special Rapporteur on extrajudicial, summary or arbitrary executions in his report from 2010. Vid. in particular paragraphs 85 and 86 of this report (Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions, Philip Alston. Addendum, A/HRC/14/24/Add.6, 28 May 2010, pp. 1-29 (p. 25); and, likewise, paragraphs 65 to 85 of the Report of the Special Rapporteur Christof Heyns on the matter from 2011 (A/66/330, 30 August 2011, pp. 1-21).

78 The case was brought to British courts based on the understanding that by passing intelligence

be noted that the matter also brings another complex issue into the arena, namely if the United States justifies the use of drones based on the understanding that armed conflict exists with Al Qaeda, to what extent can a CIA agent who makes the decision to launch a drone strike (or who even controls the device) and who holds no position in the military chain of command be considered a combatant? Without a doubt, the opaqueness of CIA activities involving the deployment of drones and the difficulties that this presents when holding parties accountable is another issue that must be addressed sooner or later.

Another problem is that, if carried out without the consent of the state in question, the deployment of these weapons constitutes a violation of territorial sovereignty of their airspace. In the case of Pakistan, it is not one hundred percent clear if its government accepts these practices, although it does condemn and contest them in certain circumstances (for example, General Kayani, its Chief of Army Staff in reference to the attack of 17 March 2011 where the majority of deaths were of civilians)⁷⁹. As for Yemen, despite the fact that some believe that the Yemeni government rejects these attacks outright⁸⁰, the real position of its authorities does not seem quite clear either⁸¹.

All of the above confirms the view, as far as the authors are concerned, of the Special Rapporteur on Counter-Terrorism and Human Rights, Ben Emmerson, when he argues that drones and their use constitutes a “real challenge to the framework of established international law” and that the international community should be:

“focussing attention on the standards applicable to this technological development, particularly its deployment in counter-terrorism and counter-insurgency initiatives, and attempt to reach a consensus on the legality of its use, and the standards and safeguards which should apply to it.”⁸²

to the US government as an ally of the country, the British government became an accomplice of these acts. It was rejected at first instance but is pending appeal.

79 *Vid. ad ex.* HUFFINGTON, Arianna: “‘Signature Strikes’ and the President’s Empty Rhetoric on Drones”, <http://www.huffington.post.es> (Spanish version accessed Wednesday 11 September 2013); “Los ataques de los drones de Estados Unidos violan la soberanía pakistani” (www.europapress.es; accessed 11 September 2013).

80 “La situation yéménite semble diferente, les propos officiels attestent non pas seulement d’une détestation des attaques ciblées mais de leur refus catégorique” [The Yemeni situation seems to be different, official statements bear witness not only to abhorrence at targeted attacks but also to their categorical rejection.] (QUELHAS, Daniela: “La doctrine des Etats-Unis en matière d’emploi des drones de combat et son évolution récente”, *Sentinelle*, bulletin no. 351, 9 June 2013, pp. 1-22, p. 16 (www.sentinelle-droit-international-fr.fr; accessed Wednesday 11 September 2013).

81 *Vid.* JORDÁN, J.: “La campaña de ataques con drones en Yemen”, *Journal of the Spanish Institute for Strategic Studies (IEEE Journal)*, no. 1, 2013, pp. 1-23 (www.ieee.es; accessed Wednesday 11 September 2013).

82 EMMERSON, Ben: Statement by Ben Emmerson, UN Special Rapporteur on Counter-Terrorism

5. CONCLUSIONS.

Autonomous robots

1. The autonomous robots that exist at present do not yet provide any certainty, given the state of the art for information technology and robotics, as regards their capacity to comply with basic IHL and IHRL principles, in particular the principles of distinction or discrimination and of proportionality.

2. Nevertheless, at the current stage of their scientific and technological development, the possibility cannot be *a priori* be excluded that in the future their IT programs might include an “ethical governor” that would eliminate or significantly minimise the likelihood of conduct infringing the aforementioned principles.

3. In this regard, the difference of opinion on the matter between robotics and information technology experts suggests that, given the diverse range of potential views, it would be advisable to establish a moratorium on the research and development of these new autonomous weapons systems, which would give time firstly for an international legal framework to be concluded to apply to these devices and, if possible, the requisite mechanisms to be established to allow this to be adjusted to information technology and robotics advances.

4. It will not be easy to put this conclusion into practice immediately.

Drones.

5. Drones are a reality. The use made of these systems, in both armed conflict situations and other situations, has been seen to violate IHL and IHRL in various situations.

6. In this light, it is necessary for the international community to employ all the means at its disposal to reach an agreement that provides a legal framework for their use.

7. It does not seem at all likely that this conclusion that certainly ought to be heeded will be put into practice in the foreseeable future.

8. The proposed fine-tuning of its counter-terrorism policy undertaken by the Obama administration following the speech given by the President on 23 May 2013 confirms, in our opinion, the pessimism prompted by the preceding conclusion.

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