Journal DOI: https://doi.org/10.64 **Journal Email:** info@ashurjournal.com **Journal home page:** https://ashurjournal.com/index.php/AJLPS

This journal is open access & Indexed in

IRAQI Academic Scientific Journals Google الباحث العلمي Crossref

Article Info.	
Sections: Law.	**Received: 2025 June 20**
Accepted: 2025 July 20	**Publishing: 2025 September 1**

Unmanned Aerial Vehicles and International Humanitarian Law: A Study of Legal and Ethical Challenges in the Cases of Gaza and Lebanon

Marwa Shaker Kazim Al-Mayah

University of Basra/ College of Law

Marwakahdim225@gmail.com

Abstract

This study investigates the complex legal and ethical challenges posed by the use of Unmanned Aerial Vehicles (UAVs) in contemporary armed conflicts, with a specific focus on the application of International Humanitarian Law (IHL). The research first outlines the definitional and historical framework of UAVs and their various classifications. It then analyzes the compatibility of their deployment with the core principles of IHL: distinction, proportionality, military necessity, and humanity. To provide a practical analysis, the paper examines the case studies of the Gaza Strip and Lebanon, documenting how these aircraft have been used for targeted killings, violations of sovereignty, and attacks resulting in disproportionate civilian casualties and infrastructural damage. These actions are presented as systematic breaches of established IHL principles. The study concludes that a significant regulatory vacuum and a near-complete lack of international accountability have facilitated these violations with impunity. Therefore, the paper underscores the urgent need to develop a specialized international legal framework to govern the use of UAVs, one that establishes clear mechanisms for transparency and accountability to protect civilians and uphold the core tenets of IHL in the face of advancing military technology.

Keywords: Unmanned Aerial Vehicles (UAVs), International Humanitarian Law (IHL), Targeted Killing, Principle of Proportionality, Legal Accountability.

Main Research Question:

This study centers around the following core question:

To what extent is the use of drones in armed conflicts compatible with the rules and principles of international humanitarian law, and what are the legal limits of responsibility for violations committed through their use?

This central issue gives rise to several key sub-questions, including:

How capable is the current framework of international humanitarian law in regulating the use of drones in armed conflict?

Are the traditional rules of humanitarian law sufficient to govern the use of modern warfare technologies, or is there a need for a dedicated legal framework?

What is the stance of the United Nations and international human rights organizations on the military use of drones?

How are violations involving drones assessed in contemporary conflicts, particularly in contexts such as Gaza and Lebanon?

Introduction:

Drones are one of the most advanced military technologies of the modern era, and they have a significant impact on modern warfare. These aircraft differ from conventional aircraft in that they do not carry a human crew and can be monitored or controlled remotely, giving them advantages such as the ability to carry out precise operations and achieve military objectives while minimizing human casualties. As this technology advances, drones have become a major challenge to the implementation of international humanitarian law, which protects civilians during armed conflict.

The importance of drones is not limited to their military capabilities; they also raise important legal and ethical issues regarding how states comply with international humanitarian law when using them in conflict. These issues include, among other things, determining criminal liability for attacks targeting

civilians, questions of proportionality between military objectives and collateral damage, and protecting national sovereignty.

This paper will review the use of drones in military operations in the context of international humanitarian law, addressing the legal and ethical challenges posed by this technology. It will also identify the legal frameworks that should regulate the use of drones to ensure compliance with international law and the protection of human rights.

Chapter One: Definitional Framework and Historical Context of Unmanned Aerial Vehicles

1.1 Defining Unmanned Aerial Vehicles (UAVs)

Drones are a prominent symbol of the transformations of modern warfare, combining advanced military technology with a strategic desire to reduce the human and material costs of conflict. These aircraft are defined as unmanned aerial systems that carry a pilot on board and are remotely piloted by a human operator or operated autonomously through pre-programmed intelligent systems .[١]

While "unmanned aerial vehicles" (UAVs) is the more common technical term, "drones" is also widely used to refer to various models, for both military and civilian purposes. There is a technical difference between the following:

• Unmanned aerial vehicles (UAVs): refers to remotely piloted drones.

• Unmanned combat aerial vehicles (UCAVs): refers to combat aircraft designed to carry out strikes.

