



Brussels, **XXX**  
[...](2023) **XXX** draft

**Annex IIa to EASA Opinion No 03/2023**

**COMMISSION DELEGATED REGULATION (EU) .../...**  
**of XXX**

**amending Regulation (EU) No 748/2012 as regards the initial airworthiness of  
unmanned aircraft systems subject to certification and Delegated Regulation (EU)  
2019/945 as regards unmanned aircraft systems and third-country operators of  
unmanned aircraft systems**

## **EXPLANATORY MEMORANDUM**

### **1. CONTEXT OF THE DELEGATED ACT**

Over the last years, the industry has been developing new operational concepts based on innovative technologies, like unmanned aircraft systems (UAS). UAS are covered by Regulation (EU) 2018/1139, and together with the adoption of Commission Delegated Regulation (EU) 2019/945 <sup>(1)</sup> and Commission Implementing Regulation (EU) 2019/947 <sup>(2)</sup>, a legal framework has been established for UAS and UAS operators under ‘operation-centric’ principles.

In this context, that legal framework considers the possibility, in case the risk of UAS operations cannot be adequately mitigated by using operational procedures and limitations, to apply the certification procedures of Commission Regulation (EU) No 748/2012 to UAS for the issuance of a type certificate to unmanned aircraft (UA).

It is necessary to adapt such certification procedures to cover the specificities of UAS, including in particular the equipment to control UA remotely, which is not considered a part nor a product. In order to issue a type certificate to a UA, its safe operation should be ensured. To this aim, the certification procedures should be applied to the overall system, constituted by UA and the equipment to control them remotely, which is optionally covered by a dedicated type certificate.

### **2. CONSULTATIONS PRIOR TO THE ADOPTION OF THE ACT**

In accordance with Article 128(4) of Regulation (EU) 2018/1139, before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making. The subject draft delegated act was presented to the Air Safety experts’ group, which includes representatives from the Member States, at its meeting on [...]. The subject draft delegated act is based on EASA’s Opinion No 03/2023 <sup>(3)</sup> whose contents were publicly consulted through Notice of Proposed Amendment (NPA) 2022-06 ‘Introduction of a regulatory framework for the operation of drones — Enabling innovative air mobility with manned VTOL-capable aircraft, the initial airworthiness of unmanned aircraft systems subject to certification, and the continuing airworthiness of those unmanned aircraft systems operated in the “specific” category’ (RMT.0230 — Subtask C#1) <sup>(4)</sup>, published by EASA on 30 June 2022.

---

<sup>(1)</sup> Commission Delegated Regulation (EU) 2019/945 of 12 March 2019 on unmanned aircraft systems and on third-country operators of unmanned aircraft systems (OJ L 152, 11.6.2019, p. 1).

<sup>(2)</sup> Commission Implementing Regulation (EU) 2019/947 of 24 May 2019 on the rules and procedures for the operation of unmanned aircraft (OJ L 152, 11.6.2019, p. 45).

<sup>(3)</sup> <https://www.easa.europa.eu/en/document-library/opinions>

<sup>(4)</sup> <https://www.easa.europa.eu/en/document-library/notices-of-proposed-amendment/npa-2022-06>

### **3. LEGAL ELEMENTS OF THE DELEGATED ACT**

Article 58(1) of Regulation (EU) 2018/1139 empowers the Commission to adopt delegated acts, in accordance with Article 128 of that Regulation, laying down detailed rules with regard to the specific conditions for the design and production of UA and their engines, propellers, parts, non-installed equipment and equipment to control UA remotely, as well as for personnel and organisations involved in those activities.

