

European Union Aviation Safety Agency

Notice of Proposed Amendment 2022-04

in accordance with

Articles 6(3), 7 and 8 ('Standard procedure': public consultation) of MB Decision

No 18-2015

Regular update of the SERA regulatory framework

(IRs and AMC & GM)

RMT.0476 (Subtasks 1, 2 and 4)

EXECUTIVE SUMMARY

This Notice of Proposed Amendment (NPA) addresses safety and regulatory coordination issues related to the standardised European rules of the air (SERA). Its main objective is to maintain a high level of safety and environmental protection of the European Union (EU) air navigation system, by ensuring the necessary maintenance and development of the SERA regulatory framework.

In order to achieve this objective, this NPA includes proposed amendments to Regulation (EU) No 923/2012 (the SERA Regulation) and to the related acceptable means of compliance (AMC) & guidance material (GM), which:

- ensure synchronisation between the SERA regulatory framework and the originating transposed International Civil Aviation Organization (ICAO) provisions, especially those of ICAO Doc 4444 'PANS-ATM' up to its Amendment 9, in particular in relation to new procedures on standard instrument departures (SID) and standard instrument arrivals (STAR) and other provisions identified as being of a 'rules-of-the-air' nature;
- introduce changes to the existing radio communication failure procedure in anticipation of a future amendment to ICAO Annex 2, thus bringing forward in time the related operational benefits;
- remove the Supplement to the Annex to the SERA Regulation, containing the commonly agreed differences to ICAO Standards and Recommended Practices (SARPs), and introduce regulatory references to Regulation (EU) 2018/1139 on the notification of differences;
- introduce speed restrictions to prevent supersonic flights over the territory of the EU, with the objective of
 protecting citizens from unacceptable sonic booms generated by supersonic transport (SST) aircraft, in order
 to maintain a high level of environmental protection in Europe;
- address issues in the implementation of the SERA Regulation as either identified by the European Union Aviation Safety Agency (EASA) through its standardisation activities or raised by stakeholders; and
- remove editorial mistakes and identified consistency issues.

The NPA also includes minor proposed amendments to GM related to Annex IV 'Part-AIS to Regulation (EU) 2017/373, for consistency purposes.

A safety recommendation addressed to EASA, related to the inclusion of information on ballistic parachutes on board in the flight plan, is also addressed by this proposal.

Domain:	Air traffic management/air navigation services (ATM/ANS)			
Related rules:	Regulation (EU) No 923/2012 (SERA Regulation) and related AMC & GM			
	Regulation (EU) 2017/373 and related AMC & GM			
Affected stakeholders:	s: Member States, national competent authorities (NCAs)/national supervisory authorities (NSA ATM/ANS providers, airspace users, aerodrome operators and EASA			
Driver: Efficiency/proportionality Rulemaking group: No				
Impact assessment:	None	Rulemaking Procedure:	Standard	
FASA rulemaking procedure milestones				

EASA rulemaking procedure milestones

Start Terms of Reference	Public consultation	Proposal to the Commission EASA Opinion	Adoption by the Commission Implementing Act	Decision Acceptable Means of Compliance & Guidance Material
18.8.2017	25.5.2022	2022 Q/3	2023	2023



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1. About this NPA

1.1. How this NPA was developed

EASA developed this NPA in line with Regulation (EU) 2018/1139¹ (the 'Basic Regulation') and the Rulemaking Procedure². It is a deliverable that results from Subtasks 1, 2 and 4 of rulemaking task (RMT).0476 'Regular update of the standardised European rules of the air'³, which is included in Volume II of the European Plan for Aviation Safety (EPAS) for 2022-2026⁴, and proposes amendments to the regulatory framework (implementing rules (IRs), AMC and GM) related to SERA (hereafter referred to as the 'SERA regulatory framework').

