



Unmanned
Systems
Forces



GUIDELINES & KEY ISSUES

in compliance with international
humanitarian law in the use of
unmanned systems in armed conflict



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I. GENERAL PROVISIONS



1.1. The development and widespread use of unmanned systems (hereinafter – UMS) significantly transform the nature of modern armed conflicts, giving rise to new legal challenges and practical issues for military units. Ukraine stands at the forefront of integrating unmanned technologies into the defence sector and actively employs them in the ongoing armed conflict with the Russian Federation.

1.2. Current international treaties and customary norms of international humanitarian law (hereinafter – IHL) do not explicitly regulate the peculiarities of UMS use, particularly concerning the autonomy of decision-making, proportionality assessments, or the allocation of responsibility among operators, commanders, and technology manufacturers. The lack of clear regulations for the Armed Forces of Ukraine (hereinafter – AFU) on the use of such systems creates potential risks of violations of IHL, complicates legal evaluation of military operations, and may negatively affect the reputation of the AFU and the international standing of Ukraine.



1.3. The **purpose of these Guidelines** is to provide a set of legal considerations regarding the use of UMS in combat and to minimise the risks of violations of IHL during operations involving UMS. It provides general guidelines and highlights key issues for the AFU and other components of the defence forces on the use of UMS, contributes to a systemic approach, and ensures a unified understanding among military personnel of their obligations under IHL. The Guidelines are recommended for study and application by operators, commanders and other military personnel involved in the planning and use of UMS in combat operations.

1.4. **The provisions of these Guidelines** apply to the following areas of UMS use: execution of combat (special) operations; intelligence, surveillance, and reconnaissance (ISR); other uses of UMS directly or indirectly affecting military operations.

1.5. **The legal basis of these Guidelines** is the customary norms of IHL; the four Geneva Conventions of 1949 and their Additional Protocols of 1977 and 2005; other international treaties ratified by the Verkhovna Rada of Ukraine; and Ukrainian national legislation, including the Criminal Code of Ukraine, the Laws “On Defence of Ukraine”, “On the Armed Forces of Ukraine”, and the “Instruction on the Implementation of International Humanitarian Law in the Armed Forces of Ukraine”, approved by Order No. 164 of the Ministry of Defence of 23 March 2017, and registered with the Ministry of Justice of Ukraine on 9 June 2017, No. 704/30572. These Guidelines also reflect international best practices and standards on the use of UMS under IHL (see Annex 2).



II. TERMS



2.1. Unmanned System (UMS) – a type of weapon, military or special equipment capable of performing tasks within the physical dimensions of the operational environment autonomously, remotely, or in accordance with a pre-set plan of actions (Doctrine “Use of Unmanned Systems in the Defence Forces of Ukraine”, 01.01.2024 No. OP 3-0(46)).

2.2. Autonomous Unmanned System (A-UMS) – a variety of unmanned system that, once activated, can independently perform critical functions – detection, identification, selection, and engagement of targets – without further human intervention, operating within predefined mission parameters, algorithms, or software, including (but not limited to) artificial intelligence technologies.



III. ENSURING COMPLIANCE WITH IHL

3.1. Ukraine, as a subject of international law and a State Party to the Geneva Conventions, their Additional Protocols, and the Rome Statute of the International Criminal Court (hereinafter – ICC), is obliged to respect and ensure respect for IHL. According to paragraph 15 of the Statute of the Internal Service of the Armed Forces of Ukraine, knowledge **and compliance with the norms of IHL is the duty of every service member of the AFU** and other components of the defence forces. These requirements apply to commanding officers, UMS operators, and all personnel involved in the planning and execution of combat (special) missions using UMS

3.2. To prevent IHL violations, service members are advised to participate in regular training, courses, and practical exercises on IHL, organised by the Ministry of Defence of Ukraine in cooperation with military educational institutions, international partners, and humanitarian organisations.



3.3. Ukraine bears international responsibility for violations of IHL committed by its armed forces. Both international treaties (the Geneva Conventions, Additional Protocols, and the Rome Statute of the ICC) and the Criminal Code of Ukraine establish individual criminal responsibility for such violations. Depending on the circumstances, **responsibility may fall upon:**

- ⦿ UMS operators – for directly conducting attacks in violation of IHL;
- ⦿ commanders – for issuing or approving unlawful orders, or for failing to act when they knew or should have known of such violations;
- ⦿ other personnel – for assisting or failing to report violations.

