Notice of Proposed Rule Making
of JCAR Part-DDP
Unmanned Aircraft Design and Production

***NPRM : Reg.* I1/2026** ***Release Date:* 03 / 06 /2026**

Jordan Civil Aviation Regulatory Commission (CARC) hereby releases a proposed issue of JCAR Part DDP (Unmanned Aircraft Design and Production).

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:

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The closing date of comments 02/08/2026

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Part-DDP

JCAR-Unmanned Aircraft System Design and Production

This new part of the Jordanian Civil Aviation Regulation is hereby issued under the authority and provisions of the Jordanian Civil Aviation Law 41/2007 and its amendments.

(المادة 12 فقرة ر-2 والمادة 48 فقرة ي من قانون الطيران المدني رقم 41 لسنة 2007 وتعديلاته)

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Chief Commissioner/CEO
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General

DDP.000 Introduction

(a) This Part lays down the Jordanian national requirements for the design and manufacture of unmanned aircraft and equipment to control unmanned aircraft remotely intended to be operated under the rules and conditions defined in the Jordanian civil aviation law No. 41 for the year 2007 Item (12) (t)(2), JCAR Part-101 "UAS Open Category" and JCAR Part-102 "UAS Specific Category" and of remote identification add-ons. It also defines the type of unmanned aircraft whose design, production and maintenance shall be subject to certification.

(b) This Part establishes requirements on making unmanned aircraft and equipment to control unmanned aircraft remotely intended for use in the 'open' category as required in JCAR Part-101 "UAS Open Category" or to operational declarations under the 'specific' category of UAS operations and remote identification add-ons as required in JCAR Part-102 "UAS Specific Category" available on the market and on their free movement in Jordan.

(c) It is necessary to set out the requirements that address the risks posed by the operation of those UAS, taking full account of other applicable CARC regulations. These requirements should cover the essential requirements, in particular as regards the specific features and functionalities necessary to mitigate risks pertaining to the safety of the flight, privacy, and protection of personal data, security or the environment, arising from the operation of these UAS.

(d) According to JCAR Part-183 paragraph 183.5 (d) in regard to aircraft engineering representatives, the chief commissioner/CEO may nominate engineering representatives, as may be needed, who are suitable and qualified to perform engineering analysis of airworthiness design and design changes for compliance with airworthiness requirements of applicable standards and regulations.

Such designations will be known as:

(1) Aircraft structural engineering representatives;

(2) Powerplant engineering representatives;

(3) Aircraft systems and equipment engineering representatives; and

(4) Radio and avionics systems engineering representatives.

According to JCAR Part-183 paragraph 183.23 Aircraft engineering representatives as authorized by their designations:
(1) May recommend approval of airworthiness design and design changes, installations, and any required airplane flight manual changes in accordance with standards set forth in these regulations and as otherwise established by the Civil Aviation Regulatory Commission for aircraft structures, powerplants, aircraft systems and equipment; and radio and avionics systems.
(2) Shall perform only functions within the scope of the authorizations accorded in their respective designations.

DDP.005 Scope

(a) This Part establishes the Jordanian national requirements and applies to the following products:

(1) UAS intended to be operated under the regulations and conditions applicable to the 'open' category pursuant to JCAR Part-101 "UAS Open Category" of UAS operations or to operational declarations under the 'specific' category of UAS operations pursuant to JCAR Part-102 "UAS Specific Category", except privately built UAS, and bearing a class identification label as set out in Appendices I to V, XVI and XVII of this Part indicating to which of the seven UAS classes referred to;

(2) Class C5 accessories kits as set out in Appendix XVI;

(3) Remote identification add-ons as set out in Appendix VI to this Part.

(b) DDP.400 applies to UAS operated under the regulations and conditions applicable to the 'certified' and 'specific' categories of UAS except when conducted under a declaration.
(c) Conformity assessment under this Part may be carried out by CARC or by a conformity assessment body officially designated/ authorized by CARC if they meet the requirements laid down in DDP.220, or by the manufacturer through an assessment procedure approved by CARC whereby the manufacturer fulfill the obligations set out in this Part.
(d) This Part applies to UAS operators that have their principal place of business, are established, or reside in Jordan.
(e) This Part does not apply to the design and manufacture of UAS intended to be exclusively operated indoors and for military, custom and security use.

DDP.010 Definitions

For the purposes of this Part, the following definitions apply:
(a) 'unmanned aircraft' (UA): any aircraft operating or designed to operate autonomously or to be piloted remotely without a pilot on board;

(b) ‘equipment to control unmanned aircraft remotely’: any instrument, equipment, mechanism, apparatus, appurtenance, software or accessory that is necessary for the safe operation of an unmanned aircraft other than a part and which is not carried on board that unmanned aircraft;
(c) ‘unmanned aircraft system’ (UAS): an unmanned aircraft, and its control and monitoring unit;
(d) ‘unmanned aircraft system operator’ (UAS operator): any legal or natural person operating or intending to operate one or more UAS;
(e) ‘conformity assessment’: the process demonstrating whether the specified requirements relating to a product have been fulfilled;
(f) ‘conformity assessment body’: a body designated/ authorized by CARC to performs conformity assessment activities including calibration, testing, certification and inspection;
(g) ‘CE marking’: a marking by which the manufacturer indicates that the product is in conformity with the applicable requirements set out in European Union legislation providing for its affixing;
(h) ‘manufacturer’: any natural or legal person who manufactures a product or has a product designed or manufactured, and markets that product under their name or trademark;
(i) ‘authorized representative’: any natural or legal person accepted/approved by CARC who has received a written mandate from a manufacturer to act on his behalf in relation to specified tasks;
(j) ‘importer’: any natural or legal person duly established within Jordan who places a product from a foreign country on the Jordanian market;
(k) ‘distributor’: any natural or legal person in the supply chain, other than the manufacturer or the importer, duly established within Jordan who makes a product available on the market;
(l) ‘economic operators’: the manufacturer, the authorized representative of the manufacturer, the importer, and the distributor of the UAS duly established within Jordan;
(m) ‘technical specification’: a document that establishes technical requirements to be fulfilled by a product, process or service;
(n) ‘privately built UAS’: a UAS assembled or manufactured for the builder's own use, not including UAS assembled from a set of parts placed on the market by the manufacturer as a single ready-to-assemble kit;
(o) ‘remote pilot’: a natural person responsible for safely conducting the flight of an unmanned aircraft by operating its flight controls, either manually or, when the unmanned aircraft flies automatically, by monitoring its course and remaining able to intervene and change its course at any time;
(p) ‘maximum take-off mass’ (MTOM): the maximum unmanned aircraft mass, including payload and fuel, as defined by the manufacturer or the builder, at which the unmanned aircraft can be operated;

(q) 'payload': any instrument, mechanism, equipment, part, apparatus, appurtenance, or accessory, including communications equipment, that is installed in or attached to the unmanned aircraft, and is not used or intended to be used in operating or controlling an unmanned aircraft in flight, and is not part of an airframe, engine, or propeller;
(r) 'follow-me mode': a mode of operation of a UAS where the unmanned aircraft constantly follows the remote pilot within a predetermined radius;
(s) 'direct remote identification': a system that ensures the local broadcast of information about an unmanned aircraft in operation, including the marking of the unmanned aircraft, so that this information can be obtained without physical access to the unmanned aircraft;
(t) 'geo-awareness': a function that, based on the data provided by CARC, detects a potential breach of airspace limitations and alerts the remote pilots so that they can take effective immediate and action to prevent that breach;
(u) 'sound power level *LWA*' the A-weighted sound power in dB in relation to 1 pW as defined in ISO 3744 as updated;
(v) 'measured sound power level': a sound power level as determined from measurements as laid down in Appendix XIII; measured values may be determined either from a single unmanned aircraft representative for the type of equipment or from the average of a number of unmanned aircraft;
(w) 'guaranteed sound power level': a sound power level determined in accordance with the requirements laid down in Appendix XIII which includes the uncertainties due to production variation and measurement procedures and where the manufacturer, or his authorized representative accepted/approved by CARC, confirms that according to the technical instruments applied and referred to in the technical documentation it is not exceeded;
(x) 'assemblies of people': gatherings where persons are unable to move away due to the density of the people present;

(y) 'Control and Monitoring Unit' ('CMU'): the equipment to control and monitor unmanned aircraft remotely;

(z) 'C2 link': the data link between the unmanned aircraft and the CMU for the purposes of managing the flight;

(aa) 'night': the hours between the end of evening civil twilight and the beginning of morning civil twilight;

(bb) 'open category': a category of UAS operations that is defined in JCAR 101;

(cc) 'specific category': a category of UAS operations that is defined in JCAR 102;

(dd) 'certified category': a category of UAS operations that is defined in DDP.400.

DDP.020 Abbreviations

CARC	Civil Aviation Regulatory Commission
CMU	Control and Monitoring Unit
DDP	Drones Design & Production
MTOM	Maximum Take-off Mass
UA	Unmanned Aircraft
UAS	Unmanned Aircraft System
VLOS	Vision Line of Sight

DDP.030 Application for a design and production of unmanned aircraft systems (UAS) organization

(a) The application for UAS design and production or an amendment to an existing UAS shall be made by any natural or legal person established within Jordan in a form and manner established by CARC.

(b) Applicants for an initial design and production of UAS and equipment to control unmanned aircraft remotely shall provide CARC with a design and production organization exposition and documentation demonstrating how they will comply with this Part. The design and production organization shall demonstrate, that:

(1) With regard to general approval requirements, facilities, working conditions, equipment and tools, processes and associated materials, number and competence of staff, and general organization are adequate to discharge obligations;

(2) With regard to all necessary airworthiness, noise and all required data to determine conformity with the applicable design data and correctly incorporated in its production data. Such data are kept up to date and made available to all personnel who need access to such data to perform their duties.

(3) With regard to management and staff:

(i) A manager has been nominated by the design and production organization, and is accountable to CARC. His responsibility within the organization shall consist of ensuring that all design and production is performed to the required standards and that the design and production organization is continuously in compliance with the data and procedures identified in the exposition;

(ii) A person or group of persons accepted to CARC have been nominated by the design and production organization to ensure that the organization is in compliance with the requirements of this Part, and are identified, together with the extent of their authority. Such person(s) shall act under the direct authority of the accountable

manager referred to in point (i). The persons nominated shall be able to show certification of unmanned aircraft and related products, parts and appliances, and of design and production organization Part-DDP the appropriate knowledge, background and experience to discharge their responsibilities;

(iii) Staff at all levels have been given appropriate authority to be able to discharge their allocated responsibilities and that there is full and effective coordination within the design and production organization in respect of airworthiness, noise, etc. data matters.

(4) with regard to engineers and appropriately qualified staff, authorized by the design and production organization to sign the documents issued under the scope or terms of approval:

(i) The knowledge, background (including other functions in the organization), competency, and experience of engineers and appropriately qualified staff are appropriate to discharge their allocated responsibilities;

(ii) The design and production organization maintains a record of all engineers and appropriately qualified staff which shall include details of the scope of their authorization;

(ii) Engineers, technical staff and appropriately qualified staff are provided with evidence of the scope of their authorization.

(c) The design and production organization shall demonstrate that it has established and is able to maintain a safety, compliance monitoring, and quality system. The safety, compliance monitoring, and quality system shall be documented. This safety, compliance monitoring and quality system shall be such as to enable the organization to ensure that each product, part or appliance produced by the organization or by its partners, or supplied from or subcontracted to outside parties, conforms to the applicable design data and is in condition for safe operation and meet the requirements of this Part.