The proposed amendments resulting from Subtasks 1 and 2 of RMT.0476 were developed by EASA with the contribution of Eurocontrol subject matter experts. These amendments ensure synchronisation on specific aspects of the SERA regulatory framework with the corresponding ICAO framework, and in particular with ICAO Doc 4444 'PANS-ATM' up to its Amendment 9, and consider implementation feedback gathered by EASA through its standardisation activities, as well as that received from stakeholders.

The proposed amendments resulting from Subtask 4 contain the introduction of speed restrictions to protect citizens from unacceptable sonic booms from SST aircraft, in order to maintain a high level of environmental protection in Europe.

EASA developed this NPA considering:

- the analysis of the content of ICAO State Letters introducing amendments to ICAO provisions relevant for the SERA regulatory framework;
- a safety recommendation addressed to EASA as a result of an accident investigation;
- observations and feedback from standardisation inspections;
- justified proposals submitted by stakeholders (e.g. Eurocontrol ATM Procedures Development Sub-Group (APDSG)); and
- the need for a timely process to identify differences between the SERA regulatory framework and ICAO SARPs.

With regard to the proposed amendments on speed restrictions for flights by SST aircraft, EASA performed a focused consultation in 2020 in the form of a survey addressed to the ATM/ANS Technical

https://www.easa.europa.eu/document-library/general-publications/european-plan-aviation-safety-2022-2026



¹ 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) (<u>https://eurlex.europa.eu/legal-content/EN/TXT/?qid=1535612134845&uri=CELEX:32018R1139</u>).

² 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 18-2015 of 15 December 2015 replacing Decision 01/2012 concerning the procedure to be applied by EASA for the issuing of opinions, certification specifications and guidance material (<u>http://www.easa.europa.eu/the-agency/management-board/decisions/easa-mb-decision-18-2015-rulemaking-procedure</u>).

³ The Terms of Reference, defining the scope and timescales of this RMT, can be found under <u>https://www.easa.europa.eu/document-library/terms-of-reference-and-group-compositions/tor-rmt0476</u>.

Body (TeB) members. A stepwise approach is foreseen in order to reach this objective, as detailed in Section 2.1.

This NPA is hereby submitted to all interested parties for consultation in accordance with Article 115 of the Basic Regulation, and Articles 6(3), 7 and 8 of the Rulemaking Procedure.

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

1.2. How to comment on this NPA

Please submit your comments using the automated **Comment-Response Tool (CRT)** available at <u>http://hub.easa.europa.eu/crt/</u>⁵.

The deadline for the submission of comments is **25 August 2022**.

1.3. The next steps

Following the public NPA consultation, EASA will assess all the comments received and, if necessary, further review the subject regulatory proposal. Focused-consultation activities with the affected stakeholders may be organised to discuss and address specific aspects, as deemed appropriate. As a result of this process, EASA will issue an Opinion including a proposal for amendment to the SERA Regulation⁶ and, for regulatory consistency, to Regulation (EU) 2017/373.

Together with the Opinion, as informative material, EASA will publish the corresponding draft amendments to the existing AMC & GM to the SERA Regulation and those related to Regulation (EU) 2017/373⁷. Upon publication of the regulation introducing amendments to the SERA Regulation and to Regulation (EU) 2017/373, EASA will publish a Decision to amend the related AMC & GM to support the implementation of the amended requirements.

The individual comments received on this NPA and the related EASA responses will be reflected in a comment-response document (CRD), which will be published on the EASA website⁸.

⁸ <u>https://www.easa.europa.eu/document-library/comment-response-documents</u>



⁵ In case of technical problems, please send an email to <u>crt@easa.europa.eu</u> with a short description.

⁶ 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) (<u>https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A32012R0923&qid=1650640171717</u>).

⁷ 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) (<u>https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A32017R0373&qid=1650640465408</u>).