• Remotely piloted aircraft systems (RPAS): This term focuses on the entire operational system, including the ground station and data links, rather than just the aircraft itself.

• Experts agree that the use of these tools raises complex dilemmas related to ethics, accountability, and international law, particularly since many strikes carried out by these aircraft occur outside officially declared combat zones. [2]

1.2 Types of Unmanned Aerial Vehicles

First: Classification by Function

A. Reconnaissance/Intelligence UAVs

These drones, often called "flying eyes," are primarily used to monitor targets, track their movements, and collect data.

Mission: Their mission is to conduct surveillance and intelligence gathering. They are used to monitor enemy activity, survey military sites, and capture photos or videos of targets.

Features: They are typically equipped with high-resolution cameras and other sensors, such as radar and advanced technologies, that enable them to collect information remotely.

Examples: Tiger UAVs and Airpac UAVs.

B. Attack (Offensive) UAVs

These drones carry guided missiles and rockets and are used for precision strike operations. The most prominent models are the MQ-1 Predator and the MQ-9 Reaper.

Their mission: to attack enemy targets. In modern warfare, these drones are used to carry out precision strikes on military sites or strategic targets.

Features: Equipped with advanced weapons systems, such as missiles and precision bombs, they are capable of carrying out precise attacks against enemy targets.

Examples: Reaper UAV and Ground Patrol UAV.

C. Integrated Combat UAVs

These drones combine reconnaissance and attack capabilities in a single platform, allowing them to carry out surveillance missions immediately before attacking. This makes them ideal for military operations that require real-time intelligence before making a strike decision.

Features: They carry a range of sensors and weapons and utilize advanced technologies for simultaneous combat and surveillance.

Example: Blueberry UAV.

D. Loitering Munitions (Suicide Drones)

These are usually small drones equipped with an explosive warhead that detonates upon impact with the target.

Example: The Iranian Shahed-136.

E. Logistical Support UAVs

These drones are used for support purposes rather than direct combat.

Their mission includes transporting ammunition or supplies, as well as electronic warfare missions such as jamming enemy radars.

F. Civilian UAVs

Drones are also used for a wide range of non-military applications.

General Purpose: Common uses include aerial photography, environmental monitoring, humanitarian aid delivery, and commercial delivery services.

General Characteristics: They are typically smaller and designed for use in environments that do not require high-level military specifications. They are often equipped with only cameras and GPS receivers.

Examples: Drone View and Air Drone.

A Specific Application: Search and Rescue

Specific Application: Search and Rescue

Search and rescue operations are an important application for civilian drones, especially in areas difficult to access by traditional means.

Mission: These drones are used to locate missing persons during accidents or natural disasters.

Features: Highly capable search and rescue drones are equipped with thermal sensors and high-resolution cameras to identify people in harsh environments.

Example: Falcon UAV.

Second: Classification by Size and Range

Small drones: Often used for short-range reconnaissance within a limited area.

Mission: Used for missions requiring very small aircraft that can be easily carried in a backpack or operated in the field.

Characteristics: These drones are characterized by their lightweight and compact components and are used for security or limited surveillance missions.

Example: The Swift drone.

Medium-range drones: These drones have a range of hundreds of kilometers and are used for military and intelligence purposes.

Strategic/Long-range (HALE/MALE) drones: Capable of flying thousands of kilometers and equipped with advanced guidance technologies and precision weapons. They are often referred to as High Altitude Long Endurance (HALE) or Medium Altitude Long Endurance (MALE) platforms.

Mission: They are characterized by their ability to fly long distances and are used for reconnaissance or attacking distant targets, essential for strategic missions. Characteristics: They have powerful engines and advanced navigation systems, allowing them to fly at high altitudes over vast distances.

Example: Global Hawk.

Multi-role UAVs: These drones are used for multiple purposes, including reconnaissance, attack, search and rescue, and even environmental missions. They are equipped with versatile equipment to cover a wide range of applications.

Characteristics: These drones are highly flexible and can adapt to multiple missions during a single mission.

Example: Shadow UAV.

Third: Classification by Operator

- **State Actors:** The majority of advanced UAVs are operated by national, regular armies.
- **Armed Non-State Actors:** Groups such as Hezbollah and the Houthis have developed indigenous manufacturing capabilities for drones.
- **The Private Sector:** Drones are used by private entities for security, intelligence gathering, or even in proxy conflicts.

