



# A Conditional Right to Target with Drones: A Case-Based Approach from Myanmar

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**Abstract.** All parties to an armed conflict, including States and non-state actors, are bound by *jus in bello*. The fundamental principles of humanitarian law seek to limit the suffering caused by the conflict and prohibit indiscriminate attacks. The increased use of weaponized drones by the military junta and ethnic armed organizations in Myanmar, to target and attack civilians and civilian objects, raises concerns regarding adherence to the principle of distinction, proportionality and precaution. The Resolution A/RES/79/62 on Lethal autonomous weapons systems, adopted by the United Nations General Assembly, calls for a legally binding instrument in line with a two-tier approach. The resolution aims to prohibit certain types and uses of autonomous weapons, and to impose limits on the development and use of all other categories. This research, by examining the situation in Myanmar and specific violations of the International Humanitarian Law principles, explores whether such an approach would be appropriate to regulate the use of drones.

**Keywords:** International Humanitarian Law Principles, Autonomous Weapons Systems, Drones, Two-tiered Approach, Myanmar

## 1. Introduction

The Republic of the Union of Myanmar (Myanmar) has been experiencing one of the world's most complex and long-standing conflicts. Since independence from British rule, armed conflicts have existed between various ethnic groups and the national army in Myanmar. The country's transition towards democracy, which began in 2015, was cut short by a military coup in 2021 (Ratcliffe, 2025). Since February 2021, the conflicts have escalated with widespread abuses reported. These include indiscriminate airstrikes, attacks targeting civilians and civilian objects, and other human rights violations (Noon et al., 2025). According to the report of the United Nations High Commissioner for Human Rights on the situation of human rights in Myanmar, a minimum of 6,473 people had been killed by the military, including 1,487 women and 748 children, as of 31 March 2025 (United Nations Human Rights Council [UNHRC], 2025). The counterattacks by the military are mostly through airstrikes and artillery shelling on populated areas (UNHRC, 2025). In 2024, compared to previous years, the civilian casualties increased (UNHRC, 2025). The United Nations (UN) has further documented the deliberate targeting of civilian infrastructure, schools, health care facilities,

religious buildings, and public gatherings by the military (Office of the United Nations High Commissioner for Human Rights, 2025). At the same time, anti-military groups carry out attacks and targeted killings with drones, bombs, and grenades (UNHRC, 2023). In fact, the use of drones has altered the course of battlefield dynamics in Myanmar and has significantly diminished the asymmetry between the military and resistance forces. As documented by the Armed Conflict Location and Event Data Project (ACLED), Myanmar now ranks third globally behind Ukraine and Russia for the number of drone events (Mon, 2025).

In an armed conflict, parties may resort only to those means and methods that are necessary to achieve legitimate aims (Médecins Sans Frontières, n.d.). Furthermore, the rights of parties to an armed conflict to choose the means and methods are not absolute (EBU, 2024). Therefore, the use of force against a legitimate military objective is allowed when such use adheres to the core principles of International Humanitarian Law (IHL) such as distinction and proportionality. Moreover, weapons used in an armed conflict must be capable of complying with IHL standards. Drones per se are not illegal weapons as they are not inherently indiscriminate. However, operations conducted using drones in an armed conflict are lawful on the condition that they comply with IHL standards. The use of drones must be limited to targeting military objectives and combatants only (ICRC, 2025b). Based on their functions or autonomous capabilities, drones can be qualified as Autonomous Weapon Systems (AWS). Given the complex challenges arising from the use of weaponized drones, it is crucial to establish limitations and prohibitions on the choice and use of weapons in armed conflicts to ensure the protection of civilian populations and infrastructures. The International Court of Justice, in its Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, highlighted that ‘States must never make civilians the object of attack and must consequently never use weapons that are incapable of distinguishing between civilian and military targets’ (Legality of the Threat or Use of Nuclear Weapons, 1996). Furthermore, the UN Resolution on Lethal Autonomous Weapons Systems of 2024 calls for the prohibition and regulation of AWS. An outright ban on AWS is not practical. Therefore, if AWS are used, they must be capable of assessing the lawfulness of the attack under IHL. Furthermore, meaningful human control over AWS is necessary to comply with IHL. As the use of AWS and armed drones is significantly increasing among both States and non-state actors, consensus to limit or prohibit their use and development are paramount to avoid superfluous injury and unnecessary harm.

Considering the escalating hostilities in Myanmar, this research aims to address the legality of drone strikes within the framework of IHL. While the use of armed drones is expanding among Ethnic Armed Organizations (EAOs) and the military junta, their adherence to the core principles of IHL is questionable. As drones play a significant role in the conflict of Myanmar, can the two-tiered approach be adopted for their

