

HEADQUARTERS KOSOVO FORCE STANDARD OPERATING PROCEDURES





KFOR REGULATION No. 01/2017 ON **OPERATIONS OF UNMANNED AIRCRAFT SYSTEMS (UAS) CONDUCTED BY LAW ENFORCEMENT AGENCIES COMPETENT FOR SECURITY, INTERNAL AFFAIRS,** CUSTOMS, FIRE-FIGHTING, SEARCH AND RESCUE AND RELATED RECOGNIZED EMERGENCY SERVICES

REFERENCES:

Military Technical Agreement (MTA), signed 9 June 1999.

Α. Regulations for Aircraft Operating as General Air Traffic (GAT) Β. in the Balkans, issued by CAOC TJ, version 3.0, dated 14 November 2014

Article 1 General

Pursuant to documents at references:

- a) Kosovo Force Commander (COM KFOR) retains sole authority for the airspace over Kosovo;
- b) KFOR HQ J3 Air is responsible for coordinating and de-conflicting the airspace and all air movements within KFOR Area of Operation (AoO), and for these purposes it shall:
 - co-ordinate and de-conflict military and civilian aircraft/UAS (Unmanned Aerial Systems) operations;
 - disseminate KFOR Flight Safety Message (KFSM), including safety of flight information and range activation times in a timely manner".

Article 2 Aim

The aim of the present regulation is to provide the conditions and procedures for safe UAS operations within airspace over Kosovo, to be applied by Law Enforcement Agencies competent for security, internal affairs, customs, fire-fighting, search and rescue and related recognized emergency services (from now on "*Agency or Agencies*"), during flight planning, request approval and execution phases.

Article 3 Applicability

The present Regulation shall be applied to all UAS activities conducted by Agencies specified in previous article 2.

The present Regulation shall not apply to UAS having an operational mass of less than 0,5 kg, which cannot develop kinetic energy above 79 J, their maximum airspeed does not exceed 20 m/s, their maximum range is 15 m and maximum altitude is up to 30 m Above Ground Level (AGL), and provided that they are operated at a minimum radius of one Kilometre clear of Kosovo Administrative Boundary Line (as defined by MTA), two kilometres clear of PRISTINA INTERNATIONAL AIRPORT (except that under no circumstances will a UAS be operated beneath the landing or take-off flight path), one kilometre clear of NATO CAMP FILM CITY and two kilometres away from any other military base, restricted/prohibited areas or gathering of KFOR troops, unless authorized by KFOR.

Article 4

Definitions and Abbreviations

For the purpose of the present Regulation, the definitions and abbreviations used herein shall have the following meaning:

Aircraft - any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

Aeronautical Information Publication (AIP) - the publication which is issued by the Air Navigation Services Agency of Kosovo on behalf of the Civil Aviation Authority of Kosovo and which contains permanent information which is of importance to aviation.

ATC Permission - a formal written or oral consent from the competent Air Traffic Control Unit;

Beyond Visual Line-of-Sight (BLOS) - operations conducted at a distance that do not allow the pilot to continuously remain in direct visual contact with the UAS, or to comply with the applicable rules of the concerned volume of the airspace;

CAA - the Civil Aviation Authority of Kosovo established pursuant to the Law No. 03/L-051 on "Civil Aviation";

Controlled Airspace - a delimited airspace in which air traffic control is carried out for IFR and VFR flights in accordance with the provisions for this specific class of airspace;

Flight Operations - air operations of unmanned aircraft system;

Gatherings of people - a place where people gather or congregate (example: concerts, weddings, shows, celebrations, demonstrations, etc.);

KFOR J3AIR - an Officer-in-Charge for military and civilian air operations within airspace over Kosovo, whose scope of duties are set forth in the document at reference B.;

KFOR Flight Safety Message (KFSM) - a specific Military NOTAM (Notice to Airmen) issued by KFOR HQ J3 AIR DESK for the Kosovo AoR. A KFSM contains information concerning establishment, condition or change in any aeronautical facility, service, procedure or hazard the timely acknowledge of which is essential for personnel concerned with flight operations;

