HUMANITARIAN LAW PRINCIPLES ON THE USE OF DRONES IN INTERNAL ARMED CONFLICT: AN INDONESIAN NATIONAL LAW PERSPECTIVE

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Abstract

State practice shows the increase use of drones in internal armed conflict. The discussion is conducted to answer whether national law adopts humanitarian law principles on the use of drones in internal armed conflict. Qualitative analysis is conducted with primary and secondary legal materials. The Regulation of the Minister of Transportation No. 90/2015 on Unmanned Aircraft Operation Control in airspace served by Indonesia and Minister of Defense Regulation No. 26/2016 on the use of drones for defense and security affairs does not contain the distinction principle, proportionality principle and precautionary principle. It is interpreted that the clauses in both rules on licensing, airspace classification and its activities can be used as a first step in intelligence gathering which will be useful in applying the distinction principle at the time of internal armed conflict. It is necessary to formulate the rules in detail in Military Manual that adopt humanitarian law principles.

Keywords: drone, humanitarian law principles, Indonesian legislation

Abstrak

Praktik Negara menunjukkan penggunaan *drone* meningkat dalam konflik bersenjata internal. Pembahasan dilakukan guna menjawab apakah hukum nasional mengadopsi prinsip-prinsip hukum humaniter mengenai penggunaan *drone* dalam konflik bersenjata internal. Analisis kualitatif dilakukan dengan bahan hukum primer dan sekunder. Indonesia memiliki Peraturan Menteri Perhubungan Nomor 90 Tahun 2015 tentang Pengendalian Pengoperasian Pesawat Udara Tanpa Awak di Ruang Udara yang dilayani Indonesia serta Peraturan Menteri Pertahanan No. 26 tahun 2016 tentang penggunaan *drone* untuk tugas pertahanan dan keamanan, yang belum memuat prinsip pembedaan, prinsip proporsionalitas dan prinsip kehati-hatian dalam melakukan serangan. Ditafsirkan bahwa klausula dalam kedua aturan tersebut tentang perijinan, pengklasifikasian ruang udara dan kegiatannya dapat digunakan sebagai langkah awal pengumpulan data intelijen yang akan bermanfaat dalam menerapkan prinsip pembedaan pada waktu konflik bersenjata internal. Perlu dirumuskan aturan secara rinci dalam Manual Militer yang mengadopsi prinsip-prinsip hukum humaniter tersebut.

Kata kunci: drone, legislasi Indonesia, prinsip-prinsip hukum humaniter

Introduction

Lately, Indonesia has started making *Pesawat Terbang Tanpa Awak* (PTTA) or *Pesawat Udara Nir Awak* (PUNA) commonly known as Unmanned Aerial Vehicle (UAV), Remotely Piloted Aircraft (RPA) or famously known as 'drones'. Indonesian National Army (TNI) started developing drones namely "Super Drones" in 2014.[1] Two years later Agency for the Assessment and Application of Technology produced drones type "Sriti" and "Alap-alap" to be used by TNI.[2] The number of national producer of drones also increased in 2017.[3] Currently the government

[1] Tempo, "TNI AD Bikin Pesawat Tanpa Awak Super Drone", April 8th, 2014, Available on website https:// nasional.tempo.co/read/568727/tni-ad-bikin-pesawat-tanpa-awak-super-drone, Accessed on August 25th, 2018.

[2] BPPT, November 02nd, 2016, "BPPT Pamer Drone Sriti dan Swamp Boat pada Indo Defence 2016", Available on website: https://bppt.go.id/teknologi-hankam-transportasi-manufakturing/2770-bppt-pamer-drone-dan-swamp-boat-pada-indo-defence-2016, Accessed on August 25th, 2018.

[3] Ade P, Marboen, July 27th, 2017, "Ryamizard Ryacudu saksikan uji coba pesawat tanpa awak", *Antara News*, Available on website https://www.antaranews.com/berita/642968/ryamizard-ryacudu-saksikan-uji-coba-pesa wat-tanpa-awak;

starts developing drones class "medium altitude long endurance" or MALE, to combat functions that can launch a missile or rocket.[4]

Actually the concept of drones for military purposes has been used for a long time ago when Austria attacked Italy in 1849 using unmanned balloon "Vulcano" which contains explosive substances.[5] Then, drones was developed after the World War I with Aerial Target, Hewit-Sperry Automatic Sirplane and Bug Kettering i.e. flying bomb or torpedo. The use of drones continued after the World War II with "*Teledyne Ryan Firebee*" to begin using jet engines, UAV program and coded "Red Wagon" began to be developed in 1960's by US.[6] Since then, the use of drones has increased. Drones is not only used by the United States, United Kingdom, Israel and defense organizations such as NATO (North Atlantic Treaty Organization) in military operations outside their territories (such as in Afghanistan, Pakistan, Yemen, Libya, Iraq, Somalia, Gaza and Syria) but also used by Pakistan, Iraq and Nigeria in their own region.[7] In 2016 at least ten countries who have been using drones,[8] and now that number increase drastically into 48 countries at the end of 2017.[9] Technological developments of drones rapidly grow and drones types "Predator" are considered the first generation of unmanned aircraft development.[10]

