

### **European Union Aviation Safety Agency**

# **Explanatory Note to Decision 2023/005/R**

# Remote aerodrome air traffic services Issue 3 of the GM on remote aerodrome air traffic services

RELATED NPA/CRD: 2022-02 — RMT.0624

#### **EXECUTIVE SUMMARY**

The concept of remote provision of aerodrome air traffic services (ATS) (commonly known as 'remote towers' or 'remote tower operations', sometimes referred to as 'digital towers') enables the provision of aerodrome ATS from locations/facilities where direct visual observation is not available. Instead, the provision of aerodrome ATS is based on a view of the aerodrome and its vicinity through means of technology. The term that is used to describe this is 'remote aerodrome ATS'.

The objective of this ED Decision is to address the evolving technological, procedural, and operational aspects of remote aerodrome ATS, with the aim of facilitating its safe implementation by the EASA Member States in accordance with the objectives of ATS, and of promoting the development and deployment of new digital technologies. Issue 3 of the Guidance Material is intended to support the stakeholders involved, in particular air navigation service providers (ANSPs), aerodrome operators, and national competent authorities (NCAs) in the decision-making and implementation activities in the application of Regulation (EU) 2018/1139 (the 'Basic Regulation'), Regulation (EU) 2017/373 (the 'ATM/ANS Common Requirements Regulation'), Regulation (EU) No 139/2014 (the 'Aerodrome Regulation'), Regulation (EU) 2015/340 (the 'ATCO Licensing Regulation') and Regulation (EU) No 923/2012 (the standardised European rules of the air (SERA) Regulation).

**Domain:** SESAR deployment

**Related rules:** ED Decision 2019/004/R 'Guidance Material on remote aerodrome air traffic services — Issue 2'

Affected stakeholders: NCAs, ANSPs and aerodrome operators

**Driver:** Safety **Rulemaking group:** Yes

Impact assessment: Light

#### **EASA** rulemaking procedure milestones

<b>Start</b> Terms of Reference	Public Consultation NPA 2022-02	Proposal to the Commission Opinion	Adoption by Commission Implementing Delegating act	<b>Decision</b> Certification Specifications, Acceptable Means of Compliance, Guidance Material
11.12.2019	2.5.2022	n/a	n/a	30.3.2023

# **Table of contents**

<ol> <li>Ab</li> </ol>	oout this Decision	
	summary — why and what	
2.1.	Why we need to amend the GM — issue/rationale	4
2.2.	What we want to achieve — objectives	4
2.3.	•	
2.4.		
2.5.	What are the benefits and drawbacks of the amendments	10
3. Hc	ow we monitor and evaluate the amended GM	11
4. Re	eferences	12
4.1.	Related EU regulations	12
4.2.	_	
4.3.	Other reference documents	13
5. Re	elated document	14

#### 1. About this Decision

The European Union Aviation Safety Agency (EASA) developed this Decision in line with the Basic Regulation<sup>1</sup> and the Rulemaking Procedure<sup>2</sup>. Rulemaking Task (RMT).0624 is included in Volume II of the European Plan for Aviation Safety (EPAS) for 2023-2025<sup>3</sup>. The scope and timescales of the task were defined in the related Terms of Reference – Issue 2 (ToR)<sup>4</sup>.

This Decision issues 'Guidance Material on remote aerodrome air traffic services' — Issue 3', replacing Issue 2 of the Guidance Material (GM) published with ED Decision 2019/004/R<sup>5</sup>. The new issue of this GM is based on the inputs of Rulemaking Group (RMG) RMT.0624 and on information stemming from related research (e.g. SESAR), standardisation (EUROCAE Working Group 100) and implementation activities.

In particular, in the context of the RMT.0624 activities, EASA launched a survey to gather information from a wide spectrum of stakeholders in order to assess the advances in the field since the last issue of the GM and to identify the parts where said GM would need updates. At an initial stage, all possible questions were gathered that resulted in a 104-question survey. Answers were received from 36 stakeholders including NCAs, ANSPs, system developers and manufacturers, unions, and one MET provider. Accordingly, EASA eventually identified 47 actions, based on which the RMG.0624 activities were organised.

