

**Notice of Proposed Rule Making
of JCAR Part 101**

NPRM: Reg. 3/2023

Release Date: 18/12/2023

Jordan Civil Aviation Regulatory Commission (CARC) hereby releases a proposed issue of JCAR Part 101 "UAS Open Category".

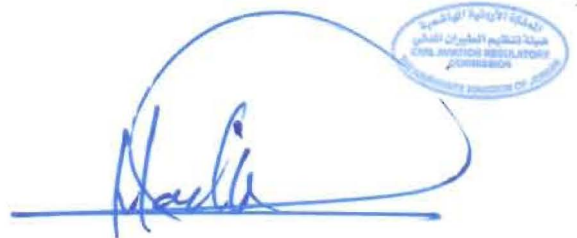
The objective of this NPRM is to announce the proposed issue and to seek concerned parties' comments and feedback regarding the above mentioned regulations and to facilitate enhanced public involvement in the rule making process.

CARC encourages comments concerning this proposal to be directed to the following email addresses:

khalid.al-zoubi@carc.gov.jo

Director Civil Aviation Regulations

The closing date of comments: 17/02/2024



**Capt. Haitham Misto
Chief Commissioner/CEO
Civil Aviation Regulatory Commission**

PART 101

UAS Open Category

This part of Jordanian Civil Aviation Regulations is hereby issued under the authority and provisions of article 12-B of the Civil Aviation Law No. (41) dated 2007, as amended.

Capt. Haitham Misto
Chief Commissioner/CEO
Civil Aviation Regulatory Commission

Record of Revisions

Amendment No.	Effective Date	Subpart	Paragraph
First Issue	2024	-	-

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Subpart A – General

101.001 Applicability

This part prescribes rules governing the operation of civil unmanned aircraft (UA) subject to this part in Jordan.

101.003 Definitions

In this Part, the following definitions apply unless otherwise specified:

Accident: An accident associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

- (1) a person is fatally or seriously injured as a result of:
 - being in the aircraft, or
 - Direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
 - Direct exposure to jet blast, *except* when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew, or
- (2) the aircraft sustains damage or structural failure which:
 - Adversely affects the structural strength, performance or flight characteristics of the aircraft, and
 - Would normally require major repair or replacement of the affected component, *except* for engine failure or damage, when the damage is limited to a single engine (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or
- (3) the aircraft is missing or is completely inaccessible.

Aerial work: An aircraft operation in which an aircraft is used for specialized services such as agriculture, construction, photography, surveying, observation and patrol, search and rescue, aerial advertisement.

Aerodrome: A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Aeronautical Information Publication (AIP): A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

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.

Air traffic service: A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service).

Approved UA area: A defined area as approved under 101.9.

C2 Link: The data link between an unmanned aircraft and a remote pilot station or control station that is used in the management of a flight.

Detect and avoid (DAA): The capability to see, sense or detect conflicting traffic or other hazards and take the appropriate action.

First-person view device: A device that generates and transmits a streaming video image to a control station display or monitor that gives the pilot of an unmanned aircraft the illusion of flying the aircraft from an on-board pilot's perspective.

Flight termination system: A system that when activated, terminates the flight of an unmanned aircraft.

Fly-away: In respect to a remotely piloted aircraft, an interruption or loss of the C2 link such that the remote pilot is no longer controlling the aircraft and the unmanned aircraft is not flying its preprogrammed procedures in the predicted manner.

Handover: The act of passing piloting control from one remote pilot station to another.

Incident: An occurrence, other than an accident, associated with the operation of an aircraft that affects or could affect the safety of operation.

Instrument meteorological conditions (IMC): Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions (VMC).

Notice to Airmen, NOTAM: A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

Operator: A person, organization or enterprise engaged in or offering to engage in an aircraft operation. Note — In the context of remotely piloted aircraft, an aircraft operation includes the remotely piloted aircraft system.

Remote pilot: A person charged by the operator with duties essential to the operation of an unmanned aircraft and who manipulates the flight controls, as appropriate, during flight time.

Remote pilot-in-command: The remote pilot designated by the operator as being in command and charged with the safe conduct of a flight.

Remotely piloted aircraft (RPA): An unmanned aircraft that is piloted from a remote pilot station.

Remotely piloted aircraft system (RPAS): A remotely piloted aircraft, its associated remote pilot stations, the required command and control links and any other components as specified in the type design.

Risk mitigation: The process of incorporating defenses or preventive controls to lower the severity and/or likelihood of a hazard and the projected consequences.

Safety: The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

Safety management system (SMS): A systematic approach to managing safety, including the necessary organizational structures, accountability, responsibilities, policies and procedures.

Segregated airspace: Airspace of specified dimensions allocated for exclusive use to a specific user(s).

