



**ADVANCE SOCIAL SCIENCE ARCHIVE JOURNAL**

Available Online: <https://assajournal.com>  
 Vol. 05 No. 02. April-June 2026 Page#. 381-388  
 Print ISSN: [3006-2497](https://doi.org/10.30662/assajournal.v5i2.381-388) Online ISSN: [3006-2500](https://doi.org/10.30662/assajournal.v5i2.381-388)  
 Platform & Workflow by: [Open Journal Systems](https://www.openjournal.org/)



**Use Of Drones in Armed Conflict and Compliance with International Humanitarian Law**

**Obhayo Khan**

Subject Specialist Pakistan Studies, School Education & Literacy Department Government of Sindh

[obhayoshar786@gmail.com](mailto:obhayoshar786@gmail.com)

**Maryam**

Lecturer Pakistan Studies, College Education Department Government of Sindh

[maryamshabbirtatla@gmail.com](mailto:maryamshabbirtatla@gmail.com)

**Rind Ali**

LL. B 3<sup>rd</sup> Year Law Student at Department of Law, University of Sindh, Jamshoro

[rindali11223@gmail.com](mailto:rindali11223@gmail.com)

**ABSTRACT**

*States across the worldwide are emerging technologies designed for contemporary warfare. The modern world adopts new technologies in which the Unmanned Aerial Vehicles (UAVs), also known as drones, are among these developments. Continuously, the use of drone is expending beyond traditional functions such as surveillance, intelligence collection, and reconnaissance to target minorities and carrying out precision attacks. This research examines the legal framework governing the use of drones in armed conflict and assess the compliance of drone operations with fundamental principles of International Humanitarian Law (IHL) and propose recommendation for strengthen legal accountability and civilian protection. This study argues that the use of drone, in war legally or ethically, heightened concerns under international humanitarian law and international human rights law. This research adopts a doctrinal and qualitative legal research methodology, primary sources include international treaties such as Geneva Convention, Additional Protocols, and Customary International Law. Secondary sources consist of scholarly articles, books report by international organizations and relevant case laws. The Conclusion explains that Under International Humanitarian Law, the legal ambiguities concerned with drone warfare poise fundamental threats so the attack of armed must be identified in which civilians must be separated and if civilians are targeted and high civilian casualties happened, in this situation, the main principles of IHL, distinction and necessity will be violated which are central to IHL.*

**Keywords:** Drone Warfare, International Humanitarian Law (IHL), Armed Conflicts, Autonomous Weapons, Legal Accountability.

**Introduction**

Technological innovation has always highlighted a pivotal contribution in arranging the methods and means of warfare. Unmanned Aerial Vehicles (UAVs), are known as Drones that has emerged, in recent decades, a significant shift in military operations. The introduction of Drone technology has completely changed the way wars are fought. Drones are initially utilized for intelligence sharing and spy system, over the time they have become weapons that can carry out deadly attacks, especially in counterterrorism operations. Armed drones have become reality in today's world. The drone is a fascinating technology and have clear advantage against enemy attack without exposing one's vulnerability. (Faiz, 2024).

In the context of military operations, states have become heavily relied on drone technology. For example, USA alone had 20,000 UAVs in 2013. The majority of the countries i.e UK, USA, Israel, and NATO have experienced drones beyond their borders. The countries who became victim in military operations are commonly (Afghanistan, Syria, Yemen, Iraq, Libya, Somalia, Gaza and Pakistan). Drones are also used within the boundary of Pakistan, Nigeria, and Iraq. Legal and moral limitations are the offshoots of the drones that have been used in warfare and raised concerns under International Humanitarian Law (IHL) (Christof Heyns).

Drone warfare is closely connected with important legal issues such as state responsibility, respect for national sovereignty, and the IHL principles of distinction and proportionality. The remote nature of drone operations complicates accountability and raises questions about state responsibility and individual criminal liability. Furthermore, the absence of a specific international treaty governing drone warfare creates legal ambiguity regarding their regulation (Driss Ed.daran 2025).