As a result of this work, on 2 May 2022 EASA issued NPA 2022-02 for a 3-month public consultation.

Successively, EASA reviewed and assessed the comments received during such public consultation; the comments received and the related EASA responses are presented in Comment-Response Document<sup>6</sup>.

EASA developed the *final* text of this Decision with the Guidance Material (GM) considering the comments received during the public consultation and published the Decision on the Official Publication<sup>7</sup> of EASA.

The major milestones of this RMT are presented on the cover page.

<sup>&</sup>lt;sup>7</sup> https://www.easa.europa.eu/official-publication



Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91 (OJ L 212, 22.8.2018, p. 1) (https://eurlex.europa.eu/legal-content/EN/TXT/?qid=1535612134845&uri=CELEX:32018R1139).

<sup>&</sup>lt;sup>2</sup> EASA is bound to follow a structured rulemaking process as required by Article 115(1) of Regulation (EU) 2018/1139. Such a process has been adopted by the EASA Management Board (MB) and is referred to as the 'Rulemaking Procedure'. See MB Decision No 01-2022 of 2 May 2022 on the procedure to be applied by EASA for the issuing of opinions, certification specifications and other detailed specifications, acceptable means of compliance and guidance material ('Rulemaking Procedure'), and repealing Management Board Decision No 18-2015 (<a href="https://www.easa.europa.eu/the-agency/management-board/decisions/easa-mb-decision-01-2022-rulemaking-procedure-repealing-mb">https://www.easa.europa.eu/the-agency/management-board/decisions/easa-mb-decision-01-2022-rulemaking-procedure-repealing-mb</a>).

<sup>&</sup>lt;sup>3</sup> https://www.easa.europa.eu/en/document-library/general-publications/european-plan-aviation-safety-2023-2025

<sup>4</sup> https://www.easa.europa.eu/en/document-library/terms-of-reference-and-group-compositions/tor-rmt0624

<sup>5 &</sup>lt;u>ED Decision 2019/004/R - Remote aerodrome air traffic services | EASA (europa.eu)</u>

<sup>6</sup> https://www.easa.europa.eu/document-library/comment-response-documents

#### 2. In summary — why and what

#### 2.1. Why we need to amend the GM — issue/rationale

The rationale behind and the approach for undertaking a regulatory activity to support the implementation of remote aerodrome ATS are both explained in Section 2.1 of NPA 2017-218.

The fundamental principle for this EASA initiative is to ensure that remote aerodrome ATS are provided with, at least, the same level of safety as if the service were provided locally, and that operations and airspace users are not negatively affected by the new concept. As a baseline, according to the ATM/ANS Common Requirements Regulation<sup>9</sup>, any implementation of the provision of remote aerodrome ATS shall fulfil the requirements relevant to the changes to the ATM/ANS functional system.

An increasing number of initiatives to provide remote aerodrome ATS are being undertaken within numerous EASA Member States as well as worldwide. Many of these initiatives consider the operational context and applications that warrant the update of the previously published EASA GM.

Issue 2 of the ToR for RMT.0624 was issued in order to address the increased scope of the remote aerodrome ATS concept as well as the latest SESAR developments and results from other available research and validation activities. The goal was to benefit from the operational experience gained and support implementation initiatives.

The work undertaken under this further iteration of RMT.0624 determined the need to further enhance the existing guidance on specific regulatory, technological, and operational aspects, considering but not limited to the following:

- both single and multiple mode of operation;
- human factors (HF)/performance related to the new technology;
- aerodrome constraints (placement of equipment versus obstacle surfaces);
- hotspot cameras in a conventional tower;
- multiple mode of mixed conventional and remote aerodrome ATS; and
- third-party communication (leased commercial telecommunication lines) between remote tower sensors and operational facility and related risks and mitigations.

#### 2.2. What we want to achieve — objectives

The overall objectives of the EASA system are defined in Article 1 of the Basic Regulation. This Decision will contribute to achieving the overall objectives by addressing the issue(s) described in Section 2.1.

According to its ToR, the general objectives of RMT.0624 are to:

support the implementation of the provision of remote aerodrome ATS;

Commission Implementing Regulation (EU) 2017/373 of 1 March 2017 laving 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/legalcontent/EN/TXT/?uri=CELEX%3A32017R0373&qid=1647279094929).



