



Terms of reference

for rulemaking task RMT.0230

Introduction of a regulatory framework for the operation of unmanned aircraft systems and for urban air mobility in the European Union aviation system

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Issue/rationale

Reports on safety occurrences with civil drones are increasing across all Member States (MSs). Currently, there are no harmonised rules at European Union (EU) level, and unmanned aircraft systems (UAS) operations still depend on individual authorisations that are issued by MSs. This is a burdensome administrative process that stifles business development and innovation.

Domain:	Unmanned aircraft systems (UAS) (civil drones)		
Related rules:	<ul style="list-style-type: none">— Implementing Regulation (EU) 2017/373 (ATM/ANS);— Regulation (EU) No 1178/2011 (Aircrew);— Regulation (EU) No 1332/2011 (AUR — ACAS II);— Implementing Regulation (EU) No 923/2012 (SERA);— Regulation (EU) No 965/2012 (Air OPS);— Regulation (EU) No 748/2012 (IAW);— Regulation (EU) No 1321/2014 (CAW);— Regulation (EU) 2015/340 (ATCO);— Regulation (EU) No 139/2014 (ADR);— Delegated Regulation (EU) 2019/945 (UAS);— Implementing Regulation (EU) 2019/947 (UAS);— related AMC and GM to the above Regulations;— CS-36;— CS-34;— CS-CO₂;— CS-ETSO;— CS-ACNS		
Affected stakeholders:	UAS operators (private and commercial); competent authorities (CAs); flight crews; remote pilots; maintenance organisations; maintenance training organisations; continuing airworthiness maintenance organisations (CAMOs); maintenance licence holders; UAS manufacturers; other airspace users (manned aircraft); providers of air traffic management/air navigation services (ATM/ANS) and other ATM network functions; air traffic services (ATS) personnel; aerodromes; general public; model aircraft associations		
Driver:	Safety; efficiency/proportionality	Rulemaking group:	No, but expert group
Impact assessment:	Yes	Rulemaking Procedure:	Standard/accelerated procedure

Note: for the project timelines of RMT.0230, refer to the Annex.



1. Why we need to amend the rules — issue/rationale

GUIDELINES FOR THE READER: the text of this Chapter is a general introduction to rulemaking task (RMT).0230, as drafted for ToR RMT.0230 Issue 1¹, and does not account for circumstances changed in the meantime (e.g. various regulations entering into force).

Regulation (EU) 2018/1139² ('Basic Regulation') extended EU competence to all unmanned aircraft systems (UAS) by amending Regulation (EC) No 216/2008³ (former 'Basic Regulation'): the provision that limited EU competence to those UAS with a maximum take-off mass (MTOM) above 150 kg, which were not used for military, customs, police, firefighting, search and rescue (SAR), or experimental operations, was removed. The vast majority of UAS that are developed and operated today were not within the scope of the former Basic Regulation and, consequently, were regulated by national rules. Although these national regulations address safety in principle, the level of safety provided for is not harmonised among Member States (MSs). Furthermore, in the absence of common EU rules, there is no mutual recognition of certificates or authorisations issued by MSs for those UAS. This means that a UAS operator that is authorised in one MS must obtain another authorisation in another MS if they wish to operate there.

The Basic Regulation introduced new rules for UAS (principles and essential requirements) as well as a definition of 'unmanned aircraft' (UA). The regulation provides for the establishment of common EU rules for all UAS⁴, irrespective of their MTOM, using an operation-centric and risk-based approach. In line with the general principles of EU law, the MSs should implement those rules at national level. The European Union Aviation Safety Agency (EASA) is the competent authority (CA) for approving UAS designs that involve high-risk operations and for issuing type certificates (TCs) and design organisation approvals (DOAs) for those UAS, as for manned aircraft. MSs remain the CAs for the other domains (e.g. UAS operations, remote-pilot licences).

The air traffic management (ATM) of UAS presents a challenge. Indeed, the rising number of UAS operations in the European airspace raises safety, security and airspace integration issues. To ensure safe UAS ATM and safe UAS operations within the existing air traffic environment in a harmonised manner across the European airspace, a robust regulatory framework needs to be developed.

The establishment of U-space airspaces and the provisions for U-space services are considered essential to respond to such growth of UAS operations — especially in low-level airspace — which is

¹ Published on 22.12.2016.

² Regulation (EC) No 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 (OJ L 212, 22.8.2018, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1536149403076&uri=CELEX:32018R1139>).

³ Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008R0216&qid=1617893145101>).

No longer in force, date of end of validity: 10.9.2018, repealed by Regulation (EC) No 2018/1139.