Recent years have witnessed significant development in the use of civilian drones modified for military purposes, complicating regulation of their use and the distinction between civilian and military assets[3].

1.3 Historical and Technical Development of UAVs

The concept of unmanned flight began in the early 20th century, with British and German forces using primitive prototypes during the First and Second World Wars. However, the true breakthrough came when the United States entered the field of industrial drone development during the Cold War, followed by their extensive use as intelligence-gathering platforms in the First Gulf War (1991).

The pivotal event that placed drones at the center of legal and ethical debate was the 2002 targeted killing of al-Qaeda leaders in Yemen by a US drone, an operation carried out outside a declared conflict zone. Since then, Washington has relied on this weapon to an unprecedented degree, expanding its strikes to include Pakistan, Somalia, Libya, and Afghanistan under the pretext of "counter-terrorism.[٤] "

Meanwhile, Russia, Iran, Turkey, and China have entered the drone manufacturing and export market, leading to their proliferation in multiple conflict zones such as Ukraine, Gaza, Yemen, and elsewhere. This has also seen the rise of low-cost drones used by non-state actors.

Technically, capabilities have advanced to the point where a drone can be programmed to operate in a protected environment, independently distinguish between targets, select the most appropriate weapon, and automatically return to base without direct human intervention. [5].

Summary

Drones are vital tools in many military and civilian fields. Their use ranges from simple reconnaissance missions to complex offensive operations, and their technologies continue to evolve to improve their efficiency and expand their scope of application. In the military context, drones contribute to increased

accuracy and reduced human casualties. In the civilian context, they offer innovative solutions in areas such as photography, environmental monitoring, and humanitarian aid.

Reasons for the Widespread Proliferation of Unmanned Aerial Vehicles

The primary reasons that have led to the rapid shift toward reliance on military UAVs can be summarized as follows:

First: Operational Advantage The ability to execute high-precision military operations with minimal direct human intervention, coupled with the capacity for round-the-clock target surveillance and real-time adjustments to attacks.

Second: Political Gains The capability to carry out targeted killings without a formal declaration of war, thereby avoiding domestic criticism in democratic nations often reluctant to deploy troops overseas.

Third: Low Financial Cost A single drone may cost less than 1% of a traditional fighter jet, in addition to reducing the associated logistical and ground support costs.

Fourth: Intelligence Superiority Drones are equipped with thermal cameras, signals intelligence (eavesdropping) technologies, and AI-powered image analysis capabilities. They can also be converted into tools for jamming communications or broadcasting messages.

Fifth: The Legal Gap There is an absence of a comprehensive international treaty specifically regulating the use of armed drones, alongside ambiguity in international law regarding "targeted killing" and "asymmetric warfare."

Sixth: Covert and Undeclared Operations Nations such as Israel and the United States use drones for missions that are not officially acknowledged ("undeclared missions"), which facilitates the evasion of accountability. The international silence regarding their use in places like Gaza and Lebanon reflects a flaw in global deterrence mechanisms.

Taken together, these factors have made UAVs an integral part of modern warfare, imposing legal challenges that remain unresolved to this day [6].

Conclusion

This first chapter has established the general framework for understanding drones as modern combat and espionage tools, paving the way for a detailed legal analysis in the chapters that follow. The next step will be to examine the core principles of International Humanitarian Law and to assess how the use of these aircraft is evaluated under those principles.

Chapter Two: Core Legal Principles of International Humanitarian Law and Their Application to Unmanned Aerial Vehicles

2.1 General Introduction: International Humanitarian Law as a Preventive Framework in Armed Conflicts

International humanitarian law (IHL) is a legal framework aimed at protecting persons not participating in hostilities and regulating the conduct of warring parties. These rules are based on the four Geneva Conventions of 1949, their two Additional Protocols of 1977, and customary rules developed through international practice. Drones have become an integral part of modern warfare, used in a wide range of military operations. With their increasing use in armed conflicts, numerous legal and ethical questions have arisen regarding the application of the principles of IHL to their use. IHL consists of a set of rules aimed at reducing human suffering during armed conflict, particularly by protecting civilians and civilian objects from unlawful attacks.