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https://www.easa.europa.eu/en/document-library/notices-of-proposed-amendment/npa-2017-21

- review and, if necessary, further refine and complement the existing EASA guidance material;
- support the harmonisation as well as ensure the safe provision of ATS.

The specific objective of this ED Decision is to address new developments and operational experience gained with the effective implementation of the provision of remote aerodrome ATS in several countries, utilising different concepts and technical solutions, thus supporting the safety and efficiency of air operations.

#### 2.3. How we want to achieve it — overview of the amendments

The approach to keep this regulatory material at 'guidelines' level ('Guidance Material on remote aerodrome air traffic services') in the context of the EU regulatory framework was discussed during the work of the RMG. The reasons established in the previous phase of RMT.0624 were still considered valid, as remote aerodrome ATS provision is consistent with, and within the scope of, the existing regulatory framework (ICAO and EU) and no change is envisaged compared to the applicable principles and requirements for 'conventional' service provision (aerodrome ATS). Furthermore, in the EU regulatory framework, the provisions related to the assessment of changes to functional systems and to their oversight are included in the Basic Regulation and in the ATM/ANS Common Requirements Regulation. Concerning the latter, a large set of AMC and GM are already available to support ANSPs and their NCAs in safely assessing and overseeing the changes to functional systems.

EASA still considers that it is easier for those involved in the implementation of remote aerodrome ATS to have a single source of information encompassing all the aspects together, aside to the applicable provisions. For the reasons described, the guideline level has been chosen to be maintained in order to provide a single document with guidance and proportionate regulatory support for the implementation of remote aerodrome ATS.

The GM was subject to a comprehensive review which allowed to validate, remove or further expand the existing guidance as well as to address new subjects, as considered appropriate. This section provides an overview of the amendments.

Throughout the GM references to the applicable rules have been updated, removing those referring to repealed regulations and introducing ones where a new regulation came into force during the time since the publication of the last issue of the GM.

In *Chapter 1. Introduction*, some clarifications and further explanations have been given. The scope has been extended to include socio-economic considerations and mixed conventional and remote aerodrome ATS operations, which were left out from the previous issue of the GM. Based on the discussions held with the RMG, Issue 3 of the GM includes guidance on such aspects, as they might have an impact on the provision of services and consequently on the safety of operations. Accordingly, a new dedicated chapter has been introduced (see description of *Chapter 6* later).

In *Chapter 2. Definitions*, only some editorial changes have been introduced, while the definitions themselves remain unchanged. Further to stakeholders' feedback and a request from some RMG members, the change of the term 'remote aerodrome ATS' has been considered, as the term 'remote' could be considered misleading because in many installations the equipment is located at the airport served by the technology; it is thus not remote. Terms as 'virtual tower' or 'digital tower' have been suggested instead. After due consideration, it has been concluded that the existing definition is suitable, well established, and consistently used in the EU regulatory framework, so a change to

another — possibly also misleading, and in most cases promoted by some manufacturers — definition would not bring any benefit; it would instead upset a well-established and consistently used term.

In Chapter 3. The remote aerodrome ATS concept and modes of operation, only some minor changes have been introduced, the most significant being the addition and description of the term 'mixed conventional and remote aerodrome ATS operations'.

In Chapter 4. Operational context/applications and related recommendations, a new section (4.4. Remote tower centre operations) has been introduced, providing guidance on supervision and multiple ATCO endorsements. This new content has been developed building on the feedback received to a dedicated question in the survey (i.e.: For how many different aerodromes (remote or conventional) can you hold concurrently a valid unit endorsement based on ADI or ADV ratings?). The subject was further investigated with holders of multiple endorsements and ANSPs employing ATCOs with multiple endorsements. Derived from safety considerations, the new text considers today's experience from the implementation of remote tower centres (RTCs) and proposes a maximum of three concurrent valid unit endorsements. Consideration has been given to the requirements of Regulation (EU) 2015/340<sup>10</sup> (point ATCO.B.025(a)(3)). The level of harmonisation of equipment and operational procedures, which is expected to be progressively achieved in the future, could support the increase of the number of concurrent unit endorsements.