Operator - a person, engaged in an UAS operation;

Operating Weight - total weight of unmanned aircraft at the moment of take-off;

Pilot-in-Command - the pilot who has been appointed to be in charge of navigating the aircraft and of safety during the flight;

Restricted Operation Zone (ROZ) - restricted airspace created for specific KFOR mission requirement. Non participating airspace user shall remain clear of any active ROZ unless coordinated and approved by KFOR J3 AIR;

Unmanned Aircraft System (UAS) - a system which consists of an unmanned aircraft and other components which are required to be able to control the aircraft at a distance, by one or more persons;

UAS Flying Area - an airspace within which the flight of unmanned aircraft is conducted;

Visual Line-of-Sight (VLOS) - means an operation in which the pilot-in-command maintains direct visual contact with the aircraft to manage its flight and meet separation requirements and collision avoidance responsibilities.

Article 5 Categorisation of UAS

UAS activities are divided into the following categories:

- a) **Category 1** includes UAS whose operating weight is less than 1 kg with a maximum altitude of up to 50 m, maximum airspeed not exceeding 30 m/s and maximum range of up to 100 m;
- b) Category 2 includes UAS whose operating weight is from 1 kg up to 5 kg with a maximum altitude of up to 150 m, maximum airspeed not exceeding 30 m/s and maximum range of up to 2.500 m;
- c) **Category 3** includes unmanned aircraft whose operating weight is from 5 kg up to 20 kg, with a maximum altitude of up to 500 m, maximum airspeed not exceeding 55 m/s and maximum range of up to 2.500 m;
- d) **Category 4** includes unmanned aircraft whose operating weight is from 20 kg up to 150 kg, without limitation on altitude, airspeed or range.

If the operating weight or performance (altitude, airspeed or range) of an unmanned aircraft belongs to two different categories, UAS shall be categorised belonging to the higher category.

Article 6 Classification of UAS flying areas

UAS flight areas, depending on construction development, population number and presence of people, are divided into following classes:

- a) **Class I** is a non-constructed area with no erected constructions of facilities and with no people, apart from pilot and personnel required for flying;
- b) Class II is a developed uninhabited area with auxiliary commercial facilities or constructions which are not intended for habitation, where there are no people, apart from pilot and personnel required for flying;
- c) **Class III** is an inhabited area with constructions or facilities primarily intended for habitation, business or recreation (apartment buildings, apartment houses, schools, offices, parks, etc.);
- d) **Class IV** is a densely populated area of narrow urban zones (downtown, gatherings of a large number of people, etc.).

Article 7 KFOR application form

- The Agency owner of UAS shall submit KFOR application form to KFOR HQ J3 AIR (<u>MBJ3AIRDESK@hq.kfor.nato.int</u>) before the start of air operations with UAS. An application form for approval of flight operations with UAS is enclosed at Annex "A" to this Regulation.
- 2. The application, as referred to in paragraph 1 of this Article, shall be submitted at least 36 hours before the start of operations and shall contain:
 - a) Agency and operator/s' name and address;
 - b) communication asset (mobile phone) to be used during UAS flight activities for urgent communications;
 - c) type of UAS that shall be used for flight operation;
 - d) flight date and time;
 - e) area of operations (UTM coordinates: four corners at a minimal);
 - f) maximum altitude of operations.
- 3. Any change to the above mentioned information shall be immediately communicated to KFOR HQ J3 AIR (<u>MBJ3AIRDESK@hq.kfor.nato.int</u>).