In the context of modern conflicts, the use of drones poses a significant challenge to these rules. It raises questions about the extent to which states and armed groups adhere to the fundamental principles of IHL, the most important of which are:

1. The Principle of Distinction
2. The Principle of Proportionality
3. The Principle of Military Necessity
4. The Principle of Humanity

In this chapter, we will analyze each of these principles and the extent of their applicability to UAV operations, providing practical examples.

2.2 The Principle of Distinction

First: Definition and Legal Importance The principle of distinction is one of the cornerstones of IHL. It mandates that a distinction must be made between civilians and combatants, and it prohibits attacks directed against civilians or civilian objects. This principle requires a permanent distinction between:

- Combatants and legitimate military objectives.
- Civilians and civilian property not involved in combat operations.

Article 48 of the First Additional Protocol of 1977 stipulates:

"In order to ensure respect for and protection of the civilian population and civilian objects, the 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" [7].

Second: Challenges Related to Drones The application of the principle of distinction to drone warfare presents complex challenges, primarily related to the accuracy of identification. The challenges can be summarized as follows:

- **Impaired Judgment due to Remote Control:** The physical distance of the operator from the battlefield can weaken the accuracy of human assessment of the situation on the ground, making it difficult to verify a target's status in real-time.
- **Reliance on Partial or Flawed Intelligence:** Drones often rely on intelligence that may be incomplete or misinterpreted. This creates a risk of targeting civilians based solely on suspicion or faulty data patterns.
- **Blurred Lines in Conflict Zones:** In many conflict areas (such as Gaza and Yemen), the patterns of life for civilians and combatants can be similar or overlapping, making it exceedingly difficult for a remote operator to make a

clear distinction. Although advanced sensors provide data, interpreting that data correctly remains a significant hurdle.

Third: Field Examples In numerous cases, states using drones have been accused of failing to adequately distinguish between military and civilian targets, thereby threatening the lives of innocent civilians.

- In Gaza, Israeli drones were reportedly used to strike suspected individuals who were carrying mobile phones, without conclusive evidence of their combatant status, leading to civilian deaths [8].
- In Pakistan, the US administration acknowledged mistakenly targeting a civilian wedding convoy with a drone in 2013, citing "suspicion" of the presence of militants [9].

2.3 The Principle of Proportionality

First: Legal Definition The principle of proportionality stipulates that attacks must be proportionate to the military advantage sought. In other words, there must be a balance between the anticipated military gain and the potential harm to civilians and civilian property.

This principle dictates that the incidental harm resulting from a military attack must not be excessive in relation to the concrete and direct military advantage anticipated. Article 51(5)(b) of the First Additional Protocol confirms the prohibition of:

"...an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated" [10].

Second: Drones and the Proportionality Problem While it is often assumed that drone strikes are precise due to advanced technology, in reality, studies show that some attacks cause disproportionate collateral damage or are inaccurate in targeting [2].

Challenges in Applying the Principle of Proportionality The core challenge lies in the gap between theoretical precision and practical application.

1. **The Illusion of Precision:** While drones offer high precision, flawed intelligence or inaccurate analysis can lead to disproportionate attacks. In some cases, even a precise strike on a legitimate target results in disproportionate collateral damage, such as the killing of numerous civilians or the destruction of critical infrastructure.
2. **Attacks in Densely Populated Areas:** Using drones in urban settings can easily violate the principle of proportionality, as avoiding collateral damage in such environments is exceedingly difficult. Many drone strikes are executed without confirmed knowledge of the number of civilians near the target.
3. **Lack of Independent Verification:** The frequent use of drones in residential areas (cities, neighborhoods, communities) increases the likelihood of severe collateral damage. The absence of independent monitoring of the actual outcomes of these attacks makes a clear assessment of their proportionality ambiguous and difficult to verify.

Third: Field Examples

- In 2014, a US drone strike on a house in Yemen killed 12 civilians, including women and children, in an operation targeting a single suspected individual [11].
- During the 2023 war, an Israeli drone attack on a medical clinic in Gaza resulted in the deaths of doctors and patients, under the pretext that an armed individual was hiding inside. This was widely considered a flagrant violation of the principle of proportionality [12].

2.4 The Principle of Military Necessity

First: The General Concept Drones should only be used when there is a genuine military necessity to attack a specific target, and achieving a military objective must be the primary interest of the attack.