⁴ Except those used for military, customs, police, SAR, firefighting, border control, coastguard or similar activities, or services under the control and responsibility of the MSs, unless the opt-in provision is exercised according to Article 2(6) of the Basic Regulation.



expected to outweigh the current volume of traffic of manned aircraft. As the current ATM system is reaching its limits⁵, and as the expected UAS traffic and flying characteristics of UA (with no pilot on board and a higher level of automation) are different from those of manned aircraft, ATM is not considered the only appropriate means to safely and efficiently manage the upcoming UAS traffic. Therefore, the existing EU regulations for UAS operations in the ‘open’ and ‘specific’ categories need to be complemented with an EU regulatory framework that enables the harmonised implementation of U-space and ensures safe UAS ATM.

Some European companies are carrying out projects on urban air mobility (UAM), including the transport of passengers (air taxis). These projects make use of a new technologies and aircraft capabilities, e.g. vertical take-off and landing (VTOL), whose characteristics and performance are not addressed by the current aviation regulations. Such VTOL UAS will start operating with a pilot on board while their level of automation will evolve until they are remotely piloted and even autonomous.

2. What we want to achieve — objective

The overall objectives of the EASA system are defined in Article 1 of the Basic Regulation. This RMT will particularly contribute to achieving the objectives of Article 1(1) and (2).

The specific objectives of this RMT are:

- to ensure a high and uniform level of safety for UAS, enabling operators to safely operate UAS in the single European sky (SES), especially for higher-risk operations;
- to create the conditions for manned aircraft and UA to safely operate in the U-space airspaces;
- to promote innovation and development in the fields of UAS and urban air mobility while creating an efficient, proportionate, and well-designed regulatory framework, free of burdensome rules that could hinder the market’s development;
- to harmonise the regulatory framework across MSs by enhancing clarity, filling the gaps, and removing the inconsistencies that a fragmented system may have (e.g. cross-border operation of UA); and
- to foster an operation-centric, proportionate, as well as risk- and performance-based regulatory framework, considering important aspects, such as privacy, personal data protection, security, and safety.

3. How we want to achieve it

3.1 Completed tasks

A series of activities that were planned under RMT.0230 have already been completed. The following provides a comprehensive overview.

The [Technical Opinion ‘Introduction of a regulatory framework for the operation of unmanned aircraft’](#), which is based on [Advance Notice of Proposed Amendment \(A-NPA\) 2015-10](#) and on the

⁵ This statement should be understood with reference to the air traffic level before the Covid-19 aviation crisis. Although there are initiatives to increase the capacity of the ATM systems, those initiatives are not sufficient to cope with the expected volume of UAS traffic in low-level airspace.



[EASA Concept of Operations for Drones \(ConOps for Drones\)](#), served as the starting point and provided the guidelines for this RMT.

3.1.1 UAS operations in the ‘open’ and ‘specific’ categories

The established regulatory framework is operation-centric, proportionate, as well as risk- and performance-based, and establishes three categories of UAS operations as follows:

- ‘open’ is a UAS operation category that, considering the risks involved, does not require an authorisation by the CA before the operation takes place.
- ‘specific’ is a UAS operation category that, considering the risks involved, requires an authorisation by the CA before the operation takes place. To issue the authorisation, the CA takes into account the mitigation measures identified in an operational risk assessment made by the UAS operator, except for certain standard scenarios where a declaration by the UAS operator is sufficient. Depending on the risk involved in the operation, the EASA-issued certification of the UAS may be required; the manufacturer may also elect to request certification of the UAS even if it is not required based on the risk of the operation.
- ‘certified’ is a UAS operation category that, considering the risks involved, requires the EASA-issued certification of the UAS, a licensed remote pilot, and an operator approved by the competent authority, to ensure an appropriate level of safety.

The ‘prototype’ regulation on UAS operations in the ‘open’ and ‘specific’ categories was published in August 2016.⁶ The preliminary work performed on the prototype regulation facilitated the public consultation of the subsequent related [Notice of Proposed Amendment \(NPA\) 2017-05](#). This helped to establish the fundamental elements that were later incorporated in the regulations.

Based on NPA 2017-05, EASA published [Opinion No 01/2018](#) including a proposal for two new regulations addressing the ‘open’ and ‘specific’ categories of UAS operations. Commission Implementing Regulation (EU) 2019/947⁷ and Commission Delegated Regulation (EU) 2019/945⁸ were adopted in June 2019, covering all aspects of UAS operations for these categories, including airworthiness, environmental compatibility, operational and organisational requirements, and related processes. Due consideration was also given to the Airspace Usage Requirements (AURs) (ACAS II), the Air Traffic Management/Air Navigation Services (ATM/ANS) Interoperability Regulations, and the Standardised European Rules of the Air (SERA). The UAS Regulations included the requirements for authorities. The industry will contribute to developing adequate technical standards that may be used for demonstration of compliance with the requirements laid down in the regulations.