(d) A design and production organization approval shall be issued for duration of 24 calendar months. It shall remain valid subject to:

(1) the organization remaining in compliance with this Part, in accordance with the provisions related to the handling of findings;

(2) CARC being granted access to the organization to determine continued compliance with this Part; and

(3) the approval not being surrendered or revoked.

(e) Upon surrender or revocation, the approval certificate shall be returned to CARC.

DDP.040 UAS intended to be operated in the 'open' category or in the 'specific' category under operational declaration, accessories kits bearing a class identification label and remote identification add-ons

(a) The products referred to in paragraph (a) of DDP.005 shall meet the requirements set out in Appendices I to V, XVI and XVII.
(b) UAS that are not toys shall comply with the relevant health and safety requirements only in relation to risks other than those linked to the safety of the unmanned aircraft flight.
(c) Any updates of software of the products that have already been made available on the market may be made only if such updates do not affect the compliance of the product.

DDP.050 Making available on the market and free movement of products

(a) Products shall only be made available on the market if they satisfy the requirements of this Part and do not endanger the health or safety of persons, animals or property.
(b) For the aspects covered by this Part, the making available on the market any supply of products for distribution, consumption or use in the course of production that comply with this Part.

DDP.060 Obligations of manufacturers

(a) When placing their product on the Jordanian market, manufacturers shall ensure that it has been designed and manufactured in compliance with the requirements set out in Appendices I to V, XVI and XVII.
(b) Manufacturers shall draw up the technical documentation provided for in DDP.170 and carry out the relevant conformity assessment procedure referred to in DDP.130 or have it outsourced. Where compliance of the product with the requirements set out in Appendices I to V, XVI and XVII has been demonstrated by that conformity assessment procedure, manufacturers shall draw up a declaration of conformity and affix the CE marking or equivalent.
(c) Manufacturers shall keep the technical documentation and the declaration of conformity for 10 years after the product has been placed on the market.
(d) Manufacturers shall ensure that procedures are in place for series production to remain in conformity with this Part. Changes in product design, characteristics or software, and changes in the standards or in technical specifications by reference to which conformity of a product is declared shall be adequately taken into account. When deemed appropriate with regard to the risks presented by a product, manufacturers shall, to protect the health and safety of consumers, carry out sample testing of marketed products, investigate, and, if necessary, keep a register of complaints, of non-conforming products and product recalls and shall keep distributors informed of any such monitoring.

(e) Manufacturers of UAS shall ensure that the UA bears a type and a unique serial number allowing for its identification, and if applicable, compliant with the requirements defined in the corresponding Appendices II to IV, XVI and XVII. Manufacturers of class C5 accessories kits shall ensure that the kits bear a type and a unique serial number allowing for their identification. Manufacturers of remote identification add-ons shall ensure that the remote identification add-on bears a type and a unique serial number allowing for their identification and compliant with the requirements defined in Appendix IV. In all cases, manufacturers shall ensure that a unique serial number is also affixed to the declaration of conformity or to the simplified declaration of conformity referred to in DDP.0140.

(f) Manufacturers shall indicate on the product their name, registered trade name or registered trademark, website address and the postal address at which they can be contacted or, where that is not possible, on its packaging, or in a document accompanying it. The address shall indicate a single point at which the manufacturer can be contacted. The contact details shall be indicated in Arabic and English languages to be easily understood by end-users and authorities.

(g) Manufacturers shall ensure that the product is accompanied by the manufacturers' instructions and information notice required by Appendices I to VI, XVI and XVII in Arabic and English languages. Such manufacturers' instructions and information notice, as well as any labelling, shall be clear, understandable and legible.

(h) Manufacturers shall ensure that each product is accompanied by a copy of the declaration of conformity. Where a simplified declaration of conformity is provided, it shall contain the exact internet address where the full text of the declaration of conformity can be obtained.

(i) Manufacturers who consider or have reason to believe that products which they have placed on the market are not in conformity with this Part shall immediately take the corrective measures necessary to bring that product into conformity, to withdraw it or recall it, if appropriate. Where the product presents a risk, manufacturers shall immediately inform CARC and other concerned entities which they made the product available on the market to that effect, giving details, in particular, of the non-compliance, of any corrective measures taken and of the results thereof.

(j) Manufacturers shall, further to a reasoned request from CARC, provide it with all the information and documentation in paper or electronic form necessary to demonstrate the conformity of the product with this Part. They shall cooperate with CARC on any action taken to eliminate the risks posed by the product which they have placed on the market.

(k) When placing on the market a class C5 or C6 UAS or a class C5 add-on, importers shall inform CARC of their principal place of business

DDP.070 Authorized representatives

(a) A manufacturer may, by a written mandate, appoint an authorized representative accepted/approved by CARC. The obligations laid down in paragraph (a) of DDP.060 and the obligation to draw up the technical documentation referred to in paragraph (b) of DDP.060 shall not form part of the authorized representative's mandate.

(b) An authorized representative shall perform the tasks specified in the mandate received from the manufacturer. The mandate shall allow the authorized representative to do at least the following:

(1) keep the declaration of conformity and the technical documentation at the disposal of CARC for 10 years after the product has been placed on the Jordanian market;

(2) further to a reasoned request from CARC, provide CARC with all the information and documentation necessary to demonstrate the conformity of the product;

(3) cooperate with CARC, at their request, on any action taken to eliminate the non-conformity of the products covered by the authorized representative's mandate or the safety risks posed by it.

DDP.080 Obligations of importers

(a) Importers, shall only place products compliant with the requirements set out in this Part on the Jordanian market.

(b) Before placing a product on the Jordanian market, importers shall ensure that:

(1) the appropriate conformity assessment procedure referred to in DDP.130 has been carried out by the manufacturer;

(2) the manufacturer has drawn up the technical documentation referred to in DDP.170;

(3) the product bears the CE marking or equivalent and, when required, the unmanned aircraft class identification label and the indication of the sound power level;

(4) the product is accompanied by the documents referred to in paragraph (g) and (h) of DDP.060;

(5) the manufacturer has complied with the requirements set out in paragraphs (e) and (f) of DDP.060.

Where an importer considers or has reasons to believe that a product is not in conformity with the requirements set out in Appendices I to VI, XVI and XVII, he shall not place the product on the market until it has been brought into conformity. Furthermore, where the product presents a risk for the health and safety of consumers and third parties, the importer shall inform the manufacturer and CARC to that effect.

(c) Importers shall indicate on the product their name, registered trade name or registered trademark, website and the postal address at which they can be contacted or, where that is not possible, on its packaging or in a document

accompanying the product. The contact details shall be in Arabic and English languages to be easily understood by end-users and authorities.
(d) Importers shall ensure that the product is accompanied by the manufacturer' instructions and information notice required by Appendices I to VI, XVI and XVII in Arabic and English languages which can be easily understood by consumers and other end-users. That manufacturer' instructions and information notice, as well as any labelling, shall be clear, understandable and legible.
(e) Importers shall ensure that, while the product is under their responsibility, its storage or transport conditions do not jeopardize its compliance with the requirements set out in DDP.040.
(g) When deemed appropriate with regard to the risks presented by a product, importers shall, in order to protect the health and safety of end-users and third parties, carry out sample testing of products made available on the market, investigate, and, if necessary, keep a register of complaints, of non-conforming of products and product recalls, and shall keep distributors informed of any such monitoring.
(h) Importers who consider or have reason to believe that a product which they have placed on the market is not in conformity with the applicable CARC regulations shall immediately take the corrective measures necessary to bring that product into conformity, to withdraw it or recall it, if appropriate. Furthermore, where the product presents a risk, importers shall immediately inform CARC and other authorities which they made the product available on the market to that effect, giving details, in particular, of the non-compliance and of any corrective measures taken.
(i) Importers shall, for 10 years after the product has been placed on the market, keep a copy of the declaration of conformity at the disposal of CARC and ensure that the technical documentation can be made available to CARC, upon request.
(j) Importers shall, further to a reasoned request from CARC, provide it with all the information and documentation in paper or electronic form necessary to demonstrate the conformity of the product. They shall cooperate with CARC, at its request, on any action taken to eliminate the risks posed by the product which they have placed on the market.

(k) When placing on the market a class C5 or C6 UAS or a class C5 add-on, importers shall inform CARC of their principal place of business.

DDP.090 Obligations of distributors

(a) When making a product available on the Jordanian market, distributors, shall act with due care in relation to the requirements set out in this Part.
(b) Before making a product available on the market, distributors shall verify that the product bears the CE marking or equivalent, and when applicable, the unmanned aircraft class identification label and the indication of the sound power

level, is accompanied by the documents referred to in paragraphs (g) and (h) of DDP.060 and that the manufacturer and the importer have complied with the requirements set out in paragraphs (e) and (f) of DDP.060 and in paragraph (c) of DDP.080. Distributors shall ensure that the product is accompanied by the manufacturer' instructions and information notice required by Appendices I to VI, XVI and XVII in Arabic and English languages. Those manufacturer' instructions and information notice, as well as any labelling, shall be clear, understandable and legible. Where a distributor considers or has reason to believe that a product is not in conformity with the requirements set out in DDP.040, he shall not make the product available on the market until it has been brought into conformity. Furthermore, where the product presents a risk, the distributor shall inform the manufacturer or the importer to that effect, as well as CARC.

(c) Distributors shall ensure that, while a product is under their responsibility, its storage or transport conditions do not jeopardize its compliance with the requirements set out in DDP.040.

(d) Distributors who consider or have reasons to believe that a product which they have made available on the market is not in conformity with the applicable CARC regulations shall make sure that the corrective measures necessary to bring that product into conformity, to withdraw it or recall it, if appropriate, are taken. Furthermore, where the product presents a risk, distributors shall immediately inform CARC to that effect, giving details, in particular, of the non-compliance and of any corrective measures taken.

(e) Distributors shall, further to a reasoned request from CARC, provide it with all the information and documentation in paper or electronic form necessary to demonstrate the conformity of the product. They shall cooperate with CARC, at its request, on any action taken to eliminate the risks posed by the product which they have made available on the market.

DDP.100 Cases in which obligations of manufacturers apply to importers and distributors

An importer or distributor shall be considered a manufacturer for the purposes of this Part and shall be subject to the obligations of manufacturers pursuant to DDP.060, where they place a product on the market under their name or trademark or modify the product already placed on the market in such a way that compliance with this Part may be affected.

DDP.110 Identification of economic operators

(a) Economic operators shall, on request, identify the following to CARC:

(1) any economic operator who has supplied them with a product;

(2) any economic operator to whom they have supplied a product.

(b) Economic operators shall be able to present the information referred to in paragraph (a):

(1) for 10 years after they have been supplied with the product;
(2) for 10 years after they have supplied the product.

DDP.120 Reserved

DDP.130 Conformity assessment procedures

(a) The manufacturer shall perform a conformity assessment of the product using one of the following procedures with a view to establishing its compliance with the requirements set out in Appendices I to VI, XVI and XVII. The conformity assessment shall take into account all intended and foreseeable operating conditions.
(b) The procedures available to conduct the conformity assessment shall be the following:

(1) internal production control as set out in Appendix VII, when assessing the compliance of a product with the requirements set out in Appendices I, V, VI, XVI or XVII, subject to the condition that the manufacturer has applied standards for all the requirements for which such standards exist;
(2) CARC-type examination followed by conformity to type based on internal production control as set out in Appendix VIII;
(3) conformity based on full quality assurance as set out in Appendix IX, excepted when assessing the compliance of a product which is a toy.