This principle means that any use of armed force must be justified by pure military need, aimed at achieving a legitimate military advantage, and not carried out for motives of revenge, political posturing, or intimidation.

The U.S. Army's Field Manual states:

"Every military operation must be justified by the necessity of achieving a legitimate military objective" [13].

Second: Drones and the Abuse of this Principle Some states justify the use of drones outside of active conflict zones under broad pretexts, such as "counter-terrorism" or "preventive deterrence." In these cases, strikes are conducted against targets that have no direct connection to an actual theater of operations.

Chapter Three: Case Studies – The Use of Unmanned Aerial Vehicles in Gaza and Lebanon

3.1 Case Study One: The Gaza Strip – Drones as a Tool for Targeted Killing and Continuous Siege

First: General Context of Drone Usage in Gaza Since the outbreak of the Second Intifada in 2000, the airspace of the Gaza Strip has been under complete Israeli control. Initially, drones were introduced for surveillance and reconnaissance purposes. However, the most dangerous shift occurred when they were repurposed as a tool for targeted killings, particularly after 2004, when Sheikh Ahmed Yassin was assassinated by a drone strike in broad daylight.

These attacks evolved to include:

- Targeting vehicles carrying political activists or resistance fighters.
- Bombing residential sites under the pretext of the presence of "armed cells."
- Striking densely populated neighborhoods, as witnessed in the wars on Gaza (2008, 2014, 2021, 2024).

Second: Repeated Violations of IHL Principles

1. The Principle of Distinction Drones often target individuals without confirming their combatant status. In 2021, two young men riding a motorcycle

in the Al-Zaytoun neighborhood were targeted, only for it to be revealed later that they were civilians [14]. This failure to accurately distinguish military targets from civilians has led to disproportionate and unjustified attacks.

- **Example:** Drone strikes on residential complexes in Khan Younis or the Al-Shati refugee camp, where civilians, including women and children, were killed.
- **Direct Targeting of Medical and Relief Personnel:** Ambulances and medical crews have been targeted by drones, despite the protected status of these groups and assets under international law.
  - **Example:** The targeting of ambulances by drones during evacuation operations clearly demonstrates a failure to respect the principle of distinction.

2. The Principle of Proportionality In the 2021 war on Gaza, a six-story building on Al-Wehda Street was struck by a drone, killing 44 civilians, under the pretext that a single resistance member was inside [15].

- **Bombing of Rescue Teams and Shelters:**
  - **The Event:** In January 2024, a drone targeted a shelter for displaced persons in Khan Younis, which was run by UNRWA.
  - **The Victims:** 13 displaced persons were killed, including 5 children.
  - **Legal Analysis:** The strike yielded no clear military advantage, while the civilian losses constituted a flagrant violation of the principle of proportionality.

3. The Principle of Humanity The constant hum of drones flying in Gaza's sky, even outside of wartime, causes acute psychological distress among children, according to reports from the Palestinian Ministry of Health and organizations like Doctors Without Borders (MSF) [16].

Third: Documented Field Testimonies

- Human Rights Watch reported that a number of drone attacks in Gaza were not preceded by any warning or directive for civilians to evacuate, making the attacks tantamount to summary executions [17].
- Amnesty International has documented cases of entire families being bombed due to the presence of a "suspected target" in an adjacent building.

3.2 Case Study Two: Lebanon – Drones in Service of Intelligence and Cross-Border Assassinations

First: History of Airspace Violations Since the withdrawal of the Israeli army from southern Lebanon in 2000, Israeli aerial sorties over Lebanese territory have not ceased. Drones are used to monitor the movements of the resistance, conduct signals intelligence (eavesdropping), and identify targets.

The UN Interim Force in Lebanon (UNIFIL) has documented over 11,000 Israeli airspace violations between 2006 and 2023 [18].

Second: Violations of IHL and Modes of Operation in Lebanon

To provide a clearer analysis, the Israeli use of drones in Lebanon can be categorized by specific IHL violations and the primary methods of deployment.