3.4. Typical **violations of IHL in the use of UMS** include:

- ⦿ deliberate attacks against civilians or civilian objects;
- ⦿ indiscriminate or disproportionate attacks causing excessive incidental harm to civilians;
- ⦿ attacks against the wounded, sick, prisoners of war, or other persons hors de combat, including those who have clearly expressed an intention to surrender and abstain from hostile acts;
- ⦿ attacks against protected objects such as medical facilities, humanitarian missions, or cultural property;
- ⦿ use of prohibited means or methods of warfare.

3.5. **The list of grave breaches and other serious violations of IHL** qualifying as war crimes in international armed conflicts is set out in Article 50 of Geneva Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (1949), Article 51 of Geneva



Convention (II) for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea (1949), Article 130 of Geneva Convention (III) relative to the Treatment of Prisoners of War (1949), Article 147 of Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War (1949), as well as in Articles 11 and 85–86 of Additional Protocol I relating to the Protection of Victims of International Armed Conflicts (1977). For non-international armed conflicts, the key sources are Common Article 3 to the Geneva Conventions of 1949 (I–IV) and Additional Protocol II relating to the Protection of Victims of Non-International Armed Conflicts (1977). In addition, Article 8 of the Rome Statute of the International Criminal Court (1998) sets out war crimes applicable in both international and non-international armed conflicts, drawing upon the 1949 Geneva Conventions, the 1977 Additional Protocols, the 1907 Hague Regulations, customary international humanitarian law, and other treaties governing the means and methods of warfare. Criminal liability for war crimes is established in Article 438 of the Criminal Code of Ukraine.

3.6. Command responsibility entails the obligation to prevent, suppress, and report violations of IHL (Article 87 of Additional Protocol I to the Geneva Conventions of 1977). For the purpose of implementing this obligation, paragraph 12 of the Statute of the Internal Service of the Armed Forces of Ukraine requires every service member to report suspected violations to the chain of command and to cooperate in investigations. Commanders should:

- ① organise the recording, documentation, and transmission of information concerning suspected violations;
- ① prevent persecution or adverse consequences for persons who report violations of IHL;
- ① create conditions conducive to transparency and trust.



3.7. To ensure **transparency and control** over the use of UMS, the following measures are recommended:

- ⦿ maintain detailed mission logs for each UMS deployment (date, location, military objective, munitions used, results);
- ⦿ document the decision-making process, including the legal justification for engaging selected targets;
- ⦿ ensure the accessibility of mission data and records during internal or external investigations;
- ⦿ verify post-strike information regarding civilian casualties or incidental harm to civilians and civilian objects.



IV. FUNDAMENTAL PRINCIPLES OF INTERNATIONAL HUMANITARIAN LAW

4.1. The use of UMS in armed conflict must strictly comply with the fundamental principles of IHL, including military necessity and humanity, distinction, proportionality, and precaution. These principles are interrelated and must be respected at all stages – from planning to post-operation assessment.



4.2. **Military necessity and humanity.** The use of UMS must balance military necessity – allowing only those measures indispensable to achieving a legitimate military objective, (namely the weakening of the enemy's military capability) – with the principle of humanity, which prohibits unnecessary suffering, injury or destruction and protects those who do not, or no longer, take a direct part in hostilities.



4.3. **Distinction.** UMS operations must always distinguish between military objectives and civilian objects, combatants and civilians. Attacks against civilians who are not taking a direct part in hostilities, as well as against civilian objects, are prohibited.



4.4. **Proportionality.** When planning and conducting attacks against military objectives using UMS, it is necessary to assess whether the expected concrete and direct military advantage outweighs the anticipated incidental loss of civilian life, injury to civilians, or damage to civilian objects. Attacks expected to cause excessive incidental harm in relation to the anticipated military advantage must be cancelled or suspended.



4.5. **Precaution.** In planning and conducting attacks against military objectives, all feasible precautions must be taken to minimise harm to civilians and civilian objects. This includes selecting the means, methods, and timing of attack, providing effective advance warning when circumstances permit, and refraining from attacks when doubt exists as to whether the target is a military objective.



V. PRACTICAL RULES FOR PLANNING, CONDUCTING AND ASSESSING UMS OPERATIONS



5.1. PRINCIPLE OF DISTINCTION

5.1.1. Before employing a UMS, the military objective must be clearly identified (through visual observation, intelligence data, etc.). Where feasible, confirmation of the lawful military objective should be obtained from at least two independent sources.

5.1.2. It is prohibited to direct attacks against protected persons not participating in hostilities (such as civilians, medical and religious personnel of the enemy, the sick or wounded, or those surrendering, etc.), as well as against protected objects (civilian objects, medical facilities, cultural property, or natural environment) unless these are being used for military purposes by the enemy.



