
Restriction And Classification Of Unmanned Aerial Vehicles In War According To The Principles Of International Law

Mohamad Akib Ismail ¹, Fenty U. Puluhulawa ², Mellisa Towadi ³

¹ Faculty of Law, Universitas Negeri Gorontalo, Indonesia. E-mail: chococaine22@gmail.com

² Faculty of Law, Universitas Negeri Gorontalo, Indonesia. E-mail: fentypuluhulawa@ung.ac.id

³ Faculty of Law, Universitas Negeri Gorontalo, Indonesia. E-mail: mellisatowadi@ung.ac.id

ARTICLE INFO

Keywords :

Classification ;
Restriction; UAVs.

How To Cite :

Ismail, M. A, Puluhulawa F. U., Towadi. M. (2020). Limitation And Classification Of The Use Of Unmanned Aerial Vehicles In War According To Principles Of International Law . *Estudiante Law Journal*. Vol. 2 (3): 614-626

DOI :

ABSTRACT

This research aims to find out how international law exists in the assessment and limits the company of Unmanned Aerial Vehicles (UAVs) in war from international legal principles and provides an overview of the classification of UAVs as weapons based on existing regulations. By regulations and international legal products that are the limiting parameters of UAVs such as St. Petersburg 1868, The Hague Convention 1907 and also pay attention to the foresight regarding the classification of UAVs themselves. The research method used is the juridical normative legal research method. The problem in this article is how to limit the use of UAVs in the war based on the principles of international law and knowing how to classify UAV classes as weapons in battle according to international law. Based on the research results on the use and classification of UAVs in the world of firearms, it is still far from clear. It has not been able to provide "safety" parameters clearly and unequivocally in international legal products. The use of UAVs as weapons is still relatively new. Researchers categorize UAVs now better known as the AWS category. The use of which will be limited by the principles of international law.

©2020 Ismail, M. A, Puluhulawa F. U., Towadi. M.

Under the license CC BY-SA 4

1. Introduction

World war is impossible to eliminate. Therefore, the law aims to regulate and minimize the impact on the victims of the war. In every battle and all forms of conflict, of course, weapons are no stranger, and in their development, all forms of weaponry evolve along with technological developments. In the increasingly rapid technological developments, the entire International Community is competing to become a pillar in this regard, not only in the economic and social fields but also because technology has penetrated rapidly in military power. Various combatant weapons began to appear, which developed very progressively in the past three centuries, becoming an arena for demonstrating the capabilities of technology in the military.

During the First World War, fighter aircraft became an example which initially became a means of transportation modified in such a way as to become a combat tool with weapons that could be used. Make the lives of people in an area destroyed in a short time. Today's technological capabilities are still skyrocketing by consistently developing, seen from the development of UAVs as a type of aircraft that can be controlled from a distance. The meaning of UAV itself when viewed. Based on an article published in 2010 in Peace News, the embodiment of the UAV written by Jim Wright & Chris Cole is:

"Unmanned aerial vehicles (UAVs), additionally referred to as UAVs, are craft either controlled by 'pilots' from the bottom or increasing, autonomously following a pre-programmed mission. (While there are dozens of various varieties of UAVs, they primarily consist of 2 categories: people used for intelligence activity and police work functions and people armed with missiles and bombs)."¹

The definition of UAV is categorized into two, UAV as a tool for reconnaissance and surveillance and also UAV equipped with weapons. UAVs have initially been a tool for spying (intelligence gathering), immediately began to be used as a deadly tool of war and far from respecting humanity. This is evidenced by the track record of the UAV itself, which was initially used for intelligence gathering on several tasks in terms of history. UAVs started quality improvement as the latest spying tools in the cold war era. Uncrewed reconnaissance aircraft is becoming an essential role in the surveillance and military-strategic management. After the Yom Kippur battle in 1973, Tadiran Israel upgraded the Mastiff UAV to assist ground forces in supplying information from an aerial perspective. The Israeli aircraft industry started testing its UAV. The UAV is the test result and was known as the IAI Scout, who served in the Lebanon war in 1982.