In Chapter 5. Operational and system considerations, several updates have been introduced.

In Section 5.2. Visual surveillance system, some extended explanations are added based on the recently published new version of the EUROCAE Minimum Aviation System Performance Standards (MASPS) Document (ED-240A Change 1). Accordingly, as the EUROCAE MASPS describes only the minimum standards, ANSPs should define individually operational visual requirements. To facilitate implementation in this respect, some new guidance is introduced.

Section 5.2.7.5 Difference in daylight/darkness perception has been completely redrafted as the survey indicated the need for a recommendation regarding the availability of real-time realistic light conditions. As the cameras change the light conditions of the outside view, it is necessary for the ATCO/AFISO to get information about real-time realistic light conditions somewhere from the controller working position.

In Section 5.6. Voice and data recording, further elaboration has been provided on the application of point ATS.OR.460 of the ATM/ANS Common Requirements Regulation, transposing the applicable ICAO Standards and Recommended Practices (SARPs) on the subject. Guidance has been provided on how to define recording requirements with references to the applicable legislation.

Some minor refinement has been introduced to Section 5.7.2. Management of other aerodrome assets.

A new Section 5.8.1. Remote aerodrome ATS equipment used for MET observation purposes has been introduced as it has been identified that meteorological operations (METOPS) — as they are outside

<sup>&</sup>lt;sup>10</sup> 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) (https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A32015R0340&qid=1647344296007).



the scope of ATS — are not addressed in the GM. If visual surveillance equipment is used for METOPS purposes, then such use should be assessed during system development, certification, and operation.

Section 5.10. Technical architecture, interdependencies and redundancy aspects has been also extended — and the title changed accordingly — with the introduction of guidance on interdependencies between several aerodromes to which ATS are provided from the same RTC. Several stakeholder inputs pointed to this issue, and in particular to the filing of alternate aerodromes in flight plans. If the destination aerodrome and all alternate aerodromes, filed in one flight plan, are part of one RTC, a possible failure of the RTC could affect the availability of ATS at all those aerodromes simultaneously. If airspace users are not made aware of the interdependencies between those aerodromes, a hazardous situation can occur as ATS may not be available at any of the airports selected in the flight plans. The assessment of the issue in cooperation with the RMG members allowed to develop an amended text with regard to flight planning (see later in the explanation for the change in Chapter 9.).

In Section 5.12. Working environment, a reference to applicable ISO standards has been introduced.

Chapter 6. Management of change has been completely re-elaborated and modified.

A new *Section 6.1. Addressing socio-economic factors* has been added to support the appropriate consideration of the social and economic dimension in the decision-making, implementation, and operation of remote tower operations, and to propose related actions and mitigating measures. The inclusion of this Section has been strongly supported both by stakeholders (through the survey) and by the RMG members. It seems rather evident that there is a social impact on a variety of aspects in the implementation of the remote tower concept, be it positive or negative. The newly introduced guidance provides some examples of situations related to social aspects to be considered when introducing remote tower operations. Socio-economic factors are not unrelated to safety and it is widely recognised that there are interdependencies between those areas. Therefore, to ensure safe implementation, all aspects of the change should be considered. To this end, this Section provides some generic guidance on them as a generic invitation for consideration to the stakeholders involved, although not directly linked to ATS provision.

The section on *Safety assessment (6.2)* has been extended with new references to sections of the GM where interdependencies are discussed; further elaboration on this new topic has been introduced after thorough evaluation of the strong demand and contributions received from stakeholders and the RMG during the regulatory process.

The section on *Human factors assessment (6.3)* has been reworked completely based on the outcome of the survey and of the subsequent experts' assessment. Related questions were asked as to whether the existing section on HF assessment in the GM was useful and complete. The feedback received indicated that certain aspects would require more clarity, and more guidance on the HF assessments would be needed. Additionally, certain examples have been added to clarify the content of the text. Furthermore, *Section 6.3* has been completed with additional explanatory text explaining HF methodologies and their application, and a reference to existing HF processes has been included.. In terms of structure, certain text — relevant to HF content — has been moved within the document (e.g. a link to *Section 5.12* has been added in the HF section). Additionally, the HF elements have been amended suggesting to pay due consideration to system usability, as well as physical and mental fatigue.