COMMISSION DELEGATED REGULATION (EU) .../...

of **XXX**

**amending Regulation (EU) No 748/2012 as regards the initial airworthiness of unmanned aircraft systems subject to certification and Delegated Regulation (EU) 2019/945 as regards unmanned aircraft systems and third-country operators of unmanned aircraft systems**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91 <sup>(5)</sup>, and in particular Article 58 and Article 61 thereof,

Whereas:

- (1) Article 56 of Regulation (EU) 2018/1139 on the compliance of unmanned aircraft, considering the nature of and risk entailed by unmanned aircraft operations, establishes that, depending on such risk and nature, a certificate may be required for the design, production and maintenance of unmanned aircraft and their engines, propellers, parts, non-installed equipment and equipment to control them remotely.
- (2) In accordance with Article 56 of Regulation (EU) 2018/1139, Article 40 of Commission Delegated Regulation (EU) 2019/945 <sup>(6)</sup> determines the specific conditions under which the design of unmanned aircraft systems should be certified.
- (3) Article 58 of Regulation (EU) 2018/1139 on the delegated powers of the Commission determines that the conditions and procedures for issuing the certificate referred to in recital (1) may be based on, or consist of, the detailed airworthiness and environmental protection requirements laid down in Section I of Chapter III of Regulation (EU) 2018/1139.
- (4) Commission Regulation (EU) No 748/2012 <sup>(7)</sup> laying down requirements for the design and production of civil aircraft, as well as of engines, propellers and parts to be installed therein, applies to aircraft regardless of the nature of their control, and should be adapted to address the specificities of unmanned aircraft systems.

---

<sup>(5)</sup> OJ L 212, 22.8.2018, p. 1.

<sup>(6)</sup> Commission Delegated Regulation (EU) 2019/945 of 12 March 2019 on unmanned aircraft systems and on third-country operators of unmanned aircraft systems (OJ L 152, 11.6.2019, p. 1).

<sup>(7)</sup> Commission Regulation (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations (recast) (OJ L 224, 21.8.2012, p. 1).

- (5) Such specificities include the equipment to control unmanned aircraft remotely, as defined by Article 3 of Regulation (EU) 2018/1139. That equipment to control unmanned aircraft remotely is defined as ‘control and monitoring unit’ by Commission Regulation (EU) No 2019/947.
- (6) The safe operation of unmanned aircraft that are subject to certification requires the control and monitoring unit to be subject to the same procedures under which certificates are issued for unmanned aircraft, determining that the certification process applies to unmanned aircraft systems since they are composed of the unmanned aircraft and its control and monitoring unit.
- (7) Lighter-than-air unmanned aircraft systems pose an intrinsic risk to third parties, albeit lower than other unmanned aircraft configurations, and may be operated without the need to issue a certificate for the design.
- (8) The verification of the design of unmanned aircraft systems specifically designed or modified for research, experimental or scientific purposes, and likely to be produced in very limited numbers may be conducted without the need to issue a type certificate.
- (9) The continuing airworthiness of unmanned aircraft systems for which a type certificate is required should comply with a new, dedicated delegated act, while compliance is not required for those unmanned aircraft systems that are intended to be used in operations for which a type certificate is not mandated, even if the manufacturer has elected to apply for it.
- (10) In order to provide stakeholders with sufficient time to ensure compliance with the new framework for the initial airworthiness of certified UAS, this Regulation shall apply 6 months after the date of entry into force,

HAS ADOPTED THIS REGULATION:

*Article 1*

**Amendments to Commission Regulation (EU) No 748/2012**

1. The title of Commission Regulation (EU) No 748/2012 is replaced by the following:  
‘COMMISSION REGULATION (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification or declaration of compliance of aircraft and related products, parts, appliances, control and monitoring units and control and monitoring unit components, as well as for the capability requirements of design and production organisations (recast)’;
2. Article 1 is amended as follows:
  - (a) (a) The introductory phrase of point 1 is replaced by the following:

This Regulation lays down, in accordance with Articles 19, 58 and 62 of Regulation (EU) 2018/1139, common technical requirements and administrative procedures for the airworthiness and environmental certification or

declaration of compliance of products, parts, appliances, control and monitoring units and control and monitoring unit components specifying:’;