¹ UAV Wars (2017) from : What are UAVs ?/ <http://UAVwars.net/aboutUAV>, Accessed Oktober 2021

Scouts functioned in spying on Hezbollah troops in the Bekaa Valley, besides Israel using it as a decoy to outwit and make Hezbollah anti-aircraft systems and secure passage for manned aircraft. US Gulf of Tonkin witnesses In August 1964, the United States Navy and North Vietnam Navy became actors in the UAV conflict. From that year until the collapse of Saigon in 1975, the Strategic Reconnaissance Wing released UAVs to become the eyes of the sky in North Vietnam.²

Then it changed when drones were equipped and used to gather information and as a combat tool in the implementation of the Global War on Terror operation. Drones are manifested as weapons in eradicating all acts of terror by eliminating several individuals who are claimed to be terrorists.³

Barack Obama then increased drone strikes four times compared to the drones launched during the Bush administration. This time against the Al-Qaeda organization in Pakistan. In 2009 when Obama was in control of the United States, 51 drone strikes had hit the Al-Qaeda organization, which was initially aimed at eliminating it from the target, not even in the worst-case scenario, killing innocent civilians basically must be protected by law, especially international law.⁴ Suppose you look at the United States, which is known as a military superpower. In that case, it should be noted in one analysis of the Organization that prioritizes the UK, explaining that drone attacks in Pakistan at the hands of Barrack Obama claimed the lives of local civilians with a total of 416-951 lives. People reported being 168 to 200 people are categorized as children.⁵ America's own Central Intelligence Agency began arming the Predators asking them to carry out additional attacks against suspected Al Qaeda and Taliban leaders in Afghanistan. With only about 40 missiles fired in October and November 2001 compared to more than 6,500 human-crewed attack aircraft, the Predator's contribution to the war effort is modest. It is estimated that the Predators only launched target-independent attacks in Afghanistan at the end of their first year in the conflict. They were more commonly used to mark targets for human-crewed aircraft, helping to carry out about 525 strikes during the first two months of fighting in Afghanistan. The Bureau of Investigative Journalism estimates that only 52 assaults were carried out during President Bush's tenure in office, resulting in 416 deaths, including approximately 167 civilians. 36 Dependence on armed drones, therefore,

² Firdaus Noor "Histografi *drone* : Dari Militer Hingga Sinema, ProTVF, Volume 4 No 2 2021 p. 185-205

³ Susan Breau dkk, (2011) Discussion : Drone Attacks, International law, and The Recording of Civilian Casualties of Armed Conflict, Oxford Research Group, , hal 2.

⁴ Katherine Tiedemann & Peter Bergen (2010). : the *Drone An Analysis of U.S. Drone Strikes in Pakistan* (2010-2014), New America Foundation, hal. 1

⁵ Targetted Killing , Council Of Foreign Relation, [Http://www.cfr.org/Background/ Targetted-Killings](http://www.cfr.org/Background/ Targetted-Killings)

developed slowly when the Bush administration administered the program.⁶

Based on some of the reviews above, the researcher sees that in terms of international law, crewed aircraft or UAVs themselves are still unable to guarantee the fulfillment of all principles and norms that exist in international law, starting from a review of existing cases, making the author interested in researching the precise classification of UAVs as weapons according to international law. Based on the description of this background, the authors are interested in conducting research under the title "**Restriction and Classification of Unmanned Aerial Vehicles in war according to the principles of International Law.**"

2. Method

The type of research used by researchers in compiling this research is a type of normative research, the research approach methods used by researchers include *case approach* and *law approach*. The data analysis technique used in this study is descriptive analysis with more description of the results of documentation studies.

3. Analysis or Discussion

3.1 Parameters of Restricting the use of UAVs in war according to the Principles of International Law

Before entering into the Principles of International Law, a part of International Law itself regulates the issue of war. This is regulated in humanitarian law. The term often used is international humanitarian law, which is also found as a regulation in war and the law that limits armed conflict. This law arises from several considerations of humanitarian issues. This law is specifically intended to minimize the suffering of individuals who no longer participate in a war and regulate wars so that they seem not to forget the meaning of humanity and limit everything outside of humanity itself.