DDP.140 Declaration of conformity

(a) The declaration of conformity referred to in paragraph (h) of DDP.060 shall state that compliance of the product with the requirements set out in Appendices I to VI, XVI and XVII has been demonstrated and, for UAS, identify its class.
(b) The declaration of conformity shall have the model structure set out in Appendices XI, shall contain the elements set out in that Appendix and shall be continuously updated.
(c) The simplified declaration of conformity referred to in paragraph (h) of DDP.060 shall contain the elements set out Appendix XII and shall be continuously updated. The full text of the declaration of conformity shall be available at the internet address referred to in the simplified declaration of conformity in Arabic and English languages.
(d) By drawing up the declaration of conformity, the manufacturer shall assume responsibility for the compliance of the product with the requirements laid down in this Part.

DDP.150 General principles of the CE marking or equivalent marking accepted by CARC

The CE marking or equivalent marking shall be subject to the following general principles.

(a) The CE marking or equivalent shall be affixed only by the manufacturer or his authorized representative.
(b) The CE marking or equivalent shall be affixed only to products to which are in compliance with the CE marking or equivalent requirements.
(c) By affixing or having affixed the CE marking, the manufacturer indicates that he takes responsibility for the conformity of the product with all applicable CE marking or equivalent requirements set out.
(d) The CE marking or equivalent shall be the only marking which attests the conformity of the product with the applicable requirements for its affixing.
(e) The affixing to a product of markings, signs or inscriptions which are likely to mislead CARC and end users regarding the meaning or form of the CE marking or equivalent shall be prohibited. Any other marking may be affixed to the product provided that the visibility, legibility and meaning of the CE marking or equivalent is not thereby impaired.
(f) CARC shall ensure the correct implementation of the regime governing the CE marking or equivalent and take appropriate action in the event of improper use of the marking. CARC shall also provide for penalties for infringements in accordance with applicable Jordanian civil aviation law, regulations and procedures.

DDP.160 Rules and conditions for affixing the CE marking or equivalent accepted by CARC, the UAS class identification label and the indication of the sound power level

(a) The CE marking or equivalent shall be affixed visibly, legibly and indelibly to the product or to the data plate attached to it. Where that is not possible or not warranted on account of the size of the product, it shall be affixed to the packaging.
(b) The UA class identification label shall be affixed visibly, legibly and indelibly to the UA or, when relevant, to each accessories of a class C5 accessories kit, and its packaging and shall be at least 5 mm high. The affixing to a product of markings, signs or inscriptions which are likely to mislead third parties regarding the meaning or form of the class identification label shall be prohibited.
(c) The indication of the sound power level provided for in Appendix XIV shall be affixed, when applicable, visibly, legibly and indelibly on the unmanned aircraft, unless that is not possible or not warranted on account of the size of the product, and on the packaging.
(d) The CE marking or equivalent, and when applicable, the indication of the sound power level and the unmanned aircraft class identification label shall be affixed before the product is placed on the market.
(e)The CE marking or equivalent shall be followed by the identification number of the conformity assessment body where the conformity assessment procedure set out in Appendix IX is applied. The identification number of the conformity

assessment bodies shall be affixed by the conformity assessment body Itself or, under its instructions, by the manufacturer or his authorized representative.
(f) CARC shall build upon existing mechanisms to ensure correct application of the regime governing the CE marking or equivalent, and shall take appropriate action in the event of improper use of that marking.

DDP.170 Technical documentation

(a) The technical documentation shall contain all relevant data and details of the means used by the manufacturer to ensure that the product complies with the requirements set out in Appendices I to VI, XVI and XVII. It shall, at least, contain the elements set out in Appendix X.
(b) The technical documentation shall be drawn up before the product is placed on the market and shall be continuously updated.
(c) The technical documentation and correspondence relating to any CARC-type examination procedure or the assessment of the quality system of the manufacturer shall be drawn up in Arabic and English languages.
(d) Where the technical documentation does not comply with paragraphs (a), (b) or (c) above, CARC may ask the manufacturer or the importer to have a test performed by a conformity body designated/ authorized by CARC at the expense of the manufacturer or the importer within a specified period in order to verify compliance of the product with the requirements set out in Appendix I to VI, XVI and XVII which applies to it.

DDP.180 Conformity assessment bodies

Conformity assessment bodies shall be officially designated/ authorized by CARC to carry out conformity assessment under this Part and shall meet the requirements laid down in DDP.220.

DDP.190-DDP.210 Reserved

DDP.220 Requirements relating to conformity assessment bodies

(a) A conformity assessment body shall be officially designated/ authorized by CARC and shall meet the requirements laid down in paragraphs (b) to (k) of this Part.
(b) A conformity assessment body shall be designated/ authorized by CARC to assess the conformity of products, conduct the necessary product testing, auditing, and evaluation in compliance with this Part.
(c) A conformity assessment body shall be independent of the organization it assesses. A body belonging to a business association representing undertakings involved in the design, manufacturing, provision, assembly, use or maintenance of the product which it assesses may, on condition that its

independence and the absence of any conflict of interest are demonstrated, be considered such a body.

(d) A conformity assessment body, its top-level management and the personnel responsible for carrying out the conformity assessment tasks shall not be the designer, manufacturer, supplier, installer, purchaser, owner, user or maintainer of the product which they assess, nor the representative of any of those parties. This shall not preclude the use of the assessed product that is necessary for the operations of the conformity assessment body or the use of such product for personal purposes. A conformity assessment body, its top-level management and the personnel responsible for carrying out the conformity assessment tasks shall not be directly involved in the design, manufacture or construction, the marketing, installation, use or maintenance of that product, or represent the parties engaged in those activities. They shall not engage in any activity that may conflict with their independence of judgement or integrity in relation to conformity assessment activities for which they are assigned. This shall, in particular, apply to consultancy services. Conformity assessment bodies shall ensure that the activities of their subsidiaries or subcontractors do not affect the confidentiality, objectivity or impartiality of their conformity assessment activities.

(e) Conformity assessment bodies and their personnel shall carry out the conformity assessment activities with the highest degree of professional integrity and the requisite technical competence in the specific field and shall be free from all pressures and inducements, particularly financial, which might influence their judgement or the results of their conformity assessment activities, especially as regards persons or groups of persons with an interest in the results of those activities.

(f) A conformity assessment body shall be capable of carrying out all the conformity assessment tasks assigned to it by Appendix VIII or IX, whether those tasks are carried out by the conformity assessment body itself or on its behalf and under its responsibility. At all times and for each conformity assessment procedure and each kind or category of product in relation to which it has been assigned, a conformity assessment body shall have at its disposal the necessary:

(1) personnel with technical knowledge and sufficient and appropriate experience to perform the conformity assessment tasks;

(2) descriptions of procedures in accordance with which conformity assessment is carried out, ensuring the transparency and the ability of reproduction of those procedures; it shall have appropriate policies and procedures in place that distinguish between tasks it carries out as an assessment body and other activities;

(3) procedures for the performance of activities which take due account of the size of an undertaking, the sector in which it operates, its structure, the

degree of complexity of the product in question and the mass or serial nature of the production process.

A conformity assessment body shall have the means necessary to perform the technical and administrative tasks connected with the conformity assessment activities in an appropriate manner and shall have access to all necessary equipment or facilities.

(g) The personnel responsible for carrying out conformity assessment tasks shall have the following:

(1) sound technical and vocational training covering all the conformity assessment activities in relation to which the conformity assessment body has been notified;

(2) satisfactory knowledge of the requirements of the assessments they carry out and adequate authority to carry out those assessments;

(3) appropriate knowledge and understanding of the requirements, of the applicable standards and of the relevant provisions of CARC regulations;

(4) the ability to draw up CARC-type examination certificates or quality system approvals, records and reports demonstrating that assessments have been carried out.

(h) The impartiality of the conformity assessment bodies, their top-level management and of the personnel responsible for carrying out the conformity assessment tasks shall be guaranteed. The remuneration of the top-level management and of the personnel responsible for carrying out the conformity assessment tasks of a conformity assessment body shall not depend on the number of assessments carried out or on the results of those assessments.

(i) Conformity assessment bodies shall take out liability insurance, or CARC itself is directly responsible for the conformity assessment.

(j) The personnel of a conformity assessment body shall observe professional secrecy with regard to all information obtained in carrying out their tasks under Appendix VIII and IX or any provision of national law giving effect to them, except in relation to CARC in which its activities are carried out. Proprietary rights shall be protected.

(k) Conformity assessment bodies shall participate in, or ensure that their personnel responsible for carrying out the conformity assessment tasks are informed of, the relevant standardization activities, the regulatory activities in the area of UAS and frequency planning, and the activities of the coordination group established under the relevant CARC regulations and shall apply, as general guidance, the administrative decisions and documents produced as a result of the work of that group.

DDP.230 Reserved

DDP.240 Subsidiaries of and subcontracting by conformity bodies

(a) Where a conformity body designated/ authorized by CARC subcontracts specific tasks connected with conformity assessment or has recourse to a subsidiary, it shall ensure that the subcontractor or the subsidiary meets the requirements set out in DDP.220 and shall inform CARC accordingly for their acceptance.

(b) Conformity bodies shall take full responsibility for the tasks performed by subcontractors or subsidiaries, wherever these are established.

(c) Activities may be subcontracted or carried out by a subsidiary only with the agreement of the client.

(d) Conformity bodies shall keep at the disposal of CARC the relevant documents concerning the assessment of the qualifications of the subcontractor or the subsidiary and the work carried out by them under Appendices VIII and IX.

DDP.250 Application of a conformity assessment body

A conformity assessment body shall submit an application to CARC. The application shall be accompanied by a description of the conformity assessment activities, the conformity assessment module or modules, and the product for which that body claims to be competent, attesting that the conformity assessment body fulfils the requirements laid down in DDP.220. CARC shall investigate the application to ensure that the applicant fulfils the requirements laid down in DDP.220, if CARC is satisfied an authorization or acceptance is issued to the applicant, which has met the requirements laid down in DDP.220, the authorization/ acceptance shall include full details of the conformity assessment activities, the conformity assessment module(s), and the product concerned.

DDP. 260-290 Reserved

DDP.300 Operational obligations of designated/ authorized conformity assessment bodies

(a) Conformity assessment body designated/ authorized by CARC shall carry out conformity assessments in accordance with the conformity assessment procedures provided in Appendix VIII and IX.

(b) Conformity assessments shall be carried out in a proportionate manner, avoiding unnecessary burdens for economic operators. Conformity assessment bodies shall perform their activities taking due account of the size of an undertaking, the sector in which it operates, its structure, the degree of complexity

of the product in question, and the mass or serial nature of the production process. In doing so, they shall nevertheless respect the degree of rigor and the level of protection required for the compliance of the unmanned aircraft or UAS with this Part.

(c) Where a conformity assessment body finds that the requirements set out in Appendices I to VI, XVI and XVII or in corresponding standards or other technical specifications have not been met by a manufacturer, it shall require the manufacturer to take appropriate corrective measures and shall not recommend the issuance of a CARC-type examination certificate or a quality system approval.

(d) Where, in the course of the monitoring of conformity following the issue of a CARC-type examination certificate or a quality system approval, a conformity assessment body finds that a product no longer complies, it shall require the manufacturer to take appropriate corrective measures and shall recommend to CARC the suspension or withdrawal of CARC-type examination certificate or the quality system approval if necessary.

(e) Where corrective measures are not taken or do not have the required effect, the conformity assessment body shall restrict, suspend or withdraw any CARC type examination certificates or quality system approvals, as appropriate.