A. Violations of the Principle of Proportionality

- **1. Targeting an Ambulance in the Town of Ainata – South Lebanon**
  - **The Event:** In December 2023, an Israeli drone targeted a Lebanese Civil Defense ambulance that was transporting wounded individuals after a previous raid.
  - **The Victims:** Three members of the ambulance crew were killed, and others were injured.
  - **Legal Analysis:** The vehicle posed no military threat and was clearly marked with a humanitarian emblem. The strike did not achieve any direct military advantage and resulted in purely civilian losses.
  - **Result:** A flagrant violation of the principle of proportionality and a breach of the principle of protection for medical personnel.
- **2. Drone Strike on a House in the Town of Khiam – January 2024**
  - **The Event:** The home of a civilian family was targeted based on the allegation that a Hezbollah operative was inside.
  - **The Results:** Five civilians were killed, including a mother and her three children, and the house was completely destroyed.

- **Legal Analysis:** Even if a resistance fighter had been present, the death of an entire family constitutes excessive harm that is disproportionate to the military objective. Drones allow time for verification and assessment, but this was ignored.
- **Result:** A violation of the principle of proportionality.

B. Violations of the Principle of Distinction

- **Indiscriminate Targeting:** Some drone operations have used less precise technologies or incomplete intelligence, leading to strikes on non-military targets or even incorrect targets within civilian areas.
- **Example:** The targeting of civilian homes or vehicles within conflict zones in southern Lebanon.
- **Result:** A violation of the principle of distinction.

C. Primary Modes of Drone Operation

1. **Long-Term Reconnaissance:** Drones fly for hours over Beirut, the South, and the Beqaa Valley to identify potential locations of Hezbollah caches or command centers.
2. **Assassinations:** In August 2019, two drones carried out an attack on the southern suburbs (Dahiyeh) of the capital, Beirut. One targeted a Hezbollah media office, an attack considered the first of its kind deep within Lebanon's civilian areas since 2006 [19].
3. **Air Force Support:** During the July 2006 war, drones were used to direct air force strikes against infrastructure and provided real-time imagery of civilian and combatant movements.

Third: The Near-Absence of International Legal Accountability Despite the documentation of hundreds of monthly airspace violations by UNIFIL and the Lebanese Parliament, no official condemnation or international punitive resolution has been issued against Israel. This is considered a failure of the enforcement mechanisms of international law.

Fourth: The Psychological and Security Impact Lebanese security reports indicate that the permanent presence of drones over the southern regions:

- Causes a state of constant anxiety among the population.
- Constitutes a blatant threat to Lebanese sovereignty.
- Disrupts agricultural and development work in some border villages.

Analytical Conclusion of the Chapter

The two case studies of Gaza and Lebanon indicate that the use of drones has become a repeating pattern of violation against International Humanitarian Law, particularly concerning the principles of distinction, proportionality, and sovereignty.

It appears evident that the absence of international accountability, especially towards Israel, has encouraged the expansion of this weapon's use in densely populated civilian areas without any real constraints. This makes it imperative to move towards regulating its use and recalibrating the legal balance between security and justice.

Chapter Four: Legal and Ethical Challenges of Unmanned Aerial Vehicles

Introduction: From a Regulatory Gap to a Moral Crisis

The use of drones in armed conflict represents a new paradigm in warfare, but it also poses unprecedented legal and ethical challenges. Although international humanitarian law was not originally designed to accommodate drone combat systems, these technologies are now an integral part of the modern battlefield, requiring a rethinking of regulatory and accountability frameworks.

While some states, particularly the United States and Israel, justify this technology under the pretext of "counter-terrorism," field findings show that it is often used outside the scope of the rules of necessity and proportionality, creating a wide gap between practice and legislation.

Part One: The Ethical Challenges

The use of drones in warfare raises profound ethical questions about the compatibility of this technology with the fundamental humanitarian principles

governing conflict. These challenges intersect with issues of targeted killing, the protection of civilians, and the nature of war itself.

1. The Ethics of Remote and Extrajudicial Killing: The use of drones in targeted killings of suspected terrorists or combatants, often in countries not formally at war, is one of the most contentious ethical debates.

• Lack of Due Process: Killings are authorized based on the unilateral decision of military commanders or intelligence services, without a fair trial or legal representation for the targeted individual. This raises fundamental questions about the legitimacy of such decisions.