Daniel Thürer, one of the experts on International Humanitarian Law, describes that this law aims to make violence not reach or exceed the meaning of humanity (humanize).⁷ Seeing this, international law through humanitarian law should protect various things in war, including developing weapons that must prioritize humanity. UAVs, which are relatively new weapons and receive much criticism, should also not be separated from

⁶ James Igoe & Marcus Schulzke. 2018, Drones and Support for the Use of Force, Amerika Serikat, University of Michigan Press : Hlm 13

⁷ Dr. Umar Suryadi Bakry, , Hukum Humaniter Internasional Sebuah Pengantar, 2019 hal 2

the spotlight of international law. This is what researchers say to limit UAVs as weapons in war, and it is necessary to pay attention to the existing principles:

a.) Principle of State Sovereignty

According to the researcher, this principle is one of the fundamental principles for UAVs because UAVs must consider the area they are passing through. The most impressive philosophical teaching about sovereignty is that sovereignty is absolute power over a particular territory. Absolute power over the territory became the basis for the formation of the state. This understanding of state sovereignty is beneficial in observing and evaluating the state's position in the very dynamic context of international relations. In addition, since the establishment of the United Nations international organization, it is necessary to point out several important matters relating to traditional methods in terms of acquiring territorial sovereignty by states as follows:

- First, modern international law, especially since the founding of the United Nations, has prohibited the use of force in international relations as enshrined in the United Nations Charter. The acquisition of sovereignty over a particular territory through violent conquest is an unjustifiable and illegal way. The acquisition of sovereignty over a specific territory that occurred before the establishment of the United Nations was determined based on interest-temporal law.
- Second, a country's acquisition and application of sovereignty to a particular area is governed by and based on the right of self-determination.
- Third, within the framework of contemporary international law, the use of violent means in international relations cannot be justified; except in some instances which are based on solid and valid reasons according to international law.⁸

So by looking at the above, realizing the importance of state sovereignty is one of the reasons why this principle also needs to be seen in the use of UAVs, strengthened by Miguel González Marcos & Martin Dixon. In international law, state sovereignty and equality between countries is a recognized concept and forms the basis for the operation of the international legal system. International law has traditionally recognized that the State is an independent and sovereign entity, meaning that the State is not subject to another more sovereign authority.⁹ State equality is an attribute attached to an independent state as a subject of international law. Recognition of state sovereignty and

⁸ Sigit Riyanto, 2012 *Kedaulatan Negara Dalam Kerangka Hukum Internasional Kontemporer* Yustisia Journal Vol.1 No. 3

⁹ Marcos, Miguel González. 2003. *The Search for Common Democratic Standards Through International Law*. Washington: Heinrich Böll Foundation North America .

equality between states is also the basis for state personality in the international legal system. Sovereignty underlies several rights recognized by international law, such as; the right to equality, territorial jurisdiction, the right to determine the nationality of the population in its territory, the right to allow and refuse or prohibit people from entering and leaving their territory, the right to nationalize. In the international law literature, the concept of sovereignty The State is also the basis of one of the doctrines known as the Act of State Doctrine.

This doctrine in England is known by the term: "the Sovereign Act Doctrine ."This legal doctrine that emerged in the nineteenth century (XIX) asserts: "Every sovereign State is bound to respect the independence of every sovereign State, and the courts of one country will not sit in judgment on the acts of the government done within its territory." According to the Act of State Doctrine, every sovereign State is obliged to respect the independence of other sovereign states.¹⁰

The relation of this principle to the use of UAVs is that reviewing the use of UAVs in terms of state sovereignty actually violates several things, which in the Act of State Doctrine itself has described respect for other sovereign states, such respect is included in territorial boundaries, and from here we see, reviewing the use of UAVs as spying tools itself is difficult to justify, this is because the use of UAVs themselves always overrides the jurisdiction of other countries, considering how crucial some of the principles above are and also how important it is to obtain and maintain sovereignty, according to researchers, this is what makes it necessary the existence of an affirmation of sanctions in the use of the UAV itself, by taking into account some of the principles that have been conveyed above, according to the researcher, UAV restrictions can also be controlled by the application of sanctions. That is given so that the application of the above principles can be used and also applied to countries that believe in it.

b). The Principle of Proportionality

The basis of all forms of methods and the use of war media (methods or means of warfare) in an international conflict has been limited. The international community agrees that although one of the last resorts in resolving disputes itself is war, all steps used to fulfill the objectives have been given limitations beforehand. U AV itself, even though it has promised a level of precision from the camera, and also the accuracy is increasing in every era, has not been able to reduce significant damage.