Shielded operation: Means an operation of an aircraft within 100 m of, and below the top of, a natural or man-made object.

Specified frequency for particular airspace means a frequency specified from time to time in AIP or by ATC as a frequency for use in the airspace.

Specified information for particular airspace means information specified from time to time in AIP or by ATC as information that must be broadcast in the airspace.

Specified interval for particular airspace means the interval specified from time to time in AIP or by ATC as the interval at which broadcasts must be made while in that airspace.

State safety program (SSP): An integrated set of regulations and activities aimed at improving safety.

Unmanned aircraft (UA): An aircraft that is intended to be operated with no pilot onboard.

Unmanned aircraft (UA) observer: A trained and competent person designated by the operator who, by visual observation of the unmanned aircraft, assists the remote pilot in the safe conduct of the flight.

Unmanned aircraft system (UAS): An unmanned aircraft and its associated components.

Visual line-of-sight (VLOS): An operation in which the pilot or UA observer maintains direct unaided visual contact with the unmanned aircraft.

Visual meteorological conditions (VMC): Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima.

101.005 Falsification, Reproduction or Alteration

- (a) No persons or organization/entity shall make or cause to be made:
 - (1) Any fraudulent or intentionally false record or report that is required to be made, kept, or used to show compliance with any requirement under this part; or
 - (2) Any reproduction or alteration, for fraudulent purpose, of any certificate, authorization, record, or report under this part.
- (b) The commission by any person of an act prohibited under paragraph (a) of this section is a basis for any of the following:
 - (1) Denial of an application for any remote pilot certificate or authorization;
 - (2) Suspension or revocation of any certificate or authorization issued by CARC under this part and held by that person; or
 - (3) A civil penalty as per civil aviation law (41) and its amendments article 61 and enforcement policy and instructions as per applicable application.

101.007 Inspection, Testing, and Demonstration of Compliance.

- (a) A remote pilot or person manipulating the flight controls of a (UAS) shall, upon request, make available to CARC:
 - (1) The remote pilot certificate; and
 - (2) Any other document, record, or report required to be kept under this part.
 - (3) The remote pilot, unmanned aircraft (UA) observer, owner, operator, or person manipulating the flight controls of a UA shall, upon request, allow CARC to make any test or inspection of the UAS, the remote pilot, the person manipulating the flight controls of a UA, and, if applicable, the UA observer to determine compliance with this part.

101.009 Accident Reporting

No later than 72 hours after an operation, a remote pilot shall report to CARC, in a manner acceptable to CARC, UA as per accident incident part 2201.

Subpart B — Operating Rules

101.3 Applicability and Open Category

- (a) This Part applies to:
 - (1) registration and operation of civil unmanned aircraft systems, and
 - (2) operations in the open category using a UA with a gross mass of 25 kg or less on takeoff and throughout the duration of each operation under this category, including all items that are on board or otherwise attached to the aircraft and operated in accordance with Part 101.7.

101.5 Unmanned Aircraft Registration and Certificate of Registration

Every person lawfully entitled to the possession of a UA who will operate a UA in Jordan shall register that UA and hold a valid certificate of registration for that UA from CARC in compliance with the applicable CARC's rules for registration.

101.7 Meaning of Standard Unmanned Aircraft Operating Conditions

- (a) A UA is operated in *standard unmanned aircraft operating conditions* if, during the operation:
 - (1) the UA is operated within the visual line-of-sight of the person operating the UA; and
 - (2) the UA is operated at or below 120 m (400 ft.) above ground level (AGL) by day; and
 - (3) the UA is not operated within 30 m of a person, measured horizontally, who is not directly associated with the operation of the UA; and
- (b) the UA is not operated:
 - (1) in a prohibited area; or
 - (2) in a restricted area; or
 - (3) over a populated area; or
 - (4) within 4 km of the movement area of a controlled aerodrome; and
- (c) the UA is not operated over an area where a fire, police or other public safety or emergency operation is being conducted without the approval of a person in charge of the operation; and
- (d) the person operating the UA operates only that UA.

101.9 Approval of Areas for Operation of Unmanned Aircraft

- (a) A person may apply to CARC for the approval of an area as an area for the operation of:
 - (1) UA generally, or a particular category of UA;
 - (i) An approval has effect from the time written notice is issued to the applicant, or a later day, or day and time stated in the approval.
 - (ii) An approval may be expressed to have effect for a particular period (including a period of less than 1 day), or indefinitely.
 - (2) CARC may impose conditions on the approval in the interests of the safety of air navigation.
 - (3) If CARC approves an area under (1), it shall publish details of the approval (including any condition) in a NOTAM or on an aeronautical chart.
- (b) CARC may revoke the approval of an area, or change the conditions that apply to such an approval, in the interests of the safety of air navigation, but the CARC shall publish details of any revocation or change in NOTAM or on an aeronautical chart.
- (c) CARC shall also give written notice of the revocation or change:
 - (1) to the person who applied for the approval of the area; or
 - (2) if that person applied for that approval as an officer of an organization concerned with UA and no longer holds that office, to the person who now holds the office.

