

DRONE LEGISLATION – A WAR OF ATTRITION

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Abstract

*Drones are considered a major breakthrough in robotics, yet, ever since their spearhead, lawmakers have fallen short in providing a clear body law that could be applicable to the emergent trend of unmanned vehicles. This sparks a question that needs to be answered, in short, are drones legal? Other issues that have arisen afterwards that have to be tackled must also find an answer. These issues have become more and more vocal in the halls of the United Nations ever since drone strikes and surveillance operations conducted by major powers on their own, or even carried by the United Nations in its operations, meaning that the core issue that must be worked upon is whether or not should the drone be used in extraterritorial law enforcement missions, United Nations or African Union operations or even in terrorist hunt operations, while also coming to grip with the concept of autonomous or intelligent drones being implemented in these types of procedures. Lastly, the focus on the usage of unmanned aerial vehicles has triggered a very important question, should drones have their own *lex specialis*?*

To sum up, this paper will focus on answering issues regarding the legality of drones; the justification to use drones in key operations by states and international organizations such as the United Nations or African Union, but also to expand the acceptance of autonomous drones in such operations. Lastly, the paper will spotlight if a treaty prohibiting or containing the usage, selling and manufacturing of drones should exist.

Keywords: *drones, peacekeeping, anti-terrorist, autonomous, legality.*

1. Legality of drones in international law.

1.1. Definition of the drone according to primary and secondary sources.

Drones, or how the industry perceives them as unmanned devices and vehicles, represent a new wave of engineering prowess that can ensure that activities which were hazardous and difficult for mankind can be easily done by robotics.

The term *drone* is a notion that was attributed to a category of new types of vehicles that are also unmanned, a notion that is not entirely correct, since the industry is accustomed in using the term *UAV*¹. The fact that the technology has gone beyond the usage in air commerce or air warfare, and currently is being employed in ground, maritime and space operations is just to show how reliable and useful it really is.

The usage of drones has only recently been brought to the attention of the general public, mostly in campaigns against terrorism, but also, civilian drones are emerging as a new, cheaper and safer way to transport goods, gather information and engage in entertainment activities. More recent, law enforcement agencies started using these platforms to monitor traffic or even persons. As technology progresses, drones are receiving a new upgrade, autonomous systems that can interact with its

objective based on a set of parameters designed by a human². This has lead states like the United States of America to introduce a new variable in an old equation regarding military advantages and operations, by conducting new means and methods of warfare with lower costs and less manpower while also capitalizing on obtaining an edge in combat. Such an edge could be considered the *Cicada*³ drone, a small factor drone that has a special capacity in acquiring information without being spotted, while also having a very low cost of production making it very useful if it falls behind enemy lines or it has to be quickly abandoned. This drone has the capacity to be equipped with microphones, cameras and even sonars.

One of the leading pieces of technology is the X-47B⁴, an unmanned vehicle that has a size similar to a modern fighter jet and has the ability to be autonomous, by recording and gathering information on its own based on parameters that the command center attributes to a mission, but this type of drone is still not intelligent enough to act on its own completely, still requiring an operator that can oversee its mission. The drone also has an easy approach since it can be used with just a mouse, without the need of a piloting gear or great piloting abilities. Currently, these types of drones can even be used without having to rely on a propulsion or

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¹ UAV Association, 2015, information obtained by visiting https://www.uavs.org/index.php?page=what_is; John F. Guilmartin, Unmanned aerial vehicle, Encyclopedia Britannica, 21 August 2015, accessible at <http://www.britannica.com/technology/unmanned-aerial-vehicle>.

² Patrick Tucker, The US Military is building gangs of autonomous flying war bots, 23 January 2015, Defenseone.com.

³ Agence France-Presse, US Military's new swarm of mini-drones, 17 May 2015, Defensenews.com.

⁴ Claw Dillow, What the X-47B reveals about the future of autonomous flight, 5 July 2013, Popsoci.com.

rotary engine, since they can fly using air currents to glide⁵.

Progress cannot however be allowed to go unhindered, meaning that while lawmakers did not manage to prevent UAV technology, in part or total, there may still be time to create a legal framework meant to clarify and prevent future issues. For example, Japan in has created a new task force under its law enforcement wing, meant to take down unmanned aerial vehicles⁶, so that it can prevent issues similar to the one that happened on the 23rd of April 2015 when a man landed a drone, that was carrying cesium tainted sand, on top of the Prime Minister's office. The man was going to use it as a form of protest against the policies of the government.

Also, while current the debate towards classifying a drone as either a weapon or a platform for carrying and launching other devices or arms, an unmanned aerial vehicle does have an *opinion juris* understanding through the Harvard Manual on International Law applicable to Air and Missile Warfare⁷, which classifies both as an all-purpose vehicle and also as a combat vehicle under the same meaning of an aircraft, but also as a platform for the equipment it uses, the *Commentary*⁸ to the aforementioned Manual expands the notion towards all unmanned aerial vehicles, whether unarmed (UAV) or armed (UCAV), and whether remotely piloted or operating autonomously.

But as an emerging technology, it too must face the same fate as gunpowder did and must be tackled by the international community if it wants to prevent abuses. Currently, *“drones are not specifically mentioned in weapon treaties or other legal instruments of international humanitarian law. However, the use of any weapon system, including armed drones, in armed conflict situations is clearly subject to the rules of international humanitarian law”*⁹.

The International Committee of the Red Cross went further by addressing the issues regarding drones at the United Nations General Assembly's 68th Session¹⁰, on 16th of October 2013, where the message stated that: *“These means of warfare have been the subject of intensive public debate, notably in humanitarian terms. They are not expressly prohibited or regulated by existing treaties, but as*

with any weapon system, their employment in armed conflict must comply with international humanitarian law, in particular the principles of distinction, proportionality and precaution in attack. In this respect, the ICRC wishes to recall that, before developing or acquiring a new means of warfare, a State must assess its compatibility with international humanitarian law. This is necessary in order to prevent the development of weapons that would violate the law in some or all circumstances. [...] A salient feature of armed drones is that they allow combatants to be physically absent from the “battlefield”. These weapon systems remain under the control, albeit remotely and often from vast distances, of human operators who select targets and activate, direct and fire munitions carried by the drone. They are similar to manned weapons platforms such as helicopters or other combat aircraft and their use in armed conflict creates some of the same challenges: for instance, ensuring that attacks are directed only at military objectives and avoiding incidental harm to civilians to the greatest extent possible. Under international humanitarian law, those who operate armed drones are, like the pilots of manned aircraft, accountable for their actions.”

Committee stated back in 2011¹¹, when they envisioned a future where soldiers would be removed from battlefields by technology but also that the impact of lesser soldiers on the ground would translate to less humanitarian actions for civilian populations.

Notwithstanding, the Committee is very vocal on the usage of drones in armed conflicts or humanitarian operations since these types of devices have been the focus of the international community regarding its usage in the War on Terror.

1.2 Legal principles applicable to the usage of drones.

UAVs are governed by a set of rules that can be attributed to the law of armed conflict, meaning that it follows the *jus ad bellum* principle, meaning that states involved in using drones against each other or against non-state actors must comply with

⁵ Ryan Maass, Navy tests cooperative soaring for UAV sailplanes, 6 January 2016, UAV News.

⁶ Xinhua News Agency Staff, Drone laws tightening in Japan as police deploy air-to-air take down unit, 11 decembrie 2015.