The damage given only needs to be aimed at military objects, but based on some facts, the damage given also spreads to civilians who should be outside the object of the

¹⁰ Hingorani, R.C.1982. Modern International Law . Second Edition. New Delhi: Oxford &IBH Publishing Co.

military. The intended damage is not half-hearted, ranging from injury to death. Limitations in the use of the method of war itself have been regulated in the concept of International Law. The basis of the International Humanitarian Principle is also known as the proportionality principle. This principle is addressed and agreed upon. The primary purpose of this principle is to provide limits in war or the use of weapons so as not to cause excessive impact and misery. It is aimed at the damage and unnecessary casualties to non-combatant & non-military objects. This is the real reason why the legality of the UAV itself must be based on this principle because the expectation of the UAV as one of the more effective weapons used for war, in reality, has more of a harmful impact than a good one.

C. The Humanitarian Principle and the Distinction Principle

Other Principles also cover the conflict in weapons itself. Jean Pictet, one of the experts in his writings *Development and Principle of International Humanitarian Law*, provides an elaboration of the actual manifestation of this humanitarian meaning: "an ambush is an option that must take precedence over injuring the opponent, and inflicting injury or injuring the enemy is far nobler than taking a life; emphasized, All parties who do not participate in the war must be kept as far as possible from the subject of the battle arena; Besides that, for all people who become combatants, it must be as minimal as possible to get injured or injured, so that the person can be treated that the wound caused must be endeavored to provide pain in a mild form."¹¹

The interpretation of this Principle was also strengthened by the International Court of Justice of the United Nations by embodying this Principle with the meaning of providing assistance without selective logging or favoritism to people who are injured in conflict zones, and this is to encourage a helping hand in this capacity from the National side to international effort to reduce the number of victims wherever they are.¹²

The main point of this Principle is to provide protection and ensure respect on the human side. The Principle of humanity can be claimed as a pioneering form of other restrictive principles, emphasizes the subject or party to the conflict to reduce attacks that can have a large impact and tend to be excessive and also cause unnecessary injuries, even though these attacks are in accordance with some of the principles stated above.

Already available. From the researcher's perspective, this is what serves to be a reference in the use of UAVs, as long as in providing injuries and also the statute of horses still pays

¹¹ Ambarwati, Et All. *Hukum Humaniter Internasional Dalam Studi Hubungan Internasional*, Cetakan Ketiga: RajaGrafindo Persada, 2012, hlm 42

¹² *Ibid* 41

attention to the boundary questions contained in the opinion and also this Principle of course, can be a sufficient parameter to provide legality in its use. The content of the overlapping Principle with what is presented in the impact of the use of UAVs today can be seen in the series of drone attacks launched by the US that reap many pros and cons, namely the incident that befell Al-Awlaki in Yemen. He is suspected of being the head of external operations for one of the Al-Qaeda syndicates based in Arabia. Al-Awlaki is the main target of the United States, which is also included in the list of targeted killing drones. This is stated in a memo released by the United States Department of Justice but rejected to be officially disseminated to the public. What was finally revealed was that the New York Times newspaper, on October 8, 2011, leaked it.¹³

This Principle is agreed upon by Additional Protocol I, more precisely, part III regarding "Methods and Means of Warfare Combatant Status and War Prisoner," which is more concretely emphasized in Articles 35 to 46. Article 35 in that article is the reason why UAVs can be investigated to question their legality. In terms of limitations, in every incident of war or conflict, there is a right to choose methods, and weapons of war are unlimited rights (there are limitations). This is confirmed in paragraph 2: there is a prohibition on the use of weapons, bullets, and materials and methods of fighting, which by nature would cause unnecessary injury or suffering.