2. In summary — why and what

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

2.1.1. Synchronisation with ICAO provisions

The SERA regulatory framework, introduced with the SERA Regulation and successively completed with Regulation (EU) 2016/1185⁹, is largely based upon the transposition of ICAO SARPs, in particular those in Annex 2, Annex 3, Annex 10 Volume II, and Annex 11, and of procedures for air navigation services (mainly from PANS-ATM). In the last years, the SERA regulatory framework was only amended to ensure alignment with the comprehensive amendments to Annex IV (Part-ATS) to Regulation (EU) 2017/373 (via Regulation (EU) 2020/469¹⁰) and for consistency with the new regulatory framework on U-space (with Regulation (EU) 2021/666¹¹). In the meantime, the ICAO provisions in the annexes and documents transposed into the SERA regulatory framework have been subject to various amendments. The maintenance of an up-to-date and unambiguous SERA regulatory framework which enables the uniform application of ICAO provisions in the EU regulatory framework and supports Member States in fulfilling their legal obligations under the Chicago Convention is considered essential for safety and regulatory compliance. This NPA proposes amendments which aim at synchronisation between ICAO provisions and the EU regulatory framework.

References considered for the synchronisation of the SERA regulatory framework with the relevant ICAO provisions:

- Annex 2: transposition for clarity, Amendment 45 (already covered till Amendment 44, Amendment 46 is considered in 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');
- Annex 3: Amendment 77-A was implemented by Regulation (EU) 2020/469, Amendment 77/B,
 Amendment 78 and 79 are considered in RMT.0719 'Regular update of air traffic management/air navigation services rules (IRs and AMC & GM)';
- Annex 10 Volume II: Amendment 91 has already been implemented by Regulation (EU) 2016/1185, Amendment 92 is not relevant for the SERA Regulation;
- Annex 11: Amendment 52 (Amendments 48 to 51 were considered in RMT.0464 'Requirements for air traffic services (ATS)');

¹¹ Commission Implementing Regulation (EU) 2021/666 of 22 April 2021 amending Regulation (EU) No 923/2012 as regards requirements for manned aviation operating in U-space airspace (OJ L 139, 23.4.2021, p. 187) (<u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0666&qid=1650641418136</u>).



⁹ Commission Implementing Regulation (EU) 2016/1185 of 20 July 2016 amending Implementing Regulation (EU) No 923/2012 as regards the update and completion of the common rules of the air and operational provisions regarding services and procedures in air navigation (SERA Part C) and repealing Regulation (EC) No 730/2006 (OJ L 196, 21.7.2016, p. 3) (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016R1185&qid=1650641099897).

¹⁰ 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 Regulation (EC) No 73/2010 (OJ L 104, 3.4.2020, p. 1) (<u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R0469&qid=1650641257511</u>).

- Doc 4444 'PANS-ATM': harmonisation with Annex IV (Part-ATS) to Regulation (EU) 2017/373,
 Amendment 7A, Amendment 8, Amendment 9 (a comprehensive transposition was considered in RMT.0464 'Requirements for air traffic services (ATS)');
- Doc 7030 Regional Supplementary Procedures, European (EUR) Region.

Compliance with Article 5 of the SERA Regulation generates difficulties for the Member States and hinders the work during standardisation inspections because of the outdated information presented in the Supplement to the Annex containing the commonly agreed differences. In order to facilitate the implementation of the obligations of the Member States under Article 38 of the Chicago Convention and the provision of information to ICAO under the ICAO Universal Safety Oversight Audit Programme, EASA has decided to remove the Supplement to the Annex from the SERA Regulation and to consequently amend Article 5. According to Article 74¹² of the Basic Regulation, EASA is obliged to establish and manage a repository of information, which shall also contain information related to the implementation of the ICAO SARPs in EU requirements with the use of the ICAO Electronic Filing of Differences (EFOD) Compliance Checklists (CCs). The Member States are obliged to use this information to file their differences to ICAO according to Article 90(4)¹³ of the Basic Regulation. Removing the Supplement to the Annex from the SERA Regulation is expected to allow the timely updates of such information, without the regulatory process to amend the SERA Regulation. Differences marked as significant differences in the EFOD CCs shall be considered as commonly agreed differences and shall be filed to ICAO. References to the differences between the proposed amendments in this NPA and ICAO SARPs are detailed in Section 2.1.7 below.