⁷ HPCR Manual, Humanitarian Policy and Conflict Research at Harvard University, 15 May 2009, Bern, Article 1, and paragraph 1, letters (dd): “Unmanned Aerial Vehicle (UAV)” means an unmanned aircraft of any size which does not carry a weapon and which cannot control a weapon. and (ee): “Unmanned Combat Aerial Vehicle (UCAV)” means an unmanned military aircraft of any size which carries and launches a weapon, or which can use on-board technology to direct such a weapon to a target.

⁸ The Black-Letter Rules of the HPCR Manual, accompanying the Manual, 2009, Article 1, letter D, point 1 pg. 27.

⁹ International Committee of the Red Cross, Interview with the president of the ICRC, Peter Maurer, 10.05.2013, and full interview can be read at: <https://www.icrc.org/eng/resources/documents/interview/2013/05-10-drone-weapons-ihl.htm>.

¹⁰ The UN statement can be read here: <https://www.icrc.org/eng/resources/documents/statement/2013/united-nations-weapons-statement-2013-10-16.htm>.

¹¹ Phillip Spoerri, Round table on new weapon technologies and IHL – conclusions, accessible at the following link: <https://www.icrc.org/eng/resources/documents/statement/new-weapon-technologies-statement-2011-09-13.htm>.

article 2 paragraph 4 of the United Nations Charter¹², but it also means that inside its own territory a state can overcome the threshold¹³ and use an extensive force against non-state actors.

Another principle that is enshrined in the UN Charter is the principle of self-defense¹⁴, a principle that was at first seen as only possible against the aggressions of another state, but seen from the point of view of the International Court of Justice in its 2004 Advisory Opinion¹⁵, suggests that the ICJ did not entirely rule out the possibility of self-defense against an armed non-state actor that commits terrorist acts where effective control was not exercised by the state under threat. This is further outlined by the separate opinion of Judge Kooijmans, who stated that: "if the attacks by the irregulars would, because of their scale and effects, have had to be classified as an armed attack had they been carried out by regular armed forces, there is nothing in the language of Article 51 of the Charter that prevents the victim State from exercising its inherent right of self-defense."

The two principles of necessity and proportionality must both be met if the use of force by a state claiming to be acting in self-defense is to be lawful. Failure to meet the criteria means that the use of force may even constitute aggression¹⁶. Proportionality is a balance of two different concepts, military advantage and civilian harm, thus the attacker must analyze whether or not the attack could cause more harm to civilian population than obtain a clear military advantage¹⁷. Drone operators have the same obligations as air force pilots, who must accept that civilian casualties are sometimes needed to obtain a military advantage. For example, in the Spring of 1944, the Allies planned to attack different segments of French and Belgian railroad elements that were close to some 80 000 civilians, but General Eisenhower took enough precaution as to cause as little harm as possible¹⁸. Later, Winston Churchill issued a statement that tried to justify the operation even if the damage was at its peak. Nowadays, the Geneva Conventions offer a wider protection to civilian targets, but that does not equate to a lawful applicability of said Convention.

Another example on how airstrikes have to be taken after a long deliberation is that of the hospital complex at Viet Tri¹⁹. While hospitals are unlawful targets under international humanitarian law, these civilian objectives were extensively used by North Vietnam as anti-air locations and as such Rolling Thunder had to be used even upon civilian targets that were critical but that turned into military objectives. The largest outcry by critics was that even though the United States of America photographed and mapped out most of these cases, with drones, the air force still continued with the attacks upon the targets instead of exposing the war crimes.

While these are indeed customary norms of international humanitarian law and by extend applicable to armed forces equipped with drones, there are still other principles that must be further respected, notably the *precaution in attack*²⁰. There are direct links between respect for the rules on precautions in attacks and respect for other customary rules applicable to the conduct of hostilities, notably distinction (discrimination) and proportionality, as well as the prohibition on using means or methods of warfare that are of a nature to cause superfluous injury or unnecessary suffering. Article 57 of the Additional Protocol I of the Geneva Conventions enshrines the idea that a high contracting party must take all feasible precautions in the choice of means and methods of attack²¹ and this article that is considered customary law is applicable in both non-international and international armed conflict.

It is well known that different states have widely differing assessments of what is proportionate. Even close military allies, such as the UK and the USA, appear to differ materially on this issue. An instructive example occurred in Afghanistan in March 2011 when a UK Air Force drone killed four Afghan civilians and injured two others in an attack against insurgent leaders in Helmand province, the first confirmed operation in which a UK Reaper aircraft had been responsible for the death of civilians²². The USA in contrast started using Integrated Prioritized Target Lists, devised by

¹² Article 2 para. 4: [a]ll Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.

¹³ Noam Lubell, *Extraterritorial Use of Force against Non-State Actors*, Oxford Monographs in International Law, Oxford University Press, Oxford, 2011, p. 8.

¹⁴ Article 51: Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security.

¹⁵ International Court of Justice, *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory* (Request for advisory opinion) Summary of the Advisory Opinion of 9 July 2004.

¹⁶ Roberto Ago, *Addendum – Eighth report on State responsibility*, Special Rapporteur – the internationally wrongful act of the State, source of international responsibility (part 1), *Yearbook of the International Law Commission* 1980, Vol. II (1).

¹⁷ Rule 4 and 14 of the International Committee of the Red Cross's *Customary International Law Study*, Vol. I and II, 2009.

¹⁸ Rebecca Grant, *In search of lawful targets*, *Air Force Magazine*, February 2003, p. 4.

¹⁹ W. Hays Park, *Rolling Thunder and the Law of War*.

²⁰ Stuart Casey-Maslen, *Pandora's Box? Drone strikes under jus ad bellum, jus in bello, and international human rights law*, *International Review of the Red Cross*, Vol.94 Number 886 Summer 2012, p. 606.

²¹ Also, Rule 17 of the International Committee of the Red Cross's *Customary International Law Study*, Vol. I and II, 2009.

²² Nick Hopkins, 'Afghan civilians killed by RAF drone', *The Guardian*, 5 July 2011.

Department of Defense that had in 2009 over 300 names of individuals who were recruiting, financing or spreading terrorism but unless they were actively taking part in hostiles, simply doing petty crimes or offering money to terrorists could spark an unlawful strike upon the drone program²³.

In contrast, drone operations must comply with international humanitarian law in the same way nuclear weapons²⁴ must be used only under the customary international humanitarian law provisions, if a treaty or convention targeted at the weapon would not exist. This however is not sufficient for it to function since customary law in the area of military and civilian UAVs is non-existing and current aerospace legislation is only complementary. The lack of a treaty sparked a lot of dissent towards the largest manufacturers and users of drones in any type of operation, causing groups such as Drone Campaign Network, Code Pink, Drones Watch, Article 36 and the International Committee for Robot Arms Control to start movements aimed at drafting a *drone treaty*²⁵. The groups hope to achieve the same results that non-governmental agencies achieved in 1995 and 1997 when they managed to draft and enforce the Ottawa Mine Ban Treaty. An attempt²⁶ in 2013 by non-governmental group The Global Network against Weapons and Nuclear Power in Space had ended without any support from states or governmental experts since up until now most attempts were aimed at banning drones instead of offering guidelines on using them.

The closest to a Drone Treaty that the international community has is the Human Rights Council Resolution 25/L.32²⁷ which forgoes the obligation that drone operations must comply with international humanitarian law and must comply with the principle that operators and commanders are liable for their actions.