Philip Alston said that since 2002-2010, drones is used for many purposes and can be used by government or other institutions, or by armed groups in the war.[11] In armed conflict situation, Chaterine Lotriont[12] states that drones is used to attack and kill the target. The function of drones which is used by US in non-international armed conflict[13] is for example in Pakistan[14] (usually called as "targeted killings")[15] and so far it is proven effective.[16]

Based on the above-mentioned background, Indonesia needs to be aware of the use of drones when internal armed conflict occurs. This paper explores whether Indonesian law on drones has complied with the principles and provisions of the law of humanitarian on devices and methods of war.

Discussion

Currently there is no public limitation by a state as the basic reference about the definition of the drones. Therefore, the definition of drones varies depending on considerations of each country. For example, Indonesia defined drones or PTA in Article 1.2.2 Ministry of Transportation Regulation No. 90 Year 2015 as a fly-

4 Agus Warsud, Dian Ramdhani and Arvin, "Percaya Diri Membangun Drone Tempur", *Koran Sindo*, August 6th 2017, available on website http://koran-sindo.com/page/news/2017-08-06/0/0/Percaya_Diri_Membangun_Drone_Tempur, accessed on August 25th, 2018.

5 Brett Holman, August 22nd, 2009, "The first air bomb: Venice, 15 July 1849", Available on website: https://airminded.org/2009/08/22/the-first-air-bomb-venice-15-july-1849/, Accessed on August 25th, 2018.

6 Vasile Prisacariu, "The History and the Evolution of UAVs from the Beginning till the 70s", *Journal of Defense Resources Management*, Vol. 8 Issue 1, 2017, p. 184-186.

7 Christof Heyns, Dapo Akende, Lawrence Hill-Cawthorne and Thompson Chengeta, "The International Law Framework Regulating the Use of Drones", *International & Comparative Law Quarterly*, Vol. 65 Issue 4, October 2016, p. 792; see also UNGA Report A/68/389, September 18th 2013 paragraph 29-40.

8 Clay Dillow, February 12th, 2016, "All of These Countries Now Have Armed Drones", *Fortune*, Available on website http://fortune.com/2016/02/12/these-countries- have-armed-drones/, Accessed on August 25th, 2018.

9 Jon Walker, September 1st, 2017, "Unmanned Aerial Vehicles (UAVs)–Comparing the USA, Israel and China", Available on website https://www.techemergence.com/unmanned-aerial-vehicles-uavs/, Accessed on August 25th, 2018.

10 Human Rights Watch, Losing Humanity. The Case against Killer Robots, November 19th, 2012, p. 6.

11 *Ibid.*

12 Catherine Lotrionte, "Targeted Killings by Drones: A Domestic and International Legal Framework", *Journal of International and Comparative Law*, Vol. 3 Issue 1, 2012, p. 19-20.

13 Michael P. Kreuzer, "RPAs and Non-International Conflict – A Strategic/Legal Assessment", *Cardozo Law Review*, Vol. 36 Issue 2, 2014, p. 691-695.

14 Laurie R. Blank & Benjamin R. Farley, "Characterizing US Operations in Pakistan: Is the United States engaged in an Armed Conflict?", *Fordham Internatioal Law Jounal*, Vol. 34 Issue 2, 2011, p. 151.

15 Philip Alston, "Study on Targeted Killings", UN Doc. A/HRC/14/24/Add.6, May 28, 2010; Federico Sperotto, "The Use of Drones in Targeted Killing Operations", Conference: Human Rights and Multilevel Governance, April 2015, Available on website: https://www.researchgate.net/publication/281833794_The_Use_of_Drones_in_Targeted_Killing_Operations, Accessed on August 25th, 2018.

16 Zachary Clearly, "Re-evaluating the Efficacy of Targeted Killing", *The Illini Journal of International Security*, Vol. 4 No. 1, 2018, p. 4.

ing machine that is controlled with remote control by pilots or being able to control itself by using the laws of aerodynamics. Meanwhile, based on Article 1 paragraph (1) Minister of Defense Regulations Number 26 Year 2016, PTTA is kind of aircraft which is categorized as an unmanned defense and security tool and controlled by remote control either manually or automatically.