To simplify the authorisation process for operations in the ‘specific’ category, two standard scenarios were developed and adopted in the form of an Appendix to Regulation (EU) 2019/947. More standard scenarios may be developed in the future based on requests from MSs. In addition, EASA developed several predefined risk assessments (PDRAs) in the form of AMC to the above regulation. Also in this

⁶ <http://www.easa.europa.eu/easa-and-you/civil-drones-rpas>

⁷ 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) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R0947&qid=1617900353367>).

⁸ 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) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R0945&qid=1617900494393>).



case, more scenarios may be developed in the future at the request of MSs. Standard scenarios and PDRAs are covered by RMT.0729 and RMT.0730 respectively, except for the first PDRA that was included in Annex I to ED Decision 2019/021/R (RMT.0230).

Based on the level of risk, operations in the ‘specific category’ may be authorised by national aviation authorities (NAAs) by simply accepting a declaration by the UAS operator of showing compliance with the safety objectives resulting from the PDRA. As an alternative, the NAA may verify the UAS operator’s compliance directly or using appropriate entities. For the design requirements, according to Article 77 of the Basic Regulation, EASA carries out on behalf of MSs the functions and tasks of the state of design. When the NAA believes that a declaration by the UAS operator is not sufficient for showing compliance with the UAS design requirements, the NAA should require EASA’s involvement.

3.1.2 U-space and airspace integration

[Opinion No 01/2020](#)⁹ proposes a high-level regulatory framework for the U-space:

- to create the conditions for manned and unmanned aircraft to safely operate in controlled and uncontrolled airspace where U-space services are provided; and
- to complement the existing ATM environment of ‘traditional’ manned aviation to keep all aircraft safe in the airspace.

The roles and responsibilities of all the participants in the U-space, as well as of the U-space services, will be defined in a new regulation. This regulation, including other provisions necessary to ensure a uniform implementation of the U-space, is in the final phase of approval by the European Parliament.

3.2 Future tasks

Regulation (EU) No 748/2012 (‘Initial Airworthiness’ (IAW)) and Regulation (EU) No 1321/2014 (‘Continuing Airworthiness’ (CAW)) were not originally drafted to ensure the airworthiness of UAS that are operated in the ‘specific’ category (high risk)¹⁰ and are certified pursuant to Article 40(1)(d) of Regulation (EU) 2019/945. To ensure the initial airworthiness of certified UAS that are operated in the ‘specific’ and ‘certified’ categories, EASA applies the principles of Annex I (Part 21) to the IAW Regulation.

Operations of large UAS (MTOM above 150 kg) were within the scope of the former Basic Regulation, hence, today, such UAS can be granted a TC, a restricted type certificate (RTC), or a permit to fly (PtF).

To address UAS operations in the ‘certified category’, which imply the certification of the aircraft, of the pilot, and of the operator, EASA will propose amendments to the existing regulations that are applicable to manned aviation. To cover the maintenance of UAS that are operated in the ‘certified’ category, EASA will propose a new delegated regulation, as required by Article 58 of the Basic Regulation. Such regulation will also cover the continuing airworthiness of UAS that are operated in the ‘specific’ category and are certified pursuant to Article 40(1)(d) of Regulation (EU) 2019/945.

High-risk UAS operations in the ‘certified’ category include the following:

⁹ The draft Commission Regulation, which is annexed to the Opinion and provides for a high-level regulatory framework for the U-space, received a positive vote at the EASA Committee meeting of 24 February 2021.

¹⁰ Specific assurance and integrity level (SAIL) V and VI according to AMC1 Article 11 ‘Rules for conducting an operational risk assessment’ to Regulation (EU) 2019/947 (specific operations risk assessment (SORA) process).



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- certification and continuing airworthiness of UAS and related products, parts, and appliances;
 - approval of design, production, and maintenance organisations;
 - air operator certificates;
 - operational requirements to take off from and land at vertiports;
 - aerodrome/vertiport design and operational services;
 - safe and efficient integration of UAS into the airspace; and
 - licences of personnel, particularly of remote pilots.

The future rules will provide for the necessary requirements to allow for UAS operations, mitigating the increased level of risk to third parties on the ground and in the air.