• Normalization of Assassination: This practice blurs the line between combat and assassination. As Human Rights Watch describes it, it contributes to "a disturbing trend of transforming war into a transparent and illegal campaign of repression." [22] The use of drones as a political tool for assassination, outside the scope of judicial oversight, poses a grave ethical risk.

2. The Psychological Battlefield: Operator and Victim: Drones create a profound emotional and physical gap between the perpetrator and the victim, with significant ethical implications.

• Emotional detachment: Because operations are conducted remotely via computer screens, military operators lack direct contact with their targets. This emotional detachment may lead to decisions less influenced by humanitarian considerations. However, studies have also shown that many operators suffer from psychological distress and post-traumatic stress disorder resulting from the emotional stress of making life-or-death decisions remotely [3].

• Psychological terror for civilians: The constant presence of drones creates immense psychological terror. The drone's constant roar creates a state of constant fear, even in times of peace. Children in Gaza and northern Pakistan suffer from chronic anxiety and sleep disturbances [4,5]. Studies by Stanford and New York Universities have revealed that residents of Waziristan (Pakistan) avoid family gatherings and weddings for fear of being mistakenly targeted by

drones [23]. This sense that death could come at any moment unravels the fabric of daily life..

3. The Expansion of War and the Erosion of Sovereignty The remote nature of drone warfare lowers the threshold for using lethal force, accelerating and expanding the scope of conflicts.

- **War Without Borders:** The ability to launch attacks remotely without a direct military presence fosters the idea of waging war against states or groups without a formal declaration, creating a state of perpetual, borderless conflict.
- **Violation of Sovereignty:** Using drones in sovereign nations without official permission threatens their sovereignty and constitutes a form of interference in their internal affairs. Justifying such actions under the pretext of counter-terrorism raises ethical questions about the limits of foreign intervention [5].

Part Two: The Legal and Procedural Challenges

4.1 The Regulatory Vacuum: Absence of a Specific International Treaty To date, there is no dedicated international treaty that regulates the use of UAVs, specifically concerning:

- Their legal definition as a means of combat.
- Restrictions on their cross-border use.
- Accountability for the damage they cause.

The International Committee of the Red Cross (ICRC) has warned of this legal void and called for the development of a specific international framework that addresses:

1. Precise definition of legitimate targets.
2. Accountability for civilian casualties.
3. Transparency in issuing and executing orders.
4. Prohibition of their use in areas where there is no active armed conflict [20].

This regulatory shortfall makes it easy for states to justify any use as a "defensive measure" without being subject to legal consequences.

4.2 The Crisis of Accountability: Who is Legally Responsible? One of the most significant challenges is that drones operate within a remote and complex chain of command:

- The soldier who presses the launch button may be in another country entirely.
- Orders may be based on flawed intelligence.
- The parties responsible for programming and analysis are often unclear. This ambiguity makes it incredibly difficult to assign legal responsibility when a mistaken strike kills civilians. Who is held accountable: the programmer, the operator, or the state that owns the drone?

The UN Special Rapporteur Agnès Callamard noted that targeted killings via drones are often:

1. Extrajudicial (outside of legal proceedings).
2. Not based on UN resolutions.
3. Carried out without notification or international accountability [21].

4.3 The Lack of Transparency and Media Blackouts The states that use drones most frequently—especially the United States and Israel—rarely admit to the details of their attacks, complicating documentation and accountability. Key issues include:

- Failure to publish drone footage that would show whether targets were civilian or military.
- Delaying or denying responsibility even when there is clear evidence of civilian casualties.
- Failure to pay compensation or open independent investigations. Several UN bodies have criticized this opacity, noting that transparency is essential to distinguish between "legitimate acts of war" and "violations that may amount to war crimes" [24].

Conclusion

The legal and ethical challenges associated with drones transcend mere "technical adjustments" or "legislative updates." They touch the very essence of

what International Humanitarian Law is meant to protect: human dignity, the right to life, and protection from arbitrary violence.

The absence of a specific international treaty, the ambiguity of responsibility, and the manipulation of the principle of military necessity all facilitate the commission of violations with impunity. Therefore, the future of justice in warfare is contingent upon recalibrating the use of this technology through a dedicated legal framework and an independent international mechanism for monitoring and accountability.

References

(1.) Amnesty International. Death by Drone: The Drone Wars and the Ethics of Targeted Killing. Report, 2014.