The Laws of War Handbook of United States Department of Defense states *drones* as "unmanned aircraft", or "unmanned aerial vehicles (UAVs); unmanned combat aerial vehicles (UCAVs), or "hunter-killers";[17] i.e. "an aircraft that does not carry a human operator and is capable flight with or without human remote control".[18]

In the meantime, a different definition is stated by United Kingdom's Ministry of Defense, they define Remotedly Piloted Aircraft (RPA) as "an aircraft that, whilst it does carry a human operator, is flown remotely by a pilot, is normaally recoverable, and can carry a lethal or non-lethal payload". United Kingdom begins to switch and uses the term RPA because the term "unmanned" deemed to cause confusion towards the level of oversight conducted human on the plane.[19] Since, there are many definition of drones, Kelsey D. Atherton provides two characteristics so that an aircraft can be referred to as drones, those are (a) the machine or the tools can be flown and (b) controlled by a pilot on the ground.[20]

The legality of drones as war equipment

There are a lot of debate over if drones is a legitimate weapon[21] and the utilization can be justified.[22] Besides humanitarian laws, the legality of drones utilization may also be reviewed from the ethics perspective;[23] *jus ad bellum,* taking notice to the prohibition of the use of force of arms under Article 2 paragraph (4) as well as the country's efforts in doing self-defense under Article 51 United Nation Charter;[24] or Human Right Law.[25]

This paper specifically addresses the aspect of jus in bello, i.e., the applicable law in a warfare or humanitarian law. Specifically, drones is basically a tool which is usually used in a war, as well as fighter aircraft, so from the function it is a legitimate tool to use in an armed conflict. In other words, drones is not weapon or projectile, but drones is a machine or aircraft that functions to carry a projectile.[26]

Thing that distinguishes its legality is what projectile is brought or fired, and how to do it. Vivek Sehrawat said that experts have different opinions about the legality of the use of drones. Some people said that drones are legitimate weapon according to international law in armed conflict while some argue that the drones are used in order to violate international law.[27]

The researcher argues that drones is just a kind of machine used in battlefield. Yet, when drones carry projectile that is contrary to the rules of war (such as bringing the projectile contains toxins, chemical bombs or etc), then

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17 Michael W. Lewis, "Drones and the Boundaries of the Battlefield", *Texas International Law Journal*, Vol. 47 Issue 2, 2012, p. 294.

18 *DOD Dictionary of Military and Associated Terms*, As of June 2018, pp. 242, available on website http://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/dictionary.pdf?ver=2018-07-25-091749-087, accessed on August 25th, 2018.

19 Louisa Brooke-Holland, *Overview of military drones used by the UK Armed Forces*, House of Commons Library, Briefing Paper, No. 06493, 8 October 2015, p. 7.

20 Vivek Sehrawat, "Legal Status of Drones under LOAC and International Law", *Penn State Journal of Law & International Affairs*, Vol. 5 Issue 1, April 2017, p. 172.

21 Dalia D. Labrador, "Controversy: New Technology for War: The Legality of Drone-Based Targeted Killings under International Law", *Chicago-Kent Journal of International and Comparative Law*, Vol. 16 Issue 2, p.6.

22 Leila Nadya Sadat, "America's Drone Wars", *Case Western Reserve Journal of International Law*, Vol. 45, 2012, p. 288.

23 Michael J. Boyle, "The legal and ethical implications of drone warfare", *The International Journal of Human Rights*, Vol. 19 No. 2, 2015.

24 Waseem Ahmad Qureshi, "The Legality and Conduct of Drone Attack", *Notre Dame Journal of International & Comparative Law*, Vol. 7 Issue 2, 2017, p. 93-97.

25 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 No. 886, Summer 2012, p. 616-623.

26 Vivek Sehrawat, *loc.cit.*

27 *Ibid.*

those actions are violation. Similarly, if a result inflicted from an attack of drones use causes superfluous injury and unnecessary suffering or environmental impact; or it is used without complying the principle of proportionality, the principle of distinction and the principle of prudence as well as military significance, then it is a violation. In this case, the use of drones must be subject to humanitarian law so it can be described as a legitimate use.[28] Instead, according to the "Lotus-Principle", a state can perform an action–including using combat drones in war time unless prohibited expressly by humanitarian law.[29]

Principles of Humanitarian Law on the use of Drones

Based on the humanitarian law, legality and using of means and methods of warfare, should be referred to the basic rules,[30] those are: *first*, adherence to the principle of limitation in using means and methods of warfare, *second*, the ban on the use of the means and methods of warfare which caused serious injuries and unnecessary suffering; and *third*, prohibition of military attack that cause widespread impact, for a long time and very damaging to the natural environment.

The first principle confirms that the using of means and methods of warfare has the limitation as specified in Article 22 Hague Regulations 1907 *junto* Article 35 Paragraph (1) Protocol I 1997.[31] for the next, humanitarian laws decide the limitations, either in general in Article 23 Hague Regulations, or in specific agreements (e.g. the prohibition of chemical weapons or of anti-personnel mines).