1.3. The Arms Trade Treaty – future addendum that could help protect from abuses.

The Global Arms Trade Treaty is a multilateral, legally-binding agreement that establishes common standards for the international trade of conventional weapons and seeks to reduce the illicit arms trade. The treaty aims to reduce human suffering caused by illegal and irresponsible arms transfers, improve regional security and stability, as well as to promote accountability and

transparency by state parties concerning transfers of conventional arms. The document is not an arms control treaty, and does not place restrictions on the types or quantities of arms that may be bought, sold, or possessed by states. It also does not impact a state's domestic gun control laws or other firearm ownership policies.

The Treaty is the product of nearly two decades of advocacy and diplomacy. After years of preparation, a UN diplomatic conference was formally convened in July 2012, but fell short of reaching consensus on a final text and another two week-long diplomatic conference was convened in March 2013 to complete work on the treaty. The treaty opened for signature on June 3, 2013, and entered into force on Dec. 23, 2014²⁸.

However, the Treaty does not directly address the issue of drones or unmanned vehicles, but rather relies on a list of weapons that is under the UN Register of Conventional Arms, a voluntary arms trade reporting system that mostly covers offensive weapons and lacks an oversight over small arms and light weapons. This however has been tackled by the Arms Trade Treaty as it covers these types of goods.

What the Treaty failed to address is the commercialization of unmanned systems, both radio-controlled and autonomous systems, which could have been done by extending the definition of combat aircraft that article 2 letter d of the Arms Trade Treaty. This was addressed in a report written by a UN General Assembly-mandated Experts and endorsed by Secretary-General Ban Ki-moon, recommended that "Member States report armed unmanned aerial vehicles" – weaponized drones – to the UN Register of Conventional Arms under that categories of "combat aircraft" and "attack helicopters"²⁹.

Sadly, the Arms Trade Treaty entered into force in December 2014, but has already been left in the past since it failed to address issues like unmanned vehicles, autonomous weapons or cyber weapons, meaning that the Arms Trade Treaty will only be as watertight as states' interpretation of it,

²³ Nils Melzer, Targeted Killings in International Law, Oxford Monographs in International Law, Oxford University Press, Oxford, 2008, p. 3–4.

²⁴ International Court of Justice Advisory Opinion on Nuclear Weapons, 1996.

²⁵ Ken Butigan, Envisioning an international treaty banning drones, 23 May 2013.

²⁶ Sputniknews, Global ban treaty drafted in Sweden, 26 August 2013.

²⁷ General Assembly adopted said document on the 24th of March 2014, full text is accessible at the following link: http://www.un.org/ga/search/view_doc.asp?symbol=A/HRC/25/L.32.

²⁸ Shervin Taheran, The Arms Trade Treaty at a Glance, ArmsControl.org, January 2016; Amnesty International Q&A: Global Arms Trade Treaty enters into force, 22 December 2014 (Q&A accessible at <https://www.amnesty.org/en/latest/news/2014/12/global-arms-trade-treaty-enters-force/>).

²⁹ United Nations General Assembly Resolution A/68/140, Report on the continuing operation of the United Nations Register of Conventional Arms and its further development, 15 July 2013, accessible at: http://www.un.org/ga/search/view_doc.asp?symbol=A/68/140, p. 16-18.

especially as digital and robotics technology transforms the arms industry³⁰.

2. Drones in operations

2.1. Have there been enough drone operations to establish precedent?

The operation of drones should be regulated in a manner proportionate to the risk of the specific operation. The first armed strike launched from a drone was done in 2001 against Supreme Taliban Commander Mullah Omar³¹ in Afghanistan, which it botched and caused the program to almost be closed when the Pentagon considered taking over the program from the CIA and repurposed it for Operation Enduring Freedom. The Operation was initially another boots on the ground situation that would have ended with more casualties than it was needed to secure victory over the Taliban. By repurposing the drones and backing the Operation with almost 400 aircraft it allowed the USA to only send small teams that could help militias fight back while having air superiority against the Taliban. In November 2002, a Predator was credited with killing an al Qaeda operative in Yemen, who was thought to be responsible for the USS Cole bombing in October 2000, ever since the Obama Administration started using drones, there have been over 372 strikes in Pakistan alone³². As of 4th of March 2016³³, the United Kingdom had over 500 days of active duty missions for its drone fleet marking it as a very efficient way of dealing of foreign threats and also showcasing that one third of the strikes have been done by drones while also that no civilian death was linked to the program³⁴.

But as the US, UK, Israel, Russia and China are expanding their drone operations, Major General Stephen Schmidt, who commands NATO's AWACS early warning fleet, noted that armed UAVs did play a role in the recent Libya campaign. Yet the Alliance has no intention of heading down that path itself³⁵.

Despite Russia and China owning homemade armed drones, they have yet to deploy them in the

same way the US has, but rather they use them as surveillance drones, as seen in Syria³⁶ and Ukraine³⁷, where by using drones, Russian forces and their allies can spot artillery and sniper positions and counter attack them.

2.2. Armed drones in peacekeeping and peace enforcement operations.

Drone missions have increasingly gain support even in the halls of the United Nations, ever since the Democratic Republic of Congo Peacekeeping Operation, as such they will steadily become a staple. In December 2013, the first UN drones began scanning the eastern Great Lakes region of the Democratic Republic of Congo, where one of the world's deadliest conflicts has seen militias, warlords and government forces battling over the mineral-rich district for more than 20 years³⁸. The UN mission showed enough promise that a UN panel, led by Jean Holl Lute³⁹ (former US Homeland Security and senior UN Peacekeeping Official), managed to elaborate a report that requests further drones to be made available for UN missions. UN peacekeeping missions have used surveillance UAVs in other, less publicized instances, but typically during peacetime. For example, the Security Council in Resolution 1706 mandated the use of aerial surveillance to monitor trans-border activities of armed groups along the Sudanese borders with Chad and the Central African Republic⁴⁰. The main issues that derive from the usage of drones by an international mission is regarding the usage of information gained via drones.

Possibly in anticipation of problems associated with the use of new technologies by the UN, as early as 1999 the General Assembly adopted a resolution⁴¹ expressing concern that the latest information technologies and means of telecommunication that can potentially be used for purposes that are inconsistent with the objectives of maintaining international stability and security, and may adversely affect the security of states. This allowed the Secretary-General of the UN to issue a series of

³⁰ Matthew Bolton & Wim Zwijnenburg, Futureproofing Is Never Complete: Ensuring the Arms Trade Treaty Keeps Pace with New Weapons Technology, ICRAC, October 2013, accessible at: <http://icrac.net/wp-content/uploads/2013/10/Futureproofing-ICRAC-Working-Paper-3-2.pdf>

³¹ Chris Woods, The story of America's first drone strike, *TheAtlantic*, 30 May 2015.

³² Bureau of Investigative Journalism spreadsheet <https://docs.google.com/spreadsheets/d/1NAfjFonM-Tn7fziqiv33HIGt09wgLZDSCP-BQaux51w/edit#gid=1000652376>. Updated on 22 February 2016.

³³ Chris Cole, 500 days of British drone operations in Iraq and Syria, *Dronewars.net*, 4 March 2016.

³⁴ Mikey Smith, Michael Fallon claims there have been zero civilian casualties from air strikes in Iraq, *Mirror*, 2 December 2015.