regulation to increase compliance with IHL? To address these issues, this study has adopted a case-based approach, by analysing reported incidents of drone strikes by both EAOs and the military junta. Throughout this research, drone strikes refer to the use of Unmanned Aerial Vehicle (UAV) to eliminate specific targets. This research relies exclusively on secondary data sources and open-source materials for identifying the incidents of drone strikes violating the principles of IHL from 2021 to 2025 targeting either civilian or civilian objects. The object status was assessed based on the effective use of the utilities at the time they were targeted. The data sources for this research include various reports by the UN, media investigations, and datasets such as ACLED and Safeguarding Health in Conflict Coalition (SHCC). The SHCC collected data affecting healthcare through a combination of media sources, identified through AI technology, and other publicly shared information from their partner networks (Conflict and Humanitarian Data Centre of the International NGO Safety Organisation; World Health Organisation Surveillance System for Attacks on Health Care). However, due to repeated internet shutdowns, censorship, and government restrictions, many incidents in Myanmar goes unreported. Thus, the problem is likely to be even more severe. (Insecurity Insight, 2024). Based on the analysis of key incidents identified from data sources that underscores the violations of the core principles of IHL, this paper argues that there is an immediate need for adopting the two-tiered approach and a legally binding instrument for the regulation of AWS including UAVs. To build on this argument, the paper is structured into five parts. First, this paper provides an overview of conflicts in Myanmar. Second, the IHL principles applicable to this conflict are presented. Third, the paper highlights the challenges arising from the use of AWS and UAVs and discusses the two-tier approach proposed under Resolution 79/62 on Lethal Autonomous Weapons for the prohibition and regulation of AWS. Fourth, it identifies systematic breaches of IHL in Myanmar by the military junta and EAOs. Finally, the applicability and necessity of adopting the two-tiered approach to protect civilians and civilian infrastructure in line with the rules of IHL will be evaluated.

## **2. History of Conflicts in Myanmar**

Since gaining independence from British colonial rule in 1948, the military junta has governed Myanmar for many years. Following independence, the fight for autonomy by several EAOs led to tensions. After a decade of parliamentary democracy, military junta took over in the 1962 coup, after which the rights of minorities were extensively curtailed (Kipgen, 2011). Founded in 1988, the National League for Democracy (NLD) became a leading force in Myanmar's pro-democracy movement with the Nobel Peace Prize laureate Aung San Suu Kyi as its president (Taylor, 2020). In 1990, the NLD achieved a landslide victory in the general elections, held shortly after the collapse of the Communist Party of Burma. However, the military nullified the results and arrested

many NLD leaders (The New Humanitarian, 2015). Two decades later, in elections boycotted by the NLD, the Union Solidarity and Development Party, backed by the military, won a predetermined victory. Aung San Suu Kyi was subsequently released by the military government from house arrest (McVeigh, 2010). In 2012, a solid victory was won by the NLD in parliamentary by-elections (BBC News, 2012).

In October 2015, eight EAOs and the government entered into an agreement for a nationwide ceasefire (UN, 2015). The following month, the NLD won a landslide victory in the general elections (BBC News, 2015). In 2016, Rohingya EAOs attacked three Burmese border posts, killing nine border officials (Hla Tun, 2016). Thereafter, the government started massive retaliation, leading to a humanitarian crisis. By the end of 2017, half a million people had fled to Bangladesh (UN, 2017). On 23 January 2020, the International Court of Justice issues an order for provisional measures to protect the rights of the Rohingya in Myanmar (*The Gambia v. Myanmar*, 2020).

On 1 February 2021, the military staged a coup, seizing power from the elected government and imprisoning its leaders. Widespread public protests against the military coup were met with violent repression. Concurrently, the conflict with EAOs intensified (Fishbein et al., 2024). In April 2021, opposition forces established the National Unity Government (NUG) to resist the junta. The NUG and the Revolutionary Force declared control of significant portions of the country. Violence has since continued to escalate between EAOs, including the Arakan Army, Chinland Defense Force, Karen National Liberation Army, Kachin Independence Army, Karen National Union, Myanmar National Democratic Alliance Army, Shanni Nationalities Army, United Wa State Army, and local resistance groups (Insecurity Insight, 2024).

As of March 2025, the opposition controlled 95 out of 330 townships, while the State Administrative Council (SAC) maintained full control over more than 107 townships (Mizzima, 2025). The NUG claims to exercise greater territorial control than these figures suggest (Welsh, 2025). The SAC acknowledged that out of 330 townships, it was able to conduct a census and hold elections safely in only 161 (Burmese, 2024).

### **3. International Humanitarian Law Framework**

The rules of IHL aim at balancing the ‘necessities of war’ and ‘requirements of humanity’, thereby ensuring protection for those who are not or no longer engaging in hostilities. The Martens Clause incorporated to the preamble of both the 1899 Hague Convention and the 1977 Additional Protocol II (AP II) sets out that “in cases not covered by the law in force, the human person remains under the protection of the principles of

humanity and the dictates of the public conscience”. Customary international humanitarian law, Common Article 3 to the four Geneva Conventions of 1949, and AP II are applicable to a non-international armed conflict (NIAC). The rules of customary international law are binding on States and all parties to an armed conflict, irrespective of any formal adherence to the protocols (Henckaerts & Doswald-Beck, 2009). Furthermore, the core principles of customary international humanitarian laws on the conduct of hostilities are applicable to both international armed conflict (IAC) and NIAC (Henckaerts & Doswald-Beck, 2009).

