DRAFT COMMISSION REGULATION (EU) .../...

of XXX

laying down rules and procedures for the operation of unmanned aircraft

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EU) .../... [new BR] of the European Parliament and of the Council on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Regulation (EC) No 216/2008 (¹), and in particular Articles 45, 46, 47, and 51 thereof,

Whereas:

- (1) Unmanned aircraft system (UAS) operations should be regulated based on the nature and risk of the operation or activity. For these operations, which are divided into two separate categories, the 'open' and 'specific' categories of UAS operations, proportionate requirements should be applicable and adapted to the level of risk identified for each category.
- (2) In particular, UAS intended to be operated in the 'open' category, covering operations that present the lowest risks, should not be subject to classic aeronautical compliance procedures. This Regulation should, in consequence, set out requirements that address the risks posed by operations conducted with those UAS.
- (3) Operations in the 'open' category should be conducted with UAS classes that are defined in Regulation (EU) .../... [DA].
- (4) Operations in the 'specific' category should be conducted with UAS that are compliant with the technical requirements defined in the operational authorisation or in the declaration, as appropriate.
- (5) In order to ensure the implementation of this Regulation, appropriate transitional measures should be provided. In particular, it is necessary to allow Member States and stakeholders sufficient time to adapt their procedures to the new regulatory framework before this Regulation applies.
- (6) Dedicated provisions for recreational flight activities conducted in the framework of model clubs and associations should also be laid down.

^{(&}lt;sup>1</sup>) The OJ reference will be added when the new 'Basic Regulation' repealing Regulation (EC) No 216/2008 is adopted by the European Parliament and the Council. For referencing purposes, 'Regulation (EU) .../... [new BR]' is used in the proposed draft Regulation.

- (7) The measures provided for in this Regulation are based on Opinion No 01/2018 (²) issued by the European Aviation Safety Agency (EASA) in accordance with Article 65 of Regulation (EU) .../... [new BR].
- (8) The measures provided for in this Regulation are in accordance with the opinion of the committee established by Article 116 of Regulation (EU) .../... [new BR],

HAS ADOPTED THIS REGULATION:

Article 1

Subject matter and scope

This Regulation lays down rules and procedures for:

- (a) the 'open' and 'specific' categories of UAS operations within the single European sky airspace;
- (b) the registration of UAS operators and unmanned aircraft (UA).

Article 2

Definitions

For the purposes of this Regulation, the following definitions apply:

- 1. 'unmanned aircraft system (UAS)' means the unmanned aircraft (UA) and the equipment to control the UA remotely;
- 2. "'open" category' means a category of UAS operation that, considering the low risk involved, requires neither a prior authorisation by the competent authority nor a declaration by the UAS operator before the operation takes place;
- 3. "specific" category' means a category of UAS operation that, considering the risks involved, requires an authorisation by the competent authority before the operation takes place, taking into account the mitigation measures identified in an operational risk assessment, except for certain standard scenarios for which a declaration by the UAS operator is sufficient;
- 4. 'unmanned aircraft system (UAS) operator' means any legal or natural person who operates or intends to operate one or more UAS;
- 5. 'unmanned aircraft (UA)' means any aircraft operating or designed to operate autonomously or to be piloted remotely without a pilot on board;
- 6. 'equipment to control unmanned aircraft remotely' means any instrument, equipment, mechanism, apparatus, appurtenance, software or accessory that is necessary for the safe operation of a UA, other than a part, and which is not carried on board that UA;

^{(&}lt;sup>2</sup>) EASA Opinion No 01/2018 'Introduction of a regulatory framework for the operation of unmanned aircraft systems in the "open" and "specific" categories' (RMT.0230), available at <u>https://www.easa.europa.eu/document-library/opinions</u>.

- 7. 'visual line of sight (VLOS)' means a type of operation in which the remote pilot maintains continuous unobstructed and unaided visual contact with the UA, allowing the remote pilot to monitor the flight path of the UA in relation to other aircraft, persons, and obstacles for the purpose of maintaining separation from them and avoiding collisions;
- 8. 'light UAS operator certificate (LUC)' means a certificate issued to a UAS operator by a competent authority as per Subpart C of the Annex (Part-UAS) to this Regulation;
- 9. 'competent authority' means the authority designated by the Member State responsible for certification, authorisation, oversight, enforcement and registration in the Member State where the UAS operator has its principal place of business, or place of residence if the UAS operator is a natural person;
- 10. 'remote pilot' means a natural person responsible for safely conducting the flight of a UA by operating its flight controls, either by manual use of the remote controls or, when the UA flies automatically, by monitoring its course and remaining able to intervene and change its course at any time;
- 'acceptable means of compliance (AMCs)' means non-binding standards adopted by EASA to illustrate the means to establish compliance with Regulation (EU) .../... [new BR] and its implementing rules;
- 12. 'alternative means of compliance' (AltMoCs) are those means of compliance that propose an alternative means to the existing AMCs or those that propose new means to establish compliance with Regulation (EU) No .../... [new BR] and its implementing rules for which no associated AMCs have been adopted by EASA.
- 13. 'automatic operation' means an operation in which the UAS executes preprogrammed instructions while the remote pilot is able to intervene at any time;
- 14. 'autonomous operation' means an operation during which a UA operates without the possibility for remote pilot intervention in the management of the flight;
- 15. 'certificate of airworthiness (CofA)' means a certificate attesting that an aircraft conforms to an approved design and is in a condition for safe operation in accordance with Annex I (Part 21) to Regulation (EU) No 748/2012 (³);
- 16. 'congested area' means any area in a city, town or settlement which is substantially used for residential, commercial or recreational purposes;
- 17. 'dangerous goods' means articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the ICAO Technical instructions for the safe transport of dangerous goods by air (Doc 9284-AN/905) at the latest version including any addenda or corrigenda, or those which are classified according to those instructions;

^{(&}lt;sup>3</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).