This research paper examines the legal framework governing the use of drones in armed conflict and assess the compliance of drone operations with fundamental principles of International Humanitarian Law (IHL) and propose recommendation for strengthen legal accountability and civilian protection. This research adopts a doctrinal and qualitative legal research methodology, primary sources include international treaties such as Geneva Convention, Additional Protocols, and Customary International Law. Secondary sources consist of scholarly articles, books report by international organizations and relevant case laws.

### **Concept and Evolution of Drone Warfare**

#### **Basic Understanding of Drone**

Military and counterterrorism operations are carried out by drone vehicles to surveil and assaults against enemy (Konert 2021).

An "aircraft or balloon that does not carry a human operator and is capable of flight under remote control or autonomous programming" is what the US Department of Defense defines as an unmanned aircraft. Drones are not new, and their roots may be found at least in World War I, despite the fact that they have only just been a major topic of public discussion. However, they were mostly employed for surveillance during the twentieth century, particularly during the Gulf War and the Balkan crisis in the 1990s (Mary Ellen 2010). From early October 2001 to 2023, the United States flew its first armed drones in Afghanistan. Since then, the number of Predator drones in its arsenal has grown from 167 in 2002 to over 7,000 (Anna 2011).

#### **Definition and Nature of Drone Warfare**

The use of military robots and autonomous systems in combat is known as "drone warfare." During their mission, the robots may have varied degrees of autonomy or be remotely operated by a pilot. Unmanned Ground Vehicles (UGV), Unmanned Surface Vehicles (USV) or Unmanned Underwater Vehicles (UUV), and Unmanned Combat Aerial Vehicles (UCAV) or weaponized commercial UAVs are examples of robot types. UAVs, UGVs, USVs, and UUVs have a wide range of uses, from anti-air, anti-armor, and anti-personnel roles to reconnaissance, kamikaze missions, bomb disposal, freight transport, and medical evacuation. China, France, Greece, Pakistan, Iran, Iraq, Italy, Poland, Russia, South Korea, Turkey, the United States, the United Kingdom, India, Ukraine, and Israel have all been identified as having operating UCAVs as of 2019. During the war on terror in the early years of the twenty-first century, the US military used air-to-surface missiles to carry out the majority of drone attacks against ground targets in nations like Afghanistan, Libya, Pakistan, Somalia, Syria, and Yemen. In the 2010s and 2020s, drone warfare rapidly developed and spread, becoming more common in nations including Azerbaijan, China, Iran, Russia, Turkey, and Ukraine. Drones were also employed by organized crime groups

like Mexican cartels and militant groups like the Islamic State and Houthis for logistics and attack purposes. However, only the Russian invasion of Ukraine in 2022 is "widely recognized as the world's first drone war." Both sides have employed a variety of unmanned aerial vehicles since the start, such as short-range multirotor FPV drones and long-range fixed-wing drones. The Russo-Ukrainian War has been referred to by academics as the first "Drone War" mostly because of the scope and ferocity of the strikes, as well as the impact this event has on modern conventional warfare techniques. In June 2024, Ukraine became the first nation to establish the Unmanned Systems Forces, a military branch dedicated solely to drone warfare. Russia soon followed, establishing its own Unmanned Systems Forces at the end of 2025.

### **Legal Framework Governing Drone Warfare**

Unmanned Aerial Vehicles (UAVs), also referred to as drones, are medium-sized aircraft that are operated remotely. The origins of drone warfare can be found in the long-standing debates over the legitimacy of deploying force and the integrity of the state. Unmanned aerial vehicles (UAVs) were initially deployed as reconnaissance planes, but they have now developed into lethal weapons that can attack targets across boundaries with minimal risk to human life. The invention has radically changed how conflicts are conducted and has run counter to legal standards for the protection of civilians and the integrity of territories (Seharwat 2020). However, under International Humanitarian Law (IHL), the growing use of drones presents serious ethical and legal issues.