The integration of UAS operations into non-segregated airspace may take some more time as essential technologies are not yet fully mature for implementation. Therefore, Implementing Regulation (EU) No 923/2012 ('Standardised European Rules of the Air' (SERA)) will be progressively updated in two phases:

- In Phase 1, the SERA Regulation will be reviewed to identify potential issues that could hamper the scale-up of UAS operations and to propose limited rule changes or guidelines to resolve these issues without affecting manned-aviation operations. Comprehensive rule changes are expected only in Phase 2.
- In Phase 2, more detailed rules of the air will be developed, including, whenever available, flight rules, to enable the safe integration of UAS into the airspace and seamless operations of manned and unmanned aircraft.

Based on the first deliverables of the Joint Aviation Authorities for Rulemaking of Unmanned Systems (JARUS), two airworthiness certification specifications (CSs) for UAS will be issued:

- Certification Specifications for Unmanned Aircraft Systems (CS-UAS): a 'vertical' CS containing requirements for the systems peculiar to UAS (e.g. command unit, command and control link, etc.). Requirements for other systems (e.g. structure, landing gear, etc.) will be derived from the available CSs for the related manned aircraft (e.g. CS-23, CS-27, etc.).
- Certification Specifications for Light Unmanned Aircraft Systems (CS-Light UAS): a 'horizontal' CS containing requirements for small UAS for which equivalent manned-aircraft requirements are not available, including for those UAS anticipated to be operated in the 'specific' category.

The progress of UAS and urban air mobility (UAM) technologies, as well as the completion of International Civil Aviation Organization (ICAO) regulatory activities, may drive further proposals to introduce new or amend existing rules in accordance with the provisions of the Basic Regulation.

The EASA proposal concerning operations in the 'certified category' will address UAM with manned VTOL aircraft, including also other types of operations that may be conducted with manned VTOL aircraft, while UAS and unmanned VTOL aircraft operations will be regulated at a later stage. For the certification of VTOL aircraft, EASA will develop new CSs (CS-VTOL).

The objectives listed in Chapter 2 will be considered when drafting the new rules, which should be design-independent and applicable to all UAS categories, limiting as much as possible the prescriptive requirements.



Considering the level of complexity of the regulatory architecture to enable UAS operations in the ‘certified category’ and UAM, this RMT is split in multiple subtasks and phases, leading to Opinions and Decisions that will establish the regulatory framework to meet the objectives of Chapter 2.

4. What are the deliverables

4.1 General

- NPAs with draft implementing/delegated rules, CSs, AMC, and GM.
- Opinions with draft implementing/delegated rules applicable to the operation and certification of UAS, and to organisations and personnel involved in these operations, as well as for enabling UAM.
- Decisions with the related acceptable means of compliance (AMC) and guidance material (GM).
- Decisions with CSs detailing the objectives to comply with the essential requirements for operations of UAS in the ‘certified’ category; such CSs may be based on Special Conditions that EASA may publish in the meantime.

EASA will coordinate the work on the several subtasks to ensure harmonisation of the various deliverables.

4.2 RMT.0230(A) — Unmanned Aircraft System operations in the ‘open’ and ‘specific’ categories — Completed

Opinion No 01/2018 resulted in the adoption of Delegated Regulation (EU) 2019/945 and Implementing Regulation (EU) 2019/947. The related ED Decision 2019/021/R with the AMC and GM for low- and medium-risk UAS operations identifies when a specific authorisation is needed, and includes provisions for manufacturers, operators, and authorities, as well as the first PDRA.

4.3 RMT.0230(B) — U-space and airspace integration — Partially completed

Opinion No 01/2020 on a high-level regulatory framework for the U-space provides for the necessary conditions for manned and unmanned aircraft:

- to safely operate in the U-space;
- to prevent collisions between aircraft; and
- to mitigate the air and ground risks.

The Opinion also allows for local implementation at MS level or even at regional/local level, which is suitable for and adapted to the local UAS traffic and traffic complexity.

A related decision with AMC and GM will be developed to ensure such flexibility.

4.4. RMT.0230(C) — Unmanned Aircraft System operations in the ‘certified’ category and urban air mobility — Ongoing

UAS operations in the ‘certified’ category are grouped into three types:

- Type #1 operations: Instrument flight rules (IFR) operations of UAS for the carriage of cargo in airspace classes A–C (ICAO airspace classification) and taking off from and/or landing at aerodromes falling under the Basic Regulation.