A new section discussing Social aspects to consider during transition to remote aerodrome ATS (6.3.3) has been also added in relation with the introduction of the socio-economic aspect into the GM (see above).

A new section on *Involvement of users* (6.4) has been added, providing guidance on the early involvement of affected stakeholders in a remote tower project to facilitate acceptance from all parties.

A new section on Migration from a conventional tower to a remote contingency tower (6.5.2) has been introduced, to further develop the guidance for the transition phase when the remote tower module is used exclusively for contingency operations, according to the information gathered from stakeholders who have implemented remote aerodrome ATS.

The section on Contingency planning and degraded mode procedures (6.7) has been extended with further elaboration on the topic especially on procedures for RTC operations, as from the survey it could be concluded that the level of guidance provided on this topic needed to be expanded.

Chapter 7. Aerodrome-related aspects is also reworked; considerations concerning the application of the requirement under point ADR.OR.B.040 of the Aerodrome Regulation<sup>11</sup> has been added.

The section on Local agreement between aerodrome and ATM/ANS providers (7.1.3) has been extended with elements to be considered after putting the system into operation.

A new section on Equipment placement constraints (7.1.4) has been introduced, as it was determined that this topic can cause many problems during installation, and guidance is missing from the current issue of the GM. All relevant ICAO SARPs and the Aerodrome Regulation have been assessed, and related guidance on application has been provided. It should be noted that the EASA position was not supported by all members of the RMG, who considered it still insufficient.

Chapter 8. Possible impact on airspace users has been completely rewritten. The guidance has been supplemented with a general link to the ATM/ANS Common Requirements Regulation. Also, a reference to the requirements of point ATM/ANS.OR.A.045 of the ATM/ANS Common Requirements Regulation and of GM1 ADR.OR.D.027 to the Aerodrome Regulation has been added to address the impacts on and mitigation measures for airspace users. The aerodrome interdependency issue (see above) has been also reflected here.

The current text of Chapter 9. Aeronautical information products and services has been replaced with new text providing guidance on the implementation, in the context of remote towers, of the new Part-AIS requirements introduced in the ATM/ANS Common Requirements Regulation through Regulation (EU)  $2020/469^{12}$ . During the development of the RMT activities, it was underlined that Appendix 1 — PART 3 — AERODROMES — AD 2.23 Additional Information in Part-AIS, within the ATM/ANS Common Requirements Regulation (EU) 2017/373, includes a requirement for the aircrew with regard to the selection of the alternate aerodrome, in circumstances where both the destination and the selected

<sup>12</sup> Commission Implementing Regulation (EU) 2020/469 of 14 February 2020 amending Regulation (EU) No 923/2012, Regulation (EU) No 139/2014 and Regulation (EU) 2017/373 as regards requirements for air traffic management/air navigation services, design of airspace structures and data quality, runway safety and repealing 104, 3.4.2020, (EC) Nο 73/2010 (OJ L p. 1) content/EN/TXT/?uri=CELEX%3A32020R0469&gid=1678355324845).



<sup>11</sup> 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=1647352009864).

alternate aerodrome are served by the same RTC. EASA acknowledges that such a requirement is not optimally placed as it addresses aircraft operators directly. Also, its substance might need to be revised as it currently does not potentially allow flight operations in areas where all aerodromes are served by the same RTC, although the existence of contingency procedures established by the ATS provider concerned might mitigate the issue. EASA intends to propose the revision of the affected rules (Part-ATS and Part-AIS of the ATM/ANS Common Requirements Regulation) to address the issue and ensure the necessary clarity, legal certainty and the appropriate level of safety in operations.

In Chapter 10. Qualification and training considerations the legislative references have been updated.

The section on *Qualification and training of ATSEP (10.3)* has been extended with the material from the new AMC and GM to the ATM/ANS Common Requirements Regulation, Part-PERS, describing the new training streams concept and its application to remote tower equipment.

References (Chapter 11.) have been reviewed and updated according to the evolution of the document.