One of the differences addresses the use of a dedicated secondary surveillance radar (SSR) code A7601 in case of radio communication failure (RCF) to avoid the ambiguity related to the option for an instrument flight rules (IFR) flight experiencing RCF to remain in visual meteorological conditions (VMC) and land at the nearest suitable aerodrome. This proposal is introduced as a result of coordination with the pilot community, which strongly supported the introduction of this option, and it is considered instrumental for permitting IFR flights to fly under VMC and land at the nearest suitable

The Member States shall use that information when implementing their obligations under Article 38 of the Chicago Convention and when providing to ICAO information under the ICAO Universal Safety Oversight Audit Programme. [...]



Regulation (EU) 2018/1139 Article 74 – Repository of information [...]

^{4.} The Agency shall, in cooperation with the Commission and the Member States, include and update where necessary, the following information in the repository referred to in Article 74:

⁽a) information on the compliance of this Regulation and of the delegated and implementing acts adopted on the basis thereof and of the measures taken by the Agency under thThat repository shall include information about: [...]

⁽n) information related to the implementation of international standards and recommended practices, referred to in Article 90(4);

^[...]

¹³ Regulation (EU) 2018/1139 Article 90 – International cooperation

^[...]

^{4.} The Agency shall, in cooperation with the Commission and the Member States, include and update where necessary, the following information in the repository referred to in Article 74:

⁽a) information on the compliance of this Regulation and of the delegated and implementing acts adopted on the basis thereof and of the measures taken by the Agency under this Regulation with the international standards and recommended practices;

⁽b) other information related to the implementation of this Regulation, which is common to all Member States and which is relevant for monitoring by ICAO of the compliance of Member States with the Chicago Convention and international standards and recommended practices.

aerodrome. Concerns were expressed though with regard to the need to adapt air traffic services (ATS) systems to handle such special code. In the existing ATS systems, the transmission of A7600 automatically triggers the display of a special flag on the label associated with that aircraft, and the ATS system is designed such as not to lose the correlation with the flight plan. Selecting A7601 without adaptations in the ATS systems would just lead to losing the correlation and displaying only the raw data received from the surveillance data processing systems. The adaptations of the ATS systems would take time and effort. In pursuing the proposed solution, one should also consider that the likelihood of an IFR flight that experiences RCF continuing its flight in VMC and landing at the nearest suitable aerodrome is very remote. For such cases, until the time the ATS systems would be adapted to retain the correlation, a manual correlation could be considered.

Additionally, in the context of the RMT.0464 activities on 'Requirements for air traffic services (ATS)', resulting in the introduction of detailed organisation and technical requirements to Annex IV (Part-ATS) to Regulation (EU) 2017/373, it was determined that certain ICAO provisions (in particular in PANS-ATM), are of a 'rules of the air' nature but are currently not included in the SERA regulatory framework. This NPA includes proposed amendments which aim at addressing this issue and at completing the SERA regulatory framework.

2.1.2. Addressing safety recommendation SPAN-2017-038

This NPA includes a proposal for amendment in response to safety recommendation (SR) SPAN-2017-038, addressed to EASA by the Spanish safety investigation authority (CIAIAC)¹⁴, stemming from the accident investigation of a RANS S6 type of aircraft, registered as EC-YDQ on 15 July 2016 at San Javier-Murcia: 'It is recommended that the European Aviation Safety Agency (EASA) lay out the measures required so that aircraft equipped with a ballistic parachute reflect this in the flight plan as part of point SERA.4005, Contents of a flight plan, 'Emergency and survival equipment'. [REC 38/17]'

It is recognised that there is a need to train emergency personnel (firefighting, rescue, etc.) on the ballistic parachutes that are installed on such aeroplanes and may not have been deployed during the occurrence and thus constitute a possible threat during rescue operations. The information about the installation of such systems on a given aircraft is, therefore, proposed for inclusion in the flight plan, to enable the air traffic services personnel to make this information available to the emergency personnel.