When viewed in terms of the use of UAVs as a weapon in war, in the case study of the Nagorno Karabath Conflict, many types of UAVs were used by both parties, and both resulted in the number of fatalities that were recorded, including more than 4000 fatalities for each party. The results of these drone strikes prove that UAVs need further legality in order to find sufficient 'restrictions' so that stability can be reestablished in war.¹⁴

Seeing the above, there are also principles that should be a reference in UAV legalization itself. This is known as the Principle of distinction, which is the basis or Principle that classifies the population in an area that is in conflict, the division in this Principle consists of several subjects, including combatants and civil society. Combatant is a classification of people who act as hostilities or hostile people. Civil society is those (residents) who do not participate in hostilities.¹⁵ The strengthening of the Principle of self-discrimination is in article 52 paragraph (2) of Additional Protocol I, which describes the nature of a military object, its position, and its purpose or function, resulting in a strong impact on

¹³ Robert M. Chesney, "2021 *Beyond The Battlefield, Beyond Al Qaeda: The destabilizing legal architecture Of counterterrorism*", Michigan Law Review, Vol.112, No 163, P .21

¹⁴ Damir Ilic, 2021. "The Impact of the Nagorno Karabakh conflict in 2020 on the Preseption of combat drones". Serbian Journal of Engineering Management Vol. 6,(1). P 19- 21

¹⁵ Arlina Permanasari et All, *Pengantar Hukum Humaniter*, 1999 ,page 9..

military movements, and if it is damaged or destroyed in half or in whole, it is neutralized or repatriated. Take, under applicable circumstances, will have an impact on the interests of the military.¹⁶ Article 48 of Additional Protocol I obliges all parties involved in the conflict to see and distinguish between civilians and combatants in every situation, as well as civilian and military objects. The use of UAVs has not been able to fulfill several principles in international law, including the Principle of distinction, because, in its use in the field, drone attacks are more dominant in producing casualties from the civilian population.¹⁷

D.Collateral Damage

In a power that is already in a narrative characterized by law, it is possible to cause death and unintended consequences. This is clearly reflected in the United States military, which explains that something that causes loss of life and unexpected or expected damage that occurs to civilians can be referred to as "collateral damage." This refers to some missing info from Intel or the difficulty of predicting the rotation of the civilian population, which is often unplanned in the upper reaches of the battlefield. The risk to the civilian population who has a high probability of being in a location where combatants or combat participants are located.¹⁸

Anthony J emphasized that global positioning satellites (GPS) and controlled weapons do not guarantee the absence of congenital victims, or collateral damage is still a big problem in international armed conflicts.¹⁹ The ICRC describes collateral damage as something that is not in accordance with the law, namely: launching an attack by giving an impact intentionally or unintentionally resulting in the loss of civilian life (civilians), whether an injury to them, adverse effects caused to civilian objects, or a combination of all it is prohibited.

Regarding the constitution that regulates armed conflict, the existence of regulations that initiate the "collateral damage rule" is a regulation that describes the exception aimed at the collateral damage rule itself. This is a position where combatants and military objects can be targeted even though there is a possibility of killing the object and civilian population, and the victims may be granted an exception in the case that it occurs by chance and is not intentional in the main purpose of targeting military objects for legitimate attack and then only on the condition that casualties do not fall on a large

¹⁶ Additional Protocol Geneva Convention IV 1949 Article 52

¹⁷ Additional Protocol to Geneva Convention IV 1949 Article IV 48

¹⁸ Anthony J. Gaughan Collateral Damage And The Laws Of War: D-Day As A Case Study : Am. J. Legal Hist., 55, hlm 230.