Article 8 UAS operation planning phase

- 1. Before a flight is carried out, the Agency owner of an UAS or its operator, is responsible that the flight shall be planned to determine which type of airspace the flight will be carried out and executed in that class and shall be available to air traffic control unit and/or KFOR HQ JOC for possible necessary communication.
- 2. KFOR HQ J3 AIR DESK acts as the focal point and shall:
 - a) de-conflict all military and civil operations requiring the use of the airspace over Kosovo;
 - b) provide airspace coordination and allocate reservations of airspace (Restricted Operation Zone ROZ) through Kosovo Flight Safety Messages (KFSM).
- 3. In the case of complex operations, which cause a significant impact on controlled airspace, KFOR aircraft/UAS activities will have priority over all other air operations except for emergency and medical flights; efforts should be made to avoid the need for such prioritization, if at all possible, in the interest of the airspace normalization.
- 4. Any urgent requirements must be submitted by the Agency to KFOR HQ JOC by telephone (038 503 603 2310 or 038 503 603 2311) and subsequently by e-mail to JOCLANDDESK@hq.kfor.nato.int, if unexpected critical needs are faced. In this case KFOR HQ JOC DIRECTOR/SHIFT DIRECTOR shall pass the information to KFOR HQ J3 AIR DESK OFFICER or, if no present in the JOC, contact him by phone call (049 750 597). KFOR HQ J3 AIR DESK OFFICER, immediately after obtaining the needed internal authorizations in order to grant the required flight safety of all military and civilian flights shall, in the following order:
 - inform Pristina Control Approach (038 595 8206) and/or Tower (038 595 8207) and KFOR helicopter flights about the urgent UAS activity using the most expeditious means available;
 - notify the requesting Agency of the urgent UAS activity approval and inform the Agency about known aircraft flights in the requested area;
 - inform the interested KFOR Branches about the new aforesaid activity;
 - issue, as soon as possible, the required URGENT KFSM UAS ROZ.

The UAS Pilot/Operator of the requesting Unit shall be responsible for avoiding observed aircraft/UASs flying within the requested UAS operational area, which have not yet been informed about the urgent activity.

Article 9

Airspace separation

- 1. All UAS ROZ's must include a 500 m lateral buffer zone, unless stated otherwise in the ROZ and KFSM.
- 2. A vertical separation of 1.000 ft shall be applied with other non-UAS airspace users.
- 3. For Flight Safety reasons NO airborne platforms shall enter UAS restricted areas, unless coordination is successfully made with the UAS Operator/pilot reported on the KSFM.

Article 10

General conditions for UAS operations – pre-flight activities

- 1. The Agency owner of an UAS or its operator has the responsibility to ensure that the flight is performed in accordance with these Regulations.
- 2. The Agency owner of an UAS or its operator may only operate the UAS if reasonably satisfied that the flight can safely be performed and that other persons and property are not harmed during the flight.
- 3. The Agency owner of an UAS or its operator shall ensure that the system is maintained in accordance with the manufacturer's instructions and that the system's status is inspected before a flight is carried out.
- 4. The owner or operator of UAS shall verify the serviceability of the UAS and all functional communication equipment, including cell phone/radio gear, before each flight.
- 5. UAS can fly only during daylight and at all times has to be within the Visual line-ofsight (VLOS) of the pilot. If flight operations with UAS are to be conducted beyond visual-line-of-sight (BVLOS) or during nightlight periods, the Agency owner of the UAS or its operator shall obtain a special KFOR approval.
- 6. The operator of UAS shall gather the necessary information for the planned flight and must verify that the meteorological and other conditions in the flight area provide safe flight. In any case, UAS shall not take off if the ceiling above the UAS flying site is less than 300 m (1.000 ft) or the ground visibility is less than 5 Km and the flight shall be conducted clear of clouds.
- 7. The operator of the UAS shall ensure that all equipment on UAS is properly attached or secured so it will not fall.