2.1.3. Regulation of flights by supersonic aircraft

As mentioned in Chapter 1, the NPA includes a regulatory proposal to prevent supersonic flights over the territory of the EU. In the past, civil SST aircraft, like Concorde, were banned from operating at speeds above Mach 1 when flying over land, including in Europe and in the United States (US). This was due to the loud sonic boom generated by such aircraft when flying supersonically, which would reach the ground covering an approximate 60-km wide 'carpet' under the flight track and create unacceptable situations to the public.

While the ban of operations at supersonic speed over land is still in force in several world regions, including in the US, the SERA requirements (cf. SERA.5005(d)(1)) applicable in the EU, which were adopted after Concorde was withdrawn from commercial operation, only ban transonic and

¹⁴ Regulation (EU) No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC (OJ L 295, 12.11.2010, p. 35) (<u>http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1479716039678&uri=CELEX:32010R0996</u>).



supersonic flights under visual flight rules (VFR), in line with ICAO Annex 2. A ban of supersonic flights conducted under IFR over land has not been implemented.

A new generation of SST aircraft is being developed for business jet and commercial airline applications and is expected to become operational in the mid-2020s. Those aircraft can be expected to operate internationally, including in the European airspace. Sonic booms of this new generation of SST aircraft are expected to be comparable to those of the Concorde, and when emitted over land, would create unacceptable situations to the public.

There are no ICAO provisions that define operational restrictions for supersonic IFR flights for the purpose of environmental protection. In addition, there are no ICAO certification standards for SST aircraft that address the aspect of en-route noise (sonic booms).

In the US, supersonic flight over land is not allowed, unless a special flight authorisation is issued. In Title 14 of the Code of Federal Regulation (CFR), the specific US rules can be found under 14 CFR 91.817 'Civil aircraft sonic boom' to 14 CFR 91.818 'Special flight authorization to exceed Mach 1'¹⁵. Paragraph 91.817 sets the limitation on SST aircraft in the US, and to and from aerodromes in the US, except for the authorisation given in accordance with paragraph 91.818. The latter contains the requirements on the content of the application for such authorisation.

It is concluded that besides the developments of certification requirements for SST aircraft, which are dealt with by EASA in the context of the activities of RMT.0733 on 'Environmental protection requirements for supersonic transport aeroplanes', there is a need to introduce operational requirements, and where necessary, restrictions on supersonic flights in Europe, including for the purpose of en-route noise mitigation. This could be done in a stepwise approach. The first step proposed with this NPA includes the introduction of speed restrictions to prevent supersonic flights over the territory of the EU in order to protect citizens from unacceptable sonic booms from SST aircraft operating at supersonic or transonic speeds. The speed restriction proposed in this NPA does not apply to the high seas airspace where Annex 2 to the Chicago Convention applies. Potential future steps could assess the implementation of an appropriate coastal buffer for flights at supersonic speed, as well as more specific requirements for the operation of SST aircraft in the longer term, including consideration of advanced technologies.

Advanced sonic boom mitigation technologies have started being developed in ongoing research but are not expected to become commercially avialable in the short term. The proposed speed restriction over land the EU territory may be revised in the future if:

- advanced technology enables a second new generation of 'low-boom' SST aircraft, with the goal
 of mitigating or preventing the perceived annoyance from sonic booms on the ground; and
- international standards for environmental protection are developed and implemented in Europe covering the aspect of en-route noise and sonic booms from SST aircraft, in line with Appendix G to ICAO Assembly Resolution A40-17; and
- science allows for the determination of which level of sonic boom created by 'low-boom' SST aircraft would be acceptable for supersonic flights over land (i.e. create no unacceptable situations for the public).

¹⁵ Title 14 Aeronautics and Space, Chapter I-i 1. Federal Aviation Administration, Department of Transport, Part 91 General Operating and Flight Rules, <u>Subpart I. Operating Noise Limits (govregs.com)</u>



In light of further development of advanced technologies and concepts for sonic boom reduction/mitigation and related research about their environmental impacts, more specific operational rules can potentially be identified in the future in order to reach the objective of protecting the European citizens from exposure to unacceptable sonic booms.