¹⁹*Ibid* Hal 240

scale.²⁰

3.2 Forms of Classification of UAVs as weapons in War according to International Law

In its use, UAVs themselves are still difficult to be categorized in the form of weapons classification, too far from the category of fighter aircraft and also impossible to be categorized as support aircraft, and if you look at the weapons category of the Arms Trade Treaty there is nothing suitable to define UAV, In The Arms Trade Treaty precisely on Art. 2 describes the types of weapons including (a) Tanks; (b) Armored Combat Vehicles; (c) Large caliber artillery system; (d) Fighter Aircraft; (e) Attack helicopters; (f) Warships; (g) Missiles and Missile Launchers; and (h) small arms and light weapons.²¹

" If you look at the classification of the UAV itself, Martin van Creveld in the form of a, description the era of weaponry into four eras, namely age of tools, age of the machine, age of the system, damage of automation. This embodiment of the age of automation is then known as the Autonomous Weapons System (AWS).²²

This is confirmed by Noel E. Sharkey, a Professor in the field of Artificial Intelligence and Robotics. UAVs are classified as AWS because they can be said to be weapons that move independently on the battlefield in making human decisions, not taking too much of a role. This, of course, eliminates or has an effect. More severe will gradually shift humans in the main role. Today the majority of countries are starting to touch the realm of developing this technology with their respective colors and characteristics. The sample taken by the researcher in South Korea is one of the countries that use AWS. This is used for a device driven by its military as a guarding tool in the zone. Military from Korea with the name "SGR-A1", the use of this is in identifying and also analyzing all types of attacks and also, in this case, considering attack patterns. This, of course, negates humans.²³ Modern war is a double-edged sword if, in the future, wars that occur will involve killing robots. America is also using AWS through its semi-autonomous drone, 'The X-47B', which is designed to be able to automatically take-off and land without human assistance. Drones can run according to a programmed operation or mission and can be returned with 'mouse clicks from its mission operator.' In this technology, humans as operators play a role in controlling the mission of the drones. From the above samples, the right type for categorizing UAV weaponry itself must be grouped in the Autonomous Weapon

²⁰ Valerie Epps, *Civilian Casualties In Modern Warfare: The Death Of The Collateral Damage Rule* : Ga. J. Int'l & Comp. L., 41, 2013 p330

²¹ Arms Trade Treaty 2013

²² Noel E. Sharkey, *Automation and Proliferation*, (International Review of the Red Cross No. 886,), hlm. 231.

²³ Jean Kumagai, *A Robotic Sentry for Korea's Demilitarized Zone*, Zone, <http://www.spectrum.ieee.org> , Accessed on January 2022

System, which, when described by AWS according to the International Committee of the Red Cross (ICRC), is “Any weapon system with autonomy in its critical functions – that is, a weapon system that can select (search for, detect, identify, track or select) and attack (use force against, neutralize, damage or destroy) targets without human intervention.”²⁴

There are three categories of autonomous weapons based on human involvement, namely humans are re 'in the loop', 'on the loop', or 'out of the loop'. Human Rights Watch (HRW) put it this way:

- a. Human in-the-loop weapons, namely weapons that can examine targets and shoot after being given direction by humans.
- b. Human on-the-loop weapons, namely weapons that can automatically determine and have an impact on the target, on the other hand, are under the control of humans who can take over the weapon.
- c. Human out-the-loop weapons, namely weapons that can select, determine and attack targets without human intervention or interaction.

looking at the UAVs themselves, it can be categorized that UAVs are included in Human in-the-loop weapons, a category of weaponry that can shoot and also provide analysis if given directions from humans. This is what makes the legality of UAVs chaotic and against international law and even more so with human dignity.²⁵

4. Conclusion

Restrictions on UAVs themselves still depend on public conscience because there is no independent regulation providing explicit restrictions on UAVs. According to researchers, narrowing the domain in UAVs using International Law Principles is a good thing. When paying attention to the Principles of State Sovereignty, Proportionality, Distinguishing, and also Collateral Damage, in its use, the UAV should be a weapon that is expected by the international community. This is because in the absence of casualties and also civilian objects affected by UAV attacks, according to researchers, UAVs are successfully constrained if these principles are properly maintained. And the classification that is in accordance with the inclusion of UAVs in the AWS classification will make it easier to control and also provide restrictions through existing regulations, and UAVs have a clear position in the eyes of the law.