³⁵ Chris Woods, Ten Years since first deadly drone strike, *TheBureauofInvestigativeJournalism*, 21 November 2011.

³⁶ Aljazeera, Russia drone footage shows devastated Damascus suburb, 21 October 2015, accessible at: <http://www.aljazeera.com/news/2015/10/russia-drone-footage-shows-devastated-damascus-suburb-151021054441887.html>.

³⁷ Sydney J. Freedberg Jr., Russian drone threat: Army seeks Ukraine Lessons, *BreakingDefense*, 14 October 2015.

³⁸ Sophie Pilgrim, Are UN drones the future of peacekeeping?, *France24*, 9 April 2015.

³⁹ Louis Charbonneau, UN panel urges increased use of drones in peacekeeping missions, *Reuters*, 23 February 2015.

⁴⁰ Kasaija Philip Apuuli, The use of unmanned aerial vehicles (drones) in United Nations peacekeeping: The case of the Democratic Republic of Congo, *American Society of International Law*, Vol. 18 Issue 13, 13 June 2014.

⁴¹ UN General Assembly Resolution 53/70, 4 January 1990.

reports⁴² regarding the usage of information and communications technologies as such information can be withheld from the general public.

Furthermore, in 2008, a United Nations civilian mission, dubbed MINURCAT, was deployed to protect refugees and humanitarian personnel in eastern Chad and Central African Republic. After one year, the United Nations overtook the mission and as such, they were to substitute the European drone pilots who were already using drones as part of their national standard equipment⁴³. These types of equipment's allowed the United Nations troops to gain an advantage over the 2009 insurgent movement against refugees and humanitarian aid personnel. Another instance of drone operations under an UN mandate was in 2010 when the Nations Institute for Training and Research used satellite imagery to map disaster-stricken areas and in 2011 to map sites of internally-displaced persons⁴⁴.

The usage of drones has not been uniformly welcomed by member states of the United Nations. In 2014, the Security Council debated on peacekeeping where China and Russia made a clear and in-depth study of legal implications and operational challenges that was required before drones can be considered a standard operating procedure in peacekeeping operations⁴⁵ since drones under the MONUSCO force brigade raised issues with how the image of the United Nations was handled when the Organization was picking sides in the conflict. This was after the Secretary-General of the UN, Ban Ki-moon, encouraged broader discussion of how peacekeeping could adapt to new demands; explaining that the groundwork should be laid for extending State authority, reinforcing efforts to ensure adequate force protection, and using all possible forms of technology to ensure that peacekeeping personnel operated more safely and cost-effectively⁴⁶.

Unfortunately, while the UN was celebrating a victory for technology, the Congolese rebels and governmental army started a new recruiting phase of their operations, where veterans of the wars in Iraq and Afghanistan have found work here as privately contracted drone experts⁴⁷, and with the lack of a proper ground operation from the UN, the conflict in Congo still has a long way to go.

2.3. Usage of drones in anti-terrorist operations and extraterritorial law enforcement operations.

The *Oxford Handbook of the Use of Force in International Law*⁴⁸ establishes a situation that outlines the most common situation of how drones in counter-terrorism operations are usually being handled. As such, where a territorial state is willing to take action against terrorists but is unable to do so and its territory continues to be improperly used for a reasonable time, the defending state may cross the border without its consent and dispatch military drones only for the sole purpose of eliminating the threat. As soon as it has been eliminated, the military force must leave the territory. This must be met with a limited scale and time span while affording the defending state more consistent compliance with the principle of double proportionality, meaning that a defending state can use precision strikes to take out cells, camps or the capacity of leadership of the terrorists.

This is just a theoretical outline for the legitimacy of drone strikes in counter-terrorism operations. A practical example is regarding *Reyaad Khan*⁴⁹ a British citizen was killed alongside other two other British citizens under the pretext of self-defense by the Royal Air Force in Raqqa, Syria. The weapon of choice by the Air Force was the drone and the motive was that of the allegiance towards Daesh. As the British Prime-Minister stated: "We were exercising the UK's inherent right to self-defence. There was clear evidence of the individuals in question planning and directing armed attacks against the UK. These were part of a series of actual and foiled attempts to attack the UK and our allies. And in the prevailing circumstances in Syria, the airstrike was the only feasible means of effectively disrupting the attacks planned and directed by this individual. [...] The United Nations Charter requires members to inform the President of the Security Council of activity conducted in self-defence. And Today the UK Permanent Representative to the United Nations is writing to the President of the Security Council to do just that."

Here is just a sample of how drones are part of counterterrorism operations and how efficient they act. However, terrorism is not a stranger to using new technology as well. For

⁴² Representatives of the Group of Governmental Experts on Development in the Field of Information and Telecommunications in the Context of International Security, UN Document A/68/98, 24 June 2013.

⁴³ John Karlsrud, Frederik Rosen, In the eye of the beholder UN and the use of drone to protect civilians, *Stability – International Journal of Security & Development*, p. Art. 27. DOI: <http://doi.org/10.5334/sta.bo>.

⁴⁴ UNOSAT First UAV Mission for IOM in Haiti. Unmanned Vehicles, February 28 2012, accessible at: <https://www.unitar.org/unosat-carries-out-first-uav-mission-iom-haiti>.

⁴⁵ David Curran, Trudy Fraser and others, *Perspective on Peacekeeping and Atrocity Prevention: Expanding Stakeholders and Regional Arrangements*, Springer International Publishing, Switzerland, 2015, p. 67.

⁴⁶ Security Council, Meetings Coverage, Delegates Argue Merits of Unmanned Aerial Vehicles, Other Technologies as Security Council Considers New Trends in Peacekeeping, 2014.

⁴⁷ Somini Sengupta, Unarmed Drones Aid UN Peacekeeping Missions in Africa, 2 July 2014, NY Times.

⁴⁸ Marc Weller, *Oxford University Press*, 2015, United Kingdom, p. 1201 and following.

⁴⁹ Chris Cole, Briton killed by targeted British drone strike, dronewars.net, 7 September 2015.

example, the Aum Shinrikyo group or Al-Qaeda planned to use remote-controlled airplanes to deploy sarin gas and to attack the G8 Summit in Italy⁵⁰. Going back to counterterrorism operations, the most drone hits that a state sustained up until now is Pakistan⁵¹ with over 300 strikes and over 2700 confirmed kills. Obama himself accepted the fact that drone attacks in Pakistan and Afghanistan have not been foolproof and there had civilian casualties, which for him are “heartbreaking tragedies”, which would haunt him and those in his chain of command for “as long as we live”⁵².

Such threats made the United Kingdom to rebrand its drone squads from Reaper Drones to Protectors⁵³, while also doubling it in size, meaning that they will focus on repurposing drones for both military and police activities. Other states, such as Ukraine and Russia, have adopted drones in their own counterterrorism operations, notably in the recent conflict between the governmental opposers and far right groups in Ukraine, where the press reported on UAVs having been shot down by various sides in Kyiv’s war with Russian-backed separatist insurgents operating in Ukraine’s far eastern Donbas region. Remarkably, the pressing military need to deploy life-saving unmanned systems during the Anti-Terrorist Operation in Donbas led the state to build a *People’s UAV*, financed by the people, for the Ukrainian army. The drone reportedly would increase the survivability of the Ukrainian forces—particularly the airborne forces, which are continually threatened by the insurgents’ man-portable, surface-to-air guided missiles. The crowdfunding campaign is ongoing since a drone of this caliber requires a minimum of 33 000 USD to be built, the Ukrainian General Staff says the military needs up to 100 such UAVs⁵⁴.