The second principle asserts that the use of a weapon must not cause excessive injury or unnecessary suffering (Article 23 paragraph e Hague Regulations *junto* Article 35 paragraph 2 Protocol I). Therefore, there are restrictions on certain types of weapons such as nuclear weapons, biology and chemistry because weapons belonging to non-conventional weapons will indeed cause unnecessary suffering or excessive injuries because they cannot distinguish enemies and object to attack. On the contrary, even though the type of weapon includes conventional weapons that are allowed to be used, if it is used by disobeying the law and the practice of war, then it is a violation; for example dum-dum bullets; or poison-loaded missiles.

The third principle emphasizes on the importance of the natural environment to be protected from widespread, long-term and highly damaging damage, as stated in Article 35 paragraph (3) of Protocol I; for example, the prohibition on the use of orange agents, or the burning of oil in the sea which was originally intended as a method of war but the impact can be detrimental to the marine environment. In addition to basic rules in using tools and methods of warfare, in carrying out an attack, the parties to the dispute must also comply with the basic principles of humanitarian law, namely: the distinction principle, the proportionality principle and the precautionary principle in carrying out attacks.

First, the principle of distinction contained in almost all provisions of humanitarian law, but it is explicitly stated in Article 48 of Additional Protocol I.[32] Based on this principle; the disputing parties at any time are able to distinguish themselves from the civilian population that must be protected and military objectives and objects. Civilian objects, therefore only attacks against combatants and military targets only. It is undeniable that the principle of distinction is the basic principle of humanitarian law which has the status of international cus-

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[28] Craig Martin, "A Means-Methods Paradox and the Legality of Drone Strikes in Armed Conflict", *International Journal of Human Rights*, Vol. 19 Issue 2, 2015, p. 51

[29] Sebastian Wuschka, "The Use of Combat Drones in Current Conflicts–A Legal Issue or a Political Problem?", *Goettingen Journal of International Law*, Vol. 3 Issue 3, 2011, p. 894.

[30] Frits Kalhoven & Liesbeth Zegveld, *Constraints on the Waging of War. An Introduction to International Humanitarian Law*, 3rd Edition, Geneve: ICRC, 2001, p. 91-92.

[31] PJ Cameroon, "The Limitations on Methods and Means of Warfare", *Australian Yearbook of International Law*, Vol. 9, 1980, p. 253.

[32] Kathleen Lawand, "Reviewing the legality of new weapons, means and methods of warfare", *International Review of the Red Cross*, Vol. 88 No. 864, December 2006, p. 925.

tomary law. Article 13 of Additional Protocol II in 1977 confirms that residents and civilians must be protected from any harm due to military operations. The International Committee of the Red Cross (ICRC) has confirmed this in the Explanation of the Protocol *(Commentary)*.[33] The ICTY Court's decision in the *Tadic* case also emphasized that the principle of distinction is international customary law which also applies in non-international armed conflicts.[34] Another legal argument which underlines the importance of the principle of distinction applied in internal armed conflict is the result of the Resolution of the UN General Assembly Number 2444 Year 1968 unanimously which emphasized the importance of applying the basic principles of humanitarian law in every type of armed conflict by stating that the rights of the parties to the dispute to use war equipment is not unlimited.[35]

Second, the principle of proportionality (Article 51 paragraph (5) jo. Article 57 Protocol I) which prohibits attacks aimed at an attack target expected to cause loss or death or a combination of both, which is excessive when compared to estimated real and direct military advantage. In the decision of the *Kupreškić* case, the Court of ICTY considered this principle to be an international customary law and therefore this principle must be applied in both international and non-international armed conflicts.[36]

Third, the principle of precautionary in attack.[37] Article 57 of Protocol I requires parties to implement this principle in order to minimize the impact or loss of both civilian population and civilian objects; do everything possible to ensure that the target of the attack is a military target; and be careful in determining the tools and methods of warfare, including canceling or delaying an attack if it is known that the target is not a military target or the attack will violate the principle of proportionality. If the attack will have an impact on the civilian population, then the parties are obliged to give a prior warning, unless circumstances are not possible.[38]

Provisions on tools and methods of war, known as The Hague law described above are international customary law binding on all countries, in accordance with the Nuremberg IMT decision in 1945,[39] and reinforced in the ICTY Court in the case of Tadic and *Kupreškić*. In addition to the above principles, Article 36 of Protocol I also requires the parties to examine whether the use of war equipment has violated the provisions of humanitarian law or not,[40] includeing studies from technical and operational aspects.[41]

Status of International Law and/or Humanitarian International Customary Law in Indonesian National Law

In discussing the basic rules and general principles of humanitarian law above, it is important to know what the status of these provisions is in Indonesian national law. In this case, it should be underlined that the basic rules and principles of humanitarian law are status as international customary law that applies in armed conflicts both internationally and non-internationally.[42] The recognition that international

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33 Sarah Kreps and John Kaag, "The Use of Unmanned Aerial Vehicles in Contemporary Conflict: A Legal and Ethical Analysis", *Polity*, Vol. 44 No. 2, April 2012, pp. 264.