- Type #2 operations: operations of UAS taking off and/or landing in a congested (e.g. urban) environment using predefined routes in the U-space airspace (part of the operation could be in a non-congested, e.g. rural, environment). These include operations of unmanned VTOL aircraft carrying passengers (e.g. air taxis) or cargo (e.g. goods delivery services).
- Type #3 operations: same as for type #2 operations with VTOL aircraft with a pilot on board, including operations out of the U-space airspace.

EASA will draft two opinions and related decisions with AMC and GM:

- the first opinion will cover type #3 operations of manned VTOL aircraft carrying passengers or cargo in congested (urban) and non-congested (non-urban) environments, as well as UAS operations in the 'specific' high-risk categories; and
- the second opinion will cover type #2 operations of UAS (passengers and cargo) and type #1 operations.

The opinions will propose at different stages amendments to the following Regulations:

- Regulation (EU) No 965/2012¹¹ ('Air OPS'). The first opinion will propose a new Annex (Part-IAM¹²) to cover both UAM and UAS operations in non-congested areas, including the operational requirements for taking off from and landing at vertiports. It will also propose amendments to Annex II (Part-ARO), Annex III (Part-ORO), and Annex V (Part-SPA) to the Air OPS Regulation, to accommodate emergency medical services operations with VTOL. The second opinion will propose amendments to Annex IV (Part-CAT) to said Regulation, to accommodate type#1 operations, as well as related amendments to Part-ARO and Part-ORO, as necessary.
- Regulation (EU) No 1178/2011¹³ ('Aircrew'). The second Opinion will propose a new Annex (Part-RPL¹⁴) to cover the remote-pilot license, an amendment to Annex I (Part-FCL), to include a new license for manned innovative aircraft systems, and amendments to Annex VI (Part-ARA), Annex VII (Part-ORA), and Annex IV (Part-MED).
- Regulation (EU) No 748/2012¹⁵ ('IAW'). The amendments will introduce a certification process applicable to essential elements of the UAS (e.g. C2 link, command unit (CU)) and will identify the applicable environmental protection requirements.

¹¹ Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0965&qid=1617968958661>).

¹² Innovative Air Mobility.

¹³ Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 311, 25.11.2011, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011R1178&qid=1617969021704>).

¹⁴ Remote-Pilot Licence.

¹⁵ 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)

(<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0748&qid=1617972688730>).



- Regulation (EU) No 1321/2014¹⁶ ('CAW'), mainly for harmonisation purposes. Said Regulation will be complemented by a new delegated regulation (as required by Article 58 of the Basic Regulation) on the continuing-airworthiness requirements for UAS operated in the 'certified' category.

Note: the continuing airworthiness of manned VTOL aircraft is addressed by RMT.0731.

- Regulation (EU) No 923/2012¹⁷ ('SERA') for the safe integration of UAS into the airspace. This update may include amendments to the SERA phraseology.
- Regulation (EU) No 139/2014¹⁸ ('ADR') on UAS operations in aerodromes under EU competence.

4.5 RMT.0230(D) — Certification Specifications for Unmanned Aircraft Systems (CS-UAS and CS-Light UAS), Certification Specifications for vertical take-off and landing aircraft (CS-VTOL), and CS-ETSO — Ongoing

EASA will issue one or more Decisions on the new CSs for UAS (CS-UAS and CS-Light UAS), including at AMC level the safety objectives for the airworthiness of civil UAS. To complement the regulatory landscape of VTOL aircraft, EASA will issue another decision to introduce the new CS-VTOL.

In addition, EASA will issue a Decision to amend the Certification Specifications for European Technical Standard Orders (CS-ETSO) regarding equipment that is installed on UAS or used to operate UAS.

4.6 RMT.0230(E) — Airspace Usage Requirements and air traffic management/air navigation services interoperability requirements — Planned

An Opinion will propose to amend Regulation (EU) No 1332/2011¹⁹ and other ATM/ANS Interoperability Regulations, as applicable²⁰, regarding airspace integration, and the related decisions with the AMC and GM will be published. Another decision will amend the Certification Specifications and Acceptable Means of Compliance for Airborne Communications, Navigation and Surveillance (CS-ACNS).

¹⁶ Commission Regulation (EU) No 1321/2014 of 26 November 2014 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks (OJ L 362, 17.12.2014, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014R1321&qid=1617973397530>).

¹⁷ Commission Implementing Regulation (EU) No 923/2012 of 26 September 2011 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation and amending Implementing Regulation (EU) No 1035/2011 and Regulations (EC) No 1265/2007, (EC) No 1794/2006, (EC) No 730/2006, (EC) No 1033/2006 and (EU) No 255/2010 (OJ L 281, 13.10.2012, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0923&qid=1617972826535>).