- 18. 'electronic identification' means a system that transmits the identity of the UA so that it can be identified without direct physical access to that UA;
- 19. 'first-person-view (FPV) mode' means a mode of operation of a UAS where the remote pilot navigates the UA using images from a camera installed on the UA;
- 20. 'follow-me mode' means a mode of operation of a UAS in which the UA constantly follows a person or a device within a predetermined radius;
- 21. 'geo-awareness' means a function that can detect a potential breach of airspace limitations and provides the remote pilot with sufficient information and an appropriate alert to allow the remote pilot to take effective action to prevent that breach;
- 22. 'guidance material (GM)' means non-binding material developed by EASA which helps to illustrate the meaning of a requirement or a specification and is used to support the interpretation of Regulation (EU) .../... [new BR], its implementing rules and acceptable means of compliance;
- 23. 'hazard' means a condition or an object with the potential to cause injuries, damage, loss of material or a reduction in the ability to perform a prescribed function;
- 24. 'model aircraft club or association' means an organisation legally established in a Member State for the purpose of conducting leisure flights, air displays, sport or competition activities with UAS;
- 25. 'Part-UAS' means the rules applicable to the operation of a UAS that falls into the 'open' or the 'specific' category, as laid down in the Annex (Part-UAS) to this Regulation;
- 26. 'privately built UAS' means a UAS assembled or manufactured for the manufacturer's own use; this does not include UAS assembled from a set of parts placed on the market by the manufacturer as a single ready-to-assemble kit;
- 27. 'remote pilot competency' means a combination of skills, knowledge and conduct required for a remote pilot to perform a task to the prescribed standard;
- 28. 'single European sky airspace' means the airspace above the territory to which the Treaties apply, as well as any other airspace where Member States apply Regulation (EC) No 551/2004 (⁴), in accordance with Article 1(3) of that Regulation;
- 29. 'specific operations risk assessment (SORA)' means the methodology to assess the risks of a UAS operation in the 'specific' category, and determine the corresponding mitigation measures;
- 30. 'standard scenario' means a description of a UAS operation in the 'specific' category, for which mitigation measures have been determined based on a risk assessment (e.g. SORA), and adopted by EASA in its AMCs or in the AltMoCs provided to EASA by a competent authority;

^{(&}lt;sup>4</sup>) Regulation (EC) No 551/2004 of the European Parliament and of the Council of 10 March 2004 on the organisation and use of the airspace in the single European sky (the airspace Regulation) (OJ L 96, 31.3.2004, p. 20).

31. 'unmanned aircraft (UA) observer' means a natural person who, by unaided visual observation of the UA, assists the remote pilot in safely conducting the flight.

Article 3

Principles applicable to all UAS operations

- 1. Safety rules shall be proportionate to the risk of the operation.
- 2. The operator of the UAS is responsible for the safety of its operations.
- 3. The remote pilot is responsible for the safe conduct of each individual UA flight.
- 4. UAS operators shall be registered in accordance with Article 7 of this Regulation.

Article 4

The 'open' category of UAS operations

The 'open' category of UAS operations shall comply with the requirements of Subpart A of the Annex (Part-UAS) to this Regulation.

Article 5

The 'specific' category of UAS operations

A UAS operation in the 'specific' category shall be subject to a prior operational risk assessment and to the application of the identified mitigation measures, in accordance with:

- 1. the requirements of Subpart B of the Annex (Part-UAS) to this Regulation;
- 2. the declaration made in accordance with a standard scenario, except when the UAS operator holds an LUC with privileges to authorise its own operations in accordance with Subpart C of the Annex (Part-UAS) to this Regulation; or
- 3. the authorisation issued by the competent authority, or by a UAS operator that holds an LUC with privileges to authorise its own operations in accordance with Subpart C of the Annex (Part-UAS) to this Regulation.

Article 6

UAS operations conducted in the framework of model clubs and associations

For UAS operations conducted in the framework of model clubs or associations, the following apply:

- 1. the competent authority may issue an operational authorisation, in accordance with UAS.SPEC.040, to a model club or association without further demonstration of compliance, on the basis of the model club's or association's established procedures, organisational structure, and management system;
- 2. operational authorisations granted under this Article shall include the conditions and limitations of, as well as the deviations from, the requirements of the Annex (Part-UAS) to this Regulation;
- 3. this authorisation shall be limited to the territory of the Member State where the authorisation was issued.

Article 7

Registration of UAS operators and their UA

- 1. Each operator shall register itself, and where applicable, its UA, in the Member State where the operator has its principal place of business or place of residence in accordance with Subpart A and Subpart B of the Annex (Part-UAS) to this Regulation.
- 2. Each registered UAS operator shall obtain a registration number according to the format defined by EASA.
- 3. Member States shall ensure that their registries are digital and interoperable. Records shall be updated, accurate, secure and accessible in real time by authorised authorities, organisations or persons.
- 4. If a Member State designates one or more entities, different from the competent authority referred to in Article 8(1), then:
 - (a) the areas of competence of each entity or competent authority shall be clearly defined; and
 - (b) coordination shall be established between the designated entities and the competent authorities to ensure the effective implementation of this Regulation.