34 Yves Sandoz, Et.Al. eds, *Commentary to the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949*, ICRC, 1987, para (4761).

35 International Criminal Tribunal for Yugoslavia, *Prosecutor v. Tadic*, Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction, Appeals Chamber, Case IT-94-1, October 2nd, 1995, para (127).

36 UNGA res. 2444 (XXIII), *Respect for Human Rights in Armed Conflict*, December 19th, 1968, para (110).

37 ICRC Database, Rule 17. "Choice of Means and Methods of Warfare", available on website https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule17, accessed on August 25th, 2018.

38 ICRC Database, Rule 15 & 22. "Principle of Precautions against the Effects of Attacks", available on website https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule22, accessed on August 25th, 2018.

39 Jean-François Queguiner, "Precautions under the law governing the conduct of hostilities", *International Review of the Red Cross*, Vol. 88 No. 864, December 2006, p. 795-809.

40 International Military Tribunal at Nuremberg, *Judgment and Sentences*, Oct 1, 1946, dalam *American Journal of International Law*, Vol. 41, 1947, p. 248-249.

41 Isabelle Daoust, Robin Coupland & Rikke Ishoey, "New wars, new weapons? The obligation of States to assess the legality of means and methods of warfare", *International Review of the Red Cross*, Vol. 84 No. 846, June 2002, p. 347-352.

42 Alan Backstrom and Ian Henderson, "New capabilities in warfare: an overview of contemporary technological de-

customary law and international law ratified by Indonesia has become a legal basis or source of national law has been verified in the Consideration section item (d) of Law Number 3 Year 2002 concerning National Defense in consideration of item (d) of Law Number 34 Year 2004 concerning the TNI. This is reaffirmed in Figures (1) Attachment to[43] Presidential Regulation Number 97 Year 2015 on the General Policies on State Defense; which is an integral part of the parent regulation (Article 2 of Presidential Regulation Number 78 Year 2015).

Therefore, based on the status of international customary law related to the use of drones recognized in the national legislation mentioned above, it can be concluded that the provisions of humanitarian law related to basic rules and basic humanitarian principles is a legal source in addition to other positive legal sources. Ideally, this legal source must also be elaborated in national legislation in the form of other implementing regulations.

Principles of Humanitarian Law in Indonesian National Legislation on Drones

Indonesia has issued Minister of Transportation Regulation Number 90 Year 2015 on Operation Control of Unmanned Aircraft in Air Rooms served by Indonesia. According to this regulation, unmanned aircraft are aircraft categorized as 'remotely piloted aircraft systems' (RPAS), using propellers. This RPAS category includes large balloons, kites, or wingtip that can fly within tens of meters.[44] This rule has referred to the rules of various countries, for example the weight category or type of drones, maximum attainment of heights, wide coverage area to the purpose and mission of its use,[45]

Although it is still searching for more appropriate forms of regulation with the condition of Indonesia as an archipelagic country,[46] the Ministerial Regulation will be equated with the aviation law on criminal provisions in terms of flight safety and operation including regulating that someone will be convicted if flying an airplane without a license; flying a plane without flight plan or *flight plan;* even if the plane being flown is not worth flying.[47]

Based on the content of Ministry of Transportation Regulation, this unmanned aircraft is aimed to be used at peacetime. Nonetheless, in researcher's opinion, general and specific stipulation on unmanned aircraft operation can be used as intelligent data collection of drone user which will be used in implementing principle of distinction when internal armed conflict occurs. By this regulation, reasonable and unreasonable action of people who have authorization to operate drone will be detected. Hence, the dangerous use of drone or allegedly threat state defense will be anticipated.

It can be considered as intelligence capacity reinforcement and counterintelligence for national defense that leads to detection reinforcement and early prevention, opinion making and condition making through related institution and society participation. It also can be directed to the increase of governance coordination and information exchange that emerge mutual operation between military or nonmilitary intelligence institutions in local or national scope. The coordination is held by State Intelligence Agency according to the explanation on attachment of Ministry of Defense Regulation Number 19 Year 2015 on the implementation of State Defense policy on sub. Institutional development number 3 e. (1) and (2).

velopments and the associated legal and engineering issues in Article 36 weapons reviews", *International Review of the Red* Cross, Vol. 94 No. 886, Summer 2012, p. 513-514.

43 Jean-Marie Henckaerts, "Study on customary international humanitarian law: A contribution to the understanding and respect for the rule of law in armed conflict", *International Review of the Red Cross*, Vol. 87 Issue 857, March 2005, p.210,

44 The explanation of Director of Navigation and Flight, Ministry of Transportation Novie Riyanto, Friday 31 July 2015, available on website https://news.detik.com/berita/2980580/ini-penjelasan-drone-pesawat-tanpa-awak-yang-diatur-kemenhub, accessed on August 25th, 2018.