¹⁸ Commission Regulation (EU) No 139/2014 of 12 February 2014 laying down requirements and administrative procedures related to aerodromes pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 44, 14.2.2014, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014R0139&qid=1617972992130>).

¹⁹ Commission Regulation (EU) No 1332/2011 of 16 December 2011 laying down common airspace usage requirements and operating procedures for airborne collision avoidance (OJ L 336, 20.12.2011, p. 20) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011R1332&qid=1617973093224>).

²⁰ <https://www.easa.europa.eu/regulations#regulations-atmans-interoperability---air-traffic-managementair-navigation-services>



The need to amend Regulations (EU) 2017/373²¹ and (EU) 2015/340²² will be assessed at a later stage: whether to implement the relevant operational procedures and training requirements stemming from the amendments of the aforementioned regulations.

4.7 RMT.0230(F) — Environmental protection — Planned

EASA will issue a decision on the environmental aspects of the operation of UAS to amend the Certification Specifications for Aircraft Noise (CS-36). The Decision may also cover the Certification Specification for Aircraft Engine Emissions and Fuel Venting (CS-34) and the Certification Specification for Aeroplane CO₂ Emissions (CS-CO₂), if these rules need to be amended accordingly.

5. How we consult

Depending on the subtask, either public consultations will take place through NPAs in accordance with Article 7 of the Rulemaking Procedure, or the ‘Special rulemaking procedure: accelerated procedure’ in accordance with Article 16 of the Rulemaking Procedure²³ may be used for certain deliverables (with expected negligible impact, or addressing issues of non-controversial nature, or affecting a limited group of stakeholders). In the latter cases, focused consultations in the form of technical workshops will be held with the affected stakeholders (e.g. industry representatives and NAAs). Furthermore, dedicated expert groups will be set up for each of the affected domains to support EASA in drafting the proposals, as well as in reviewing the comments received via the consultations. In each domain, an EASA expert will coordinate the expert group.

Each expert group will be composed of experts who will be invited on an ad hoc basis to work on specific issues. To form those groups, the following stakeholders should be considered:

- MSs’ CAs;
- VTOL/UAS operators (private and commercial);
- VTOL/UAS manufacturers;
- aerodrome operators;
- manned-aviation flight crews;
- remote pilots;
- other airspace users (manned aircraft);
- air navigation service providers (ANSPs) and UAS traffic management stakeholders;

²¹ Commission Implementing Regulation (EU) 2017/373 of 1 March 2017 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight, repealing Regulation (EC) No 482/2008, Implementing Regulations (EU) No 1034/2011, (EU) No 1035/2011 and (EU) 2016/1377 and amending Regulation (EU) No 677/2011 (OJ L 62, 8.3.2017, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017R0373&qid=1617975609548>).

²² Commission Regulation (EU) 2015/340 of 20 February 2015 laying down technical requirements and administrative procedures relating to air traffic controllers’ licenses and certificates pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council, amending Commission Implementing Regulation (EU) No 923/2012 and repealing Commission Regulation (EU) No 805/2011 (OJ L 63, 6.3.2015, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015R0340&qid=1617975777508>).

²³ EASA Management Board [Decision N°18-2015](#) of 15 December 2015 replacing Decision 01/2012 concerning the procedure to be applied by the Agency for the issuing of opinions, certification specifications, acceptable means of compliance and guidance material (‘Rulemaking Procedure’).



- maintenance and training organisations;
- air traffic controllers (ATCOs) and air traffic services (ATS) personnel;
- model aircraft associations; and
- other affected stakeholders. (see Chapter 7).

6. Interfaces

There are interfaces between RMT.0230 and the following RMTs or regulations/standards issued by other bodies:

- ICAO provisions;
- JARUS deliverables;
- EUROCAE and other standardisation bodies' deliverables;
- RMT.0731 'New air mobility';
- RMT.0727 'Alignment of Part 21 with Regulation (EU) 2018/1139 (including simple and proportionate rules for General Aviation)';
- RMT.0720 'Management of information security risks';
- RMT.0729 'Regular update of Regulations (EU) 2019/945 & 2019/947 (drones in the 'open' and 'specific' categories)'; and
- RMT.0730 'Regular update of the AMC & GM to Regulations (EU) 2019/945 & 2019/947 (drones in the 'open' and 'specific' categories)'.

7. Profile and role of the rulemaking group

For this RMT, no formal rulemaking group (RMG) will be established in accordance with the EASA Management Board Decision No 18-2015.