Article 11 Execution of operations with UAS

- 1. All UAS operations shall be conducted within Kosovo AOO. The Agency owner of an UAS or its operator shall only operate the UAS at a minimum radius of one Kilometre clear of Kosovo Administrative Boundary Line (as defined by MTA), two kilometres clear of PRISTINA INTERNATIONAL AIRPORT (under no circumstances will a UAS be operated beneath the landing or take-off flight path), one kilometre clear of NATO CAMP FILM CITY and two kilometres away from any other military base, restricted/prohibited areas or gathering of KFOR troops, unless authorized by KFOR.
- 2. The operator of an UAS shall ensure that the UAS is only flown up to a maximum distance of 500 metres away from the pilot and that he/she shall be able to maintain direct, unaided visual line-of-sight (VLOS) with the UAS sufficient to monitor its flight path in relation to other aircraft, persons, vehicles and structures for the purpose of avoiding collisions.
- 3. The operator of UAS shall ensure that UAS safely clears all obstacles on take-off and landing. Except when the operational situation requires it, the operator shall ensure a safe distance between UAS and people, gatherings of people, animals, facilities, vehicles, other aircraft, roads, railroads, water routes or high-voltage cables, of at least 150 metres during the flight.
- 4. The owner or operator of UAS shall ensure that the flight of UAS is at the height of at most 150 metres above ground level, unless approved by KFOR for higher altitude.
- 5. The operator of an UAS MUST be contactable at all times during the Execution phase and be able to stop the mission immediately when ordered or required to do so. Accepted methods of communication are mobile phone and VHF radio on appropriate frequencies.
- 6. The operator of UAS shall ensure that the flight of UAS is conducted outside of ATC controlled airspace. In case UAS operations shall be conducted within ATC controlled airspace, the operator MUST follow the appropriate air traffic controller's clearance/instructions (on frequency or by telephone at 038 595 8206). When the UAS Flying Area falls completely or partially within controlled airspace the UAS operators must contact the corresponding ATC Unit to notify the activation and the deactivation of the Restricted Area.
- 7. The owner or operator of UAS shall ensure that during the flight no objects are dropped from UAS.
- 8. UAS operators observing Restricted Zone unauthorized flight crossings will land the UAS as soon as possible and inform the pertinent ATC Unit and KFOR HQ JOC or KFOR HQ J3 AIR DESK, providing the following information / if any:

- Type of aircraft/helicopter;
- Color;
- Position and time;
- Estimated Altitude;

ATC Unit and KFOR J3 AIR DESK will immediately investigate to identify the violation.

- 9. Under no circumstances shall the operator of an UAS engage in the taking of aerial photographs or the visual observation of KFOR, EULEX, or UNMIK camps/bases, including their personnel, activities, equipment, offices, and buildings.
- 10. The operator of UAS or the responsible Agency may be subjected to future restrictions or penalties for violation of this section by the competent authorities.
- 11. For operational or security issues, the involved Agency may be asked to provide a copy of any images taken.
- 12. The operator of the UAS must ensure that the information regarding the details of the flights is recorded in a notebook or similar document. The information shall consist of name of the pilot-in-command, date, take-off and landing areas of UAS, flight time, total flight time, type of activity and the signature of the owner or operator.

Article 12

Procedure in case of incident/accident

Accidents or incidents which result in the injury of persons or animals or damage to property on the ground or in the air shall be reported to KFOR HQ J3 AIR DESK (by telephone 038 503 603 2710 and by e-mail <u>MBJ3AIRDESK@hq.kfor.nato.int</u>), to the CAAK and to Aeronautical Accident and Incident Investigations Commission (AAIIC).

Article 13

Registration and markings and insurance of UAS

Registration and markings activities and insurance issues shall be carried out by each Agency in accordance with in force national legislation.

Article 14 Knowledge Test

Operators of UAS Category 3 and 4 shall be, medically fit and have passed a knowledge test in accordance with in force national legislation.

Article 15 Review of Decisions

Appeals against decisions taken by KFOR pursuant to the provisions of the present Regulation may be presented to KFOR.

Article 16 Exceptions

Notwithstanding fulfilment of conditions of the present Regulation, KFOR may withdraw an approval granted or reject granting an approval to the Agency owner of an UAS or its operator, or suspend of UAS operations with immediate effect. Actions of KFOR taken pursuant to the provisions of this Article shall be duly justified.

Article 17

Punitive Measures

Any Agency owner of an UAS or its operator found in violation of the provisions of the present regulation, shall be issued a penalty established by KFOR on case by case assessment.

Article 18 Entry into Force

The present Regulation shall enter into force on 1st May 2017.

Done at Pristina, 1st April 2017.

Giovanni FUNGO Major GENERAL, ITA-A COM KFOR