### 3.1. Classification of Armed Conflict in Myanmar

According to Common Article 3, NIACs are armed conflicts in which one or more non-state armed groups are involved (International Committee of the Red Cross [ICRC], n.d.a). Based on the *Tadic* decision and subsequent jurisprudence, for a conflict to be considered as a NIAC, two conditions to be fulfilled (ICRC, 2024). Firstly, the non-state actors must be organized. Secondly, the violence between the parties must be sufficiently intense. The report of the Independent Investigative Mechanism for Myanmar identifies that the nature and intensity of violence and degree of organization of the EAOs fighting against the military coup meet the minimum threshold required for categorizing the conflict as an armed conflict and for the applicability of humanitarian law (UNHRC, 2022a). The Office of the High Commissioner for Human Rights also concluded that there are several NIACs existing in Myanmar between EAOs and the military junta (UNHRC, 2022b). Among the 19 NIACs in Asia, there are currently multiple NIACs in Myanmar between various EAOs and Myanmar Armed Forces (Geneva Academy, n.d.). As the ongoing conflicts in Myanmar are qualified as an armed conflict, the Geneva Conventions are directly applicable to Myanmar, as it acceded to them in 1992. This stands *a contrario* to the Additional Protocols, to which Myanmar is not a party (ICRC, n.d.b). Only the customary rules of IHL corresponding to the provisions of the Additional Protocols and Common Article 3 are applicable to these specific NIACs (Henckaerts & Doswald-Beck, 2009). All parties to the conflict, including non-state actors, as well as the State, are bound by IHL (ICRC, 2016).

### 3.2. Applicable International Humanitarian Law and Principles

An attack is a foundational concept in IHL (Goussac & Pacholska, 2025). Article 49 of the 1977 Additional Protocol I (AP I) defines attacks as ‘acts of violence against the adversary, whether in offence or defence’. The ICRC Commentary to Article 13 of AP II notes that the term ‘attack’ has the same meaning in AP I and AP II (ICRC, 1987). IHL mandates that attacks be directed only towards lawful military objectives, by adhering to the principles of distinction, proportionality, and precaution. According to

Common Article 3(1)(a) of the Geneva Conventions, in all circumstances persons taking no active part in hostilities requires humane treatment. According to Article 48 of AP I ‘parties to the conflict shall at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives’. Article 51 of AP I prohibits indiscriminate attacks. Article 52 of AP I mandates that civilian objects shall not be the object of attacks or of reprisals. According to Article 57(2) of AP I everything feasible should be done to verify that the objectives of attacks are not civilians or civilian objects. The planification and direction of an attack is outlined in Article 57 of AP I. Article 57 establishes that military operations must be conducted with continuous regard for the protection of civilians, the civilian population, and civilian objects. It further provides that individuals responsible for planning or authorising attacks are required to take all practicable steps to ensure that the intended targets qualify as military objectives under Article 52(2), are neither civilians nor civilian objects, are not afforded special protection, and that the attack is otherwise permitted under the Protocol (Crawford & Pert, 2015).

The key provisions of AP I embody customary international law (Prosecutor v. Radovan Karadzic, 2019). The basic rules recognized in Article 13 of AP II regarding the conduct of hostilities, particularly the prohibition of targeting and attacking the civilian population by any party to an armed conflict, are part of the fundamental principles recognized by customary international law. Article 13(2) of AP II forbids making individual civilians and the civilian population the object of attack. As per Article 13(3) of AP II, the immunity to civilians from direct attacks is lost only when they take a direct part in hostilities. Furthermore, Article 3.7 of Amended Protocol II and Article 2 of Amended Protocol III to the Convention on Certain Conventional Weapons (CCW) prohibit in all circumstances directing weapons against the civilian population.

The principle of distinction is the cornerstone of IHL. This principle has the status of customary international law and applies in the context of both IAC and NIAC. The Appeals Chamber of the International Criminal Tribunal for the former Yugoslavia in *Prosecutor v. Tadic* confirmed that the principle of distinction is applicable to NIAC (Prosecutor v. Dusko Tadić, 1995). The principle mandates parties to an armed conflict to distinguish between combatants and civilians, military objectives and civilian objects, as well as active combatants and those *hors de combat*, which includes wounded, sick and those surrendering. Civilians and civilian objects should never be deliberately targeted, and indiscriminate attacks are prohibited. The principle seeks to safeguard persons not directly participating in hostilities from its effects by prohibiting direct attacks (Schmitt et al., 2006). Therefore, parties to an armed conflict must exercise due care to not target civilians and civilian objects during military operations. Based on the principle of proportionality, a military operation is unlawful if it is expected to cause

incidental harm to civilians or civilian objects that would be excessive in relation to the concrete and direct military advantage anticipated. Any military action resulting in manifestly disproportionate collateral damage in pursuit of operational objectives constitutes indiscriminate warfare, as defined by Article 51, para. 5, lit. b AP I (Hayashi, 2021).

An individual or object qualifying to be a military target is not purely objective but has the elements of subjectivity as well (Wagner, 2014). Therefore, characterization into ‘military objectives’ or ‘combatants’ should be determined upon value-based and context-specific assessments and that cannot be reduced into a quantitative or mathematical formula (ICRC, 2025a). Deciding if an individual or object is safeguarded by any category specified under IHL requires a legal contextual analysis of their status, conduct, intent, and nexus to the conflict (ICRC, 2025a). Furthermore, the principle of distinction creates obligations and accountability for combatants or military, and such obligations cannot be transferred to a machine (Davison, 2018). Moreover, when making the proportionality assessment, IHL does not provide any objective criteria; it is therefore determined based on value judgments (Kolasa, 2025). Therefore, those who carry out attacks using drones should ensure compliance with the core principles of IHL.