5.1.3. In case of doubt as to whether a potential target is a military objective, the attack must be suspended until its status is verified.

5.1.4. If protected persons and/or objects are located near a military objective, the feasibility of the attack must be reassessed and, if necessary, the attack cancelled.

5.1.5. If, during the attack, it becomes apparent that the target is not a military objective or that the attack may be expected to cause excessive incidental harm to civilians or civilian objects, the attack must be immediately suspended or cancelled.

5.1.6. UMS must not be used in a manner that causes unnecessary suffering or superfluous injury to combatants, or that results in widespread, long-term and severe damage to the natural environment.

5.2. PRINCIPLE OF PROPORTIONALITY

5.2.1. Assess the concrete and direct military advantage expected from the UMS strike and ensure that it outweighs the anticipated incidental harm to civilians and civilian objects.

5.2.2. Do not conduct attacks that may be expected to cause excessive incidental harm to civilians or civilian objects in relation to the anticipated military advantage.

5.2.3. Employ precision-guided munitions whenever possible and avoid using wide-area effect weapons in densely populated areas.

5.2.4. Do not use UMS to deliver munitions prohibited under IHL (chemical, biological weapons, etc.).

5.2.5. Select the timing and flight path of the attack so as to minimise the risk of harm to civilians and civilian objects.



5.2.6. Maintain real-time situational awareness during the attack to enable immediate suspension or adjustment of the strike if there is a risk of excessive incidental civilian harm or damage to civilian objects.

5.3. PRINCIPLE OF PRECAUTION

5.3.1. In the planning of operations, all feasible choices of methods, means, flight routes, and timings must be made with a view to minimising harm to civilians and civilian objects.

5.3.2. When circumstances permit, provide effective advance warning to the civilian population of potential danger and, where feasible, facilitate evacuation.

5.3.3. Take all feasible measures to minimise incidental harm in the event of loss of control over a UMS, including, where appropriate, emergency termination mechanisms.





5.3.4. Where feasible, avoid UMS flights over densely populated areas, in particular over works or installations containing dangerous forces, such as dams or nuclear power plants.

5.3.5. When feasible, employ reconnaissance UMS for humanitarian purposes, such as public information dissemination, support to evacuation, or the delivery of humanitarian assistance, and report situations requiring civilian assistance.

5.3.6. After completion of the operation, assess the extent to which the military objective was achieved. Assess enemy losses and incidental harm to civilians and civilian objects. Compare planned and actual outcomes with regard to the impact on the civilian population.

5.3.7. Document the entire decision-making and attack planning and execution process, including proportionality assessments, photographs, video recordings, and mission logs.

5.3.8. Detect and record any suspected violations of IHL and immediately report them to the chain of command or relevant law-enforcement authorities.

5.3.9. Maintain statistics and records and regularly analyse collected data, incorporating lessons learned to improve UMS practices and prevent future violations of IHL.



VI. AUTONOMOUS UNMANNED SYSTEMS: CONTROL AND SAFETY

6.1. GENERAL PROVISIONS

6.1.1. Decisions to conduct an attack involving an Autonomous Unmanned System (A-UMS) must remain under meaningful human control in order to prevent or terminate unlawful attacks. This applies both to the selection of the target and to the moment of its engagement.

6.1.2. The autonomy of an A-UMS does not remove legal responsibility for compliance with IHL.

6.2. LIMITATIONS ON THE USE OF A-UMS

6.2.1. A-UMS must not be used in densely populated areas, except in cases of imperative military necessity (for example, for the purpose of defence against attacks), and even then, only with strict observance of the principles of distinction, proportionality, and precaution.



6.2.2. The use of A-UMS is recommended only in a controlled environment, that is, where the level of civilian presence is known, continuous situational monitoring is possible, and technical capacity exists for human intervention in case of changing circumstances, in order to ensure compliance with the principles of distinction, proportionality, and precaution.

6.2.3. Prior to the use of A-UMS, additional reconnaissance must be conducted to verify the target's status and to minimise incidental harm.

6.3. PERSONNEL TRAINING

6.3.1. A-UMS operators should undergo specialised training covering:

- ⦿ the legal limitations and principles of IHL;
- ⦿ ethical aspects of the use of A-UMS;
- ⦿ technical responsibility and safe operation, including emergency termination mechanisms;
- ⦿ risk analysis related to autonomous decision-making.



6.4. CERTIFICATION AND AUTHORISATION

6.4.1. Prior to combat use, each A-UMS is recommended to undergo:

- technical certification;
- legal review in accordance with Article 36 of Additional Protocol I to the Geneva Conventions of 1977;
- verification of the presence and proper functioning of emergency termination mechanisms, including self-neutralisation functions, in case of loss of control, malfunction, or erroneous operation.