The content of Appendix 1 on Checklist for the implementation of remote aerodrome ATS (12.1) has been extended with the newly introduced socio-economic factors and the extension of Chapter 6.

#### 2.4. What are the stakeholders' views — outcome of the consultation

NPA 2022-02 was published on 2 May 2022 for a 3-month public consultation period that ended on 2 August 2022. It is composed of two documents: NPA 2022-02 (A) as the Explanatory Note, NPA 2022-02 (B) as the proposed new issue of the Guidance Material on remote aerodrome ATS.

Altogether 339 comments were received to such NPA, and respectively 47 comments to NPA (A) and 292 comments to NPA (B). A number of comments (12) related to *Chapter 2.4 ATCO unit endorsements for remote aerodrome ATS provision* received from the consultation have been acknowledged and will be dealt with under the activities of RMT.0668 on ATCO licencing, as they might lead to amendments to the related provisions.

Comments were received from 25 stakeholders, including civil aviation authorities, ANSPs, airspace users, ATM equipment manufacturers, unions, and organisations representing the previously mentioned stakeholder types.

The comments received did not raise any major controversial issue with regard to the regulatory proposal.

The majority of comments suggested editorial changes, pointed out grammatical mistakes or proposed small textual amendments to further clarify the provisions presented in the document. Some comments acknowledged the work of EASA and of the RMG and endorsed the initiative to further develop the Guidance Material.

Several comments were received to the question raised in the NPA regarding Section 7.1.4 of the GM (Equipment placement constraints). The text of this section has been enhanced with the inputs received from stakeholders.

As a result of the consultation, the proposed new Appendix 5 (SESAR baseline 'operational visual performance requirements') has been removed from the GM as it is readily available elsewhere and unnecessarily extends the volume of the text. A reference to it is deemed to be sufficient.

The detailed EASA responses to all comments can be found in Chapter 2 of CRD 2022-02.

#### 2.5. What are the benefits and drawbacks of the amendments

The main benefit of this GM is that it is expected that it will enable wider application of operational experience gained through the implementation of the remote aerodrome ATS in several EASA Member States. It also aims to facilitates further evolution of technological developments, in particular by providing initial guidance for multiple mode of operation. Additionally, it provides guidance to address social aspects of related changes.

No drawbacks have been identified as regards this GM.

#### 3. How we monitor and evaluate the amended GM

EASA will continuously monitor and evaluate the correct application of the amended GM by conducting the following:

- Focused communication for Advisory Body meeting(s) (MAB/SAB/TeB/TEC/COM)
- Clarifications via electronic communication tools between EASA and NCAs (EUSurvey or other)
- Dedicated thematic workshop/session
- Combination of the above-mentioned means

#### References 4.

#### 4.1. Related EU regulations

Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91 (OJ L 212, 22.8.2018, 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 Implementing Regulation (EU) No 923/2012 of 26 September 2012 laving 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 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)

#### 4.2. Related EASA decisions

Executive Director Decision 2019/004/R of 15 February 2019 issuing Guidance Material on remote aerodrome air traffic services and repealing Decision 2015/014/R of the Executive Director of the Agency of 3 July 2015 'Guidance Material on remote aerodrome air traffic services' — Issue 2

Executive Director Decision 2017/001/R of 8 March 2017 issuing Acceptable Means of Compliance and Guidance Material to Commission Implementing Regulation (EU) 2017/373 'Common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight'

Decision 2013/013/R of the Executive Director of the European Aviation Safety Agency of 17 July 2013 adopting the Acceptable Means of Compliance and Guidance Material to 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 255/20101 'Acceptable Means of Compliance and Guidance Material to the rules of the air'

Decision 2022/006/R of the Executive Director of the European Aviation Safety Agency of 25 February 2022 adopting Certification Specifications and Guidance Material for Aerodromes Design 'CS-ADR-DSN — Issue 6'

#### 4.3. Other reference documents

EUROCAE ED-240A Change 1, 'Minimum Aviation System Performance Standard (MASPS) for Remote Tower Optical Systems', September 2021

# 5. Related document

CRD 2022-02 'Remote aerodrome air traffic services'