

Reader der EASA NPA (A) 4. Mai 2017

mit den für den klassischen Modellflug relevanten Abschnitten (Scannen nach: "model aircraft", "associations", "clubs")

NPA "Notice of Proposed Amendment" = Benachrichtigung über eine Änderung

AMC "acceptable means of compliance" = nicht notwendig bindende Standards, die die EASA aber übernimmt

GM "guidance material" = nichtbindende Argumentation der EASA, um sich verständlich zu machen

S. 5 + 6

The FAA regulates model aircraft activities through Public Law 112-95, Section 336. 'Special rule for model aircraft', while the Agency proposes to regulate both model aircraft and UAS through the same rules. The conditions of Public Law 112-95, Section 336 are codified in Part 101, Subpart E 'Special Rule for Model Aircraft'. As per the FAA website, model aircraft may also be flown in accordance with Part 107. — The FAA has yet to regulate UAS operations conducted over people as well as extended operations (e.g. operations beyond visual line of sight (BVLOS)), while those are covered in this NPA.

2.3.1.1 Background of the NPA

This NPA is a follow-up of the concept of UAS operations of A-NPA 2015-1010 publicly consulted between 31.7.2015 and 25.9.2015, as well as of the Opinion of a technical nature¹¹ (published on 18.12.2015) based on the A-NPA and the feedback received during its consultation. A 'Prototype' Commission Regulation on Unmanned Aircraft Operations was then published in August 2016 providing a first draft of the UAS regulation. The approximately 600 detailed comments received during the consultation of the 'Prototype' Regulation together with the significant inputs provided by an expert group put in place by EASA have been taken into account to prepare this NPA. More than additional 1000 comments were received via email from model aircraft practitioners expressing their dissatisfaction with the requirements for model aircraft included in the 'Prototype' Regulation. Based on these comments, EASA improved in this NPA the quality of the draft regulation and developed additional options for model aircraft activities. The above-mentioned expert group included representatives of the EU MSs, the UAS industry (both for large and small UAS), of manned aviation and of model aircraft associations. The size of the expert group was small, but as there were many candidatures, individuals not retained as group members were included in a distribution list and kept informed of the activities of the group, with the possibility to comment during the drafting of this NPA. Additionally, the work of JARUS has been considered when drafting this NPA.

2.3.1.2 Structure of the regulation

Regulation (EU) 201X/XXX has the following structure:

— the cover regulation that includes the regulatory scope, definitions of significant terms and acronyms, the timelines required for the transition period until the full implementation of the regulation, as well as high-level requirements for operations in the open and specific category (e.g. requirements for registration, geofencing and electronic identification, competent authorities, the concept of UA zones, and model aircraft);

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2.3.1.5 Model aircraft

Model aircraft are within the scope of this NPA since, pursuant to the definition of a UA in the new Basic Regulation, a model aircraft is a UA. A definition that could distinguish model aircraft from UAS is not easy to be developed. Some model aircraft pilots argue that they would be reluctant to use certain UAS technology supposed to assist them in conducting the flight (e.g. a flight control system with higher automation than a typical radio control) since this would reduce their pleasure. Said technology instead is widely used in UAS since in this case, a remote pilot could focus more on the payload (e.g. filming with a camera) than in flying the UAS. Therefore, a definition of model aircraft could be based on the absence of a flight control system that potentially allows a UAS to fly within the BVLOS range. In reality, certain model aircraft are indeed equipped with some form of assisted flight control system. This approach was therefore rejected. On the other hand, it is recognised that model aircraft activities have good safety records. This is not due to the type of aircraft used but rather to the code of conduct developed by the model club and associations. In most cases, they have related procedures, they build awareness, and in some cases, they also provide training to their members, thus creating a safety framework.

For this reason, the NPA contains in Article 14 of Regulation (EU) 201X/XXX dedicated requirements for recreational flight activities conducted in the framework of model clubs and associations, allowing competent authorities to issue an operational authorisation in which they may define deviations from the rules proposed in this NPA. This operational authorisation is issued based on the procedures, management system, etc. of the club or association, without further showing of compliance. In addition to said Article 14, this NPA offers two other possibilities to model aircraft pilots not intending to join a model club:

- operations in specific zones designated by MSs, as described in Article 12(1)(d) of Regulation (EU) 201X/XXX, where MSs can alleviate the requirements of the rules proposed in this NPA; and
- operations in Subcategory A3 of the open category.