6.5. PROTECTION AGAINST LOSS OF CONTROL AND EXTERNAL INTERFERENCE

6.5.1. All A-UMS should be equipped with cyber-protection systems resilient to external hacking, interception, or unauthorised manipulation.

6.5.2. In the event of loss of communication or control, the system should automatically switch to a safe mode, such as return-to-base, shutdown, or self-neutralisation.





VII. SPECIAL CASES OF UMS USE



7.1. When employing UMS near civilian objects or in areas with an increased risk of incidental harm, additional precautionary measures must be taken. These may include: – scheduling attacks during periods of minimal civilian presence; – using precision-guided munitions where feasible; – maintaining continuous monitoring of the operational environment; – suspending attacks when the risk of harm to civilians becomes excessive.

7.2. When UMS are used for humanitarian purposes (such as evacuation, delivery of humanitarian assistance, or information missions), they must be clearly identifiable – through markings, signal lights, or transponders where possible – and must not be employed for military purposes, in order to preserve their protected status under IHL.

7.3. In order to protect cultural property, additional reconnaissance must be conducted during the planning of



operations to identify such sites. Precautionary measures must be applied, and attacks against cultural property must be avoided, except in cases of imperative military necessity. Even in such cases, commanders must carefully assess the risk of disproportionate damage and seek less destructive alternatives. To support this, the “Delta” situational awareness system integrates a digital map of cultural heritage objects, enabling operational planners to take potential risks into account during mission preparation.

7.4. In cases where enemy combatants surrender through interaction with UMS, such systems should, where feasible, be used to communicate and transmit instructions facilitating safe surrender. Every effort must be made to ensure a safe surrender process, to avoid attacks against persons who have expressed an intention to surrender, and to prevent unnecessary loss of life.



ANNEX 1

OPERATIONAL CHECKLIST FOR THE USE OF UMS IN ACCORDANCE WITH IHL



Launch is not permitted until all points are confirmed or a superior commander's authorisation is obtained.

1. Mission Planning (Command / Headquarters Level)

- ✓ Military objective clearly defined (description, coordinates, expected military advantage).
- ✓ Target status confirmed, wherever feasible, by at least two independent sources (visual observation, intelligence, electronic reconnaissance).
- ✓ Absence or presence of protected objects within the strike radius verified (civilian, medical, cultural, dams, nuclear facilities).
- ✓ Proportionality assessed: anticipated incidental harm not excessive in relation to the expected military advantage.
- ✓ Type of munition, method and timing of attack chosen to minimise risk to civilians (wide-area effects weapons avoided where feasible).
- ✓ Consultation with legal adviser conducted where required.

2. Pre-Launch Checks (Crew / Operator Level)

- ✓ Technical functionality of UMS verified (sensors, communication channels, software).
- ✓ Emergency termination modes activated (return-to-base, self-neutralisation).
- ✓ Protection against electronic warfare (EW) and cyber threats confirmed.
- ✓ Meaningful human control ensured: the operator retains final decision on engagement.



3. Mission Execution

- ✓ Target re-identified in real time; attack cancelled or suspended if any doubt arises as to the status of the target or the presence of civilians.
- ✓ Proportionality reassessed in light of the current situation.
- ✓ Continuous monitoring of civilian presence; readiness to suspend or adjust the attack if risk of excessive incidental harm emerges.
- ✓ Video feed, telemetry, and control commands recorded and stored.

4. Post-Mission Analysis

- ✓ Initial report completed: results of engagement, actual military advantage, and possible civilian losses.
- ✓ All data (video, logs, photographs) secured and archived.
- ✓ Deviations from plan analysed; Standard Operating Procedures (SOP) or tactics updated.
- ✓ Immediate report submitted to command concerning any suspected IHL violations.

5. General Principles (Applicable at All Stages)

- ⊙ **Distinction:** attack only lawful military objectives.
- ⊙ **Proportionality:** prohibit excessive incidental harm.
- ⊙ **Precaution:** choose timing/trajectory carefully; warn civilians where feasible.
- ⊙ **Meaningful human control:** required for all autonomous functions.
- ⊙ **Documentation and transparency:** maintain full logs for each mission.
- ⊙ **Reporting:** any suspected IHL violations must be promptly reported.



ANNEX 2

INTERNATIONAL STANDARDS ON THE USE OF UNMANNED SYSTEMS IN ACCORDANCE WITH INTERNATIONAL HUMANITARIAN LAW



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