45 *Ibid.*

46 Atip Latipulhayat Uweh dan Neni Ruhaeni, "In Search of Remotely Piloted Aircraft Regulations, State Practices and International Law Perspectives: What Indonesia can Learn?", *Brawijaya Law Journal*, Vol. 5 No. 1, April 2018, p. 71.

47 *Ibid.*

Besides, the existence of prohibited area, restricted area, as well as runway safety area of particular airport within particular stipulation may be considered as initial step according to the principle of distinction in determining civilian objects, military target, not maintained areas, densely populated area, and etc. Given that Article 52 paragraph (2) Additional Protocol I 1977 has determined the general regulation on military target as an object which is seen due to its location, characteristics, or use and if neutralization or destruction is conducted on a half or the whole of the object, so it will contribute to military operation. The determination of area classification within Ministry of Defense Regulation Number 19 Year 2015 is an important thing from principle of distinction aspect based on humanitarian law. Nonetheless, there is no single Article related to the possibility of internal armed conflict or any threat that disturb state defense since the given regulation is published to monitor and protect flight range and ensure safety standard at peacetime.

In consequences, one year later, government issued a Ministry of Defense Regulation Number 25 Year 2016 on drones use for defense and security duties. In consideration, clause point (a) states that PTTA system is one of defense and security instruments required in supporting state defense. Besides, point (b) mentioned that the absence of regulation that support system PTTA implementation for state defense and security needs become one of the reasons why this regulation is issued.

PTTA operation mission in Article 3 paragraph (1) involves all missions of state defense and security. They are photo shot, data collection, inspection, launch tool, cargo transportation relay station, mitigation, deterrence of security, spy, and observation in which all of them are combat mission. Based on the attachment of Ministry of Defense and Security Number 26 Year 2016 on PTTA classification and mission, a drone with less than 2kg operates at an altitude less than 200 feet, has operation radius less than 5 LoS (line of sight), has less than 5 hours operation and can be individually used, may conduct military operation which at least can take a picture, collecting data or inspection. Nevertheless, based on Article 20, system PTTA operation is not determined using controlled or uncontrolled airspace.

There is no clause on how PTTA is used as war instrument from organized opposition armed group within internal armed conflict. Similarly, neither is an attack from the outside of territorial area in form of direct participation from individual of non-belligerent parties that might possibly happen. [48]

The existence of Indonesian National Armed Force Commander Regulation No. Per pang/ 66/IX/2010 on Military strategy has deter-mined the direction/guidance of enforcement strategy because of military or nonmilitary threat. It is the use of Indonesian National Armed Force (TNI) that directed to overcome the problems which disturb national or state defense. Dealing with non-military threat, inteligent operation is one of the strategies performed by intelligence unit through early detection and prevention on other parties raising and as condition making to benefit the intelligent unit themselves while combat operation is implemented to overcome military threat. Yet, the commander regulation does not explain further what can be defined as combat operation as humanitarian law further implementation on how to use the tool and fight including drone use particularly which related to principle of distinction, proportionality and precautionary in the attack.

Meanwhile, Ministry of Defense Regulation Number 19 Year 2015 on State Defense Implementation Policy 2015-2019 has recognized the existence of threat that harm state sovereignty and integrity including hybrid threat in form of attack using chemical, biological, nuclear, and explosive weapon.

By observing any needed factors to be followed up from Ministry of Defense regulation Number 19 Year 2015 *junto* and Regulation of

[48] Stephane Kolanowski, ICRC Brussels, "Drones Strike in Armed Conflict under International Humanitarian Law", Royal Higher Institute for Defence, Brussels, 6 February 2014, p. 3, available on website http://www.irsd.be/website/images/images/Activites/Colloques/presentation/2014-02-06/kolanowski.pdf, accessed on August 25th, 2018.

Indonesian National Armed Forces Commander Number: Perpang/66/IX/2010 on Military Strategy, the regulation of Ministry of Defense Number 29 Year 2015 also provides guidance on regulation policy in defense field which aimed to form legislation in order to strengthening state defense management. The regulation will be adjusted to national or even international law. In example, by examining and evaluating legislation on defense field in order to conform to recent regulation development.

By regarding the regulation on the use of means and methods of war (including drone) which is very operational and need technical and tactical implementation, it would be insufficient to be written on particular regulation in form on Ministry Regulation or Commander Regulation since both of them serve legal foundation in using drone generally. As for particularly, it takes detail regulation on drone use, especially to those related to tactical operations aspect in armed conflict.

Conclusion

Humanitarian law principles on drone use in internal armed conflict are still premature to be found in applicable national regulation whether on law level or ministry of defense regulation or TNI commander regulation. Nevertheless, initial step on classification of drone use action including permission and determination of air space can be interpreted as initial step in implementing one of humanitarian law principles namely distinction principle. Moreover, further explanation of distinction principle and the elaboration of proportionality and precautionary principles demand detailed particular regulation.