DDP.310-DDP.350 Reserved

DDP.360 Procedure for dealing with products presenting a risk at national level

(a) Where there is a sufficient reason to believe that a product presents a risk to the health or safety of persons or to other aspects of public interest protection covered by this Part, an evaluation in relation to the product concerned shall be carried out, covering all applicable requirements laid down in this Part. The relevant economic operators shall cooperate as necessary with CARC for that purpose. Where, in the course of the evaluation, CARC find that the product does not comply with the requirements laid down in this Part, CARC shall, without delay, require the relevant economic operator to take all appropriate corrective actions to bring the product into compliance with those requirements, to withdraw the product from the market, or to recall it within a reasonable period, commensurate with the nature of the risk, as they may prescribe. CARC shall inform the concerned accordingly.

(b) Where CARC consider that non-compliance is not restricted to Jordanian territory, they shall inform the States of the results of the evaluation and of the actions which they have required the economic operator to take.

(c) The economic operator shall ensure that all appropriate corrective action is taken in respect of all products concerned that it has made available on the market.

(d) Where the relevant economic operator does not take adequate corrective action within a reasonable period, CARC shall take all appropriate provisional

measures to prohibit or restrict the product being made available on the national market, to withdraw the product from that market or to recall it.
(e) The information referred to in paragraph (d) shall include all available details, in particular the data necessary for the identification of the non-compliant product, the origin of the product, the nature of the non-compliance alleged and the risk involved, the nature and duration of the measures taken and the arguments put forward by the relevant economic operator. In particular, CARC shall indicate whether the non-compliance is due to either of the following:
(1) failure of the product to meet the requirements set out in DDP.040;
(2) shortcomings in the standards.
(f) CARC shall, without delay, inform all concerned of any measures adopted and of any additional information at their disposal relating to the non-compliance of the product concerned.
(g) CARC shall ensure that appropriate restrictive measures, such as withdrawal of the product from the market, are taken in respect of the product concerned without delay.

DDP.370 Reserved

DDP.380 Compliant products which presents a risk

(a) Where, having carried out an evaluation under paragraph (a) of DDP.360, CARC finds that, although the product is in compliance with this Part, it presents a risk to the health or safety of persons or to other aspects of public interest protection covered by this Part, it shall require the relevant economic operator to take all appropriate measures to ensure that the product concerned, when placed on the market, no longer presents that risk, to withdraw the product from the market or to recall it within a reasonable period, commensurate with the nature of the risk, as it may prescribe.
(b) The economic operator shall ensure that corrective action is taken in respect of all the products concerned that he has made available on the market.
(c) That information shall include all available details, in particular the data necessary for the identification of the product concerned, the origin and the supply chain of product, the nature of the risk involved and the nature and duration of the measures taken.
(d) CARC shall, without delay, enter into consultation with the relevant economic operator or operators and shall evaluate the measures taken. On the basis of the results of that evaluation, CARC shall decide whether the measure is justified or not and, where necessary, propose appropriate measures.
(e) CARC shall address its decision and shall immediately communicate it to the relevant economic operator or operators.

DDP.390 Formal non-compliance

(a) Without prejudice to DDP.360, where CARC makes one of the following findings concerning products covered by this Part, it shall require the relevant economic operator to put an end to the non-compliance concerned:

(1) the CE marking or equivalent has been affixed in violation of this Part;

(2) the CE marking or equivalent or type has not been affixed;

(3) the identification number of the conformity assessment body where the conformity assessment procedure set out in Appendix IX is applied, has been affixed in violation of DDP.160 or has not been affixed;

(4) the unmanned aircraft class identification label has not been affixed;

(5) the indication of the sound power level if required has not been affixed;

(6) the serial number has not been affixed or has not the correct format;

(7) the manual or the information notice is not available;

(8) the declaration of conformity is missing or has not been drawn up;

(9) the declaration of conformity has not been drawn up correctly;

(10) technical documentation is either not available or not complete;

(11) manufacturer's or importer's name, registered trade name or registered trademark, website address or postal address are missing.

(b) Where the non-compliance referred to in paragraph (a) persists, CARC shall take all appropriate measures to restrict or prohibit the product being made available on the market or ensure that it is withdrawn or recalled from the market.

DDP.400 Requirements for UAS operated in the ‘certified’ and ‘specific’ categories except when conducted under a declaration

(a) The design, production and maintenance of UAS shall be certified if the UAS meets any of the following conditions:

(1) it has a characteristic dimension of 3 m or more, and is designed to be operated over assemblies of people;

(2) it is designed for transporting people;

(3) it is designed for the purpose of transporting dangerous goods and requiring a high level of robustness to mitigate the risks for third parties in case of accident;

(4) it is intended to be used in the ‘specific’ category of operations defined in JCAR 102, on the basis of the risk assessment conducted by UAS operator, that the risk of the operation cannot be adequately mitigated without the certification of the UAS.

Paragraph (a) does not apply to UAS that are specifically designed or modified for research, experimental or scientific purposes, and are likely to be produced in very limited numbers. The operation of such UAS will be subject to a permit to fly in accordance with JCAR Part 21.

(b) An UAS that meets the conditions specified in paragraph (a) shall comply with the applicable requirements laid down in JCAR Part 21.
UAS certified for reasons other than those specified in paragraph (a) shall comply with the applicable requirements laid down in Regulation JCAR Part 21.
(c) Unless it needs to be certified in accordance with paragraph (a), a UAS used in the 'specific' category shall feature the technical capabilities set out in the operational authorization issued by CARC or as defined by the Light UAS Operator Certificate (LUC) issued according to JCAR 102.
(d) Unless privately built, all UAS not subject to registration according to JCAR 102 shall have a unique serial number compliant with standard ANSI/CTA-2063-A-2019, Small Unmanned Aerial Systems Serial Numbers.
(e) Each UA intended to be operated in the 'specific' category and at a height below 120 meters shall be equipped with a remote identification system that allows:

1. the upload of the UAS operator registration number required in accordance with JCAR 102 and any additional number provided by the registration system. The system shall perform a consistency check verifying the integrity of the full string provided to the UAS operator at the time of registration. In case of inconsistency, the UAS shall emit an error message to the UAS operator;
2. the periodic transmission of at least the following data, in real time during the whole duration of the flight, in a way that it can be received by existing mobile devices:
    i. the UAS operator registration number and the verification code provided by CARC during the registration process unless the consistency check defined in point (1) is not passed;
    ii. the unique serial number of the UA compliant with paragraph (d) or, if the UA is privately built, the unique serial number of the add on, as specified in Appendix VI;
    iii. the time stamp, the geographical position of the UA and its height above the surface or take-off point;
    iv. the route course measured clockwise from true north and ground speed of the UA;
    v. the geographical position of the remote pilot;
    vi. an indication of the emergency status of the UAS.
3. to reduce the ability of tampering the functionality of the direct remote identification system.

APPENDICES

APPENDIX-I
Requirements for a Class C0 Unmanned Aircraft System

A class C0 UAS shall comply with the following:

(a) have an MTOM of less than 250 g, including payload;

(b) have a maximum speed in level flight of 19 m/s;

(c) have a maximum attainable height above the take-off point limited to 120 m;

(d) be safely controllable with regards to stability, maneuverability and the command and control link performance, by a remote pilot following the manufacturer's instructions, as necessary under all anticipated operating conditions including following the failure of one or, if appropriate, more systems;

(e) be designed and constructed in such a way as to minimize injury to people during operation, sharp edges shall be avoided, unless technically unavoidable under good design and manufacturing practice. If equipped with propellers, the UA shall be designed in such a way as to limit any injury that may be inflicted by the propeller blades;

(f) be exclusively powered by electricity;

(g) if equipped with a follow-me mode and when this function is on, be in a range not exceeding 50 m from the remote pilot, and make it possible for the remote pilot to regain control of the UA;

(h) be placed on the market with manufacturer's instructions providing:

1. the characteristics of the UA including but not limited to the:
    i. class of the UA
    ii. UA mass (with a description of the reference configuration) and the maximum take-off mass (MTOM);
    iii. general characteristics of allowed payloads in terms of mass, dimensions, interfaces with the UA and other possible restrictions;
    iv. equipment and software to control the UA remotely; and
    v. a description of the behavior of the UA in case of a loss of the command and control link;

2. clear operational instructions;
3. operational limitations (including but not limited to meteorological conditions and day/night operations); and
4. appropriate description of all the risks related to UAS operations adapted for the age of the user;

(i) include an information notice published by CARC providing the applicable limitations and obligations;

(j) Points (d), (e) and (f) do not apply to UAS that are toys.

APPENDIX-II

Requirements for a Class C1 Unmanned Aircraft System

A class C1 UAS shall comply with the following:

(a) be made of materials and have performance and physical characteristics such as to ensure that in the event of an impact at terminal velocity with a human head, the energy transmitted to the human head is less than 80 J, or, as an alternative, shall have an MTOM of less than 900 g, including payload;

(b) have a maximum speed in level flight of 19 m/s;

(c) have a maximum attainable height above the take-off point limited to 120 m or be equipped with a system that limits the height above the surface or above the take-off point to 120 m or to a value selectable by the remote pilot; if the value is selectable, clear information about the height of the UA above the surface or take-off point during flight shall be provided to the remote pilot;

(d) be safely controllable with regards to stability, maneuverability and the command and control link performance, by a remote pilot with adequate competency and following the manufacturer's instructions, as necessary under all anticipated operating conditions including following the failure of one or, if appropriate, more systems;

(e) have the requisite mechanical strength for the UA, including any necessary safety factor, and, where appropriate, stability to withstand any stress to which it is subjected to during use without any breakage or deformation that might interfere with its safe flight;

(f) be designed and constructed in such a way as to minimize injury to people during operation, sharp edges of the UA shall be avoided, unless

technically unavoidable under good design and manufacturing practice; if equipped with propellers, the UA shall be designed in such a way as to limit any injury that may be inflicted by the propeller blades;

(g) in case of a loss of the command and control link, have a reliable and predictable method for the UA to recover the command and control link or if this fails, terminate the flight in a way that reduces the effect on third parties in the air or on the ground;

(h) unless it is a fixed-wing UA, have a guaranteed A-weighted sound power level L_{WA} determined as per Appendix XIII not exceeding the levels established in Appendix XV;

(i) unless it is a fixed-wing UA, have the indication of the guaranteed A-weighted sound power level affixed on the UA and/or its packaging as per Appendix XIV;

(j) be exclusively powered by electricity;

(k) have a unique serial number compliant with standard ANSI/CTA-2063-A-2019, Small Unmanned Aerial Systems Serial Numbers;

(l) have a direct remote identification that:

1. allows the upload of the UAS operator registration number required in accordance with applicable regulations and any additional number provided by the registration system; the system shall perform a consistency check verifying the integrity of the full string provided to the UAS operator at the time of registration; in case of inconsistency, the UAS shall emit an error message to the UAS operator;

2. ensures, in real time during the whole duration of the flight, the direct periodic broadcast from the UA using an open and documented transmission protocol, in a way that it can be received directly by existing mobile devices within the broadcasting range, of at least the following data:

   i. the UAS operator registration number and the verification code provided by CARC during the registration process unless the consistency check defined in point (1) is not passed;

   ii. the unique physical serial number of the UA compliant with point (k);

   iii. the time-stamp, the geographical position of the UA and its height above the surface or take-off point;

iv. the route course measured clockwise from true north and ground speed of the UA;

v. the geographical position of the remote pilot or, if not available, the take-off point; and

vi. an indication of the emergency status of the UAS;