Article 8

Designation of the competent authority

- 1. A Member State shall designate a competent authority with the following responsibilities:
 - (a) issue certificates of remote pilot competency;
 - (b) issue authorisations, acknowledge receipt of declarations, and oversee 'specific' category UAS operations;
 - (c) establish airspace restrictions;
 - (d) enforce this Regulation in respect of UAS operators and remote pilots.
- 2. If a Member State designates more than one entity as a competent authority:
 - (a) the areas of competence of the competent authority shall be clearly defined; and
 - (b) coordination shall be established between the designated competent authorities and the entities referred to in Article 7(4) to ensure the effective implementation of this Regulation.
- 3. The competent authority shall:
 - (a) have a suitable organisational structure, appropriately documented procedures, and adequate resources; and
 - (b) employ or have access to personnel with sufficient knowledge, professional integrity, experience and training to perform the allocated tasks.
- 4. Member States shall ensure that the personnel of the competent authority do not perform activities related to this Regulation when there is evidence that this could result,

directly or indirectly, in a conflict of interest, in particular when related to their family or financial interests.

Article 9

Tasks of the competent authority

In the framework of the competencies allocated by the Member States in accordance with Articles 7 and 8 of this Regulation, the competent authority shall:

- 1. examine documents, records and reports relevant to UAS operations, remote pilots or UAS operators;
- 2. develop a risk-based oversight system for UAS operators who hold a declaration, an authorisation or a certificate for a UA, in which audit planning is driven by the risk profile and the safety performance of the organisation and in which execution of the audits focuses on risk management in addition to compliance;
- 3. provide guidance for the community of UAS operators that is intended to promote the safety of UAS operations, including the dissemination of any updated regulations that affect UAS operations;
- 4. inspect, as required, UAS, remote pilots, and UAS operators to assess their compliance with this Regulation;
- 5. have a system to detect and analyse any non-compliance of declared UAS operators, or of UAS operators that it has authorised or certified;
- 6. issue, maintain, amend, suspend, limit or revoke authorisations, and issue, suspend, or revoke certificates required to carry out UAS operations in the 'open' and 'specific' categories, or impose other measures or sanctions, as necessary;
- 7. establish, maintain and keep updated, secure and accessible in real time by authorised persons, one or more registers of operational declarations, operational authorisations, certificates of remote pilot competency and LUCs;
- 8. disseminate safety information, when necessary.

Article 10

Means of compliance

- 1. The competent authority shall establish a system to consistently evaluate all AltMoCs used by itself, or by organisations and persons under its oversight, to ensure that they allow compliance with Regulation (EU) .../... [new BR] and its implementing rules to be established.
- 2. The competent authority shall evaluate all AltMoCs proposed by an organisation in accordance with UAS.SPEC.110 and UAS.LUC.110, by analysing the documentation provided and, if considered necessary, by inspecting the organisation.
- 3. When the competent authority finds that the AltMoCs are in accordance with Regulation (EU) .../... [new BR] and its implementing rules, it shall, without undue delay:

- (a) notify the applicant that the AltMoCs may be implemented and, as appropriate, amend the operational authorisation or certificate of the applicant accordingly;
- (b) notify EASA of the AltMoCs' content and provide copies of all the relevant documentation; and
- (c) inform all other Member States of any AltMoCs that were accepted.
- 4. When the competent authority itself uses AltMoCs to achieve compliance with Regulation (EU) .../... [new BR] and its implementing rules, it shall:
 - (a) make those AltMoCs available to all organisations and persons under its oversight; and
 - (b) without undue delay, notify EASA.
- 5. The competent authority shall provide EASA with a full description of the AltMoCs, including any revisions to procedures that may be relevant, as well as an assessment that demonstrates that the implementing rules are complied with.

Article 11

Airspace conditions for UAS operations

- 1. Member States may establish airspace restrictions on zones in which one or more of the following conditions applies:
 - (a) certain UAS operations are not permitted without prior authorisation or are not permitted at all;
 - (b) access is only allowed for certain UAS classes;
 - (c) access is only allowed for UAS equipped with electronic identification and/or geo-awareness systems;
 - (d) UAS operations comply with the specified environmental standards.
- 2. Member States may define airspace in which UAS operations are exempted from one or more of the 'open' category requirements of this Regulation, and in which operators are not required to hold an authorisation or submit a declaration.
- 3. Member States shall publish the information on airspace established in accordance with paragraphs 1 or 2 of this Article, as well as on how, if required, authorisation may be obtained, in a manner and format established by EASA.

Article 12

Safety information

1. Competent authorities and market surveillance authorities, as designated according to Regulation (EU) .../... [DA], shall cooperate on safety matters, and establish procedures for an efficient exchange of safety information.

- 2. Each UAS operator shall report to the competent authority any occurrence and any other safety-related information regarding its UAS, in compliance with Regulation (EU) No 376/2014 (⁵).
- 3. EASA and the competent authorities shall collect, analyse and disseminate safety information concerning UAS operations in their territory in accordance with Regulation (EU) .../... [new BR] and its implementing rules.
- 4. Upon receiving any of the information referred to in paragraphs 1, 2 or 3 of this Article, EASA or the authority that is competent for the corresponding domain of competence shall take appropriate measures to address any safety issues.
- 5. If the competent authority takes measures under paragraph 4 of this Article, it shall immediately notify all persons or organisations that need to comply with those measures under Regulation (EU) .../... [new BR] and its implementing rules. The competent authority shall also notify EASA, if EASA has not already been informed, and when combined action is required, the other Member States concerned.