The indicated cases had been speculated beforehand by the United Nations Special Rapporteur on the promotion and protection of human rights and fundamental freedoms while countering terrorism⁵⁵, in 2013, when Ben Emmerson launched an inquiry into the usage of drones inside asymmetrical warfare and counterterrorism operations and whether such authorizations would surmount to civilian casualties and the breach of the proportionality principle enshrined in the international humanitarian law. The

Report states that in a situation qualifying as an armed conflict, the adoption of a pre-identified list of individual military targets is not unlawful, if based upon reliable intelligence it is a paradigm application of the principle of distinction, however human rights law prohibits operations that the only purpose is that of killing a person⁵⁶. The statements go further and showcase the power of drones and other conventional air support capabilities of states in how NATO conducted operations in Libya. The paradigm that was applicable there was that on precision targeting that had collateral damage, but this case also was explicit enough to warrant a further check on transparency of the killings.

The rules of conduct established in targeting operations⁵⁷ in both counterterrorism operations and in other armed situations are those covered by international humanitarian law and human rights law. As such, the only ones to be targetable are those who are either under an organized armed group that has a sufficient degree of militarization and understating of how the rules of war apply, while also take up an active role in an armed conflict or have a continuous combat function. The same rule of targeting applies to civilians who also take part in the aforementioned cases, but are not members of said group. According to ICRC, examples of direct participation include taking part in a direct act of violence; transmitting information for immediate use in an armed attack; transporting equipment in close proximity to an attack; and acting as a guard, intelligence agent or lookout.

Furthermore, the intelligence needed for targeting is critical, as it is a component of the principle of distinction. Currently, there are a few types of targeting assessments⁵⁸, first of those being the classic high-value and high-risk target, like for example Osama bin Laden or Abu Bakr al-Bagdadi. This classification implies that the identity and function of the target is critical to the group’s operations. The second category that could be used for targeting is that of targeting a group or individual who is part of the activity, this is the classic targeted killing objective who has a pattern of life analysis deployed against him. Past these patterns, the target could also be a location or a type of goods that can be exchanged or has a value for the target (for

⁵⁰ Dhrubajyoti Bhattacharjee, Unmanned Aerial Vehicles and Counter Terrorism Operations, Indian Council of World Affairs, 29 April 2015, pg. 5-6.

⁵¹ Datasheet: “Drone Attack in Pakistan” (2015), South Asia Terrorism Portal, 2005-2016.

⁵² Steve Coll, The unblinking stare, The New Yorker, 24 November 2014 Issue.

⁵³ Chris Cole, UK rebrands Predators as Protectors while ignoring difficult questions, Drone Wars UK, 5 October 2015.

⁵⁴ Maksym Bugriy, The Rise of Drones in Eurasia (Part One: Ukraine), Eurasia Daily Monitor, Vol. 11, Issue 113, 23 June 2014.

⁵⁵ United Nations General Assembly UN Doc. A/68/389, 2013.

⁵⁶ United Nations Human Rights Council A/HRC/14/24/Add.6.

⁵⁷ As established by international law and confirmed in the The Public Commission to Examine the Maritime Incident of 31 May 2010.

⁵⁸ See note 55, para. 74-76 and note 23, pg. 40-43.

example an oil decker⁵⁹), but states also conceive a list of restricted or prohibited targets.

Later on, in 2014⁶⁰, Ben Emmerson updated the information on the issue of using drones in counterterrorism operations. This new report opened up with a series of questions regarding the legality of conducting counterterrorism operations outside of the origin state's borders and also if the preemptive doctrine still stands as a argument in favor of such a practice. These questions received a series of answers from states who were targeted by such operations (for example Yemen or Pakistan) and they claimed that a consensus for strikes had been reached between governmental and parliamentary agents and representatives, but they claimed to have also stated a series of rules of conduct which the assisting state usually does not follow. For example, Pakistan has been the target of sustained drone strikes because of the unwillingness of incapability of Pakistan do deal with terrorists on its territory, thus allowing in a tacit manner for the United States of America to intervene and assist the Pakistani government. This situation has been afoot since 2004⁶¹, ever since the Bush Administration started to target the Tribal Areas along the Afghan-Pakistan border, since then, strikes had been ongoing inside the territory of both states. Although, the United Nations Charter under articles 2 para. 4 and article 51 would allow the usage of force against a terrorist group that is acting inside the territory of another state and certain conditions for that state would be met, critics of such a military doctrine went ahead and issued complaints, but recently, the German Federal Prosecutor General⁶², alongside the USA Attorney General⁶³, concluded that drones who targeted and killed citizens from their states have been authorized in doing so by their respective state and under a legal justification and also that Pakistan had consented unofficially to targeted killings inside the Federally Administrated Tribal Areas.

Also, the Prosecutor General rejects the oft-heard claim that the use of drones is inherently unlawful. While noting that the physical disconnect between the drone operator and target makes it harder to comply with the principle of distinction in certain circumstances, he emphasizes that in this case drones were operating where ground troops

could not, but where the two reports contradict themselves is regarding whether or not the War on Terror could be justified to neutralize more people under a reasonable suspicion. The US General Attorney⁶⁴, however expresses that counterterrorism still focuses on the paradigm *kill or capture*, which is a paradigm that is applicable in armed conflict, while the Prosecutor General stated that human rights law is applicable in drone strike under counterterrorism operations and as such, the *capture before killing* paradigm is more appropriated.

The truth is somewhere in the middle, as a meta-study finds that: “ [...] *one reasonably consistent finding [...] is that drone strikes have little influence, positive or negative, on the amount of insurgent violence that occurs in Afghanistan. This is important, because one objective of the drone strike campaign is to weaken and undermine insurgent organizations based in Pakistan that launch attacks against American, Afghan, and international military forces*”⁶⁵, showing that for 26 alleged terrorists killed with drones, 1 civilian died as collateral damage.

While indeed current technology requires a *man-in-the-loop*⁶⁶, meaning that a robot is controlled by a human being and has no independent decision-making authority, the current trends forecast that intelligent weapon systems are being prepared and deployed around the world.

3. The new threat of intelligent drones.

3.1 What are autonomous drones?

Robotics is a chapter that is currently gaining a foothold in military operations, because it focuses less on exposing soldiers on the battlefield and rather on achieving more results with less money and resources invested⁶⁷. As stated before, robots are not currently able to operate autonomously, but rather with a person or group of persons that handle the conduct and programming of the drone with the standards of international humanitarian law. Current Reaper drones require a team of minimum 168 people to operate⁶⁸ and usually require a lot of time to gather intelligence on targets and acquire authorization to commit to the plan, but if

⁵⁹ Loulla-Mae Eleftheriou-Smith, Russia release fresh footage of air strikes in Syria claiming to hit Isis oil targets, Independent, 27 December 2015.

⁶⁰ United Nations General Assembly, UN Doc. A/HRC/25/59, 11 March 2014.

⁶¹ Mark Thompson, The CIA's silent war in Pakistan, TIME, 01 June 2009.

⁶² Claus Kress, Aerial Drone Deployment on 4 October 2010 in Mir Ali/Pakistan, Germany Federal Prosecutor General, 157 ILD 722, Case No 3 BJs 7/12-4, 23 July 2013.