3. reduces the ability of tampering the functionality of the direct remote identification system;

(m) be equipped with a geo-awareness function that provides:

1. an interface to load and update data containing information on airspace limitations related to UA position and height imposed by the UAS geographical zones, as defined by applicable regulations, which ensures that the process of loading or updating such data does not degrade its integrity and validity;

2. a warning alert to the remote pilot when a potential breach of airspace limitations is detected; and

3. information to the remote pilot on the UA's status as well as a warning alert when its positioning or navigation systems cannot ensure the proper functioning of the geo-awareness function;

(n) if the UA has a function that limits its access to certain airspace areas or volumes, this function shall operate in such a manner that it interacts smoothly with the flight control system of the UA without adversely affecting flight safety; in addition, clear information shall be provided to the remote pilot when this function prevents the UA from entering these airspace areas or volume;

(o) provide the remote pilot with clear warning when the battery of the UA or its command unit reaches a low level such that the remote pilot has sufficient time to safely land the UA;

(p) be equipped:

1. with lights for the purpose of controllability of the UA; and

2. with at least one green flashing light for the purpose of conspicuity of the UA at night to allow a person on the ground to distinguish the UA from a manned aircraft;

(q) if equipped with a follow-me mode and when this function is on, be in a range not exceeding 50 m from the remote pilot, and make it possible for the remote pilot to regain control of the UA;

(r) be placed on the market with manufacturer's instructions providing:

1. the characteristics of the UA including but not limited to the:
    i. class of the UA;
    ii. UA mass (with a description of the reference configuration) and the maximum take-off mass (MTOM);
    iii. general characteristics of allowed payloads in terms of mass, dimensions, interfaces with the UA and other possible restrictions;
    iv. equipment and software to control the UA remotely;
    v. the procedures to upload the UAS operator registration number into the remote identification system;
    vi. reference of the transmission protocol used for the direct remote identification system emission;
    vii. sound power level; and
    viii. a description of the behavior of the UA in case of a loss of data link; and the method to recover the command and control link of the UA.
2. clear operational instructions;
3. procedure to upload the airspace limitations into the geo-awareness function;
4. maintenance instructions;
5. troubleshooting procedures;
6. operational limitations (including but not limited to meteorological conditions and day/night operations); and
7. appropriate description of all the risks related to UAS operations;

(s) include an information notice published by CARC providing the applicable limitations and obligations, in accordance with applicable regulations;.

(t) if equipped with a network remote identification system it shall:
    1. allow, in real time during the whole duration of the flight, the transmission from the UA using an open and documented transmission protocol, in a way that it can be received through a network, of at least the following data;
        i. the UAS operator registration number and the verification code provided by CARC during the

registration process unless the consistency check defined in point (1) is not passed;

ii. the unique serial number of the UA compliant with point (k);

iii. the time stamp, the geographical position of the UA and its height above the surface or take-off point;

iv. the route course measured clockwise from true north and ground speed of the UA;

v. the geographical position of the remote pilot or, if not available, the take-off point; and

vi. an indication of the emergency status of the UAS;

2. reduce the ability of tampering the functionality of the direct remote identification system.

APPENDIX-III

Requirements for a Class C2 Unmanned Aircraft System

A class C2 UAS shall comply with the following:

(a) have an MTOM of less than 4 kg, including payload;

(b) have a maximum attainable height above the take-off point limited to 120 m or be equipped with a system that limits the height above the surface or above the take-off point to 120 m or to a value selectable by the remote pilot. If the value is selectable, clear information about the height of the UA above the surface or take-off point during flight shall be provided to the remote pilot;

(c) be safely controllable with regard to stability, maneuverability and the command and control link performance, by a remote pilot with adequate competency as defined in applicable regulations and following the manufacturer's instructions, as necessary under all anticipated operating conditions including following the failure of one or, if appropriate, more systems;

(d) have the requisite mechanical strength for the UA, including any necessary safety factor, and, where appropriate, stability to withstand any stress to which it is subjected to during use without any breakage or deformation that might interfere with its safe flight;

(e) in the case of a tethered UA, have a tensile length of the tether that is less than 50 m and a mechanical strength that is no less than:

1. for heavier-than-air aircraft, 10 times the weight of the aerodyne at maximum mass;
2. for lighter-than-air aircraft, 4 times the force exerted by the combination of the maximum static thrust and the aerodynamic force of the maximum allowed wind speed in flight;

(f) be designed and constructed in such a way as to minimize injury to people during operation, sharp edges of the UA shall be avoided, unless technically unavoidable under good design and manufacturing practice; if equipped with propellers, the UA shall be designed in such a way as to limit any injury that may be inflicted by the propeller blades;

(g) unless tethered, in case of a loss of the command and control link, have a reliable and predictable method for the UA to recover the command and control link or, if it fails, terminate the flight in a way that reduces the effect on third parties in the air or on the ground;

(h) unless tethered, be equipped with a command and control link protected against unauthorized access to the command and control functions;

(i) unless it is a fixed-wing UA, be equipped with a low-speed mode selectable by the remote pilot and limiting the ground speed to no more than 3 m/s.

(j) unless it is a fixed-wing UA, have a guaranteed A-weighted sound power level L_{WA} determined as per Appendix XIII not exceeding the levels established in Appendix XV;

(k) unless it is a fixed-wing UA, have the indication of the guaranteed A-weighted sound power level affixed on the UA and/or its packaging as per Appendix XIV;

(l) be exclusively powered by electricity;

(m) have a unique serial number compliant with standard ANSI/CTA-2063-A-2019, Small Unmanned Aerial Systems Serial Numbers;

(n) have a direct remote identification that:

1. allows the upload of the UAS operator registration number required in accordance with applicable regulations and any additional number provided by the registration system. The system shall perform a consistency check verifying the integrity of the full string provided to the UAS operator at the time of registration. In case of inconsistency, the UAS shall emit an error message to the UAS operator;

2. ensures, in real time during the whole duration of the flight, the direct periodic broadcast from the UA using an open and documented transmission protocol, in a way that it can be received directly by existing mobile devices within the broadcasting range, of at least the following data:
    i. the UAS operator registration number and the verification code provided by the Member State during the registration process, unless the consistency check defined in point (1) is not passed;
    ii. the unique serial number of the UA compliant with point (m);
    iii. the time stamp, the geographical position of the UA and its height above the surface or take-off point;
    iv. the route course measured clockwise from true north and ground speed of the UA;
    v. the geographical position of the remote pilot or, if not available, the take-off point; and
    vi. an indication of the emergency status of the UAS;
3. reduces the ability of tampering the functionality of the direct remote identification system.

(o) be equipped with a geo-awareness function that provides:
    1. an interface to load and update data containing information on airspace limitations related to UA position and height imposed by the UAS geographical zones, as defined by applicable regulations, which ensures that the process of loading or updating of this data does not degrade its integrity and validity;
    2. a warning alert to the remote pilot when a potential breach of airspace limitations is detected; and
    3. information to the remote pilot on the UA's status as well as a warning alert when its positioning or navigation systems cannot ensure the proper functioning of the geo-awareness function;

(p) if the UA has a function that limits its access to certain airspace areas or volumes, this function shall operate in such a manner that it interacts smoothly with the flight control system of the UA without adversely affecting flight safety; in addition, clear information shall be provided to the remote pilot when this function prevents the UA from entering these airspace areas or volumes;

(q) provide the remote pilot with clear warning when the battery of the UA or its command unit reaches a low level such that the remote pilot has sufficient time to safely land the UA;

(r) be equipped:

1. with lights for the purpose of controllability of the UA; and
2. with at least one green flashing light for the purpose of conspicuity of the UA at night to allow a person on the ground, to distinguish the UA from a manned aircraft;

(s) be placed on the market with manufacturer's instructions providing:

1. the characteristics of the UA including but not limited to the:
   i. class of the UA;
   ii. UA mass (with a description of the reference configuration) and the maximum take-off mass (MTOM);
   iii. general characteristics of allowed payloads in terms of mass, dimensions, interfaces with the UA and other possible restrictions;
   iv. equipment and software to control the UA remotely;
   v. the procedures to upload the UAS operator registration number into the remote identification system
   vi. reference of the transmission protocol used for the direct remote identification system emission;
   vii. sound power level; and
   viii. description of the behavior of the UA in case of a loss of the command and control link, and the method to recover the command and control link of the UA; and
2. clear operational instructions;
3. the procedure to upload the airspace limitations into the geo-awareness function;
4. maintenance instructions;
5. troubleshooting procedures;
6. operational limitations (including but not limited to meteorological conditions and day/night operations); and
7. appropriate description of all the risks related to UAS operations;

(t) include an information notice published by CARC providing the applicable limitations and obligations, in accordance with applicable regulations;

(u) if equipped with a network remote identification system it shall:

1. ensure, in real time during the whole duration of the flight, the transmission from the UA using an open and documented transmission protocol, in a way that it can be received through a network, of at least the following data;
    i. the UAS operator registration number and the verification code provided by the Member State of registration during the registration process unless the consistency check defined in point n(1) is not passed;
    ii. the unique serial number of the UA compliant with point (m);
    iii. the time stamp, the geographical position of the UA and its height above the surface or take-off point;
    iv. the route course measured clockwise from true north and ground speed of the UA;
    v. the geographical position of the remote pilot or, if not available, the take-off point; and
    vi. an indication of the emergency status of the UAS;
2. reduce the ability of tampering the functionality of the direct remote identification system.

APPENDIX-IV

Requirements for a Class C3 Unmanned Aircraft System

A class C3 UAS shall comply with the following:

(a) have an MTOM of less than 25 kg, including payload, and have a maximum characteristic dimension of less than 3 m;

(b) have a maximum attainable height above the take-off point limited to 120 m or be equipped with a system that limits the height above the surface or above the take-off point to 120 m or to a value selectable by the remote pilot. If the value is selectable, clear information about the height of the UA above the surface or take-off point during flight shall be provided to the remote pilot;

(c) be safely controllable with regard to stability, maneuverability and the command and control link performance, by a remote pilot with adequate competency as defined in applicable regulations and following the manufacturer's instructions, as necessary under all anticipated operating conditions including following the failure of one or, if appropriate, more systems;

(d) in the case of a tethered UA, have a tensile length of the tether that is less than 50 m and a mechanical strength of no less than:

1. for heavier-than-air aircraft, 10 times the weight of the aerodyne at maximum mass;
2. for lighter-than-air aircraft, 4 times the force exerted by the combination of the maximum static thrust and the aerodynamic force of the maximum allowed wind speed in flight;

(e) unless tethered, in case of a loss of the command and control link, have a reliable and predictable method for the UA to recover the command and control link or, if it fails, terminate the flight in a way that reduces the effect on third parties in the air or on the ground;

(f) unless it is a fixed-wing UA, have the indication of the guaranteed A-weighted sound power level L_{WA} determined as per Appendix XIII affixed on the UA and/or its packaging as per Appendix XIV;

(g) be exclusively powered by electricity;

(h) have a unique serial number compliant with standard ANSI/CTA-2063-A-2019, Small Unmanned Aerial Systems Serial Numbers;

(i) unless tethered, have a direct remote identification that:

1. allows the upload of the UAS operator registration number required in accordance with applicable regulations and any additional number provided by the registration system; the system shall perform a consistency check verifying the integrity of the full string provided to the UAS operator at the time of registration; in case of inconsistency, the UAS shall emit an error message to the UAS operator;
2. ensures, in real time during the whole duration of the flight, the direct periodic broadcast from the UA using an open and documented transmission protocol, in a way that it can be received directly by existing mobile devices within the broadcasting range, of at least the following data:
    i. the UAS operator registration number and the verification code provided by CARC during the registration process

unless the consistency check defined in point (1) is not passed;

ii. the unique serial number of the UA compliant with point (h);

iii. the time stamp, the geographical position of the UA and its height above the surface or take-off point;

iv. the route course measured clockwise from true north and ground speed of the UA;

v. the geographical position of the remote pilot or, if not available, the take-off point; and

vi. an indication of the emergency status of the UAS;

3. reduces the ability of tampering the functionality of the direct remote identification system;

(j) be equipped with a geo-awareness function that provides:

1. an interface to load and update data containing information on airspace limitations related to UA position and height imposed by the UAS geographical zones, as defined by applicable regulations, which ensures that the process of loading or updating of this data does not degrade its integrity and validity;

2. a warning alert to the remote pilot when a potential breach of airspace limitations is detected; and

3. information to the remote pilot on the UA's status as well as a warning alert when its positioning or navigation systems cannot ensure the proper functioning of the geo-awareness function;

(k) if the UA has a function that limits its access to certain airspace areas or volumes, this function shall operate in such a manner that it interacts smoothly with the flight control system of the UA without adversely affecting flight safety; in addition, clear information shall be provided to the remote pilot when this function prevents the UA from entering these airspace areas or volumes;

(l) unless tethered, be equipped with a command and control link protected against unauthorized access to the command and control functions;

(m) provide the remote pilot with clear warning when the battery of the UA or its command unit reaches a low level such that the remote pilot has sufficient time to safely land the UA;

(n) be equipped:

1. with lights for the purpose of controllability of the UA; and

2. with at least one green flashing light for the purpose of conspicuity of the UA at night to allow a person on the ground to distinguish the UA from a manned aircraft;

(o) be placed on the market with manufacturer's instructions providing:

1. the characteristics of the UA including but not limited to the:
   i. class of the UA;
   ii. UA mass (with a description of the reference configuration) and the maximum take-off mass (MTOM);
   iii. general characteristics of allowed payloads in terms of mass, dimensions, interfaces with the UA and other possible restrictions;
   iv. equipment and software to control the UA remotely;
   v. the procedures to upload the UAS operator registration number into the remote identification system;
   vi. reference of the transmission protocol used for the direct remote identification system emission;
   vii. sound power level;
   viii. description of the behavior of the UA in case of a loss of the command and control link, and the method to recover command and control link of the UA.
2. clear operational instructions;
3. the procedure to upload the airspace limitations into the geo-awareness function;
4. maintenance instructions;
5. troubleshooting procedures
6. operational limitations (including but not limited to meteorological conditions and day/night operations); and
7. appropriate description of all the risks related to UAS operations;

(p) include an information notice published by CARC providing the applicable limitations and obligations, in accordance with applicable regulations;

(q) if equipped with a network remote identification system it shall:

1. ensure, in real time during the whole duration of the flight, the transmission from the UA using an open and documented transmission protocol, in a way that it can be received through a network, of at least the following data;

i. the UAS operator registration number and the verification code provided by the Member State of registration during the registration process unless the consistency check defined in point (i)(1) is not passed;

ii. the unique serial number of the UA compliant with point (h);

iii. the time stamp, the geographical position of the UA and its height above the surface or take-off point;

iv. the route course measured clockwise from true north and ground speed of the UA;

v. the geographical position of the remote pilot or, if not available, the take-off point; and

vi. an indication of the emergency status of the UAS;

2. reduce the ability of tampering the functionality of the direct remote identification system.

APPENDIX-V

Requirements for a Class C4 Unmanned Aircraft System

A class C4 UAS shall comply with the following:

(a) have an MTOM of less than 25 kg, including payload;

(b) be safely controllable and maneuverable by a remote pilot following the manufacturer's instructions, as necessary under all anticipated operating conditions including following the failure of one or, if appropriate, more systems;

(c) not be capable of automatic control modes except for flight stabilization assistance with no direct effect on the trajectory and lost link assistance provided that a pre-determined fixed position of the flight controls in case of lost link is available;

(d) be placed on the market with manufacturer's instructions providing:

1. the characteristics of the UA including but not limited to the:

i. class of the UA

ii. UA mass (with a description of the reference configuration) and the maximum take-off mass (MTOM);

iii. general characteristics of allowed payloads in terms of mass, dimensions, interfaces with the UA and other possible restrictions;

iv. equipment and software to control the UA remotely; and

v. and a description of the behavior of the UA in case of a loss of the command and control link;

2. clear operational instructions;
3. maintenance instructions;
4. troubleshooting procedures;
5. operational limitations (including but not limited to meteorological conditions and day/night operations); and
6. appropriate description of all the risks related to UAS operations;

(e) include an information notice published by CARC providing the applicable limitations and obligations, in accordance with applicable regulations.

APPENDIX-VI

Requirements for a Direct Remote Identification Add-On

A direct remote identification add-on shall comply with the following:

(a) allow the upload of the UAS operator registration number required in accordance with applicable regulations and any additional number provided by the registration system; the system shall perform a consistency check verifying the integrity of the full string provided to the UAS operator at the time of registration; in case of inconsistency, the system shall emit an error message to the UAS operator;

(b) have a unique serial number compliant with standard ANSI/CTA-2063-A-2019, Small Unmanned Aerial Systems Serial Numbers, affixed to the add-on and its packaging or its manufacturer's instructions in a legible manner;

(c) ensure, in real time during the whole duration of the flight, the direct periodic broadcast from the UA using an open and documented transmission protocol, in a way that it can be received directly by existing mobile devices within the broadcasting range, of at least the following data:

1. the UAS operator registration number and the verification code provided by CARC during the registration process unless the consistency check defined in point (a) is not passed;
2. the unique serial number of the add-on compliant with point (b);

3. the time stamp, the geographical position of the UA and its height above the surface or take-off point;
4. the route course measured clockwise from true north and ground speed of the UA; and
5. the geographical position of the remote pilot or, if not available, the take-off point;

(d) reduce the ability of tampering the functionality of the direct remote identification system; and

(e) be placed on the market with manufacturer's instructions providing the reference of the transmission protocol used for the direct remote identification emission and the instruction to:
1. install the module on the UA; and
2. upload the UAS operator registration number.

APPENDIX-VII

Conformity Assessment Module A - Internal Production Control

(a) Internal production control is the conformity assessment procedure whereby the manufacturer fulfils the obligations set out in points (b), (c) and (d) of this Appendix, and ensures and declares on their sole responsibility that the products concerned satisfy the requirements set out in Appendices I, V, VI, XVI or XVII which apply to them.

(b) Technical documentation: The manufacturer shall develop the technical documentation in accordance with DDP.170 of this Part.

(c) Manufacturing: The manufacturer shall take all measures necessary so that the manufacturing process and its monitoring ensure compliance of the manufactured product with the technical documentation referred to in point (b) of this Appendix and with the requirements set out in Appendices I, V, VI, XVI or XVII which apply to them.

(d) CE marking or equivalent accepted by CARC and declaration of conformity
1. In accordance with DDP.150 and DDP.160 of this Part, the manufacturer shall affix the CE marking or equivalent and, when applicable, the UA class identification label, to each individual product that satisfies the applicable requirements set out in Appendices I, V, VI, XVI or XVII which apply to them.
2. The manufacturer shall draw up a written declaration of conformity for each product model and keep it together with the technical documentation at the disposal of CARC for 10 years after the

product has been placed on the market. The declaration of conformity shall clearly identify the product for which it has been drawn up.

A copy of the declaration of conformity shall be made available to CARC upon request.

(e) Authorized representative: The manufacturers' obligations set out in point (d) may be fulfilled by an authorized representative accepted by CARC, on their behalf and under their responsibility, provided that they are specified in the mandate.

APPENDIX-VIII

Conformity Assessment Modules B and C-CARC-Type Examination and Conformity to Type based on Internal Production Control

When reference is made to this Appendix, the conformity assessment procedure shall follow Modules B (CARC-type examination) and C (Conformity to type based on internal production control) of this Appendix.

Module B

CARC-type examination

(a) CARC-type examination is the part of a conformity assessment procedure in which a conformity body designated/ authorized by CARC examines the technical design of the product and verifies and attests that the technical design of the product meets the applicable requirements set out in Appendices I to VI, XVI and XVII.

(b) CARC-type examination shall be carried out by an assessment of the adequacy of the technical design of the product through examination of the technical documentation and supporting evidence referred to in point (c), plus examination of specimens, representative of the production envisaged, of one or more critical parts of the product (combination of production type and design type).

(c)The manufacturer shall lodge an application for CARC-type examination with a single conformity body by CARC.

The application shall include:

(1)the name and address of the manufacturer and, if the application is lodged by the authorized representative, his name and address as well;

(2)a written declaration that the same application has not been lodged with any other authority;

(3)the technical documentation; the technical documentation shall make it possible to assess the product's conformity with the applicable requirements of this Part and shall include an adequate analysis and assessment of the risk(s); the technical documentation shall contain, wherever applicable, the elements set out in DDP.170 of this Part;

(4)the specimens representative of the production envisaged; the conformity body may request further specimens if needed for carrying out the test program;

(5)the supporting evidence for the adequacy of the technical design solution; this supporting evidence shall mention any documents that have been used, in particular where the relevant standards and/or technical specifications have not been applied or have not been applied in full; the supporting evidence shall include, where necessary, the results of tests carried out in accordance with other relevant technical specifications by the appropriate laboratory of the manufacturer or by another testing laboratory on his behalf and under his responsibility.

(d) The conformity body designated/ authorized by CARC shall:

For the product:

(1)examine the technical documentation and supporting evidence to assess the adequacy of the product's technical design.

For the specimen(s):

(2)verify that the specimen(s) has (have) been manufactured in conformity with the technical documentation, and identify the elements which have been designed in accordance with the applicable provisions of the relevant standards and/or technical specifications, as well as the elements which have been designed without applying the relevant provisions of those standards;

(3)carry out appropriate examinations and tests, or have them carried out, to check whether, where the manufacturer has chosen to apply the solutions in the relevant standards and/or technical specifications, these have been applied correctly;

(4)carry out appropriate examinations and tests, or have them carried out, to check whether, where the solutions in the relevant standards and/or technical specifications have not been applied, the solutions adopted by the manufacturer meet the corresponding essential requirements of the legislative instrument;

(5)agree with the manufacturer on a location where the examinations and tests will be carried out.

(e) The conformity body shall draw up an evaluation report that records the activities undertaken in accordance with point(d) and their outcomes. Without

prejudice to its obligations as provided in point (h), the conformity body shall release the content of this report, in full or in part, only with the agreement of the manufacturer.

(f) Where the type meets the requirements of this Part, the conformity body shall recommend to CARC the issuance of CARC-type examination certificate to the manufacturer. This certificate shall contain the name and address of the manufacturer, the conclusions of the examination, the relevant aspects of the requirements covered by the examination, the conditions (if any) for its validity, and the data necessary for the identification of the approved type. The certificate may have one or more annexes attached to it.

CARC certificate and its annexes shall contain all relevant information to allow the conformity of manufactured products with the examined type to be evaluated and to allow for in service control.

Where the type does not satisfy the applicable requirements of this Part, the conformity body shall recommend to CARC the refusal to issue CARC-type examination certificate, giving detailed reasons for its refusal recommendation, and CARC shall inform the applicant accordingly.