#### **4. Autonomous Weapon Systems**

AWS, sometimes referred to as Lethal Autonomous Weapons Systems (LAWS), lacks a legally agreed-upon definition (Wagner, 2016). According to the ICRC, AWS is “any weapon system with autonomy in its critical functions, that is, a weapon system that can select (i.e. search for or detect, identify, track, select) and attack (i.e. use force against, neutralize, damage or destroy) targets without human intervention” (United Nations Institute for Disarmament Research [UNIDIR], 2017, p. 26). The CCWs’ Group of Governmental Experts (GGE) on LAWS rolling text characterized LAWS as “an integrated combination of one or more weapons and technological components, that can select and engage a target, without intervention by a human user in the execution of these tasks” (United Nations Office of Disarmament Affairs [UNODA], 2025). The United States Department of Defense defines AWS as “a weapon system that, once activated, can select and engage targets without further intervention by a human operator. This includes human-supervised AWS that are designed to allow human operators to override operation of the weapon system but can select and engage targets without further human input after activation” (Department of Defense [DoD], 2023, p.21).

AWS are not weapons in a traditional sense but, as they are human-less machines that operate weapons, they are referred to as weapons (Douglas, 2023). They are broadly referred to as weapons, including advanced drones with the potential to select,

target, and apply force without human supervision or interference (UN, 2025). AWS can, without human intervention, perform target identification and assessment and hostile engagement (Güneysu, 2024). In contrast to automated weapons, the outcomes of autonomous weapons are less predictable (Güneysu, 2024). Militaries are largely incorporating the autonomous use of force into their weapon systems, including armed drones.

#### **4.1. Human Control on Autonomous Weapon Systems**

Meaningful human control over AWS is essential to ensure compliance with IHL. Necessary elements of human control include, sufficient information, ability to exercise judgment, ability to limit type of target, ability to place limitations on use, ability to deactivate or interrupt the system, or ability modify the systems' mission (United Nations General Assembly, 2024a). Based on human involvement, AWS can be categorized into semi-autonomous, supervised-autonomous, and fully autonomous (Perrin, 2025). Semi-autonomous systems, also known as human-in-the-loop systems, can, after activation, identify or select targets and use force only with human oversight and supervision (DoD, 2023). These weapons can acquire, track and identify targets; prioritize targets and provide timings on when to fire; provided the human operator control is retained over the decision to apply force on targets (DoD, 2023). Turkish Bayraktar TB2 combat drone used by the Russian Army in Ukraine and Switchblade drones used by the US Military in Afghanistan are examples of semi-autonomous systems (Falk, 2022; Franklin, 2012). Supervised autonomous systems or human-on-the-loop systems, after activation, are capable of identifying and selecting a target and employing force without human authorization. However, the human commander supervising it can intervene to terminate the operation. The Lancet-3, used in the Syrian civil war and now by Russian troops against Ukraine, belongs to the category of supervised autonomous weapons, which can find and hit a target autonomously but can also transmit videos to confirm targets (Army Recognition Group, 2025). Fully autonomous weapons or human-out-of-the-loop systems, after activation, have the potential to select targets and apply force without human intervention, supervision, and authorization. The crux of full autonomy is the capacity to identify, select, target and attack without human intervention, even though the human operator may retain control (Schmitt, 2013). Israel Aerospace Industries Harpy is a fully autonomous loitering munition which is designed to attack and destroy once the target is identified and can strike a target from any directions (Israel Aerospace Industries, n.d.). The Phalanx Close-In Weapon System is another fully autonomous system that can automatically detect, evaluate, track, engage and perform kill assessments on the seas (Raytheon, n.d.). Supervised autonomous weapons and fully autonomous weapons meet the elements of existing definitions of AWS (Perrin, 2025).



## 4.2. Unmanned Aerial Vehicle

A UAV, commonly referred to as a drone, is an aircraft that flies without a pilot (Ariestu et al., 2025). UAVs with specific combat roles, also known as combat drones, military drones or fighter drones, or Unmanned Aerial Combat Vehicles (UACVs), are a form of AWS. Drones can operate remotely, controlled by a human commander or supervised by a computer programme with varying levels of autonomy or navigated autonomously using artificial intelligence (Wagner, 2014; Clapp, 2025). All major military powers and militia groups use UAVs. In recent years, non-state actors have increasingly used drones to carry out operations. Often, consumer-level or commercial drones are easily modified and used for large-scale attacks by non-state actors (Modebadze, 2021). The military uses drones for multiple purposes: for surveillance and intelligence purposes and as weapon platforms (Wagner, 2014). Drones are used to conduct surveillance for an extended period of time, to provide intelligence, for targeting and reconnaissance, as well as to attack vehicles, stationary targets, and persons (Wagner, 2014). Drones can also serve as guidance platforms for other weapons and be used as transport vehicles (Clapp, 2025). Advanced drones can produce large amounts of information, including visual images and real-time videos (Krebs, 2023). Aerial visuals collected using drone technologies are widely used for military decision-making and believed to improve the process by providing accurate, immediate and relevant information (Krebs, 2023). For the purpose of regulation under IHL, drones can be classified based on their functions as delivery systems, munitions, or drones with autonomous functions (ICRC, 2025b). One-way drones and loitering munitions are examples of munitions. One-way attack drones are designed to self-destroy on impact (Clapp, 2025). Loitering munitions are a type of suicide drone, that uses sensor-based analysis to detect and destroy targets (Bode & Watts, 2023b). Drones integrating automated, autonomous, or artificial intelligence technologies for targeting already exist (Bode & Watts, 2023a). Fully autonomous military drones can select targets and attack without human control.