8. References

8.1 Related EU regulations

- Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1).
- Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 311, 25.11.2011, p. 1).
- 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).



- Commission Regulation (EU) No 1321/2014 of 26 November 2014 on the continuing airworthiness of aircraft and aeronautical products, parts and appliance, and on the approval of organisations and personnel involved in these tasks (OJ L 362, 17.12.2014, p. 1).
- Commission Regulation (EU) No 1332/2011 of 16 December 2011 laying down common airspace usage requirements and operating procedures for airborne collision avoidance (OJ L 336, 20.12.2011, p. 20).
- Commission Implementing Regulation (EU) No 923/2012 of 26 September 2012 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation and amending Implementing Regulation (EU) No 1035/2011 and Regulations (EC) No 1265/2007, (EC) No 1794/2006, (EC) No 730/2006, (EC) No 1033/2006 and (EU) No 255/2010 (OJ L 281, 13.10.2012, p. 1).
- Commission Implementing Regulation (EU) 2017/373 of 1 March 2017 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight, repealing Regulation (EC) No 482/2008, Implementing Regulations (EU) No 1034/2011, (EU) No 1035/2011 and (EU) 2016/1377 and amending Regulation (EU) No 677/2011 (OJ L 62, 8.3.2017, p. 1).
- Commission Regulation (EU) 2015/340 of 20 February 2015 laying down technical requirements and administrative procedures relating to air traffic controllers' licences and certificates pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council, amending Commission Implementing Regulation (EU) No 923/2012 and repealing Commission Regulation (EU) No 805/2011 (OJ L 63, 6.3.2015, p. 1).
- Commission Regulation (EU) No 139/2014 of 12 February 2014 laying down requirements and administrative procedures related to aerodromes pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 44, 14.2.2014, p. 1).
- 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).
- 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).

8.2 Related EASA decisions

- ED Decisions issuing the AMC and GM to Regulation (EU) No 965/2012.
- ED Decisions issuing the AMC and GM to Regulation (EU) No 1178/2011.
- ED Decision issuing the AMC and GM to Regulation (EU) No 748/2012.
- ED Decision issuing the AMC and GM to Regulations (EU) Nos 1332/2011 and 923/2012.
- ED Decisions issuing the AMC and GM to Regulation (EU) 2017/373.
- ED Decision issuing the AMC and GM to Regulation (EU) No 452/2014.
- ED Decisions issuing the AMC and GM to Regulation (EU) No 1321/2014.
- ED Decisions issuing the AMC and GM to Regulation (EU) 2015/340.



- ED Decisions issuing the AMC and GM to Regulation (EU) No 139/2014.
- Decision No. 2003/4/RM of the Executive Director of the Agency of 17 October 2003 on certification specifications providing for acceptable means of compliance for aircraft noise ('CS-36').
- Decision No. 2003/3/RM of the Executive Director of the Agency of 17 October 2003 on certification specifications providing for acceptable means of compliance for aircraft engine emissions and fuel venting ('CS-34').
- Executive Director Decision 2019/016/R of 29 July 2019 issuing the Certification Specifications, Acceptable Means of Compliance and Guidance Material for Aeroplane CO₂ Emissions (CS-CO₂) 'CS-CO₂ — Issue 1'.
- Decision No. 2003/10/RM of the Executive Director of the Agency of 24 October 2003 on certification specifications, including airworthiness codes and acceptable means of compliance, for European Technical Standard Orders ('CS-ETSO').
- Decision 2013/031/R of the Executive Director of the Agency of 17 December 2013 adopting Certification Specifications for Airborne Communications Navigation and Surveillance (CS ACNS) 'CS-ACNS Initial Issue'.

8.3 Other references

- EASA Technical Opinion 'Introduction of a regulatory framework for the operation of unmanned aircraft', 18 December 2015
<https://www.easa.europa.eu/system/files/dfu/Introduction%20of%20a%20regulatory%20framework%20for%20the%20operation%20of%20unmanned%20aircraft.pdf>.
- EASA Advance Notice of Proposed Amendment (A-NPA) 2015-10 'Introduction of a regulatory framework for the operation of drones', 31 July 2015.
<https://www.easa.europa.eu/system/files/dfu/A-NPA%202015-10.pdf>
- COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS 'An Aviation Strategy for Europe', COM(2015) 598 final, Brussels, 7 December 2015
<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015DC0598&from=EN>.
- RIGA DECLARATION ON REMOTELY PILOTED AIRCRAFT (drones) 'FRAMING THE FUTURE OF AVIATION', Riga, 6 March 2015
<http://ec.europa.eu/transport/modes/air/news/doc/2015-03-06-drones/2015-03-06-riga-declaration-drones.pdf>.
- EASA 'Concept of Operations for Drones — A risk based approach to regulation of unmanned aircraft'
https://www.easa.europa.eu/system/files/dfu/204696_EASA_concept_drone_brochure_web.pdf
- COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL 'A new era for aviation — Opening the aviation market to the civil use of remotely



piloted aircraft systems in a safe and sustainable manner’, COM(2014) 207 final, Brussels, 8 April 2014

(<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0207&qid=1466071905608&from=EN>).