By enabling remote operations, UAVs challenge conventional ideas of combat and may compromise military accountability. To avoid collateral damage and human rights breaches, their capacity to carry out precision strikes requires rigorous respect to the rules of distinction and proportionality. UAV technology has advanced, but the application and interpretation of IHL are still debatable and need constant regulation to guarantee adherence to humanitarian ideals. Drones, which combine robotics and aerodynamics, offer many novel uses, especially in security and military operations (Driss Ed. Daran 2025). In this view, safeguarding territorial integrity and state sovereignty—which in other respects frequently pose obstacles to the defense of human rights—can be a crucial part of protecting people from deadly force, particularly in light of the development of armed drones by containing the spread and intensity of armed conflicts. In contrast, IHL and IHRL discuss the particulars of a certain drone attack, including how it is carried out, who it is carried out against, and the ensuing effects, rather than the interstate use of force. Therefore, a comprehensive analysis is required to determine whether a specific drone strike is legitimate under international law. A drone strike must meet the legal standards of all relevant international legal regimes in order to be permissible under international law. The concept of difference, which forbids the direct targeting of people who are not combatants, is one of the fundamental pillars of international humanitarian law<sup>1</sup>.

Articles 48 and 52 of Additional Protocol I of the Geneva Conventions, which place a strong emphasis on protecting civilians, embody this idea. However, there are a lot of obstacles in this area due to the growing usage of drones as weapons. Although drones are capable of precise targeting, there is still worry about possible target misidentification (Christof Heyns 2013). Serious questions about extraterritoriality, state sovereignty, and accountability are also raised by the legal system governing drone warfare. When drone attacks are carried out on the territory of a sovereign state that is not involved in an ongoing conflict, national sovereignty concerns arise, especially when the target does not immediately threaten the attacking state. Additionally, the subject of accountability for illegal drone strikes is still complicated and divisive. Gaps in the

---

<sup>1</sup> Christof Heyns (2013) The International Law Framework Regulating the use of Armed Drones.

implementation of international treaties, which are intended to protect people and advance humanitarian principles in armed conflict, are another source of legal and ethical difficulties with drone strikes (Driss Ed. Daran 2025).

### **Fundamental Principles of IHL and Drone Operations**

IHL is recognized as the area of international law that controls how armed conflicts are conducted. The necessity to impose restrictions on the conduct of armed conflicts gave rise to the tenets of international humanitarian law. The Hague Conventions of 1899 and 1907, the Geneva Conventions of 1949, and the Additional Protocol of 1977 are the most notable treaties that make up IHL. In essence, the Geneva Convention is one of the key documents that establishes the acceptable tactics and means of armed conflict as well as the obligations of fighters to people who have been injured, ill, or imprisoned (NR Steyn 2019).

Drones are a prime example of technological advancements that pose a number of issues to international humanitarian law and its tenets. One of the more contentious legal issues facing international humanitarian law in the twenty-first century is the military's use of drones in armed conflict. The legality of drones has been questioned for a variety of reasons, but despite these objections, it is clear that the use of drones in both surveillance and combat is growing. IHL is made up of a number of essential ideas that are sometimes referred to as "law of war principles." Military need, humanity, honor, prudence, distinctiveness, and proportionality are these tenets. At this stage, it's crucial to remember that each of the different principles are "interdependent and reinforcing parts of a coherent system" (NR Steyn 2019).

### **Military Necessity**

The principle of military necessity, which refers to the attainment of a concrete military benefit, is commonly treated as the primary point of reference in discussions concerning the core principles of International Humanitarian Law (IHL). It is widely maintained that the remaining principles of IHL emanate from this concept. In order to pursue a military benefit, every operation conducted during an armed conflict must be directed at a legitimate military target, as required by the principle of military necessity. With respect to drone operations. It is contented that such strikes may conform to the principle of military necessity when they produce a clear and direct military gain, for example, by eliminating high-value terrorist operatives or disrupting imminent security threats. In this regard, drones may be regarded as an effective tool for achieving lawful military aims.