## 4.3. Key Challenges and Concerns

The rapid development and adoption of AWS, including UAVs by parties to armed conflicts, poses legal, ethical and security challenges as well as humanitarian risks, including potential dangers to civilians (Davison, 2022; United Nations, 2023). There are several concerns regarding AWS's reliability, predictability, and uncertainty as to whether AWS will work as intended (UNIDIR, 2017). Militaries delegating attacks and targeting decisions to AWS raise challenges as to transparency, accountability and ethics in compliance with IHL (UNIDIR, 2017). They may cause unintended hazards to human life since they act in complex and unpredictable ways (UNIDIR, 2017). The major challenge pertaining to AWS is not that they would be designed specifically to

target and strike protected persons or objects under IHL but rather that the intent of the parties to a conflict may not be accurately translated into the outcomes produced by AWS (Güneysu, 2024). Furthermore, loss of meaningful human control over AWS can lead to loss of empathy and human-level efficiency to adapt to with swiftly changing circumstances (Harwood, 2023). Moreover, translating IHL into a computer programme is problematic, particularly automating indicators that convince a human being to a certain category, making them a legitimate target. When AWS carries out operations merely based on sensor inputs and generalized targets, it might misinterpret a context or an ambiguous gesture. For example, the AWS may fail to differentiate between a soldier raising hands to indicate that he is surrendering or a combatant preparing to shoulder a weapon to initiate an attack (ICRC, 2025a). A combatant can quickly become *hors de combat*, and this demands that AWS users have detailed qualitative and contextual judgment abilities (Güneysu, 2024). Additionally, the algorithms of autonomous systems can exhibit biases in their operations. Algorithmic bias can lead to wrongfully assessing certain categories of people as combatants based on their gender or skin tone (Bode, 2024). The criteria for identifying and targeting combatants by AWS will likely involve gender, race, and age due to encoded social biases (Chandler, 2021). False positives and incorrect conclusions drawn due to algorithmic bias can lead to misidentification of targets (Blanchard & Bruun, 2024). Functionality and predictability of AWS can also be impacted by algorithmic bias (Bode, 2014).

Specific to drone use in armed conflicts, it is not illegal per se under *jus in bello*, and UAVs are not inherently incapable of adhering to the principles of IHL. The proponents of drones argue that in comparison to other weapons, drones through better intelligence gathering and targeting precision, cause fewer casualties, accurately distinguish between civilians and combatants, as well as lower the death of military personnel (Iqbal, 2022). Some argue that advanced sensors and long loitering time improve the human operator's ability to comply with the principle of distinction (Wagner, 2014).

However, parallel to their advantages, the use of drones raises several challenges in the context of armed conflicts, especially regarding their compliance with the core principles of IHL, particularly the principle of distinction. Both States and non-state actors use armed drones to conduct strikes targeting both individuals and public infrastructure (Callamard, 2020). The aerial visuals collected using drones have technical and cognitive challenges. For example, when strikes are conducted at night, the aerial visuals may create incomplete outputs, leading to a false impression on the viewer (Krebs, 2023). Although military officials argue that surgical strikes using drones offer accuracy with fewer collateral damages and greater military advantages, it is not supported by evidence (Callamard, 2020). Furthermore, evidence indicates that even when drones strike accurately, more people often die, sometimes due to multiple strikes (Callamard, 2020). Drone strikes often follow methods of 'personality strikes' (targeting specific, known individuals) or 'signature strikes' (targeting individuals based on

observed patterns of behavior). The latter is particularly problematic from an IHL perspective (Vlad & Hardy, 2024). If the threshold for identifying and targeting individuals is lowered from highly likely to be combatants to suspected to be combatants based on certain characteristics, it will result in violation of IHL principles (Iqbal, 2022).

Although AWS is not regulated by a specific international legal instrument, States and non-state actors that develop and deploy them shall use them in compliance with IHL. The CCW established that in an armed conflict, no party has unlimited rights to decide the means and methods of warfare. The Convention also calls for the prohibition of all weapons that cause unnecessary suffering. It further referred to the general principles of protection of the civilian population against the consequences of armed conflicts. The CCW's GGE on LAWS in 2025 notes that IHL applies fully to the development and use of LAWS and that weapons which are inherently indiscriminate are prohibited in all circumstances (UNODA, 2025). The UN and ICRC stressed that "machines targeting humans autonomously without any human intervention shall be prohibited under international law" (United Nations, 2023). The UN Secretary General, in May 2025, called for a global ban on LAWS and described them as "politically unacceptable and morally repugnant" (United Nations, 2025). He further recommended that by 2026, States shall conclude a legally binding instrument that prohibits LAWS that function without human supervision and regulates other types of AWS (UNODA, n.d.). The Pact for the Future, adopted at the 2024 Summit of the Future, commits to protect civilians in armed conflicts and refrain from using weapons that are explosive in nature in densely populated areas and calls for an instrument to govern the use of LAWS (United Nations, n.d.).

#### **4.4. The Two-tier Approach**

The UN Resolution 79/241 on general and complete disarmament emphasized that to ensure LAWS's compliance with IHL, States should assess the presence of civilians and limit the type of targets the system could engage with (United Nations General Assembly, 2024a). Resolution 79/62 on Lethal Autonomous Weapons, adopted by the General Assembly on 2 December 2024, affirms that international law and IHL apply to AWS and any weapon that cannot be used in compliance with IHL must not be used. The resolution calls for a two-tiered approach through a legally enforceable instrument for AWS by incorporating both prohibitions and regulations (United Nations General Assembly, 2024b). The two-tiered approach intends to prohibit the development, deployment and use of certain categories of autonomous weapons as well as place limitations and specific requirements on the development and use of all other categories of autonomous weapons. It prohibits the use of AWS that can operate without human control and further regulates the design and use of autonomy in AWS through human control (Bode & Watts, 2023).