Suggestion

Based on the discussion and conclusion, it is suggested for government to immediately formulate regulation which adopted humanitarian law principle on the means and methods of war within a comprehensive military manual.

References

Alston, Philip. “Study on Targeted Killings”. UN Doc. A/HRC/14/24/Add.6. May 28. 2010;

Federico Sperotto. “The Use of Drones in Targeted Killing Operations”. Available on website https://www.researchgate.net/publication/281833794_The_Use_of_Drones_in_Targeted_Killing_Operations. Accessed on August 25th. 2018;

Backstrom, Alan and Ian Henderson. “New capabilities in warfare: an overview of contemporary technological developments and the associated legal and engineering issues in Article 36 weapons reviews”. *International Review of the Red* Cross. Vol. 94 No. 886. Summer 2012. Pp.483-514. DOI: 10.1017/S181638311200 0707;

Biro Informasi dan Hukum. “Kementerian Pertahanan Terima 15 Produk Program Pengembangan Teknologi Industri Pertahanan”. Kemenko Kemaritiman RI. Available on website https://maritim.go.id/kementerian-pertahanan-terima-15-produk-program-pengembangan-teknologi-industri-pertahanan/. accessed on August 25th. 2018;

Blank, Laurie R and Benjamin R Farley. “Charac terizing US Operations in Pakistan: Is the United States engaged in an Armed Conflict?”. *Fordham Internatioal Law Journal*. Vol. 34 Issue 2. 2011. Pp. 151-189;

Boyle, Michael J. “The legal and ethical implications of drone warfare”. *The International Journal of Human Rights*. Vol. 19. No. 2. 2015. Pp. 105-126. DOI: 10.1080/13642987.2014.991210;

BPPT. November 02nd. 2016. “BPPT Pamer Drone Sriti dan Swamp Boat pada Indo Defence 2016”. Available on https://www.bppt.go.id/teknologi-hankam-transportasi-manufakturing/2770-bppt-pamer-drone-dan-swamp-boat-pada-indo-defence-2016. Accessed on August 25th. 2018;

Brooke-Holland. Louisa. 2015. *Overview of military drones used by the UK Armed Forces*, House of Commons Library: Briefing Paper;

Cameroon, PJ. “The Limitations on Methods and Means of Warfare”. *Australian Yearbook of International Law*. Vol. 9. 1980. Pp. 247-261;

Casey-Maslen, Stuart. “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 No. 886. Summer 2012. Pp. 616-623. DOI: 10.1017/S1816383113000118;

Clearly, Zachary. "Re-evaluating the Efficacy of Targeted Killing". *The Illini Journal of International Security*. Vol. 4 No. 1. 2018. Pp. 1-8.

Daoust, Isabelle. Robin Coupland and Rikke Ishoey. "New wars. new weapons? The obligation of States to assess the legality of means and methods of warfare". *International Review of the Red Cross*. Vol. 84 No. 846. June 2002. Pp. 347-352;

Detik, Friday 31 July 2015. https://news.detik.com/berita/2980580/ini-penjelasan-drone-pesawat-tanpa-awak-yang-diatur-kemenhub. Accessed on August 25th. 2018;

Dillow, Clay. February 12th. 2016. "All of These Countries Now Have Armed Drones". *Fortune*. Available on website http://www.fortune.com/2016/02/12/these-countries-have-armed-drones/. Accessed on August 25th. 2018;

DOD Dictionary of Military and Associated Terms (As of June 2018). available on website http://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/dictionary.pdf?ver=2018-07-25-091749-087. accessed on August 25th. 2018;

Heyns, Christof. Dapo Akende. Lawrence Hill-Cawthorne and Thompson Chengeta. "The International Law Framework Regulating the Use of Drones". *International & Comparative Law Quarterly*. Vol. 65 Issue 4. October 2016. Pp. 791-827;

Holman, Brett. August 22nd. 2009. "*The first air bomb: Venice. 15 July 1849*". Available on website: https://airminded.org/2009/08/22/the-first-air-bomb-venice-15-july-1849/. Accessed on August 25th. 2018;

Human Rights Watch. 2012. *Losing Humanity. The Case against Killer Robots*;

International Criminal Tribunal for Yugoslavia. *Prosecutor v. Tadic*. Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction. Appeals Chamber. Case IT-94-1. October 2nd. 1995. para (127);

International Military Tribunal at Nuremberg. "Judgment and Sentences". *American Journal of International Law*. Vol. 41. Oct 1. 1947. Pp. 248-249;

Kalshoven, Frits and Liesbeth Zegveld. 2001. *Constraints on the Waging of War. An Introduction to International Humanitarian Law*. 3rd Edition, Geneve: ICRC.