When deployed strictly within the confines of identified military objectives, drones do not raise distinct concerns under the principle of military necessity and may be considered a permissible method of warfare. However, this assessment is not conclusive, as the application of military necessity must always be evaluated in harmony with the other foundational principle of International Humanitarian Law (NR Steyn 2019).

### **Humanity**

The principle of humanity, also known as the prohibition of unnecessary suffering, seeks to minimize suffering during armed conflict. Once a lawful military objective has been achieved, any additional harm inflicted becomes unjustified. Accordingly, IHL prohibits the use of weapons or methods of warfare that cause superfluous injury not warranted by the military advantage gained. Drones do not inherently violate the principle of humanity, rather, concerns arise from how they are employed. While some argued that remote operations may reduce emotional engagement, others contend that continuous surveillance provides operators with a closer awareness of the human consequences of their actions. Ultimately, drones comply with the principle of humanity so long as the means used are proportionate to the military objectives pursued (NR Steyn 2019).

### **Distinction**

The principle of distinction requires parties to an armed conflict to differentiate to all times between civilians and combatants, and to direct attacks solely against lawful military objectives. The use of drones must be conducted against combatant and individuals **directly participating in hostilities** because challenges arise in the context of signature strikes, where individuals are targeted based on observed behavior rather than confirmed identity. These practices risk violating article 48 of Additional Protocol I, which limits attacks exclusively to military objectives. The application of distinction becomes further complicated in conflicts involving non-state armed groups, such as Al-Qaeda or the Taliban. The ICRC's doctrine of continuous combat function seeks to clarify when members of such groups may be lawfully targeted; however, uncertainty in its practical application continues to raise significant legal concern.

### **Proportionality**

The principle of proportionality prohibits attacks where the anticipated civilian harm would be excessive in relation to the concrete and direct military advantage expected. Although drones are often justified on the basis of their technology precision, their use has nonetheless resulted in significant civilian casualties in countries such as Yemen and Somalia. The legality of such strikes depends largely on the accuracy of intelligence and the openness of post-strike assessments, both of which are frequently undermined by state secrecy. As noted by Michael Schmitt, proportionality assessment in drone warfare must consider not only the precision of the weapons used but also the reliability of the targeting process itself (Dr. Faiz Bakhsh 2024).

Given the obstacles, it is clear that the use of drones does not significantly challenge all of the basic principles of IHL. However, it is possible to argue that some of the most complex issues related to the use of drones in warfare are related to the principles of precautionary, distinction, and proportionality. For instance, IHL does not specify the transparency requirement directly, and there is some ambiguity regarding the requirement of accountability in IHL (NR Steyn 2019)

### **Drone Attacks Under IHRL**

Under IHRL, the use of force by a state against an armed group is strictly limited. Military force may be employed only where the actions of the armed group pose a serious and imminent threat. Even when a state acts with the assistance of another state or an international organization, the supporting actor is bound by the same limitations on the use of force as the territorial state. IHRL applies at all times, including during armed conflicts, alongside International Humanitarian Law. According to law enforcement standards under IHRL, the use of firearms is permissible only in situations of self-defense, to protect life from a grave threat, or to apprehend an individual who presents such danger, and only when less harmful means has proven ineffective. Where these conditions are met and no alternative exists, the international use of lethal force may be justified as a last resort (Wafa Azhar 2015).

### **Drone Attacks Under the Un Charter**

The UN Charter generally prohibits the use of force by states, permitting it only under strictly defined circumstances. Article 2(4) obliges states to refrain from the threat or use of force, including armed drone strikes, against the territorial integrity or political independence of any state. Exceptions to this prohibition are provided primarily under Chapter VII and Article 51 of the Charter. Under these provisions, force may be lawfully used in two situations: first, where the Security council authorizes force, including drone operations, in response to a threat to international peace and security; and second, where a state exercises its inherent right of self-defense following an armed attack, including by way of drone strikes, until the security council takes necessary measures. The United States relied on article 51 to justify its use of force, including drone attacks, in Afghanistan in 2001, a position later reinforced by the consent of the

Afghan government. In contrast, while Pakistan has been alleged to have tacitly consented to US drone operations, no formal or public authorization has been issued. Similarly, in Yemen, no explicit request for US drone strikes was made (Wafa Azhar 2015).