²⁴ International Committee of The Red Cross (ICRC). 2022 Views of the ICRC on Autonomous Weapon Systems, <https://www.icrc.org/en/document/views-icrc-autonomous-weapon-system>, Accessed on January

²⁵ Paul Scharre & Michael C. Horowitz, 2015. *An Introduction to Autonomy in Weapon Systems*, (Washington: Center For a New American Security)

5. Recommendations

1. The ICRC, as an organization that is actively involved in the law of war, must provide a form of legal involvement in the form of rules that limit the use of UAVs based on international law principles..
2. With the presence of a precise classification of weapons in embodying UAVs, it can strengthen existing regulations. In the form of AWS, UAVs must be given further limitations while still reflecting on the principles of international law.

References

Book:

- Ambarwati,dkk. (2012) *Hukum Humaniter Internasional Dalam Studi Hubungan Internasional*, Cetakan Ketiga: RajaGrafindo Persada, Jakarta
- Anthony J. Gaughan Collateral Damage And The Laws Of War: D-Day As A Case Study dalam: Am. J. Legal Hist., 55, hlm 230.
- Bakry Umar Suryadi, 2019. *Hukum Humaniter Internasional Sebuah Pengantar*, Jakarta, Kencana.
- Breau Susan dkk, (2011) Discussion : Drone Attacks, International law, and The Recording of Civilian Casualties of Armed Conflict, Oxford Research Group.
- Hingorani, R.C.1982. *Modern International Law . Second Edition*. New Delhi: Oxford &IBH Publishing Co.
- Igoe James & Schulzke Marcus, 2018. *Drones and Support for the Use of Force*, Amerika Serikat, University of Michigan Press
- Marcos, González Miguel. 2003. *The Search for Common Democratic Standards Through International Law*. Washington: HeinrichBöll Foundation NorthAmerica .
- Noel E. Sharkey, 2012 *Automation and Proliferation*, International Review of the Red Cross No. 886,)
- Paul Scharre & Michael C. Horowitz, 2015. *An Introduction to Autonomy in Weapon Systems*, (Washington: Center For a New American Security)

Putri Ria Wierma. 2011. Hukum Humaniter Internasional. Lampung : Universitas Lampung.

Journal article:

Anjani Indira, 2019. *Analisis Penggunaan Pesawat Tanpa Awak dalam Kontraterorisme Amerika Serikat di Pakistan* JOIR (Journal of International Relations),

Chesney Robert M, " *Beyond The Battlefield, Beyond Al Qaeda: The destabilizing legal architecture Of counterterrorism*", Michigan Law Review, Volume 112 Nomor 163.

Ilic Damir, 2021. "The Impact of the Nagorno Karabakh conflict in 2020 on the Preseption of combat drones". Serbian Journal of Engineering Management Volume 6 Nomor 1.

Noor Firdaus, 2020. "Histografi drone : Dari Militer Hingga Sinema" dalam jurnal ProTVF, Volume 4 Nomor 2.

Riyanto Sigit, 2012. "Kedaulatan Negara Dalam Kerangka Hukum Internasional Kontemporer" Yustisia Journal Volume 1 Nomor 3

Tiedemann Katherine & Bergen Peter (2010). Artikel Tahunan : *the Drone An Analysis of U.S. Drone Strikes in Pakistan (2010-2014)*, New America Foundation.

Valerie Epps, (2013) *Civilian Casualties In Modern Warfare: The Death Of The Collateral Damage Rule* dalam: Ga. J. Int'l & Comp. L., 41, hlm 330

Internet:

International Committee of The Red Cross (ICRC), Views of the ICRC on Autonomous Weapon Systems,

<https://www.icrc.org/en/document/views-icrc-autonomous-weapon-system>, diakses pada Januari 2022

Jean Kumagai, *A Robotic Sentry for Korea's Demilitarized Zone, Zone*, <http://www.spectrum.ieee.org> , diakses pada Januari 2022

Rita Uli Hutapea, "4.700 Orang Tewas Akibat Serangan Pesawat Tanpa Awak" <http://news.detik.com/read/2013/02/21/105713/2175795/1148/4700-orang-tewas-akiba-serangan> pesawat-tanpa-awak-as-sejak-2004, diakses pada 18 Februari 2022