Article 13

Derogations and limitations

UAS operators may continue to operate UAS made available on the market before the applicability of Regulation (EU) .../... [DA]:

- 1. in subcategory A1 of the 'open' category, as defined in UAS.OPEN.020, or in the 'specific' category in accordance with Subpart B of the Annex (Part-UAS) to this Regulation, provided that the UA has a maximum take-off mass (MTOM) of less than 250 g, including its payload;
- 2. in subcategory A3 of the 'open' category, as defined in UAS.OPEN.040, or in the 'specific' category in accordance with Subpart B of the Annex (Part-UAS) to this Regulation, provided that the UA has an MTOM between 250 g and 25 kg, including its payload.

Article 14

Conversion of authorisations, declarations and certificates

- 1. Authorisations and declarations for UAS operators, as well as certificates of remote pilot competency, issued on the basis of national legislation, prior to the applicability date of this Regulation, shall remain valid until ... [1 year after the entry into force of this Regulation].
- 2. Member States shall, by the end of the period specified in paragraph 1, have converted their existing certificates of remote pilot competency and their authorisations or declarations for UAS operators into those required by this Regulation, provided that the

^{(&}lt;sup>5</sup>) Regulation (EU) No 376/2014 of the European Parliament and of the Council of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation, amending Regulation (EU) No 996/2010 of the European Parliament and of the Council and repealing Directive 2003/42/EC of the European Parliament and of the Council and Commission Regulations (EC) No 1321/2007 and (EC) No 1330/2007 (OJ L 122, 24.4.2014, p. 18).

level of safety ensured by such authorisations, declarations and certificates is equivalent to the level of safety provided for by this Regulation.

Article 15

Entry into force and application

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

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

- 2. However:
 - (a) by way of derogation from paragraph 1, Member States may decide not to apply Article 7(1) until ... [9 months after the entry into force of this Regulation].
 - (b) by way of derogation from paragraph 1, Member States may decide not to apply this Regulation to UAS operations conducted within model clubs and associations until ... [3 years after the entry into force of this Regulation].

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

Done at Brussels,

For the Commission The President [...]

ANNEX

UAS operations in the 'open' and 'specific' categories [PART-UAS]

SUBPART A

UAS OPERATIONS IN THE 'OPEN' CATEGORY

UAS.OPEN.010 UAS operations in the 'open' category

- 1. The 'open' category of UAS operations is divided into three subcategories with defined operational limitations, remote pilot requirements and technical requirements for UAS, as follows:
 - (a) subcategory A1;
 - (b) subcategory A2;
 - (c) subcategory A3.
- 2. Operations in the 'open' category shall be limited to:
 - (a) flights conducted in visual line of sight (VLOS);
 - (b) heights not exceeding 120 m above the surface.
- 3. When the operation involves flying the UA in close proximity to a fixed obstacle that is taller than 120 m, the maximum height of the UAS operation may be increased up to 50 m above the height of the obstacle, for the portion of the flight in close proximity to it and at the request of the entity responsible for the obstacle.

UAS.OPEN.020 UAS operations in subcategory A1

UAS operations in subcategory A1 shall:

- 1. not be conducted over open-air assembly of persons;
- 2. by way of derogation from UAS.OPEN.070(3)(e), be conducted up to a height of 50 m above the surface when in follow-me mode;
- 3. be performed by a remote pilot who has:
 - (a) been familiarised with the UAS to be operated; or
 - (b) in the case of a UA with an MTOM, including payload, of more than 250 g, demonstrated the competencies necessary to ensure a safe flight, respecting privacy, data protection, security and environmental requirements, by having completed an online training course and passed an online test, according to a manner and format established by EASA, and provided by an entity recognised by the competent authority;
- 4. be performed with a UA:
 - (a) when privately built that has an MTOM, including payload, of less than 250 g;

- (b) marked as class C0, as defined in Appendix 1 to Regulation (EU) .../... [DA]; or
- (c) marked as class C1, as defined in Appendix 2 to Regulation (EU) .../... [DA] and operated with active and updated electronic identification and geo-awareness systems.

UAS.OPEN.030 UAS operations in subcategory A2

UAS operations in subcategory A2 shall be performed:

- 1. so that the UA is not flown over uninvolved persons;
- 2. at a safe distance from uninvolved persons;
- 3. by a remote pilot who holds a certificate of remote pilot competency that is necessary to ensure a safe flight, respecting privacy, data protection, security and environmental requirements, by passing a theoretical test in a manner and format established by EASA at an entity recognised by the competent authority; and
- 4. with a UA marked as class C2, as defined in Appendix 3 to Regulation (EU) .../... [DA], operated with active and updated electronic identification and geo-awareness systems.

UAS.OPEN.040 UAS operations in subcategory A3

UAS operations in subcategory A3 shall be performed:

- 1. in an area where the remote pilot reasonably expects that no uninvolved person will be endangered within the range where the UA will be flown, during the entire time of the UAS operation and keeping a safe distance from the boundaries of congested areas;
- 2. by a remote pilot who has demonstrated the competencies necessary to ensure a safe flight, respecting privacy, data protection, security and environmental requirements, by having completed an online training course and passed an online test, according to a manner and format established by EASA, and provided by an entity recognised by the competent authority; and
- 3. with a UA:
 - (a) when privately built that has an MTOM, including payload, of less than 25 kg;
 - (b) marked as class C2, as defined in Appendix 3 to Regulation (EU) .../... [DA] and operated with active and updated electronic identification and geo-awareness systems;
 - (c) marked as class C3, as defined in Appendix 4 to Regulation (EU) .../... [DA] and operated with active and updated electronic identification and geo-awareness systems; or
 - (d) marked as class C4, as defined in Appendix 5 to Regulation (EU) .../... [DA].