⁶³ Neta C. Crawford, Accountability for killing – Moral responsibility for Collateral Damage in America's Post-9/11 Wars, Oxford University Press, 2013, pg. 208-211.

⁶⁴ BBC interview with Eric Holder, Bin Laden death “not an assassination”, BBC, 12 May 2011.

⁶⁵ James Igoe Walsh, *The Effectiveness of Drone Strikes in Counterinsurgency and Counterterrorism Campaigns*, Strategic Studies Institute of US Army War College, September 2013.

⁶⁶ Dan Saxon, International humanitarian law and the changing technology war, Martinus Nijhoff Publishers, Boston, 2013, pg. 71-73.

⁶⁷ A. Krishnan, Killer Robots: Legality and Ethicality of Autonomous Weapons, Farnham Ashgate, 2009.

⁶⁸ R. Johnson, US Civilians are now helping decide who to kill with military drones, Business Insider, 30 December 2011.

autonomous or intelligent drones would start being used, then they could cut-down on a lot of management and ensure that only a few human beings are needed to oversee the drones. For example, the Dalle Molle Institute for Artificial Intelligence⁶⁹ used a series of human hikers to map out a forest trail and tracked their time needed to traverse the location, afterwards, they sent a drone which had the images stored in its algorithm and allowed it freedom of exploration which it took and managed to find a faster route than the humans who first marked the trail.

This is backed up by the recent United States of America's Federal Aviation Administration's Notice⁷⁰ and Europe's Aviation Safety Agency⁷¹ Guidelines which both allow autonomous computer boards to be installed and used in drones, and as a further notice, this technology is a industry standard.

Due to the secrecy shrouding military technology, it is difficult to ascertain precisely the current cutting-edge capability of military robotics. Prototypes are indeed publically shown, like the X-47B drone⁷² which managed to do a autonomous refuel during flight, or Super aEgis II⁷³, a autonomous gun turret that can engage in self-defence different targets that are threatning the border of a state, to the latest Ocean Multipurpose System⁷⁴ that could launch nuclear missiles on its own. Professor William Boothby⁷⁵ stated that: "*weapons are tools of warfare, of killing, maiming, and destruction*" and as such the ICRC Guide to the Legal Review of New Weapons, Means and Methods of Warfare encompasses a similar approach, but fails to address drones or autonomous weapon systems, except the provision granted by article 36 from the Additional Protocol I of the Geneva Conventions which could be seen as a similar approach to how the 1868 St. Petersburg Declaration was considered the first major international instrument that prohibited the use of a specific weapon in armed conflicts⁷⁶.

In order to fully address the legality question of autonomous and remote weapons systems it is

essential to consider how they are currently used. While autonomous and remote weapons systems may not be unlawful, the ways they are used may be. If such weapons systems are implicated in legally shady practices, however, it may justify a reconsideration of the legality question⁷⁷. This raises the question of the requirement of distinction between civilians and military targets, or more precise, terrorist suspects. In armed conflicts, lawful targets are easy to spot since they have to have a weapon and be dressed in a military attire, however civilians who take part in the hostilities usually do not have any of the mentioned requirements, as such the discrimination would be possible since the current artificial intelligence would not be able to spot the difference. This is outlined by a lot of critics⁷⁸ who seem to focus on the fact that drones are man-made and programmed by humans, thus they do not rival human beings in thinking process. But what critics still miss-out on is that most states will not focus replacing the *man-in-the-loop* principle, but only give him less work as a pilot and more roles in oversight⁷⁹. Without this lack of oversight and allowing full control for autonomous drones to take flight would lead to cases similar to *Bankovic* or *Alejandre*, since in both cases civilians were targeted and killed in international airspace by regular armed forces outside their legality, now the possibility of a drone to acquire a target on its own inside a forbidden would be a diplomatic and legal nightmare⁸⁰, which it is to say current drone strikes in Pakistan, Yemen, Somalia and Afghanistan are only the tip of the iceberg.

Another key criticism is that of proportionality, meaning that the use of force must be done in such a manner that it would prevent expressiveness of harm of civilian or civilian objects. This is highly outcryed since a computer could not distinguish between civilians and unlawful combatants. While current drone strike estimates⁸¹ contradict those from the

⁶⁹Alex Brohaw, Autonomous search-and-rescue drones outperform humans at navigating forest trails, The Verge, 11 February 2016.

⁷⁰Evan Ackerman, FAA Unveils drone rules: autonomy is in, drone delivery is out, IEEE Spectrum, 16 February 2015.

⁷¹Civil drones in the European Union, European Parliament Briefing, October 2015.

⁷²Clay Dillow, What the X-47B reveals about the future of autonomous flight, PopSci, 5 July 2013.

⁷³Andrew Tarantola, South Korea's auto-turret can kill a man in the dead of night from three clicks, Gizmodo, 29 September 2012.

⁷⁴Jeremy Bender, Russia may be planning to develop a nuclear submarine drone aimed at inflicting unacceptable damage, Business Insider, 11 November 2015.

⁷⁵William Boothby, Weapons and the Law of Armed Conflict, Oxford University Press, Oxford, 2009, pg. 229–230.

⁷⁶Adam Roberts, and Richard Guelff, Documents on the Laws of War, Oxford University Press, Oxford, 2000, pg. 53.

⁷⁷Hin-Yan Liu, Categorization and legality of autonomous and remote weapons systems, International Review of the Red Cross, Vol. 94, Nr. 886, Summer 2012, pg. 643–646.

⁷⁸Marielle Mathee, Prigit Toebes, Armed conflict and international law: In search of the human face, Springer Publishing, Hague, Netherlands, 2013, pg. 56–58.

⁷⁹As explained in the Unmanned Systems Integrated Roadmap FY 2011–2036, devised by the Department of Defence, United States of America; the report can be downloaded from: <https://publicintelligence.net/dod-unmanned-systems-integrated-roadmap-fy2011-2036/>.

⁸⁰Directorate-General for External Policies of the Union, Human rights implications of the usage of drones and unmanned robots in warfare, Policy Department, 2013, pg. 15–17.

⁸¹Drone strike graphs gathered by an independent source: The Bureau of Investigative Journalism – Drone Strike Graphs, accessible at the following link: <https://www.thebureauinvestigates.com/category/projects/drones/drones-graphs/>

CIA82, whom claim that there had been zero civilian casualties or at the very least 1 civilian for 19-26 terrorists, by a large margin, with almost 1000 civilians killed and almost 2000 injured out of 4000 know hits on suspected terrorist targets, an autonomous drone would have to fill a very serious legal void to be able to fly and be allowed to target and kill a person suspected of terrorism or other serious crime, even with human oversight.

Lastly, if persons who fall under the criteria of injured, sick or hors de combat are not explicitly integrated in the programming of the drone, then they would end up being targeted, shadowed and killed, because of a faulty program or failing to provide enough information back at the human overseer. While critics still state that drones acting on their own could not understand a situation in which a human being would want to surrender or would state that he or she is injured, Samsung developed a technology and the necessary hardware for it to be used with, that allows a computer to recognize a person who wants to surrender by some universally accepted signs (raised hands, weapon over head) programmed into its sensors. The gear that it was developed is called the Techwin SGR-A1 Sentry Guard Robot⁸³ and it allows for the weapon system to not fire on a person who meets the programmed requirements and also to track and give instructions to the person via built-in microphone. There are difficulties inherent in attempting to surrender to remote weapons systems, but these may be overcome, as in an example provided by a scholar, where Iraqi combatants effectively surrendered to an American remotely controlled UAV in the first Gulf War⁸⁴.