Operations in Subcategory A3 may be conducted with privately built UAS, or UAS Class C3 or Class C4. This last class was developed with a minimum set of technical requirements focusing mainly on providing the remote pilot with operational instructions issued by the manufacturer, as well as on raising the remote pilot's awareness of the EU regulations through a leaflet. Subcategory A3 has been designed to offer the possibility to model aircraft pilots to operate in the open category. The only constraint is that mass-produced model aircraft must comply with Class C4 requirements. However, this will create a negligible additional burden for manufacturers. Indeed, model aircraft currently available on the market are already required to display a CE marking to show compliance with the applicable regulations (e.g. Directive 2014/53/EU14 on radio equipment). Regulation (EU) 201X/XXX will only require the manufacturer to comply, in addition, with the following requirements:

- (a) have an MTOM, including payload, of less than 25 kg;
- (b) be designed and manufactured to fly safely;
- (c) be placed on the market with clear operational instructions; and
- (d) include an awareness leaflet.

Compliance with the above requirements will be attested by the CE marking for Class C4.

According to Article 15 of Regulation 201X/XXX, all model aircraft currently in use will be able to be operated also after the entry into force of this Regulation, still using one of the three options explained above (be member of a model club, operate in dedicated areas, or follow the operational limitations for Subcategory A3), without the need of any modification to the aircraft.

2.3.1.6 Boundaries of the open, specific, and certified category

The categorisation of UAS operations in the open, specific, and certified category is based on the risk of the operation. This NPA sets the boundaries of the open-category for operations conducted:

- with a UAS with an MTOM of less than 25 kg;
- below 120-m height; and
- in VLOS.

As explained above, UAS operators may be exempted from such limits in the zones described in Article 12(1)(d) of Regulation (EU) 201X/XXX, or in the authorisation for model clubs and associations described in Article 14 of said Regulation. When the intended operation exceeds one of the limits set for the open category, then it falls into the specific category.

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A3 — fly far from people: Subcategory A3 was the most contentious during the expert group meetings; the group finally achieved a delicate balance, which was due to the difficulty to define the condition 'far from people' on the one hand, and to develop an appropriate set of technical requirements for the UAS authorised in Subcategory A3. Different views were voiced in the group on the definition of the right balance between operational limitations and technical requirements.

Different kinds of UAS may be operated in this Subcategory, including privately built and model aircraft operated outside of model club and associations or outside of the areas designated by the MSs in accordance with Article 12(1)(d) of Regulation (EU) 201X/XXX. In addition to the class for privately built UAS and UAS Class C3, discussed with the expert group, EASA, at the request of the European Commission, has included an additional Class C4. This Class will ensure a proper implementation of Annex II to Regulation (EU) 201X/XXX for all commercially produced UAS authorised in the open category, thus preventing unfair competition.

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Class C4 dedicated to less complex UAS (i.e. not including a flight control system, like certain model aircraft) for which the requirements defined in the other classes are not practicable.

Additionally, UAS Class C0, C1 and C2 can also be operated in this Subcategory.

This solution offers the following benefits:

- o allows MSs the flexibility to designate special zones for certain classes only;
- o addresses the concern raised by some MSs requiring a minimum set of technical requirements for UAS operated in urban environment (i.e. Class C3);
- o improves the remote pilots', including model aircraft pilots', awareness of the regulations;
- o provides for a proper oversight; and
- o ensures law enforcement of the harmonisation legislation.

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Definitions

(q) '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;

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Article 14

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 applies:

1. the competent authority may issue an operational authorisation 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; and
2. operational authorisations granted under this Article shall include the conditions and limitations of, as well as the deviations from, the requirements of Annex I to this Regulation.

[Note: related GM: GM1 Article 14 Hobbyist flights.]