- (b) in paragraph 1, points (f) and (g) are replaced by the following:
  - ‘(f) the identification of products, parts, appliances, control and monitoring units and control and monitoring unit components;
  - (g) the certification of certain parts, appliances and control and monitoring unit components;’;
- (c) in paragraph 2, points (c), (d), (f) and (h) are replaced by the following:
  - ‘(c) “Part 21” means the requirements and procedures for the certification of aircraft and related products, parts, appliances, control and monitoring units and control and monitoring unit components, and of design and production organisations laid down in Annex I to this Regulation;
  - (d) “Part 21 Light” means the requirements and procedures for the certification or declaration of design compliance of aircraft other than unmanned aircraft intended primarily for sports and recreational use and of related products and parts, and declaration of design and production capability of organisations laid down in Annex Ib (Part 21 Light) to this Regulation;’;
  - ‘(f) “article” means any part and appliance to be used on civil aircraft and any control and monitoring unit component;’;
  - ‘(h) “EPA” stands for European Part Approval. The European Part Approval of an article means that the article has been produced in accordance with approved design data not belonging to the type-certificate holder of the related product and control and monitoring unit, except for ETSO articles;’;
- (d) in paragraph 2, the following points (l), (m), (n) (o) are added:
  - ‘(l) “control and monitoring unit (CMU)” means the equipment to control and monitor unmanned aircraft remotely, as defined in Article 3(32) of Regulation (EU) 2018/1139;
  - (m) “control and monitoring unit component” means any element of the control and monitoring unit;
  - (n) “control and monitoring unit installation” means the process to integrate the control and monitoring unit components in a physical environment eligible for that purpose according to a set of installation and testing instructions, such that the installed control and monitoring unit can be used to operate an unmanned aircraft;
  - (o) “unmanned aircraft system (UAS)” means an unmanned aircraft, as defined in Article 3(30) of Regulation (EU) 2018/1139, and its control and monitoring unit;

- (p) “VTOL-capable aircraft” (VCA) means a power-driven, heavier-than-air aircraft other than aeroplane or rotorcraft, capable of performing vertical take-off and landing by means of lift and thrust units used to provide lift during the take-off and landing.’;

3. Article 2 is amended as follows:

- (a) the title of Article 2 is replaced by the following:  
‘Certification of products, parts, appliances, control and monitoring unit and control and monitoring unit components’
- (b) paragraph 1 is replaced by the following:
  - ‘1. Products, parts, appliances, control and monitoring units and control and monitoring unit components shall be issued with certificates as specified in Annex I (Part 21).’;
- (c) The introductory phrase of paragraph 2 is replaced by the following:
  - ‘2. By way of derogation from paragraph 1, certificates may be alternatively issued as specified in Annex Ib (Part 21 Light) for the following products other than unmanned aircraft:’;
- (d) The introductory phrase of paragraph 3 is replaced by the following:
  - ‘3. By way of derogation from paragraphs 1 and 2, a declaration of design compliance may alternatively be made, as specified in Annex Ib (Part 21 Light), for the following products other than unmanned aircraft:’;

4. Article 8 is amended as follows:

- (a) paragraph 1 is replaced by the following:
  - ‘1. An organisation responsible for the design of products, parts, appliances, control and monitoring units and control and monitoring unit components, or for changes or repairs thereto, shall demonstrate its capability in accordance with Annex I (Part 21).’;
- (b) In paragraph 5 the introductory phrase is replaced by the following:
  - ‘5. By way of derogation from paragraph 1, an organisation whose principal place of business is in a non-Member State may demonstrate its capability by holding a certificate issued by that State for the product, part, appliance, control and monitoring unit and control and monitoring unit component for which it applies in accordance with Annex I (Part 21), provided:’;

5. Article 9 is amended as follows:

- (a) paragraphs 1 and 2 are replaced by the following:

- ‘1. An organisation responsible for the manufacture of products, parts, appliances, control and monitoring units and control and monitoring unit components shall demonstrate its capability in accordance with Annex I (Part 21). This demonstration of capability is not required for the parts, appliances or control and monitoring unit components that an organisation manufactures which, in accordance with Annex I (Part 21), are eligible for installation in a type-certified product without the need to be accompanied by an authorised release certificate (i.e. EASA Form 1).
  2. By way of derogation from paragraph 1, a manufacturer whose principal place of business is in a non-Member State may demonstrate its capability by holding a certificate issued by that State for the product, part, appliance, control and monitoring unit and control and monitoring unit component for which it applies, provided:
    - (a) that State is the State of manufacture; and
    - (b) the Agency has determined that the system of that State includes the same independent level of checking of compliance as provided for by this Regulation, either through an equivalent system of approvals of organisations or through direct involvement of the competent authority of that State.’;
- (b) in paragraph 8, point (a) is replaced by the following:
- ‘(a) the manufacture of parts, appliances and control and monitoring unit components that are eligible, in accordance with Annex I (Part 21), for installation in a type-certified product without the need to be accompanied by an authorised release certificate (i.e. EASA Form 1);’;
6. Annex I (Part 21) to Commission Regulation (EU) No 748/2012 is amended in accordance with Annex I to this Regulation.

## *Article 2*

### **Amendments to Commission Delegated Regulation (EU) 2019/945**

1. Commission Delegated Regulation (EU) 2019/945 is amended as follows:
  - (a) in Article 3, points (3), (38) and (39) are replaced by the following:

‘(3) “unmanned aircraft system” (“UAS”) means an unmanned aircraft, as defined in Article 3(30) of Regulation (EU) 2018/1139, and its control and monitoring unit;’;

‘(38) “control and monitoring unit” (“CMU”) means the equipment to control and monitor unmanned aircraft remotely, as defined in Article 3(32) of Regulation (EU) 2018/1139;



- (39) “C2 link” means the data link between the unmanned aircraft and the CMU for the purposes of managing the flight;’;
- (b) in Article 40, paragraphs 1 and 2 are replaced by the following, and the following paragraph 2a is inserted:
- ‘1. The design, production and maintenance of UAS shall be certified provided the UAS meets any of the following conditions:
- (a) it has a characteristic dimension of 3 m or more, and is designed to be operated over assemblies of people unless the UA is lighter than air;
  - (b) it is designed for transporting people;
  - (c) it is designed for the purpose of transporting dangerous goods and requiring a high level of robustness to mitigate the risks to third parties in case of an accident;
  - (d) it is intended to be used in the ‘specific’ category of operations as defined in Article 5 of Implementing Regulation (EU) 2019/947 and the competent authority has concluded, in accordance with Article 12(1) of Regulation (EU) 2019/947, that the risk assessment conducted in accordance with Article 11 of that Regulation demonstrated that the risk of the operation cannot be adequately mitigated without the certification of the UAS. Certification is not mandatory for UAS that are specifically designed or modified for research, experimental or scientific purposes, and are likely to be produced in very limited numbers.
2. A UAS that meets the conditions specified in point 1 shall comply with the applicable requirements laid down in Commission Regulation (EU) No 748/2012 <sup>(8)</sup>, Commission Regulation (EU) 2015/640 <sup>(9)</sup> and Commission Delegated Regulation (EU) .../....
- 2a. UAS certified for reasons other than those specified in point 1 shall comply with the applicable requirements laid down in Commission Regulation (EU) No 748/2012 and in Commission Regulation (EU) 2015/640.’;
2. The Annex to Commission Delegated Regulation (EU) 2019/945 is amended in accordance with Annex II to this Regulation.

---

<sup>(8)</sup> Commission Regulation (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations (OJ L 224, 21.8.2012, p. 1).

<sup>(9)</sup> Commission Regulation (EU) 2015/640 of 23 April 2015 on additional airworthiness specifications for a given type of operations and amending Regulation (EU) No 965/2012 (OJ L 106, 24.4.2015, p. 18).

*Article 3*

**Date of entry into force and applicability**

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from [6 months after the date of entry into force].

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

*For the Commission*

*The President*

*Ursula VON DER LEYEN*