- European Parliament, Report on safe use of remotely piloted aircraft systems (RPAS), commonly known as unmanned aerial vehicles (UAVs), in the field of civil aviation (2014/2243(INI)), A8-0261/2015, 25 September 2015

(<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A8-2015-0261+0+DOC+PDF+V0//EN>).

- Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and repealing Regulation (EC) No 216/2008 of the European Parliament and of the Council’, COM(2015)0613 final — 2015/0277, 7 December 2016

(<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52015PC0613>).



Annex — Project timelines²⁴

This table contains the various deliverables of this RMT, their planning, the input used, as well as the type of consultation envisaged.

RMT.0230 subtask	Subject	Proposed amendment /new rule	Input from	NPA publication date	Opinion /Decision publication date
A	<i>UAS operations in the 'open' and 'specific' categories²⁵</i>	<i>New</i>	<i>EASA ConOps</i>	<i>4.5.2017</i>	<i>Opinion No 01/2018 06.02.2018</i>
	<i>AMC and GM for UAS operations in the 'open' and 'specific' categories</i>	<i>New</i>	<i>JARUS-SORA & stakeholders</i>	<i>4.5.2017</i>	<i>ED Decision 2019/021/R 9.10.2019</i>
B	<i>U-space and airspace integration</i>	<i>New</i>	<i>N/a</i>	<i>N/a</i>	<i>Opinion No 01/2020 13.3.2020</i>
	AMC and GM for U-space and airspace integration	New	N/a	2021/Q4	Decision 2022/Q2
C	Manned VTOL and UAM (type #3 operations) IAW & CAW for certified UAS operated in the 'specific' category (high risk)	New/amend: Part 21 Part-IAM Part-ARO Part-ORO Part-SPA SERA	Stakeholders	NPA #1 2022/Q1	Opinion #1 2022/Q4
	UAS operations in the 'certified' category and UAM (type #1 and type #2 operations)	New/amend: DA CAW ²⁶ Part-RPL Part-CAT Part-ARO Part-ORO Part-ARA Part-ORA Part-MED SERA Part-ATS Part-ADR	Stakeholders, ICAO	NPA #2 2023/Q2	Opinion #2 2024/Q1
	AMC and GM for UAS operations in the 'certified' category and UAM (type# 3 operations)	New	Stakeholders	2023/Q2	Decision 2024/Q3

²⁴ The timelines provided in the European Plan for Aviation Safety ([EPAS 2021-2025](#)) will be updated in the next EPAS issue based on the timelines included in this Annex.

²⁵ Deliverables in *italics* are published.

²⁶ New Delegated Act on Continued Airworthiness.

	AMC and GM for IAW & CAW of certified UAS operated in the 'specific' category (high risk)	New	Stakeholders		
	AMC and GM for UAS operations in the 'certified' category and UAM (type #1 and type #2 operations)	New	Stakeholders	2025/Q1	Decision 2025/Q3
D	CS-UAS	New	JARUS CS-UAS JARUS AMC.RPAS.1309 EUROCAE	2023/Q3	Decision 2024/Q1
	CS-Light UAS	New	JARUS CS-LURS JARUS CS-LUAS		
	CS-VTOL	New	N/a	2024/Q1	Decision 2024/Q3
	CS-ETSO	Amend	Industry MOPS ²⁷	2022/Q1	Decision 2022/Q4
E	Part-ACAS	Amend	ICAO/JARUS-D&A	2023/Q3	Opinion 2024/Q2
	ATM/ANS Interoperability Regulations	Amend	Stakeholders		
	CS-ACNS	Amend	N/a	2024/Q3	Decision 2025/Q2
	ATCO licensing ATM/ANS common requirements	Amend	Stakeholders	2024/Q3	Opinion 2025/Q4
F	CS-36	Amend	N/a	2022/Q4	Decision 2023/Q4
	CS-34	Amend	N/a	TBD	TBD
	CS-CO ₂	Amend	N/a		

²⁷ Minimum Operational Performance Specification.