For Tier 1, converging views support the formulation for the ban on the design, deployment and use of AWS whose behaviour, impact and effect cannot be reasonably anticipated, controlled or traced back. For Tier 2, there is an emerging consensus around a set of requirements, as well as certain limits, which could be further developed as essential elements to ensure the effective exercise of human agency in targeting decisions. Regarding these requirements, AWS should be designed and used in a manner that ensures the ability to anticipate, control, and trace their behaviour and effects. Users should possess sufficient technical knowledge of the system, including an understanding of the conditions that trigger the use of force, the system's expected performance across different environments, and its capacity to distinguish between true positives and false identifications (Bruun, 2024b).

The limitations are also intended to ensure predictability and reliability of AWS. There is a growing acceptance for the two-tiered approach among States for the regulation and prohibition of AWS (Bruun, 2024a). In line with the two-tier approach, the ICRC recommends prohibiting all kinds of autonomous weapons that are unpredictable in nature and developed and used to target civilians and civilian objects due to their indiscriminate effects and to uphold protection to civilians (ICRC, 2021). The ICRC further suggests regulating all other categories of AWS, to protect persons and civilian infrastructure by putting limits on the type of target and situations of use as well as by enabling human control, supervision and intervention (ICRC, 2021).

## **5. Violations of International Humanitarian Law**

In the context of Myanmar, both the military and the rebels use drones (Lintner & Crispin, 2021; Ahmed, 2025). Even if some resistance groups claim the ability to challenge the military with drones, they face significant limitations in terms of budgets and resources. Since their first use of drones in Pale township, Sagaing Region, in December 2021, resistance groups have carried out over 2,100 drone strike operations across more than 600 distinct locations throughout Myanmar (Mon, 2025). By early 2022, the use of UAVs by Myanmar's opposition forces had become a consistent strategy for reconnaissance, intercepting enemy columns, harassing remote outposts, and targeting administrative and infrastructure sites to weaken the regime's authority (Lintner & Crispin, 2021; Ahmed, 2025). The regime only began deploying drones extensively after losing almost all of northern Shan State, including a regional command, to the drone-aided Operation 1027 offensive of the Brotherhood Alliance in 2023 (Thura, 2025). Since 2024, the junta has invested heavily in drones to catch up with opposition groups, which have made effective use of such weaponry (Ratcliffe, 2025).

Due to the access to thousands of Chinese and Russian-made systems and their integration into the arsenal, SAC has an advantage in the conflict and maintains a significant edge in drone capabilities (Aye Nyein, 2025). As early as 2021, the Myanmar junta was reported to have utilized UAVs for numerous purposes, including aerial surveillance, collecting images and data to support military planning and decision-making, as well as carrying out counterinsurgency operations against ethnic rebel groups across the country (Huang, 2021). Drones were identified over protests in Mandalay, where many Civil Disobedience Movement (CDM) protesters have been killed by army snipers. Observers believe these snipers likely relied on intelligence, surveillance, and reconnaissance provided by drones to carry out targeted attacks. Drones have also been observed in ethnic regions, including Kachin and Kayin states, where the regime conducted aerial bombardments on civilian areas, displacing large numbers of people and fueling a growing humanitarian crisis as new waves of refugees fled towards the border (Lintner & Crispin, 2021). The drone capacities of the SAC now surpass those of the resistance forces, deploying “kamikaze” drones and first-person view drones, piloted in real-time to their targets. These newly acquired technologies also increase the risk of indiscriminate attacks (Aye Nyein, 2025).

EAOs have provided resistance groups with drones and military training among others, within their territories, posing an increasing threat to the army (Aye Nyein, 2025). For example, in August 2022, a local People's Defense Force in Sagaing reportedly used an explosives-equipped drone to attack SAC security forces stationed at a COVID-19 vaccination center in a former school (Insecurity Insight, 2022a and 2022b; Insecurity Insight, 2023). Beginning in April 2023, local resistance forces used drones to target Myanmar's armed forces occupying health facilities. A traditional medicine hospital in Ye-U Township, Sagaing Region, which was occupied by the military, was damaged on seven separate occasions between July and November 2023. All of these attacks have been attributed to armed resistance groups (Insecurity Insight, 2023a and 2023b). Compared to 2023, the number of instances where health facilities were damaged in the Mandalay region have almost doubled in 2024, increasing from seven to twelve. In many of these cases, the damage caused by the Myanmar Armed Forces (MAF) was inflicted through drone attacks. However, local resistance forces also often use improvised explosive devices or homemade rockets for attacking health centres. Often, during armed clashes and raids conducted in villages and towns, health centers and clinics as well as hospitals are destroyed. For instance, in Myingyan township, during a two-day military raid, a local clinic and around 150 houses were burned (Insecurity Insight, 2021-2024; Insecurity Insight, 2024). In Kanbalu, Shwebo and Yinmabin-districts, the rebel groups deployed explosives-equipped drones to strike MAF troops stationed in health facilities, causing significant damage and harm. Furthermore, in June 2024, traditional medicine hospital facilities in Ye-U occupied by MAF were damaged by bombs dropped from drones by the PDF (Insecurity Insight, 2024). On 5 August

2024, the Arakan Army used drones in attacks targeting the Rohingya (Crisis Watch, 2024).