(g) The conformity body shall keep itself apprised of any changes in the generally acknowledged state of the art which indicates that the approved type may no longer comply with the applicable requirements of this Part, and shall determine whether such changes require further investigation. If so, the conformity body shall inform the manufacturer accordingly.

The manufacturer shall inform the conformity body that holds the technical documentation relating to CARC-type examination certificate of all modifications to the approved type that may affect the product's conformity with the essential requirements of this Part or the conditions for the certificate's validity. Such modifications shall require additional approval and attached to the original CARC-type examination certificate.

(h) Each conformity body shall inform CARC concerning CARC-type examination certificates and/or any additions thereto issued or withdrawn, and shall, periodically or upon request, make available to CARC the list of certificates and/or any additions thereto refused, suspended or otherwise restricted.

Each conformity body shall inform CARC concerning CARC-type examination certificates and/or any additions thereto which it has refused, withdrawn, suspended or otherwise restricted, and, upon request, concerning the certificates and/or additions thereto which it has issued.

CARC may, on request, obtain a copy of CARC-type examination certificates and/or additions thereto. On a reasoned request, CARC may obtain a copy of the technical documentation and the results of the examinations carried out by the conformity body.

The conformity body shall keep a copy of CARC-type examination certificate, its annexes and additions, as well as the technical file including the documentation submitted by the manufacturer for 10 years after the product has been assessed or until the validity of the certificate expires.

(i) The manufacturer shall keep a copy of the CARC-type examination certificate, its annexes and additions together with the technical documentation at the disposal of CARC for 10 years after the product has been placed on the market.

(j) The manufacturer's authorized representative may lodge the application referred to in point (c) and fulfil the obligations set out in points (g) and (i), provided that they are specified in the mandate.

Module C

Conformity to type based on internal production control

(a) Conformity to type based on internal production control is the part of a conformity assessment procedure whereby the manufacturer fulfils the obligations laid down in points (b) and (c), and ensures and declares that the products concerned are in conformity with the type described in CARC-type examination certificate and satisfy the applicable requirements of this Part.

(b) Manufacturing: The manufacturer shall take all measures necessary so that the manufacturing process and its monitoring ensure conformity of the manufactured product with the approved type described in CARC-type examination certificate and with the applicable requirements set out in Appendices I to VI, XVI and XVII.

(c) CE marking or equivalent and declaration of conformity

(1) The manufacturer shall affix the CE marking or equivalent and, when relevant, the UA class identification label in accordance with DDP.150 and DDP.160 of this Part to each product that is in conformity with the type described in CARC-type examination certificate and satisfies the applicable requirements set out in Appendices I to VI, XVI and XVII.

(2) The manufacturer shall draw up a written declaration of conformity for each product type and keep it at the disposal of CARC for 10 years after the product has been placed on the market. The declaration of conformity shall clearly identify the product type for which it has been drawn up. A copy of the declaration of conformity shall be made available to CARC upon request.

(d) Authorized representative: The manufacturer's obligations set out in point (c) may be fulfilled by their authorized representative, on their

behalf and under their responsibility, provided that this is specified in the mandate.

APPENDIX-IX

Conformity Assessment Module H - Conformity based on Full Quality Assurance

(a) Conformity based on full quality assurance is the conformity assessment procedure whereby manufacturers fulfil the obligations set out in paragraphs (b) and (e), and ensure and declare on their sole responsibility that the product concerned satisfies the applicable requirements set out in Appendices I to XI, XVI and XVI.

(b) Manufacturing, the manufacturer shall operate an approved quality system for design, manufacture, final inspection and testing of the product concerned as specified in point (c) and shall be subject to surveillance as specified in point (d).

(c) Quality system

(1) The manufacturer shall lodge an application for the assessment of his quality system with CARC of their choice, for the product concerned. The application shall include:

(i) the name and address of the manufacturer and, if the application is lodged by the authorized representative, their name and address as well;

(ii) the technical documentation for each type of product intended to be manufactured, containing the elements set out in Appendix X where applicable;

(iii) the documentation concerning the quality system;

(iv) a written declaration stating that the same application has not been lodged with any other Authority.

(2) The quality system shall ensure compliance of the product with the requirements of this Part. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic and orderly manner in the form of written policies, procedures and instructions. This quality system documentation shall permit a consistent interpretation of the quality program, plans, manuals and records. The documentation shall, in particular, contain an adequate description of:

(i)the quality objectives and the organizational structure, responsibilities and powers of the management with regard to product design and quality;

(ii) the technical design specifications, including standards, that will be applied and, where the relevant standards will not be applied in full, the means that will be used to ensure that the requirements of this Part are met;

(iii) the design control and design verification techniques, processes and systematic actions that will be used when designing the products pertaining to the product type covered;

(iv) the corresponding manufacturing, quality control and quality assurance techniques, processes and systematic actions that will be used;

(v) the examinations and tests that will be carried out before, during and after manufacture, and the frequency with which they will be carried out;

(vi) the quality records, such as inspection reports and test data, calibration data, reports concerning the qualifications or approvals of the personnel concerned, etc.;

(vii) the means of monitoring the achievement of the required design and product quality and the effective operation of the quality system.

(3) CARC shall assess the quality system to determine whether it satisfies the requirements referred to in point c (2). It shall presume conformity with those requirements in respect of elements of the quality system that comply with the corresponding specifications of the relevant standard. In addition to experience in quality management systems, the auditing team shall have at least one member experienced as an assessor in the relevant product field and product technology concerned, and knowledge of the applicable requirements of this Part. The audit shall include an assessment visit on the manufacturer's premises. The auditing team shall review the technical documentation referred to in point c(1)(ii) to verify the manufacturer's ability to identify the applicable requirements of this Part and to carry out the necessary examinations with a view to ensuring the product's compliance with these requirements. The manufacturer or his authorized representative shall be notified of the decision. The notification shall contain the conclusions of the audit and the reasoned assessment decision.

(4) The manufacturer shall undertake to fulfil the obligations arising out of the quality system as approved and to maintain it so that it remains adequate and efficient. The manufacturer shall keep CARC that has approved the quality system informed of any intended change to the quality system.

(5) CARC shall evaluate any proposed changes and decide whether the modified quality system will continue to satisfy the requirements referred to in point c (2) or whether a reassessment is necessary. CARC shall notify the manufacturer of its decision. The notification shall contain the conclusions of the examination and the reasoned assessment decision.

(d) Surveillance under the responsibility of CARC

(1) The purpose of surveillance is to make sure that the manufacturer duly fulfils the obligations arising out of the approved quality system.

(2) The manufacturer shall, for assessment purposes, allow CARC access to the design, manufacture, inspection, testing and storage sites, and shall provide it with all necessary information, in particular:

(i) the quality system documentation;

(ii) the quality records as provided for by the design part of the quality system, such as results of analyses, calculations, tests, etc.;

(iii) the quality records as provided for by the manufacturing part of the quality system, such as inspection reports and test data, calibration data, reports concerning the qualifications of the personnel, etc.

(3) CARC shall carry out periodic audits to make sure that the manufacturer maintains and applies the quality system and shall provide the manufacturer with an audit report.

(4) In addition, CARC may pay unexpected visits to the manufacturer. During such visits, CARC may, if necessary, carry out UA or UAS tests, or have them carried out, in order to check the proper functioning of the quality system. It shall provide the manufacturer with a visit report and, if tests have been carried out, with a test report.

(e) CE marking or equivalent marking accepted by CARC declaration of conformity

(1) The manufacturer shall affix the CE marking or equivalent and, when relevant, the UAS class identification label in accordance with DDP.150 and DDP.160 of this Part and, under his responsibility and the responsibility of the conformity body, the latter’s identification number to each individual product that satisfies the applicable requirements of this Part.

(2) The manufacturer shall draw up a written declaration of conformity for each product type and keep it at the disposal of CARC for 10 years after the product has been placed on the market. The declaration of conformity shall

identify the product type for which it has been drawn up. A copy of the declaration of conformity shall be made available to CARC upon request.

(f) The manufacturer shall, for a period ending 10 years after the product has been placed on the market, keep at the disposal of CARC:
(1) the technical documentation referred to in point c (1);

(2) the documentation concerning the quality system referred to in point c (1);

(3) the change referred to in point c (5), as approved;

(4) the decisions and reports referred to in points c (5), d (3) and d (4).

(g) CARC shall keep a record of the quality system approvals issued or withdrawn, and a list of the quality system approvals it has refused, suspended or otherwise restricted.

(h) Authorized representative

The manufacturer's obligations set out in points c(1), c(5), (e) and (f) may be fulfilled by their authorized representative, on their behalf and under their responsibility, provided that this is specified in the mandate.

APPENDIX-X

Contents of the Technical Documentation

The manufacturer shall establish the technical documentation. The documentation shall make it possible to assess the product's conformity to the applicable requirements. The technical documentation shall, wherever applicable, contain at least the following elements:

(a) a complete description of the product including:

(1) photographs or illustrations showing its external features, markings and internal layout;

(2) the versions of any software or firmware involved in compliance with the requirements set by this Part;

(3) manufacturer's and installation instructions;

(b) conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits and other relevant similar elements;

(c) descriptions and explanations necessary for the understanding of those drawings and schemes and the operation of the product;

(d) a list of the standards applied in full or in part, and, where those standards have not been applied, descriptions of the solutions adopted to meet the essential requirements set out in DDP.040, including a list of other relevant technical specifications applied. In the event of partly applied standards, the technical documentation shall specify the parts which have been applied;

(e) copy of the declaration of conformity;

(f) where the conformity assessment module in Appendix VIII has been applied, copy of CARC-type examination certificate and its annexes as delivered by CARC;

(g) results of design calculations made, examinations carried out, and other relevant similar elements;

(h) test reports;

(i) copies of the documents that the manufacturer has submitted to the conformity body if any involved;

(j) the supporting evidence for the adequacy of the technical design solution. This supporting evidence shall mention any documents that have been used, in particular where the relevant standards and/or technical specifications have not been applied in full. The supporting evidence shall include, where necessary, the results of tests carried out by the appropriate laboratory of the manufacturer, or by another testing laboratory on his behalf and under his responsibility;

(k) addresses of places of manufacture and storage.

APPENDIX-XI

Declaration of Conformity

(a) The product (type, batch and serial number).

(b) Name and address of the manufacturer or his authorized representative.

(c) This declaration of conformity is issued under the sole responsibility of the manufacturer. [in case of a kit of accessories, the manufacturer of the kit may indicate that this certificates relies on the certificate of the UAS which the kit ensures the conversion.]

(d) Object of the declaration [identification of the product allowing traceability; it may include a color image of sufficient resolution where necessary for the identification of the products; in case of a kit of accessories, indicate the type of UAS to which the kit ensures the conversion].

(e) The object of the declaration described above is of class … [include for UAS the class number as defined by Appendices I to V, XVI and XVII; for a kit of accessories, indicate the class into which the UAS is converted].

(f) The guaranteed sound power level for this UAS equipment is …. dB(A) [for non-fixed-wing UAS classes 1 to 3 only].

(g) The object of the declaration described above is in conformity with this Part:

—[include the reference to this Part and the Appendix relevant to the class of the product].

(h) References to the relevant standards used or references to the other technical specifications in relation to which conformity is declared. References must be listed with their identification number and version and, where applicable, date of issue.

(i) Where applicable, the conformity body … [name, number] … performed … [description of intervention] … and issued CARC-type examination certificate.

(j) Where applicable, a description of accessories and components, including software, which allow the unmanned aircraft or unmanned aircraft system to operate as intended and covered by the declaration of conformity.