### **The Future of Drone Attacks**

More than half countries of world started to manufacture or operate drones, the future of the global drone industry seems promising. The international military drone market is projected to arise from \$334.5 million in 2020 to \$1.1 billion in 2026, some studies even estimate after the mid-2020s market as large as 19.3% for the next 7 years' period (Businesswire). Currently, over 100 countries operate various drones, and forecasts anticipated that this number will grow in the coming years. As of 2020, 85% of the overall drones were remotely-controlled, while only 15% of UAVs remain autonomous and semi-autonomous system, showcasing the predominant technological landscape at the time being (Dr. Can Kasapoglu 2022). Due to the pandemic, the demand for military drones stagnated and the demand is expected to pick up fast between 2022 and 2028. Some projections even claimed that by 2030, the global UAV market might reach \$70.9 billion, although such an ambitious threshold remains to be seen (Allied Market Research).

The top drone manufactures were Northrop Grumman, General Atomics, Lockheed Martin, Textron, Boeing, Airbus, IAI, AVIC, CASC, Thales and AeroVironment (Market Watch). While other companies have seen significant improvements in their market shares, the military drone's market and related defense tech leadership have been dominated by Northrop Grumman. Some other market assessment also includes Israel's Elbit Systems amongst the key companies in the military drone segment (Fortune Business Insights). Overall, in the market the US holds a good stance but American drone sales could have been doing better comparing to their current shape. Today, Turkey, China and Russia emerge as alternatives, with the first two nations already being significant drone exporters in the international weapons market (Dr. Can Kasapoglu 2022).

### **Different Types of Drones**

Following are the main types of Drones

#### **MQ-1 Predator**

The MQ-1 Predator is one of the earliest and most widely deployed armed drones. It functions as a system rather than a single aircraft, comprising multiple drones, ground control stations, satellite links, and operational personnel for continuous deployment (US Air Force). Initially developed as the RQ-1 Predator for intelligence, surveillance, and reconnaissance (ISR), it was later modified for armed reconnaissance and redesigned as the MQ-1 in 2002 (GlobalSecurity.org). The Predator has some qualities such as it has medium-altitude, long-endurance remotely piloted aircraft, primarily used to engage time-sensitive targets. It can carry two Hellfire missiles and has precision sensors. It is currently phased out and replaced with a more sophisticated platform due to its restricted speed and payload capacity.

#### **MQ-9 Reaper**

Because of its improved strike and reconnaissance capabilities, the MQ-9 Reaper took the position of the Predator. It can travel at a much faster speed of about 482.803 kilometers per hour, has more endurance, and can carry a large payload that includes guided bombs and numerous Hellfire missiles. The Reaper can stay in the air for long thanks to its sophisticated radar and targeting systems. As the US Air Force's main offensive drone, it can carry out operations against fast-moving targets, close air support, surveillance, reconnaissance, and precise strikes (Creech Air Force Base 2020).

#### **Global Hawk**

The global hawk is a high-altitude, long-endurance drone primarily designed for surveillance and reconnaissance. Operated by the US Air Force and NASA, it was developed to provide wide-area

intelligence coverage. It can operate over vast distances, remain airborne for up to 24 hours, and fly at extremely high altitude. Its advanced sensors allow for both broad and focused surveillance, enabling continuous target tracking and high-quality intelligence collection.

### **Aranis – “God of Thunder”**

Taranis is a British experimental drone developed by BAE Systems under the UK Ministry of Defense. It represents a major step toward fully autonomous combat aircraft systems. Although limited information is publicly available, the Programme is regarded as a successful demonstration of advanced unmanned combat technology, and its findings are expected to contribute to the development of future autonomous strike drones.