UAS.OPEN.050 Responsibilities of the UAS operator

The UAS operator shall ensure that:

- 1. operational procedures adapted to the type of operation and the risk involved are established, and a remote pilot for each operation is designated;
- 2. the remote pilots and all other personnel directly involved in the operations are:
 - (a) competent to perform their tasks;
 - (b) familiar with the UAS operator's procedures;
 - (c) aware of any information about the operation published by the relevant authorities;
 - (d) familiar with relevant EU and national regulations, in particular those related to security, privacy, data protection, liability, insurance and environmental protection; and
 - (e) in a physical and mental condition such that would not endanger the safe operation of the UAS;
- 3. when conducting an operation with a UA of one of the classes defined in this Regulation, the UA is:
 - (a) accompanied by the corresponding EU declaration of conformity, including the reference to the appropriate class; and
 - (b) the related class identification label is affixed on the UA.

UAS.OPEN.060 Registration

UAS operators that use a UA with an MTOM, including payload, of more than 250 g, shall:

- 1. register themselves, in a manner and format established by EASA, unless already registered in accordance with UAS.SPEC.060;
- 2. update their registration every time data is changed and renew the registration as required by the competent authority;
- 3. display the registration information on the UA; and
- 4. ensure that this information is inserted into the electronic identification system, if available on the UA.

UAS.OPEN.070 Responsibilities of the remote pilot

- 1. The remote pilot shall:
 - (a) be in a physical and mental condition such that would not endanger the safe operation of the UAS;
 - (b) have the ability to take control of the UA, except in the case of a lost link or when operating a free-flight UA;

- (c) have the appropriate competency in the subcategory of the intended UAS operations in accordance with UAS.OPEN.020, UAS.OPEN.030 and UAS.OPEN.040; and
- (d) comply with UAS.OPEN.050 and UAS.OPEN.060 if the remote pilot is also the UAS operator.
- 2. Before starting a UAS operation, the remote pilot shall:
 - (a) obtain updated information, relevant to the intended UAS operation, about any flight restrictions or conditions published by the Member State of operation;
 - (b) familiarise themselves with the operating environment; and
 - (c) ensure that the UAS is in safe condition to complete the intended flight safely and that its mass, including payload, does not exceed the MTOM defined by the manufacturer or the MTOM limit of its class.
- 3. During flight, the remote pilot shall:
 - (a) comply with the requirements applicable to the subcategory of UAS operations conducted;
 - (b) ensure the safe operation of the UAS with respect to third parties on the ground or in the air;
 - (c) comply with the limitations on the area and airspace restrictions;
 - (d) operate the UAS within the limitations defined in the instructions provided by the manufacturer;
 - (e) keep the UA in VLOS and maintain a thorough visual scan of the airspace surrounding the UA in order to observe any other aircraft and not create any hazard to them;
 - (f) not use the UA to drop material or carry dangerous goods, except for dropping items in connection with agricultural, horticultural or forestry activities in which the carriage of the items does not contravene any other applicable regulations;
 - (g) not fly close to or inside areas where an emergency response effort is ongoing unless they have permission to do so from the responsible emergency response services; and
 - (h) respect privacy rights, the environment, and operate the UAS in a considerate manner that minimises any nuisance caused to other persons or animals.
- 4. For the purposes of paragraph 3(e), the remote pilot may be assisted by a UA observer situated in the line of sight of the remote pilot. Clear and effective communication shall be established between the remote pilot and the UA observer.

UAS.OPEN.080 Duration and validity of the certificate of remote pilot competency

1. The remote pilot competencies, required by UAS.OPEN.020(3)(b) and UAS.OPEN.040(2), shall be valid for 3 years.

- 2. The certificate of remote pilot competency, required by UAS.OPEN.030(3), shall be valid for 5 years.
- 3. The renewal of the remote pilot competencies and of the certificate of remote pilot competency is subject to the demonstration of competencies in accordance with UAS.OPEN.040(2) or UAS.OPEN.030(3), as applicable, in a format established by EASA.

SUBPART B

UAS OPERATIONS IN THE 'SPECIFIC' CATEGORY

UAS.SPEC.010 UAS operations in the 'specific' category

Any operation that does not fall under the operational requirements of the 'open' category, as defined in Subpart A of this Annex, shall be subject to an operational risk assessment, and associated mitigation measures shall be put in place.

UAS.SPEC.020 Operational risk assessment

- 1. If the intended operation is not fully addressed by a standard scenario issued by EASA, or if EASA has not issued a standard scenario for that operation, the UAS operator shall:
 - (a) provide the competent authority with an operational risk assessment for the intended operation, except when the operator holds a light UAS operator certificate (LUC) as per Subpart C of this Annex with the appropriate privileges; and
 - (b) identify mitigation measures to be put in place in order to limit the risk of the intended operation.
- 2. When conducting the operational risk assessment, the UAS operator shall consider as a minimum the following elements:
 - (a) the characteristics of the area and the conditions under which the operation will be conducted;
 - (b) the class of the airspace and the impact on other air traffic and air traffic management (ATM) in cooperation with the relevant air navigation service provider (ANSP);
 - (c) the design features and performance of the UAS;
 - (d) the type of operation;
 - (e) the level of competency of the remote pilot;
 - (f) organisational factors;
 - (g) security risks;
 - (h) privacy risks; and
 - (i) impact on the environment.
- 3. The UAS operator shall regularly evaluate the adequacy of the mitigation measures taken and, if needed, update them.