As depicted above, the principles of IHL are being violated by both the junta and the opposition forces when using UAVs, through the targeting of civilian infrastructure and civilians. In these circumstances, the regulation of drone use in this NIAC is a pressing issue. Given that no specific instrument exists, Resolution 79/62 on Lethal Autonomous Weapons Systems could represent a step towards codifying this issue. To tackle this issue, the recommendation suggests a two-tier approach. According to this framework, limitations should be placed on semi-autonomous and supervised weapons. Fully autonomous weapons should be prohibited.

Based on media reports and reported interviews, the military has access to 17 types of drones, including Chinese-, Russian-, Iranian-, Israeli-made or locally produced. Some of them are classified as kamikaze drones and used for strikes, reconnaissance and surveillance (Mon, 2025). Chinese-made CH-3A drones equipped with satellite data links have been identified in Myanmar. These systems can carry payloads of up to 180 kilograms and are capable of launching AR-1 laser-guided air-to-surface missiles as well as YZ-200 guided bombs. Their range is about 960 kilometers with an endurance of six hours of flight (Lintner & Crispin, 2021). According to the commander of an ethnic armed resistance group and international observers, Chinese UAV models deployed by the regime also include the CH4 Rainbow, and Yellow Aero (Thura, 2025). In April 2024, a delegation from the SAC's Ministry of Defense traveled to Russia to procure Russian-made UAVs, including the Orion-2 and the Orlan-10 (Army Recognition Group, 2018; DVB, 2024a; DVB, 2024b). The junta has also acquired the long-range Albatross-M5 surveillance UAV, and there are reports that the Russian manufacturer may license its production (Tan et al., 2024; Witcher, 2024). All the drones described above (CH-3A, CH4 Rainbow, Yellow Aero, modified Orion-2, Orlan-10, Albatross-M5) are UAVs that fall into the category of LAWS where limits may be imposed for certain uses.

Out of the over 2,100 drone strikes recorded since December 2021 by the resistance groups, the vast majority have targeted military objectives and combatants. Such strikes therefore can be considered in compliance with IHL (Mon, 2025). However, since the outbreak of civil conflict in 2021, the military and the non-state armed groups have also been committing indiscriminate attacks on civilians and bombardments of civilian infrastructure using drones. Over the 2021-2025 period, EAOs in Myanmar have used drones to carry out attacks on a COVID-19 vaccination center housed in a former school, a traditional medicine hospital, clinics, health centers, and hospitals. In Rakhine State, civilians were directly killed by drones operated by the

Arakan Army (Ahmed, 2025). Conversely, the SAC used UAVs in 2021 to collect aerial data, reportedly aiding in operations that killed CDM protesters in Mandalay, to support military planning and decision-making and to carry out counterinsurgency operations against ethnic rebel groups in Kachin and Kayin states, where bombardments targeted civilian areas (Lintner & Crispin, 2021).

In contexts of NIACs, such as Myanmar, civilians and civilian infrastructures are equally protected. Such protection can be found in Article 13 (2) AP II that states that “the civilian population as such, as well as individual civilians, shall not be the object of attack”. Any acts or threats of violence whose primary purpose is to spread terror among the civilian population are prohibited. Articles 48, 51, 52 AP I are also applicable, as customary law, enshrine the principle of distinction between the civilian population and combatants, as well as between civilian objects and military objectives, prohibit indiscriminate attacks, and ensure the protection of civilian objects. Furthermore, under the principle of proportionality, the expected incidental harm to civilians or civilian objects would not be excessive in relation to the concrete and direct military advantage anticipated. Finally, all practicable steps must be taken to ensure that the intended targets qualify as military objectives under Article 52(2), that neither civilians nor civilian objects are afforded special protection, and that the attack is otherwise permitted under the Protocol.

The described uses of drones in Myanmar violate the principle of distinction and the protection granted to civilians in NIACs, as civilian infrastructure is immune from attacks unless it becomes a military objective. Moreover, decentralized command structures were fostered by drones, often implying fewer layers of approval compared to conventional weapons, where different elements of the chain of command are required (Aye Nyein, 2025).

The use of drones in Myanmar has already been restricted, either regionally by the European Union or at the national level. In 2018, the European Union extended its restriction to include the direct or indirect sale, supply, transfer or export of all dual-use goods and technology listed in Annex I to Council Regulation No 428/2009 for military end users in Myanmar through Council Decision 2018/655 (*Decision - 2018/655 - EN - EUR-LEX*, 2018; Conflict Armament Research, 2025). In November 2024, China introduced new regulations blocking the export of dual-use technology to opposition groups, which are heavily dependent on importing a range of UAVs and parts. This followed a formal request on 26 September 2024 from the junta’s deputy minister for home affairs, Lt. Gen. Ni Lin Aung, calling for Chinese assistance to curb the flow of UAVs to armed opposition groups. On 1 December 2024, the Chinese government introduced new export control regulations covering dual-use items (Chu & Qi,

2024). However, a more global solution to limit the use of drones is likely to be legislative rather than political. Indeed, at the UN Security Council, China has vetoed proposals to impose an arms embargo against Myanmar (Lintner & Crispin, 2021).

Despite the absence of a dedicated treaty on drones, IHL already prescribes principles and rules applicable to the NIAC in Myanmar opposing the SAC to multiple EAOs. An additional layer of protection can be found with the ICRC's 'support-based approach' to better protect civilians by making the full body of law governing NIACs binding on an intervening power as a party to the conflict. This extends legal obligations beyond the limited set of IHL rules that would otherwise bind its armed forces personnel as individuals when conducting hostilities. However, the applicability of key rules from the ICRC's Customary IHL Study, particularly Rules 21, 23, and 24, imposes obligations whose violation does not necessarily amount to a war crime, such as the duty to take precautions in attack and to protect against the effects of attacks. As part of customary international humanitarian law, these obligations apply in NIACs (Henckaerts & Doswald-Beck, 2009).