101.11 Segregated Airspace

- (a) A person shall not operate a UA within segregated airspace unless the person has approval to do so from CARC and the administering authority responsible for the segregated airspace area.

101.13 Controlled Airspace

- (a) A person shall not operate a UA in controlled airspace without authorization from CARC and the ATC unit responsible for that airspace; and
- (b) A person shall not operate a UA in controlled airspace unless he or she:
 - (1) holds a relevant qualification for the use of an aeronautical radio;
 - (2) maintains a listening watch on a specified frequency or frequencies specified in the direction; and
 - (3) makes broadcasts on a specified frequency or frequencies and/or maintains other ways of communication requested by the ATC unit at the specified interval giving the specified information in the direction.
- (c) In paragraph (b), *relevant qualification* means any of the following qualifications:
 - (1) an aeronautical radio operator certificate;
 - (2) a remote pilot licence or flight crew licence;
 - (3) an air traffic control licence;
 - (4) a military qualification equivalent to a licence mentioned in paragraph (c)(2) or (c) (3).
- (d) CARC may direct, in regard to a particular UA or type of UA, that a person must not operate the UA, or a UA of that type, unless he or she:
 - (1) holds a relevant qualification for the use of an aeronautical radio; and
 - (2) maintains a listening watch on a specified frequency or frequencies specified in the direction; and
 - (3) makes broadcasts on a specified frequency or frequencies and/or maintains other ways of communication requested by the ATC unit at the specified interval giving the specified information in the direction.
- (e) In this regulation, the person must comply with all directions issued.

101.15 Airspace Knowledge

- (a) This rule applies to a person who operates any of the following:
 - (1) any type of UA and model aircrafts
- (b) A person to whom this rule applies shall:
 - (1) ensure that before each flight, the person is aware of the airspace designation under JCAR Part 71 (Designation Of Class A And C Airspace; Air Traffic Service Routes; Designation Of Airways; And Reporting Points) and any applicable airspace restrictions in place in the area of intended operation; or

(2) conduct the operation under the direct supervision of a person who is aware of the airspace designation under JCAR Part 71 (Designation of Class A and C Airspace; Air Traffic Service Routes; Designation of Airways; And Reporting Points) and any applicable airspace restrictions in place in the area of intended operation.

101.17 Hazard and Risk Minimization

(a) A person operating any of the following shall take all practicable steps to minimize hazards to persons, property and other aircraft:

(1) any type of UA and model aircraft.

101.19 Dropping of Articles

(a) A person operating any of the following shall not allow any object to be dropped in flight if such action creates a hazard to other persons or property:

(1) any type of UA and model aircraft.

101.21 Reserved

101.23 Aerodromes

(a) A person shall not operate a UA on or within 4 km of:

(1) an uncontrolled aerodrome, unless:

(i) the operation is undertaken in accordance with an agreement with the aerodrome operator; and

(ii) each remote pilot has a UA observer in attendance while the aircraft is in flight; and

(iii) the UA is not operated at a height of more than 120 m (400 ft.) AGL unless the operator has been approved by CARC to operate the UA above 120 m (400 ft.) AGL; and

(2) a controlled aerodrome, unless it is operated in accordance with an authorization from CARC and the relevant air traffic control (ATC) unit; and

(3) any aerodrome, unless the operation is undertaken in accordance with an agreement with the aerodrome operator and CARC, the person:

(i) is the holder of, or is under the direct supervision of the holder of, a remote pilot qualification issued by CARC; or

(ii) is under the direct supervision of a person appointed to give instruction in the operation of a UA by CARC; or

(iii) is the holder of a remote pilot license or certificate issued under 102.1; and

(b) Paragraph (a) does not apply to an operation that is conducted:

(1) outside of the boundary of the aerodrome; and

(2) in airspace that is physically separated from the aerodrome by a barrier that is capable of arresting the flight of the UA.