- 4. If an operation is conducted partially or totally in the airspace of a Member State other than the Member State of registration, the UAS operator shall:
 - (a) comply with the local conditions established by the Member State of operation in accordance with Article 11 of this Regulation;
 - (b) provide the competent authority of the Member State of registration with the local conditions and the additional mitigation measures, if required by the Member State of operation.

UAS.SPEC.025 Standard scenarios

- 1. EASA shall issue standard scenarios and the associated conditions and mitigation measures for different types of operations.
- 2. Each standard scenario shall:
 - (a) define whether the UAS operator shall submit an operational declaration or apply for an operational authorisation before conducting the corresponding operation;
 - (b) include the conditions under which an operation may be conducted.

UAS.SPEC.030 Operational declaration

- 1. If required by the corresponding standard scenario, a UAS operator, except when the UAS operator holds an LUC as per Subpart C of this Annex with the appropriate privileges, shall submit an operational declaration to the competent authority in a manner and format established by EASA.
- 2. Upon receipt of the declaration, the competent authority shall:
 - (a) provide, without undue delay, the UAS operator with a confirmation of receipt; and
 - (b) verify that the declaration contains all the required information.
- 3. If the operation is conducted in the airspace of a Member State other than the Member State of registration of the UAS operator, the UAS operator shall also submit the operational declaration to the competent authority of the Member State of operation in a language accepted by this Member State.
- 4. After receiving the confirmation of receipt of the operational declaration by the competent authority, the UAS operator is entitled to start the operation if all the conditions identified in the corresponding standard scenario are met and the required mitigations measures are in place.
- 5. The UAS operator shall notify the competent authority, without delay, of any change to the statements or information contained in the operational declaration submitted.

UAS.SPEC.035 Application for an operational authorisation

Except when the UAS operator holds an LUC with the appropriate privileges, as per Subpart C of this Annex, the UAS operator shall:

1. submit an application for operational authorisation to the competent authority in a manner and format established by EASA, before starting an operation that:

- (a) corresponds to a standard scenario requiring an operational authorisation; or
- (b) does not correspond to any standard scenario;
- 2. only start the operation after having received the operational authorisation issued by the competent authority in a manner and format established by EASA;
- 3. submit an application for an updated operational authorisation if there are any significant changes to the operation or to the mitigation measures listed in the operational authorisation.

UAS.SPEC.040 Issuing of an operational authorisation

- 1. Upon receipt of an application from a UAS operator for the issue of an operational authorisation, the competent authority shall verify that the application contains all the information and documentation listed in paragraph 2(a) and (b) of this point.
- 2. The competent authority shall issue, without undue delay, an authorisation to a UAS operator to conduct an operation in the 'specific' category when it concludes that the operation:
 - (a) corresponds to a standard scenario issued by EASA that requires an authorisation, and that the following conditions are met:
 - (i) the mitigation measures required by the standard scenario have been put in place by the UAS operator;
 - (ii) an operations manual has been compiled, when required by the standard scenario; and
 - (iii) a procedure is in place for the coordination with the relevant ATC unit(s) if the entire operation or part of it is to be conducted in controlled airspace; or
 - (b) does not correspond to a standard scenario, and that the following conditions are met:
 - (i) the competent authority is satisfied with the operational risk assessment provided by the UAS operator pursuant to UAS.SPEC.020;
 - (ii) the mitigation measures established by the UAS operator limit the risk of the operation to an acceptable level;
 - (iii) an operations manual has been compiled; and
 - (iv) a procedure is in place for the coordination with the relevant ATC unit(s) if the entire operation or part of it is to be conducted in controlled airspace.
- 3. The competent authority shall specify in the authorisation the conditions under which a UAS operator is authorised to conduct the intended operation.
- 4. If an operation is intended to take place partially or totally in the airspace of a Member State other than the Member State of registration of the UAS operator, the competent authority, in coordination with the competent authority of the Member State of operation, shall assess:

- (a) the impact of local conditions on the operation; and
- (b) the effectiveness of the additional mitigation measures that may be required to comply with the local conditions.
- 5. The authorisation shall be issued in a manner and format established by EASA.

UAS.SPEC.050 Responsibilities of the UAS operator

The UAS operator shall:

- 1. ensure that operational procedures and limitations adapted to the type of the intended operation and the risk involved are established;
- 2. designate a remote pilot for each operation or, in the case of autonomous operations, ensure that during all phases of the operation, responsibilities and functions are properly allocated in accordance with the procedures;
- 3. ensure that before conducting operations, remote pilots and all other personnel directly involved in the operations are:
 - (a) competent to perform their tasks;
 - (b) familiar with the UAS operator's procedures and operations manual, when required by UAS.SPEC.040(2);
 - (c) aware of any information about the operation published by the relevant authorities;
 - (d) familiar with relevant EU and national regulations, in particular those related to security, privacy, data protection, liability, insurance and environmental protection; and
 - (e) in a physical and mental condition such that would not endanger the safe operation of the UAS;
- 4. carry out an operation within the limitations, conditions, and mitigation measures defined in the standard scenario or specified in the operational authorisation;
- 5. keep a record of the UAS operations information as required by the standard scenario or operational authorisation;
- 6. comply with the local conditions established by the Member State of operation;
- 7. maintain the UAS in condition for safe operations and comply with UAS.SPEC.100, if required; and
- 8. in cases of autonomous operations, comply with the requirements defined in UAS.SPEC.070(2) and (3).