### **Recommendations**

1. Drone attack must be under international law rather than legal norms.
2. International community must enhance the existing laws to advanced laws because these laws are not sufficient to overcome the drone strikes.
3. To safeguard the right to life is the responsibility of International Humanitarian law and International Human rights law where applicable.
4. In all operations related with drone, transparency is essential for strengthening accountability mechanisms.
5. Extraterritorial attacks of drone conducted by states must justify under international norms that determine when war or force is lawful.

### **Conclusion**

Under International Humanitarian Law, the legal ambiguities concerned with drone warfare pose fundamental threats including accountability, proportionality, and the safeguard for civilians. Although drones have become a basic component of military operations, enabling strike and surveillance, usage of drones complicates conventional understandings warfare and differentiate among combatants and civilians. Attack of armed must be identified in which civilians must be separated and if civilians are targeted and high civilian casualties happened, in this situation, the main principles of IHL, distinction and necessity will be violated which are central to IHL. As day-by-day drone warfare becoming more advance so IHL must advocate to address new legal and ethical challenges that drone technology defines accountability for IHL violations and confirms mechanisms for the protection of civilians. The conclusion analyzes that the parties must maintain the balance military necessities and humanitarian responsibilities. To reach out on this balance, there is urgent need of enhancement of international cooperation, legal reforms, increased transparency in the operations of drone. It is the responsibility of international community to ensure the limited boundaries for the drone warfare because of legality and continue respect the fundamental rights of individuals affected by armed conflict.

### **References**

Allied Market Research, “unmanned Aerial Vehicle (UAV) Market, Global Opportunity Analysis and Industry Forecast, 2021-2030.

Anna Mulrine (2011), Unmanned Drone attacks and Shape-Shifting Robots: War’s Remote-Control Future, Christian Science Monitor.

Businesswire, <https://www.businesswire.com/news/home/20220513005325/en/Global-Data-Catalog-Market-Trajectory-Analytics-Report-2022-Rise-of-Digital-Transformation-as-the-New-Age-Enterprise-Strategy-Creates-Fertile-Environment-for-Market-Expansion---ResearchAndMarkets.com> Accessed on: January 21, 2026.

Christof Heyns (2013) The International Law Framework Regulating the use of Armed Drones.

Creech Air Force Base (2020), <http://www.creech.af.mil/About-Us/Fact-Sheets/Display/Article/669890/mq-9-reaper-fact-sheet/>

Dr. Can Kasapoglu (2022), Drone Warfare, Defense Economics, and Turkey's Way.

Dr. Faiz Bakhsh (2024), Legality of Drone Warfare Under International Humanitarian and Human Rights Law [www.migrationletters.com](http://www.migrationletters.com)

Driss Ed.daran (2025), The Legality of Drone use under International Humanitarian Law: Theoretical Perspectives and Case Law insights.

Fortune Business Insights, (2021), "Military Drone Market Size, Share and COVID-19 Impact Analysis.

GlobalSecurity.org <https://www.globalsecurity.org/military/systems/aircraft/mq-1b.htm>

Konert, A., & Baklcerzak, T. (2021). Military Autonomous Drones (UAVs)- from fantasy to reality. Legal and Ethical implications. Transportation Research Procedia.

Market Watch, "Military Drone 2021 – Market Share, Top manufactures Entry, Globally Market Size and Forecast".

Mary Ellen, O. (2010). Unlawful Killing with Combat Drones: A Case Study of Pakistan, 2004-2009. Notre Dame Law School Legal Studies Research Paper, 1.

NR Steyn (May 2019), The Adequate of International Humanitarian Law in Regulating the Challenges posed by Drone Warfare.

Scharwat, V. (2020). Historical introduction and technology used in drones. In Drones and the Law: International Responses to Rapid Drone proliferation.

US Air Force <https://www.af.mil/About-Us/Fact-Sheets/Display/Article/104469/mq-1b-predator/>

Wafa Azhar, (2015), Legality of US Drone Strikes in Pakistan.