Kolanowski, Stephane. "Drones Strike in Armed Conflict under International Humanitarian Law". *Royal Higher Institute for Defence, Brussels*, 6 February 2014, pp. 3. Available on website http://www.irsd.be/website/images/images/Activites/Colloques/presentation/2014-02-06/kolanowski.pdf, accessed on August 25th, 2018;

Kreps, Sarah and John Kaag. "The Use of Unmanned Aerial Vehicles in Contemporary Conflict: A Legal and Ethical Analysis". *Polity*. Vol. 44 No. 2. April 2012. Pp. 260-285;

Kreuzer, Michael P. "RPAs and Non-International Conflict–A Strategic/Legal Assessment". *Cardozo Law Review*. Vol. 36 Issue 2. 2014. Pp. 691-695;

Labrador, Dalia D. "Controversy: New Technology for War: The Legality of Drone-Based Targeted Killings under International Law". *Chicago-Kent Journal of International and Comparative Law*. Vol. 16. Issue 2. Pp.1-14.

Lawand, Kathleen. "Reviewing the legality of new weapons. means and methods of warfare". *International Review of the Red Cross*. Vol. 88. Number 864. December 2006. Pp. 925-930. DOI: 10.1017/S1816383107000884;

Lewis, Michael W. "Drones and the Boundaries of the Battlefield". *Texas International Law Journal*. Vol. 47 Issue 2. 2012. Pp. 294-314;

Lotrionte, Catherine. "Targeted Killings by Drones: A Domestic and International Legal Framework". *Journal of International and Comparative Law*. Vol. 3 Issue 1. 2012. Pp. 19-70;

Marboen, Ade P. "Ryamizard Ryacudu saksikan uji coba pesawat tanpa awak". *Antara News*. July 27th. 2017. Available on website https://www.antaranews.com/berita/642968/ryamizard-ryacudu-saksikan-uji-coba-pesawat-tanpa-awak. Accessed on August 25th. 2018.

Martin, Craig. "A Means-Methods Paradox and the Legality of Drone Strikes in Armed Conflict". *International Journal of Human Rights*. Vol. 19 Issue 2. 2015. Pp. 142-175. DOI: 10.1080/13642987.2014.998864;

Prisacariu, Vasile. "The History and the Evolution of UAVs from the Beginning till the

70s". *Journal of Defense Resources Management*. Vol. 8 Issue 1 (14). 2017. Pp. 181-189;

Queguiner, Jean-François. "Precautions under the law governing the conduct of hostilities". *International Review of the Red Cross*. Vol. 88 No. 864. December 2006. Pp. 793-821. DOI: 10.1017/S1816383107000872;

Qureshi, Waseem Ahmad. "The Legality and Conduct of Drone Attack". *Notre Dame Journal of International & Comparative Law*. Vol. 7 Issue 2. 2017. Pp. 91-106;

Sadat, Leila Nadya. "America's Drone Wars". *Case Western Reserve Journal of International Law*. Vol. 45. 2012. Pp. 215-234;

Sandoz, Yves et.al. eds. 1987. *Commentary to the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949*, Geneve: ICRC;

Sehrawat, Vivek. "Legal Status of Drones under LOAC and International Law". *Penn State Journal of Law & International Affairs*. Vol. 5 Issue 1. April 2017. Pp. 166-206;

Tempo. "TNI AD Bikin Pesawat Tanpa Awak Super Drone". April 8th. 2014. Available on website https://nasional.tempo.co/read/568727/tni-ad-bikin-pesawat-tanpa-awak-super-drone. Accessed on August 25th, 2018.

UNGA Report A/68/389. September 18th . 2013. para (29-40);

UNGA Res. 2444 (XXIII). *Respect for Human Rights in Armed Conflict*. December 19th. 1968. para (110);

Uweh, Atip Latipulhayat and Neni Ruhaeni. "In Search of Remotely Piloted Aircraft Regulations. State Practices and International Law Perspectives: What Indonesia can Learn?". *Brawijaya Law Journal*. Vol. 5 No. 1. April 2018. Pp. 54-73. DOI: 10.21776/ub.blj.2018.005.01.05;

Walker, Jon. September 1st. 2017. "Unmanned Aerial Vehicles (UAVs)–Comparing the USA. Israel. and China". Available on website https://www.techemergence.com/unmanned-aerial-vehicles-uavs/. Accessed on August 25th. 2018;

Warsud, Agus. Dian Ramdhani and Arvin. "Percaya Diri Membangun Drone Tempur". *Koran Sindo*. 6 Agustus 2017. Available on website http://koran-sindo.com/page/news/2017-0806/0/0/Percaya_Diri_Membangun_Drone_Tempur. accessed on August 25th. 2018.

Wuschka, Sebastian. "The Use of Combat Drones in Current Conflicts–A Legal Issue or a Political Problem?". *Goettingen Journal of International Law*. Vol. 3 Issue 3. 2011. Pp. 892-905.