UAS.SPEC.055 Responsibilities of model clubs and associations

Model clubs and associations that hold an operational authorisation defined in Article 6 of this Regulation shall:

- 1. make available to their registered members appropriate procedures to comply with the conditions and limitations defined in the operational authorisation issued by the competent authority;
- 2. assist UAS remote pilots, who are registered members of the club or association, in achieving the minimum competency required to operate the UAS safely in accordance with the procedures defined in paragraph 1;
- 3. take appropriate action when informed that a registered member does not comply with the conditions and limitations defined in the operational authorisation and, if necessary, inform the competent authority;
- 4. provide, upon request from the competent authority, the documentation required for oversight and monitoring purposes.

UAS.SPEC.060 Registration

UAS operators shall:

- 1. register themselves in a manner and format established by EASA unless already registered in accordance with UAS.OPEN.060;
- 2. register the UA when the UA concerned has been issued a certificate of airworthiness or a restricted certificate of airworthiness;
- 3. update the registration every time data is changed and renew the registration as required by the competent authority;
- 4. display the registration information on the UA; and
- 5. ensure that this information is inserted into the electronic identification system when required by the operational authorisation or by the standard scenario requiring a declaration, as applicable.

UAS.SPEC.070 Responsibilities of the remote pilot

- 1. The remote pilot shall:
 - (a) be in a physical and mental condition such that would not endanger the safe operation of the UAS;
 - (b) have the appropriate remote pilot competency; and
 - (c) comply with UAS.SPEC.050 and UAS.SPEC.060 if the remote pilot is also the UAS operator.
- 2. Before starting a UAS operation, the remote pilot shall:
 - (a) obtain updated information, relevant to the intended operation, about any flight restrictions or conditions established by the Member State of operation;
 - (b) ensure that the operating environment is compatible with the authorised or declared limitations and conditions or with the model clubs' and associations' procedures;

- (c) ensure that the UAS is in a safe condition to complete the intended flight safely; and
- (d) when required by the standard scenario, by the operational authorisation or by the conditions published by the Member State for the zone of operation, ensure that the information about the operation has been made available to the relevant air traffic service (ATS) unit, other airspace users or relevant stakeholders.
- 3. During the flight, the remote pilot shall:
 - (a) comply with the authorised or declared limitations and conditions or with the model clubs' and associations' procedures, as applicable;
 - (b) ensure the safe operation of the UAS with respect to third parties on the ground or in the air;
 - (c) comply with the limitations for the area and airspace restrictions;
 - (d) operate the UAS within the limitations defined by the UAS operator;
 - (e) not fly close to or inside areas where an emergency response effort is ongoing unless they have permission to do so from the responsible emergency response services; and
 - (f) respect privacy rights, the environment, and operate the UAS in a considerate way that minimises any nuisance caused to other persons or animals.

UAS.SPEC.075 Transferability of an operational authorisation

An operational authorisation is not transferable.

UAS.SPEC.080 Duration and validity of an operational authorisation

- 1. The competent authority shall specify in the operational authorisation its duration.
- 2. Notwithstanding paragraph 1, the authorisation remains valid provided that:
 - (a) the UAS operator remains in compliance with the relevant requirements of this Regulation and with the operational authorisation issued by the competent authority; and
 - (b) is not surrendered or revoked.
- 3. Upon revocation or surrender, the operational authorisation shall be returned to the competent authority without delay.

UAS.SPEC.090 Access

For the purpose of demonstrating compliance with this Regulation, a UAS operator shall grant any person that is duly authorised by the competent authority access to any facility, UAS, document, records, data, procedures or to any other material relevant to its activity which is subject to authorisation or declaration, regardless of whether or not its activity is contracted or subcontracted to another organisation.

UAS.SPEC.100 Use of certified equipment and certified UA

- 1. If the UAS operation is conducted with a UA which has been issued a certificate of airworthiness or a restricted certificate of airworthiness, or when using certified equipment, the UAS operator shall record the operation or service time in accordance either with the instructions and procedures applicable to the certified equipment, or with the organisational approval or authorisation.
- 2. The UAS operator shall follow the instructions referred to in the UA certificate or equipment certificate, and also comply with any airworthiness directives issued by EASA.

UAS.SPEC.110 Alternative means of compliance (AltMoCs)

- 1. Means of compliance alternative to those adopted by EASA may be used by a UAS operator to establish compliance with Regulation (EU) .../... [new BR] and its implementing rules.
- 2. When a UAS operator wishes to use an AltMoC, it shall, prior to implementing it, provide the competent authority with a full description of the AltMoC it intends to implement. The description shall include any revisions to manuals or procedures that may be relevant, as well as an assessment demonstrating compliance with Regulation (EU) .../... [new BR] and its implementing rules.
- 3. The operator may implement these AltMoCs subject to prior approval by the competent authority and upon receipt of the notification as prescribed in Article 10 of this Regulation.

SUBPART C

LIGHT UAS OPERATOR CERTIFICATE (LUC)

UAS.LUC.010 General requirements for an LUC

- 1. Any legal person shall be eligible to apply for an LUC under this Subpart.
- 2. An application for an LUC or for an amendment to an existing LUC shall be submitted to the competent authority in a format and manner established by EASA.
- 3. An LUC holder may be granted the privilege to authorise its own operations if the requirements of this Subpart are met, in accordance with UAS.LUC.060.