(2.) Amnesty International. Israel/Gaza: Unlawful Israeli Airstrikes. Report, 2021.

(3.) Beard, Jack M. “Law and War in the Virtual Era.” American Journal of International Law, Vol. 103, No. 3 (2009).

(4.) Bergen, Peter, and Daniel Rothenberg. Drone Wars. Cambridge University Press, 2015.

(5.) Callamard, Agnes. “Extrajudicial, Summary or Arbitrary Executions: Use of Armed Drones.” Report to the UN Human Rights Council, A/HRC/44/38, 2020.

(6.) Casey-Maslen, Stuart. The Use of Armed Drones in Conflict and International Law. Oxford University Press, 2018.

(7.) Cole, Chris. “Drone Wars: Out of Sight, Out of Mind, Out of Control?” Drone Wars UK, 2013.

(8.) Dinniss, Heather, and Jann K. Kleffner. “Soldier or Sensor? The Legal Status of 'Direct Participation in Hostilities' by Unmanned Systems.” Military Law Review, Vol. 186 (2005).

(9.) Human Rights Watch. Between a Drone and Al-Qaeda: The Civilian Cost of US Targeted Killings in Yemen. Report, 2013.

(10.) Human Rights Watch. Drone Warfare: The Law and Ethics of Targeted Killings. Report, 2012.

(11.) Human Rights Watch. “Gaza: Apparent War Crimes During May Fighting.” Report, 2021.

(12.) International Committee of the Red Cross (ICRC). Autonomous Weapon Systems and International Humanitarian Law: A Primer. Report, 2021.

(13.) International Committee of the Red Cross (ICRC). “Drones and Distinction in Armed Conflict.” ICRC Reports, 2022.

(14.) International Institute of Humanitarian Law. "Drones and the Challenges of International Humanitarian Law." Institute Symposium, 2021.

(15.) Kolan, Mark. "International Humanitarian Law and the Challenges of Modern Technology." International Law Journal, 2022.

(16.) Médecins Sans Frontières (MSF). “Mental Health Impact of Drone Warfare in Gaza.” Report, 2022.

(17.) Melzer, Nils. Human Rights Implications of the Usage of Drones in Armed Conflict. Report to the UN Human Rights Council, 2013.

(18.) Palestinian Centre for Human Rights (PCHR). Field Report, Gaza, 2021.

(19.) Physicians for Human Rights. “Targeting Medical Facilities in Gaza.” Report, 2023.

(20.) Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977.

(21.) Reprieve. The Psychological Impact of Drone Strikes on Operators. Report, 2013.

(22.) Schmitt, Michael N. “Drone Attacks under Jus in Bello.” Yearbook of International Humanitarian Law, Vol. 13 (2010).

(23.) Schmitt, Michael N. "Drone Attacks under the Law of Armed Conflict." Harvard National Security Journal, Vol. 4 (2012).

(24.) Schmitt, Michael N. The Ethics of Drone Warfare. Harvard Law Review, 2015.

(25.) Shami, Ali. "Criminal Responsibility in Drone Strikes." Human Rights Review, 2021.

(26.) Stanford Law School & NYU School of Law. “Living Under Drones: Death, Injury, and Trauma to Civilians from US Drone Practices in Pakistan.” Report, 2012.

(27.) The Bureau of Investigative Journalism. “Drone Strikes in Pakistan: Wedding Attack.” Report, 2013.

(28.) United Nations Interim Force in Lebanon (UNIFIL). “Monthly Reports on Israeli Airspace Violations,” 2023.

(29.) United Nations Office for the Coordination of Humanitarian Affairs (OCHA). “Gaza Report,” July 2021.

(30.) United Nations Special Rapporteur on the Promotion and Protection of Human Rights and Fundamental Freedoms while Countering Terrorism. Annual Report, 2020.

(31.) United Nations. "International Humanitarian Law: Principles and Challenges." United Nations Report, 2023.

(32.) Walzer, Michael. Just and Unjust Wars: A Moral Argument with Historical Illustrations. Basic Books, 2006.

(33.) Wittes, Benjamin, and Gabriella Blum. The Future of Violence: Robots and Germs, Hackers and Drones—Confronting a New Age of Threat. Basic Books, 2015.