Article 15

Applicability

1. As from two years after entry into force of this Regulation [estimate 2020], economic operators and UAS placed on the market shall comply with this Regulation.
2. As from three years after entry into force of this Regulation [estimate 2021], all UAS shall be operated in accordance with this Regulation.
3. UAS made available on the market within three years after entry into force of this Regulation [estimate 2021], not complying with Appendix I.1 to Annex I to this Regulation and having a maximum take-off mass (MTOM) of less than 250 g, including payload, may continue to be operated for three years after entry into force of this Regulation [estimate 2021] in accordance with the operational Subcategory A1, as defined in UAS.OPEN.40.
4. UAS not complying with Appendices I.2 and I.5 to Annex I to this Regulation and having an MTOM between 250 g and 25 kg, including payload, may continue to be operated after three years after entry into force of this Regulation [estimate 2021] in accordance either with the operational Subcategory A3, as defined in UAS.OPEN.60, or with the conditions of Subpart B of Annex I to this Regulation.
5. By three years after entry into force of this Regulation [estimate 2021], all UAS operators shall have converted their existing authorisations into authorisations or declarations as required by this Regulation.
6. By three years after entry into force of this Regulation [estimate 2021], Member States that choose to create airspace areas or special zones in accordance with Article 12 of this Regulation, shall have published this information.
7. For three years after entry into force of this Regulation [estimate 2021], model clubs and associations are not required to comply with this Regulation. By three years after entry into force of this Regulation, [estimate 2021] model clubs and associations shall receive an operational authorisation issued by the competent authority in compliance with Article 14 of this Regulation unless the Member State has chosen to create airspace areas or special zones where

UAS operations are exempted from one or more of the open-category requirements of this Regulation in accordance with Article 12 of this Regulation.

8. By two years after entry into force of this Regulation [estimate 2020], Member States shall have established a system to convert their existing proof of competence of the remote-pilot and their authorisations for UAS operators into those required by this Regulation.

[Note: related GM: GM1 Article 15 Recognition of competences demonstrated before the applicability date.]

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UAS.SPEC.15 Responsibilities of model clubs and associations

Model clubs and associations holding an operational authorisation as defined in Article 14 of this Regulation shall:

- (a) 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;
- (b) ensure that all members have the minimum competence required to operate the UAS safely in accordance with the procedures defined in point (a);
- (c) if an operation or flight exceeds the conditions and limitations defined in the operational authorisation, take action and, if necessary, inform the competent authority; and
- (d) provide upon request of the competent authority required documentation for oversight and monitoring purposes.

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GM1 Article 14 Hobbyist flights

Hobbyists have the following options to conduct their operations:

- They operate as members of a model club or association that has received from the competent authority an operational authorisation, as defined in Article 14 of Regulation (EU) 201X/XXX. In this case, they should comply with the procedures of the model club or association in accordance with the operational authorisation. The operational authorisation should define all deviations from the aforementioned Regulation allowed to the model club's or association's members, including the requirement to register individual unmanned aircraft (UA).

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When the model club and/or association is informed that a member exceeded the conditions and limitations defined in the operational authorisation, appropriate measures should be taken, proportionate to the risk posed, to make sure that a similar event will not happen again. Considering the level of risk, the model club and/or association should decide if the competent authority should be informed. In any case, occurrences that caused an injury to any person or damage to any property, vehicle, or aircraft involved other than UA, as defined in Article 125 of Regulation (EU) 2017/XXX, should be reported.

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AMC1 UAS.SPEC.20 Registration of model aircraft

Model club and/or associations may fulfil the UAS registration requirement on behalf of their members, and provide the related data to the entity designated for that purpose by the Member State. The UAS operational authorisation issued by the competent authority in accordance with Article 14 of Regulation (EU) 201X/XXX may include deviations from UAS.OPEN.20.

AMC1 UAS.SPEC.20(a)(1) Registration form

See AMC1 UAS.OPEN.20(a).

AMC1 UAS.SPEC.20(a)(3) Display of registration information

See AMC1 UAS.OPEN.20(e).

AMC1 UAS.SPEC.20(b) Renewal of registration

See AMC1 UAS.OPEN.20(f).

AMC1 UAS.SPEC.30(b)(1) Obtaining updated information about any flight restrictions or conditions published by the Member State

The remote pilot, or the operator in case of autonomous operations, should check any condition that may affect the UAS operation, such as airspace structure and limitations.

Information on airspace structure and limitations may be obtained from the relevant AIP (usually available online), or through dedicated service providers (e.g. by using an application or any other electronic means). Flight restrictions include limited zones for UA or no-UA zones, as defined in Article 12 of Regulation (EU) 201X/XXX.

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By nature, model aircraft do not have geofencing, electronic-identification and tracking functions. The NPA covers also model aircraft operation, allowing some distinction of operations under certain conditions/options. U-Space seems to potentially include all UAS categories, without any distinction for model aircraft.