UAS.LUC.020 Responsibilities of the LUC holder

The LUC holder shall:

- 1. ensure that the requirements of UAS.SPEC.050, UAS.SPEC.060 and UAS.SPEC.070 are met;
- 2. comply with the scope and privileges defined in its terms of approval;
- 3. establish and maintain a system for exercising operational control over any operation conducted under the terms of its LUC;
- 4. carry out an operational risk assessment of the intended operation, in accordance with UAS.SPEC.020, when it is not fully addressed by a standard scenario issued by EASA or if EASA has not issued a standard scenario for that operation;
- 5. for operations conducted using the privileges in accordance with UAS.LUC.060, keep records of:
 - (a) the operational risk assessment, when required according to paragraph 4, and its supporting documentation;
 - (b) all supporting documents as required by the standard scenario related to the operation conducted;
 - (c) mitigation measures taken; and
 - (d) the qualifications and experience of personnel involved in the UAS operation, compliance monitoring and safety management.

UAS.LUC.030 Safety management system

- 1. A UAS operator, who applies for an LUC, shall establish, implement and maintain a safety management system corresponding to the nature and complexity of its activities that includes:
 - (a) a safety policy describing the overall philosophies and principles of the organisation with regard to safety, and related safety objectives to form the basis for safety performance monitoring;

- (b) clearly defined lines of responsibility and accountability throughout the organisation, including the direct safety accountability of the accountable manager;
- (c) procedures for maintaining personnel trained and competent to perform their tasks;
- (d) the identification of safety hazards entailed by the activities of the UAS operator, their evaluation and the management of the associated risks, including taking action to mitigate those risks and verify the effectiveness of the action;
- (e) documentation of all safety management system key processes, including a process for making personnel aware of their responsibilities and of the procedure for amending this documentation;
- (f) an independent function to monitor the compliance of the UAS operator with the relevant requirements of this Regulation, including a system to provide feedback of findings to the accountable manager to ensure effective implementation of corrective measures as necessary; and
- (g) a function to ensure that safety risks inherent to a service or product delivered through subcontractors are assessed and mitigated under the operator's safety management system.
- 2. The following key safety personnel shall be part of the operator's safety management system:
 - (a) an accountable manager responsible for establishing, implementing and maintaining an effective safety management system;
 - (b) a safety manager responsible for coordinating the safety management system; and
 - (c) one or more persons with the responsibility of ensuring that the UAS operator remains at all times in compliance with the requirements of this Regulation.
- 3. Where the organisation holds one or more additional organisation certificates within the scope of Regulation (EU) .../... [new BR], the safety management system of the UAS operator may be integrated with the safety management system that is required by any of the additional certificate(s) held.

UAS.LUC.040 LUC manual

- 1. An LUC holder shall provide an LUC manual to the competent authority, describing directly or by cross reference its organisation, the relevant procedures and the activities carried out.
- 2. If any activity is carried out by partner organisations or subcontractors, the LUC manual shall include a relevant statement as well as written procedures on how the LUC holder shall manage the relationship with those partner organisations or subcontractors.
- 3. The LUC manual shall be amended as necessary to retain an up-to-date description of the LUC holder's organisation, and copies of amendments shall be provided to the competent authority.

- 4. The UAS operator shall distribute the relevant parts of the LUC manual to all its personnel in accordance with their functions.
- 5. The content of the LUC manual shall not contravene the terms of approval and the privileges granted to the LUC holder.

UAS.LUC.050 Terms of approval of the LUC holder

- 1. The competent authority shall issue an LUC in a manner and format established by EASA after it is satisfied that the UAS operator complies with UAS.LUC.020, UAS.LUC.030 and UAS.LUC.040.
- 2. The terms of approval shall include the UAS operator's privileges, authorised activities and operational limitations, as appropriate.

UAS.LUC.060 Privileges of the LUC holder

When satisfied with the documentation provided, the competent authority shall:

- 1. within its terms of approval, grant the LUC holder the privilege to authorise its own operations, in a manner and format established by EASA;
- 2. identify in the LUC the privileges granted to the UAS operator.

UAS.LUC.070 Changes in the LUC management system

After the issue of an LUC:

- 1. any change in the terms of approval of the UAS operator; or
- 2. any significant change to the elements of the LUC holder safety management system as required by UAS.LUC.030,

shall require prior approval by the competent authority.

UAS.LUC.075 Transferability of an LUC

Except as a result of a change of ownership of the organisation, approved by the competent authority in accordance with UAS.LUC.070, an LUC is not transferable.

UAS.LUC.080 Duration and validity of an LUC

- 1. An LUC shall be issued for an unlimited duration. It shall be valid subject to:
 - (a) the LUC holder remaining in compliance with the relevant requirements of this Regulation and of the Member State that has issued the certificate; and
 - (b) it not being surrendered or revoked.
- 2. Upon revocation or surrender, the LUC shall be returned to the competent authority without delay.

UAS.LUC.090 Access

For the purpose of demonstrating compliance with this Regulation, the LUC holder shall grant any person that is duly authorised by the competent authority access to any facility, UAS, document, records, data, procedures or to any other material relevant to its activity which is subject to certification, authorisation or declaration, regardless of whether or not its activity is contracted or subcontracted to another organisation.

UAS.LUC.110 Alternative means of compliance (AltMoCs)

- 1. Means of compliance Alternative to those adopted by EASA may be used by a UAS operator to establish compliance with Regulation (EU) .../... [new BR] and its implementing rules.
- 2. When a UAS operator wishes to use an AltMoC, it shall, prior to implementing it, provide the competent authority with a full description of the AltMoC it intends to implement. The description shall include any revisions to manuals or procedures that may be relevant, as well as an assessment demonstrating compliance with Regulation (EU) .../... [new BR] and its implementing rules.
- 3. The operator may implement these AltMoCs subject to prior approval by the competent authority and upon receipt of the notification as prescribed in Article 10 of this Regulation.