Unfortunately, technology has to progress further as robotics are currently better employed in repetitive tasks, quality assurance, mass manufacturing and underwater, airspace and cosmic exploration rather than being deployed on the battlefield. Automation has indeed come a long way to help humans to do menial tasks, which would usually end up in either a psychological fatigue or other physical pains (carpal tunnel syndrome)⁸⁵

Current legal frameworks still fail to grasp the power of robotics and its growth spur, meaning that by the time a law or treaty has been passed, the next-generation of robotics will have already been deployed in both civilian and military fields, leaving

the rest of mankind struggling to cope with the fallout.

3.2. Not enough legal guarantees to ensure usage.

To understand why legal guarantees are minimal at best, we first have to understand how other technologies evolved. For instance, certain types of conventional weapons such as the dum-dum bullets, chemical, bacteriological, incendiary, mines, blinding lasers and barrel bombs all have been outlawed or prohibited to some extent by international treaties, but this does not necessarily mean that drones will follow suite, but rather that mankind has understood by now which path to take.

For this, scholars⁸⁶ claim that drones have their own benefits, some that could actually be better handled than humans since its sensors are more advanced than a human eye and the microprocessor inside the drone can process information thousands of times faster than a human, as such the quality of the sensors and the programming code will make the difference between a botched operation and a precision strike that only harmed the intended target.

The precise determination of legality to deploy such systems will depend on the system itself, so having an international standard for the load-out may make the difference between a lawful strike and an unlawful one. This means that with enough information gathering and combinations, then the drone could actually refrain from targeting or killing a person until further analysis⁸⁷. However, as Carl von Clausewitz (1832) stated: “the tendency to destroy the adversary which lies at the bottom of the conception of War is in no way changed or modified through the progress of civilization”, mankind usually forgets the errors from the past in the wake of the future. Scholars⁸⁸ tend to remind combatants that morality and standards tend to be trampled during war and as such laws are disobeyed. What many others are contemplating is whether or not an autonomous drone or weapon system could actually be able to be more humane on the battlefield than a human being, but the answer is not so staggering since artificial intelligence learns traits from humans, just like Tay⁸⁹, the Microsoft Twitter bot, learned to be genocidal and racist. This tied to current battlefield trends where a combatant will want to achieve revenge for their fallen friends, family or comrades in arms, we then have a seriously

⁸²Scott Shane, C.I.A. is disputed on civilian toll in drone strikes , The New York Times, 11 August 2011.

⁸³An overview of its functions can be found at this link: <http://www.globalsecurity.org/military/world/rok/sgr-a1.htm>,

⁸⁴Peter W. Singer, *Wired for War*, Penguin, New York, 2009, pg. 56-57.

⁸⁵Lucinda H. Cohen, *Surrendering to the robot army: why we resist automation in drug discovery and development*, *Future Science, Bio-analysis* 2012, ISSN 1757-6180, pg. 985-987.

⁸⁶Justin McClelland, *The review of weapons in accordance with Article 36 of Additional Protocol I*, *International Review of the Red Cross*, Vol. 85, No. 850, 2003, p.g 404.

⁸⁷Ronald Arkin, *Ethical Robots in Warfare*, *Technology and Society Magazine*, no. 1, Spring 2009.

⁸⁸Ronald Arkin, *The case for ethical autonomy in unmanned systems*, Georgia Institute of Technology, United States of America, pg. 1-3, accessible at this link: http://www.cc.gatech.edu/ai/robot-lab/online-publications/Arkin_ethical_autonomous_systems_final.pdf

⁸⁹Abigail Beall, *Microsoft's artificial intelligence Twitter bot has to be shut down after it starts posting genocidal racist comments one day after launching*, *DailyMail*, 25 March 2016.

dangerous concoction that can spill over in programming as well.

So the real threat to humankind is not whether these drones should be legal or not, but rather if we as a species have evolved enough to understand the need for robotics and artificial intelligence, or based on current trends, we would just be using a drone in the same way as a person would use a gun or knife. Incidents have already happened where persons modified common civilian drones do be equipped with guns or even flamethrowers⁹⁰ and would only be one step away from using them in highly dense urban centers.

The proliferation of robotics and autonomous weapon systems will become a major trend in the future of warfare. These machines guided by radars, sensors, artificial intelligence, without the need for rest and able to operate equally good in all weather and terrain conditions will slowly push out the humans from some military tasks. Though the absence of human presence can be useful in terms of better combat efficiency and less casualties, it is questionable if these robots can show morals, war ethics and even mercy towards enemies, regarding them as human beings. However, the real test of drone legality will come once responsibility for a strike will be required, seeing as how currently the CIA dismisses civilian casualties and with the recent killing of cases of Reyaad Khan, Anwar al-Awlaki and even Samir Cirsten, citizens of western civilizations (United Kingdom, United States of America and Germany), the problem of responsibility has been brought un against the agencies who are authorized to conduct such operations, but unfortunately the cases were dropped by courts due to the secrecy shrouding the operations⁹¹. Clearly a human must stand trial for the harm a machine inflicted, but the problems associated with responsibility are further compounded by the atomized approach of the law to questions of responsibility; that is, that it seeks to attribute responsibility to a concrete and definable entity for the creation of some specified effect. This has implications that not only one human is responsible, but rather an entire network of personnel, since a drone requires a team that sometimes stands to a number of hundreds (a personnel of 300 just for one Global Hawk), could

spill a disaster for victims who are trying to get justice for their loved one⁹². These is similar to how a bee hive works, where there is no singular will but rather a hive mind.

4. Why a drone treaty is needed.

4.1 Failed attempts and the reason they were counterproductive.

Failed attempts have been made up until now regarding the inclusion of drones and lethal autonomous weapon systems in the Arms Trade Treaty, however other strategic movements such as the World Social Forum in Tunisia (March 2013), the annual United Nations Convention on Certain Conventional Weapons Meeting of Experts (more precisely the time frame of 2013-2016), United Nations Human Rights Council and the European Union Parliament, not to mention NATO forums, all of these are trying to find a legal framework that would fit in with the current development trends, but sadly, the time consuming negotiations and inefficient propaganda has led to a stalemate.

This stalemate is caused by misinterpreting⁹³ drones as a system, since both Russia and the United States of America still consider drones to be classified as missiles and as such must comply with the Intermediate-range Nuclear Forces Treaty (1987) since they have to be launched by a platform. Another factor for the stalling of adopting a legal framework is the non-governmental⁹⁴ movements who want to ban drones altogether and do not want to engage in negotiations but rather just enforce their own point of view, which is counterproductive. International law through the International Court of Justice in the case of the *North Sea Continental Shelf*⁹⁵ that parties should start negotiate in the hope of reaching a consensus and should not only try to achieve their own agenda, but rather think about the other parties needs as well. The same principle of negotiation sparked treaties such as the Non-proliferation Treaty or the START Treaty, both of which had at their core the International Court of Justice Advisory Opinion on Nuclear Weapons. Even these latter examples did not end up prohibiting nuclear weapons and this is exactly why the initiative that came from Sweden in 2013 failed.