Furthermore, a blend of IHL and Human Rights Law could aim to establish comprehensive minimum standards of protection, particularly in grey-zone situations. In internal disturbances or contested conflicts, the formal application of IHL may be limited or disputed, leading to inadequate enforcement. The crystallization of "fundamental guarantees" or "minimum humanitarian standards", anchored by the Martens Clause, which invokes the "principles of humanity", would safeguard human dignity irrespective of legal qualification (Kolb et al., 2022).

For these reasons, the conduct described in this section can be considered an infringement of the principles of IHL by directing attacks at civilians and civilian infrastructure. In the context of increasing reliance on semi-autonomous and supervised weapons, there is a need to establish more explicit international norms, define a clearer operational and technical framework for drones in armed conflicts, despite the prevailing strong principles and customary rules.

## 6. Conclusion

With the increased use of drones in Myanmar by both the military junta and EAOs, widespread abuses have been reported including indiscriminate airstrikes, attacks targeting civilians and civilian objects. Schools and health care facilities were directly targeted by drone attacks. UAVs strikes have killed civilians. These violations of the principle of distinction illustrate the necessity to negotiate a legally binding instrument with prohibitions and limitations for AWS. In the absence of a specific legal instrument,



developments such as UN General Assembly Resolution 79/62 on LAWS represent a meaningful step to regulate.

The two-tier regulatory approach calls for strict limitations on semi-autonomous and supervised systems, and a prohibition on fully autonomous weapons. A prohibition should be grounded in specific technical characteristics, particular applications, and defined effects used by the military and EAOs. While the military junta's use of drones should also be restricted, a prohibition should be emphasized for non-state actors, resistance groups, given their general inability to legally procure weapons or receive direct military aid from other States. Such codification would represent a useful categorization towards the elicitation of existing humanitarian obligations when it comes to the use of emerging technologies.

Ultimately, the civil war in Myanmar illustrates both the humanitarian risks associated with unregulated drone proliferation and the lack of an international instrument regulating specifically the emerging military technologies such as drones. The most undesired outcomes are visible on civilians and civilian infrastructures. Strengthening international rules on AWS, regulating their design to prevent malfunction and bias and to ensure adequate accountability, improving compliance with existing IHL principles, and tightening global export controls will be essential to prevent further harm to civilians and to preserve the protective purpose at the core of IHL. Specifically, IHL dissemination efforts by the ICRC on the use of drones should be intensified, primarily targeting the EAOs and their command structures, to ensure their compliance in this NIAC. The ultimate goal is to expand the enforcement tools and venues for the affected communities, both nationally and internationally, to hold perpetrators accountable.

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The authors have no competing interests to declare that are relevant to the content of this article. However, the first author is an editor of these conference proceedings.

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Generative AI tools were used solely to support language editing and/or formatting of author-written text (e.g., clarity, grammar, structure). No confidential, sensitive, or identifiable personal data were entered into these systems. All content was reviewed and verified by the authors, who remain fully responsible for the manuscript.

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# Appendix

## Key Incidents and IHL Issues Flagged

| Date(s)        | Location               | Alleged Target                                        | Source(s)                                                      | IHL Issue Flagged                                         |
|----------------|------------------------|-------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------|
| 2021           | Kachin and Kayin state | Civilians                                             | Lintner & Crispin, 2021                                        | Principles of precaution, distinction and proportionality |
| 14 August 2022 | Sagaing region         | COVID-19 vaccination center set up in a former school | Insecurity In-sight. Safeguarding Health in Conflict Coalition | Principles of precaution and distinction                  |



|                                                                              |                                             |                                        |                                                                                                                                                                                       |                                          |
|------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
|                                                                              |                                             |                                        | 2023 Report Dataset: 2022 SHCC Health Care Myanmar Data. Incident number 34327                                                                                                        |                                          |
| 5, 12, 16 July 2023; 13 September 2023; 12 October 2023; 6, 11 November 2023 | Ye-U township, Sagaing region               | Ye-U Traditional Medicine Hospital     | Insecurity Insight. Safe-guarding Health in Conflict Coalition 2023 Report Dataset: 2023 MMR SHCC Health Care Data. Incident numbers 39905; 40128; 40129; 40130; 40886; 41552; 42430. | Principles of precaution and distinction |
| 6 June 2024                                                                  | Kanbalu, Shwebo and Yinmabin districts      | Health facilities                      | Insecurity Insight. Safe-guarding Health in Conflict Coalition 2024 Report Dataset: 2021-2024 MMR SHCC Health Care Data. Incident number 52042.                                       | Principles of precaution and distinction |
| 6 and 13 June 2024                                                           | Sagaing region, Kanbalu and Katha districts | Health centers, clinics, and hospitals | Insecurity Insight. Safe-guarding Health in Conflict Coalition 2024 Report Dataset: 2021-2024 MMR SHCC Health Care Data. Incident                                                     | Principles of precaution and distinction |

|               |               |           |                         |                                                     |
|---------------|---------------|-----------|-------------------------|-----------------------------------------------------|
|               |               |           | numbers58312;<br>51943. |                                                     |
| 5 August 2024 | Rakhine State | Civilians | Crisis Watch            | Principles of<br>precaution<br>and distinc-<br>tion |

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