(k) Additional information:
Signed for and on behalf of: …
[place and date of issue]:
[name, function] [signature].

APPENDIX-XII

Simplified Declaration of Conformity

The simplified declaration of conformity referred to in DDP.140(c) shall be provided as follows:

—[Name of manufacturer] hereby declares that the UAS [identification of the UAS: type or serial number] is of class … … [for UAS include the class number of the product as defined in Appendices I to V, XVI or XVII of this Part; for a kit of accessories, indicate the class into which the UAS is converted] and has a guaranteed sound power level of …. dB(A) [for non-fixed-wing UAS classes 1, 2, 3, 5 and 6 only]

—and in compliance with applicable Jordanian Civil Aviation Regulations … [list all the Regulations that the product complies with].

—The full declaration of conformity is accessible at the following website: [website address]

APPENDIX-XIII

Noise Test Code

This Appendix lays down the methods of measurement of airborne noise that shall be used for the determination of the measured A-weighted sound power levels of UA classes 1, 2, 3, 5 and 6. It lays down the basic noise emission standard and detailed test code for measuring the sound pressure level on a measurement surface enveloping the source and for calculating the sound power level produced by the source.

(a) BASIC NOISE EMISSION STANDARD

For the determination of the A-weighted sound power level LWA of UA, the basic noise emission standards EN ISO 3744, as updated, will be used subject to the following supplements:

(b) INSTALLATION AND MOUNTING CONDITIONS

Test area:

The UA will be maintained above one reflecting (acoustically hard) plane. The UA shall be located at a sufficient distance from any reflecting wall or ceiling or any reflecting object so that the requirements given in Annex A of EN ISO 3744, as updated are satisfied on the measurement surface.

Sound measurement surface and microphone array:

The UA will be completely enclosed in a hemispherical measurement surface as par § 7.2.3 of EN ISO 3744, as updated. The number and position of the microphones is defined by Annex F of EN ISO 3744, as updated. The measurement surface shall have its origin at the point "O" lying in the ground plane directly below the UA.

(c) OPERATING CONDITIONS DURING TEST

The noise tests shall be carried out with the UA's rotors operating at a speed corresponding to the hovering of the UA under MTOM.

If the UA is placed on the market with accessories that can be fitted to it, it will be tested with and without these accessories in all possible UA configurations.

(d) CALCULATION OF SURFACE TIME-AVERAGED SOUND PRESSURE LEVEL

The A-weighted surface time-averaged sound pressure level shall be determined at least three times for each UA configuration. If at least two of the determined values do not differ by more than 1 dB, further measurements will not be necessary; otherwise the measurements shall be continued until two values differing by no more than 1 dB are obtained. The surface time-averaged sound pressure level to be used for calculating the sound power level of a UA configuration is the arithmetic mean of the two highest values that do not differ by more than 1 dB.

(e) INFORMATION TO BE REPORTED

The report shall contain the technical data necessary to identify the source under test as well as the noise test code and the acoustical data.

The A-weighted sound power level value to be reported is the highest value of the different UA configurations tested rounded to the nearest whole number (less than 0,5 use the lower number; greater than or equal to 0,5 use the higher number).

APPENDIX-XIV

Indication of the Guaranteed Sound Power Level

The indication of the guaranteed sound power level must consist of the single number of the guaranteed sound power in dB, the sign LWA and a pictogram taking the following form:

If the indication is reduced according to the size of the equipment the proportions given in the above drawing must be respected. However, the vertical dimension of the indication should, if possible, not be less than 20 mm.

APPENDIX-XV

Maximum Sound Power Level per Class of UA (including transition periods)

UA class	MTOM m in gram	Maximum sound power level LWA in dB		
		as from entry into force	as from 2 years after entry into force	as from 4 years after entry into force
C1	$250 \leq m < 900$	85	83	81
C2	$900 \leq m < 4000$	$85+18.5 \lg \frac{m}{900}$	$83+18.5 \lg \frac{m}{900}$	$81+18.5 \lg \frac{m}{900}$

Where ‘lg’ is the base 10 logarithm.

Appendix-XVI

Requirements for a Class C5 Unmanned Aircraft System and C5 Accessories

A class C5 UAS shall comply with the requirements defined in Appendix IV, except those defined in paragraphs (b) and (j) of Appendix IV.

In addition, it shall comply with the following requirements:

(a) be an aircraft other than a fixed-wing aircraft unless tethered;

(b)if it is equipped with a geo-awareness function, comply with paragraph (j) of Appendix IV;

(c)during flight, provide the remote pilot with clear and concise information on the height of the UA above the surface or take-off point;

(d)unless tethered, be equipped with a low-speed mode selectable by the remote pilot and limiting the ground speed to not more than 5 m/s;

(e)unless tethered, provide means for the remote pilot to terminate the flight of the UA, which shall:

(1)be reliable, predictable and independent from the automatic flight control and guidance system; this applies also to the activation of this means;

(2)force the descent of the UA and prevent its powered horizontal displacement; and

(3) include means to reduce the effect of the UA impact dynamics;

(f)unless tethered, provide the remote pilot with means to continuously monitor the quality of the command and control link and receive an alert when it is likely that the link is going to be lost or degraded to the extent of compromising the safe conduct of the operation, and another alert when the link is lost; and

(g)in addition to the information indicated in point (o)(1) of Appendix IV, include in the manufacturer's instructions a description of the means to terminate the flight required in point (e).

(h)A class C5 UAS may consist in a class C3 UAS fitted with an accessories kit that ensures the conversion of the UAS C3 into a class C5 UAS. In this case, the class C5 label shall be affixed on all the accessories.

An accessories kit may only ensure conversion of a class C3 UAS that complies with point (a) and provides the necessary interfaces to the accessories.

The accessories kit shall not include changes to the software of the class C3 UAS.

The accessories kit shall be designed, and each accessory shall be identified, to ensure a complete and correct installation by a UAS operator on a class C3 UAS following the instructions provided by the manufacturer of the accessories kit.

The accessories kit may be placed on the market independently from the class C3 UAS for which they ensure the conversion. In this case, the manufacturer of the accessories kit shall place on the market a single conversion kit that shall:

(1)not alter the compliance of the class C3 UAS with the requirements of Part IV;

(2)ensure compliance of the UAS fitted with the accessories kit with all additional requirements defined in this Appendix with the exception of point (c) above; and

(3) be accompanied by manufacturer's instructions providing:

(i) the list of all class C3 UAS to which the kit can be applied; and

(ii) instructions on how to install and operate the accessories kit.

Appendix-XVII

Requirements for a Class C6 Unmanned Aircraft System

A class C6 UAS shall comply with the requirements defined in Appendix IV, except those defined in paragraphs (b), (g) and (j).

In addition, it shall comply with the following requirements:

(a) have a maximum ground speed in level flight of not more than 50 m/s;

(b)if it is equipped with a geo-awareness function, comply with paragraph (j) of Appendix IV;

(c)during flight, provide the remote pilot with clear and concise information on the geographical position of the UA, its speed and its height above the surface or take-off point;

(d)provide means to prevent the UA from breaching the horizontal and vertical limits of a programmable operational volume;

(e)provide means for the remote pilot to terminate the flight of the UA, which shall:

(1)be reliable, predictable, independent from the automatic flight control and guidance system and independent from the means to prevent the UA from breaching the horizontal and vertical limits as required in point (d); this applies also to the activation of this means; and

(2)force the descent of the UA and prevent its powered horizontal displacement;

(f) provide means to program the UA trajectory;

(g)provide the remote pilot with means to continuously monitor the quality of the command and control link and receive an alert when it is likely that the link is going to be lost or degraded to the extent of compromising the safe conduct of the operation, and another alert when the link is lost; and

(h)in addition to the information indicated in point (o)(1) of Appendix IV, include in the manufacturer's instructions:

(1)a description of the means to terminate the flight required in point (e);

(2)a description of the means to prevent the UA from breaching the horizontal and vertical limits of the operational volume and the size of the contingency volume needed to accommodate position assessment error, reaction time and correction maneuver span; and

(3)the distance most likely to be travelled by the UA after activation of the means to terminate the flight defined in point (e), to be considered by the UAS operator when defining the ground risk buffer.

Appendix-XVIII

Reference Standards, as updated

International standards organization (ISO):

- ISO 5015 - UAS-Part 2: Operation of vertiports for vertical take-off and landing (VTOL) unmanned aircraft.
- ISO 21384 – Standards that governs the safety, quality, and operational procedures of UAS.
- ISO 24356- General and manufacturing requirements for tethered UAS.
- ISO 6858 Aircraft - Ground support electrical supplies general requirements- specifies the electrical output characteristics and interface requirements between an aircraft and ground support electrical supplies.
- ISO 4358 - Test methods for civil multi-copter UAS.
- ISO 4584-2 - Parameters for the hardness testing of solid materials.
- ISO/DIS 5110 - Test method for flight stability of multi-copter UAS under wind and rain conditions.
- ISO 5286 - Test methods for flight performance of civil light weight and small fixed-wing UAS.
- ISO 5305 - General requirement of noise measurement of lightweight and small multirotor UAS.
- ISO 5309 - Vibration test methods for lightweight and small civil UAS.
- ISO 24352 - Technical requirements for small UA electric energy systems.
- ISO 24355 - General requirements of flight control system for civil small and light multirotor UAS.
- ISO 23629-8 - UAS traffic management (UTM) – Part 8: Remote identification.
- ISO 3744 - Determination of sound power levels.

American Standards:

- SAE AS 6513A - UAS Control Segment (UCS) Architecture: Conformance Specification.
- ASTM F3298-19 - Standard Specification for Design, Construction, and Verification of Lightweight UAS.
- ASTM F2910-14 - UAS - Standard Specification for Design and Construction of a Small UAS (sUAS).
- ASTM F3116 - Standard Specification for Design Loads and Conditions.
- ASTM F3227 - Specification for Environmental Systems in Small Aircraft.
- ASTM F3231- Specification for Electrical Systems in Small Aircraft.
- ASTM F3411-22a- Standard Specification for Remote ID and Tracking.

IEC Standards:

- IEC 61508- Functional safety of electrical/electronic/programmable electronic safety-related systems.
- IEC 62133 (all parts)- Secondary cells and batteries containing alkaline or other non-acid electrolytes- Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications.
- IEC 62368-1: Audio/video, information and communication technology equipment- Part 1: Safety requirements.

EN Standards:

- EN 4709-001 (Product Requirements)- Covers technical aspects such as physical and mechanical properties, flight altitude limitations, impact mitigation, battery safety, and fail-safe behaviors.
- EN 4709-002 (Direct Remote Identification)- Specifies the required technical protocols for a drone to continuously broadcast its identification and operational data.
- EN 4709-003 (Geo-Awareness)- Details the performance requirements for flight control systems that warn pilots before breaching designated, restricted airspaces or geographical zones.
- EN 4709-004- Defines the requirements, test methods, and compliance rules for onboard and add-on drone lighting systems.
- EN 4709-005- Defines verification methods for “geocaging” functions in UAS.
- EN 4709-006- Defines the means to terminate flight, requirements, and verification.
- EN 4709-007- Defines the requirements for UAS of classes C5 and C6.
- EN 4709-008-Defines the requirements and compliance verification methods for C5 drone accessory kits.
- EN 18031- Radio equipment cybersecurity requirements.

Other Standards:

- ANSI/CTA-2063- Serialization format of small UAS.
- STANAG 4671 - Unmanned aerial vehicle systems airworthiness requirements (for dual use of UAS in civil and military).