101.25 Airspace

- (a) A person operating a UA shall:
 - (1) unless operating in segregated airspace, not operate in airspace within 30 m, measured horizontally, of a person who has not given consent for the UA to operate over them;
 - (2) maintain observation of the surrounding airspace in which the aircraft is operating for other aircraft; and
 - (3) not operate the UA at any height above 120 m (400 ft) AGL except in accordance with paragraph (b).
- (b) A person operating a UA more than 4 km from an aerodrome boundary and above 120 m (400 ft.) AGL shall ensure that the operation remains within Class G airspace (uncontrolled airspace) and shall:
 - (1) operate in segregated airspace designated for that purpose; or
 - (2) ensure that at least 24 hours before the operation, a person authorized by CARC, notifies the air navigation service provider (ANSP), for the issuance of a NOTAM, containing the following information:
 - (i) the name, address, and telephone number of the operator;
 - (ii) the location of the proposed operation;
 - (iii) the date, time and duration of the proposed operation;
 - (iv) the maximum height AGL proposed for the UA operation.

101.27 Visual Line-of-Sight Operations

- (a) This rule applies to the following types of aircraft:
 - (1) Any type of UA and model aircrafts.
- (b) A person shall not operate a UA to which this rule applies in:
 - (1) any area in which the person's view of the surrounding airspace in which the UA will operate is obstructed; or
 - (2) meteorological conditions that obstruct the person's ability to maintain visual line-of-sight of the aircraft.
- (c) A person who operates a UA to which this rule applies shall at all times:
 - (1) maintain visual line-of-sight with the UA or be in direct communications with a UA observer that maintains visual line-of-sight with the UA; and
 - (2) be able to see the surrounding airspace in which the UA is operating; and
 - (3) operate the UA below any cloud base.
- (d) For the purposes of this rule, visual line-of-sight means a straight line along which the remote pilot or UA observer has a clear view and which may be achieved with the use of:

- (1) spectacles, contact lenses, or a similar device used for vision correction of the user to no better than normal vision but not the use of an electronic, mechanical, electromagnetic, optical, or electro-optical instrument; or
- (2) a first person view system and a trained and competent UA observer who maintains:
 - (i) visual line-of-sight of the UA; and
 - (ii) sight of the surrounding airspace in which the UA is operating; and
 - (iii) has direct communication with the person who is operating the UA.

101.29 Weather and Day Limitations

- (a) A person shall not operate a UA:
 - (1) in or into a cloud or fog; or
 - (2) at night; or
 - (3) in conditions other than visual meteorological conditions (VMC);
 - (i) unless permitted by another provision of this Part, or in accordance with an air traffic control clearance.
- (b) 101.29(a) does not apply if the person holds an authorization under regulation 102.13 allowing these operations.

101.31 Night Operations

- (a) A person shall not operate a UA at night unless the operation is:
 - (1) indoors; or
 - (2) a shielded operation.
- (b) 101.31(a) does not apply if the person holds an authorization under regulation 102.13 allowing these operations.

101.33 Right-of-Way

A person who is operating a UA shall give way to and remain clear of all manned aircraft on the ground and in flight.

101.35 Operation Over and Near People

No person shall operate a UA over a person unless that person is:

- (a) Directly participating in the operation of the UA; or
- (b) Located under a covered structure or inside a stationary vehicle that can provide reasonable protection;
- (c) Directly associated with the operation of the UA or the UA is operated no closer than 30 m, measured horizontally from a second person not directly associated with the operation of the UA.
 - (1) 101.35 (c) does not apply if the second person is standing behind a fixed wing UA while the fixed wing UA is taking off;

- (d) 101.35 (a), (b), or (c) do not apply if:
- (1) the person has consented that the UA is allowed to fly over or near him or her; and
 - (2) the UA is operated no closer than 15 m, measured horizontally, of him or her.

101.37 Aircraft Mass Limits

- (a) A person shall not operate a UA with a gross mass of more than 25 kg.
- (b) A person shall not operate a UA with a gross mass of between 15 kg and 25 kg unless the UA, and any modification made to it, is:
 - (1) constructed under the authority of, or inspected and approved by, CARC; or
 - (2) meets the requirement of 102.301.

101.41 Requirement for a Remote Pilot License

A person is entitled to act as remote pilot for operations under JCAR Part 101, if it can be shown that:

- (a) The person has been granted a remote pilot certificate meets requirements of 102.1;
- (b) The remote pilot certificate referred to under (a) is not expired, suspended or revoked.

101.43 Prohibited UAS Operations

- (a) No person shall operate a UA in such a careless or reckless manner as to endanger or be likely to endanger aviation safety or the safety of any person or property.
- (b) No person shall operate a UA while operating a moving vehicle, vessel or manned aircraft.

101.45 Alcohol or Drugs Part 91, reference to (General Operating and Flight Rules)

- (a) No person shall act as a remote pilot, flight crew member or a UA observer
 - (1) within 8 hours after consuming an alcoholic beverage;
 - (2) while under the influence of alcohol; or
 - (3) while using any drug that impairs the person's faculties to the extent that aviation safety or the safety of any person is endangered or likely to be endangered.