⁹⁰Ben Popper, The teenager behind the drone gun now has a drone-mounted flamethrower, The Verge, 08 December 2015.

⁹¹ For example, in the *Al Aulqi vs. Panetta* (United States of America District Court of Columbia Case JDB 10-1469), the Center for Constitutional Rights and the American Civil Liberties Union tried to force the CIA to take up responsibility for their strikes and to release information on how they acquire targets and execute them with drones, but sadly the Court dismissed the case based on the fact that the CIA documents are protected via state secrecy. Recently, British families whose children went to fight for Daesh, could litigate the UK Government for extra-judicial executions, unless the UK will publish some legal justifications for these targets. (DailyMail, 8 September 2015 - <http://www.dailymail.co.uk/news/article-3225456/Families-ISIS-fanatics-sue-Britain-millions-RAF-drone-strike-seen-extra-judicial-execution.html>).

⁹² Mark Coeckelbergh, From killer machines to doctrines and swarms, or why ethics of military robotics is not (necessarily) about robots , *Philosophy and Technology*, Vol. 24, 2011, pg. 273.

⁹³ Tim Farnsworth, Moving beyond INF treaty compliance issues, *ArmsControlNow*, 5 September 2014.

⁹⁴ See supra note 26.

⁹⁵ International Court of Justice, judgment 20 February 1969.

Other reasons why the current drone situation has been ongoing without a proper treaty may include issues with the opportunity to adopt written rules for the entire international community. Currently, the United States of America, the European Union, Russia⁹⁶ and China⁹⁷, all follow similar rules with other states like India, Iran and Israel following close behind in similar, albeit adapted legislation. Ongoing issues with other forms of legislation is the lack of a compliance mechanism to include drones under the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies⁹⁸, mainly because there is no proper watchdog agency to count the sales of drones.

The United Nations Security Council has begun imposing drone technology in certain armed conflicts, like the one in Ukraine, where through Resolution 2202⁹⁹ (2015), where the usage of drones is to be allowed to document the ongoing situation, this resolution being followed up from the MONUSCO mission, where drones proved that they can be a game changer for the international peacekeepers or observatory missions.

4.2. Conclusions from NGO-Governmental talks. A legal war of attrition.

The year 2015 brought hope that a drone treaty or convention is in the works, as the United Nations Convention on Certain Conventional Weapons Expert Meeting that was held between the 13th and 17th of April heavily focused on Lethal Autonomous Weapon Systems and also on the 23rd of October, discussion at the United Nations Office for Disarmament Affairs offered a proper insight towards what governments around the world consider drones, and in particular armed drones. These negotiations allowed the rest of the world to voice out their suggestions through the non-governmental organizations, who took their turn to explain that drones must comply with article 36 of the Additional Protocol I of the Geneva

Conventions¹⁰⁰, the ICRC being actually content with progress so far, while others such as the Article 36 group¹⁰¹ who voiced discontent with how the United Nations not only handles armed drones, but how it handles the usage of armed drones in situations such as Yemen, Pakistan, Gaza or Ukraine, where drones alongside other forms of prohibited ammunitions are being deployed by parties. Another discontent party is the International Committee for Robot Arms Control¹⁰² who voices concern about not equipping drones with sub-lethal or less-than-lethal weapons and only going for heavy weapons and ammunition since these types of means and methods are used in armed conflicts and not a general purpose, in which a state may conduct police activities. ICRC urges States Parties to continue their work in the forum and others, starting with an open-ended Group of Governmental Experts and moving to substantive negotiations on a preemptive prohibition of all weapons systems that lack meaningful human control over all individual attacks. Increased transparency and better weapons reviews, while crucial, are not enough¹⁰³.

Such statements only show how governments try to understand a potential technologic breakthrough, while the non-governmental agencies try to push a one-sided negotiation, thus failing to comply with the founding principles of adopting a treaty, negotiations and the common good orientation.

In conclusion, this paper was meant to be an informative document on how drone technology and drone laws have evolved over the past 3 years, but also its scope was to show that preemptive banning of drones would cripple a new industry that can create over 150 000¹⁰⁴ new jobs, in Europe alone, by 2050. A project for at least 100 000 working spaces related to drones has already begun in the United States of America¹⁰⁵, with many drones being used in farm work and governmental safety and security¹⁰⁶, such as firefighting or police surveillance.

⁹⁶ Edwin Kee, Russia looks into drone registration rules, *Ubergizmo*, 29.03.2016; Kelsey D. Atherton, Russia's new drone rules look a lot like America's, *PopSci*, 4 January 2016.

⁹⁷ Miriam McNabb, China's new drone regulations, *DroneLife*, 19 January 2016.

⁹⁸ 1996; is to complement existing export control regimes aimed at preventing or constraining the proliferation of weapons of mass destruction and their means of delivery.

⁹⁹ Meeting coverage can be accessed here: <http://www.un.org/press/en/2015/sc11785.doc.htm>

¹⁰⁰ CCW Meeting of Experts on "LAWS", 17 April 2015 Closing statement by the International Committee of the Red Cross (ICRC), accessible at: [http://www.unog.ch/80256EDD006B8954/\(httpAssets\)/E2917CC32952137FC1257E2F004CED22/\\$file/CCW+Meeting+of+Experts+ICRC+closing+statement+17+Apr+2015+final.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/E2917CC32952137FC1257E2F004CED22/$file/CCW+Meeting+of+Experts+ICRC+closing+statement+17+Apr+2015+final.pdf)

¹⁰¹ Statement by Article 36 to the Convention on Certain Conventional Weapons Geneva, 12 November 2015, accessible at: <http://www.article36.org/wp-content/uploads/2015/11/CCW-Statement-Nov-2015.pdf>

¹⁰² ICRC opening statement to the Convention on Certain Conventional Weapons Geneva, 13 April 2015, accessible at: [http://www.unog.ch/80256EDD006B8954/\(httpAssets\)/720A8B54CB5DD46DC1257E2600609A83/\\$file/2015_LAWS_MX_ICRC.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/720A8B54CB5DD46DC1257E2600609A83/$file/2015_LAWS_MX_ICRC.pdf)

¹⁰³ ICRC Closing Statement to the Convention on Certain Conventional Weapons Informal Meeting of Experts at the United Nations in Geneva, delivered by Dr. Matthew Bolton, accessible at: [http://www.unog.ch/80256EDD006B8954/\(httpAssets\)/62045282E84824EFC1257E2D004BF2B7/\\$file/2015_LAWS_MX_ICRC_WA.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/62045282E84824EFC1257E2D004BF2B7/$file/2015_LAWS_MX_ICRC_WA.pdf)

¹⁰⁴ Lords Select Committee, Drone industry could create 150,000 jobs in EU, United Kingdom's Parliament.

¹⁰⁵ Tim Fernholz, The US Drone economy will create 100,000 jobs, say companies who make drones, *Quartz*, 12 March 2013.

¹⁰⁶ James Vincent, Firefighters use drone to help rescue stranded rafters, *The Verge*, 2 July 2015.

The real attrition is whether technology breakthroughs can push lawmakers into adopting *living* legislative tools, meaning that they adopt and modify new rules without having to repeat the preceding steps, thus engaging in invigorating the economy and other economic

activities, without punishing or restricting technology in such a way that would cut interest in a technology that could one day be pushed to help explore space or other unreachable locations for human kind.

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