2.1.4. Additional considerations

Additionally, the outcome from standardisation activities, as well as the continuous dialogue with stakeholders on the implementation of the rules, highlighted the need to reconsider the formulation of certain SERA requirements and the introduction of further guidance.

Furthermore, the NPA proposes amendments to the GM on the content of the aeronautical information publication (AIP) in Regulation (EU) 2017/373 as a consequence of the amendments to SERA.6005(d), requiring the display of radio mandatory zones (RMZ) and transponder mandatory zones (TMZ) in the AIP. The aim of this amendment is to collect all requirements in the same regulation in order to ease compliance.

Finally, the NPA also includes proposed amendments derived from the need to fix editorial and consistency issues within the SERA regulatory framework.

2.1.5. Exemptions¹⁶

There is no exemption in accordance with Article 70 'Safeguard provisions' and/or Article 71 'Flexibility provisions' and/or Article 76 'Agency measures' of the Basic Regulation pertinent to the scope of this NPA.

2.1.6. Alternative means of compliance (AltMoC)

There is no AltMoC relevant to this NPA.

2.1.7. References to the differences between the proposals of this NPA and relevant ICAO standards and procedures

Annex provision	Difference category	Details of difference	Remarks
Annex 2	A (more exacting or	The proposed amendment	
3.3.2	exceeds a SARP)	to point SERA.4005(a)(14)	
		explicitly requires the	
		inclusion of information	
		regarding the existence a	
		ballistic parachute recovery	
		system in the flight plan, if	
		installed on the aeroplane.	

Article 76(7): Individual flight time specification schemes that deviate from the applicable certification specifications (CSs) that ensure compliance with the essential requirements and, as appropriate, the related implementing acts.



¹⁶ Exemptions that have an impact on the development of this RMT and refer to:

[—] Article 70(1): Measures taken as an immediate reaction to a safety problem;

Article 71(1): Limited in scope and duration exemptions from the substantive requirements laid down in the Basic Regulation and its implementing acts in the event of urgent unforeseeable circumstances that affect any natural or legal person subject to the Basic Regulation or urgent operational needs of that person;

Article 71(3): Derogation from the act(s) implementing the Basic Regulation where an equivalent level of protection to that attained by the application of the said rules can be achieved by other means; or

	1		
Annex provision	Difference category	Details of difference	Remarks
Annex 2 3.6.5.2.1 a)	B (different in character or the Contracting State has established other	The newly proposed point SERA.14083(c)(6) also requires IFR flights to set	Amendment to the communication failure procedures in Annex 2
	means of compliance)	Mode A Code 7601 in order to inform the air traffic services unit about their intention to continue to fly in VMC and land at the nearest suitable aerodrome.	are expected to be applicable in November 2025 according to the planning of ICAO (status in January 2022).
Annex 2 3.6.5.2.2 b)	B (different in character or the Contracting State has established other means of compliance)	The newly proposed point SERA.14083 requires following a common time parameter of 20 minutes for both procedural and surveillance environment to be observed before adapting the speed and vertical profile in accordance with the filed flight plan, as amended by the modification and delay messages.	Amendment to the communication failure procedures in Annex 2 are expected to be applicable in November 2025 according to the planning of ICAO (status in January 2022).
Annex 2 4.4	A (more exacting or exceeds a SARP)	The proposed amendment to SERA.5005(d)(1) does not allow the competent authority to authorise VFR flights at transonic or supersonic speeds.	
Annex 11 3.7.3.3	A (more exacting or exceeds a SARP)	The proposed amendment to point SERA.8015(e)(5) is more exacting as it is considered that the requirements for vehicle drivers should be as precise as for the flight crew.	Alignment with point ADR.OPS.B.027(c)(3) of Regulation (EU) No 139/2014 ¹⁷ .

¹⁷ 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) (<u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014R0139&qid=1650889793642</u>).



Annex provision	Difference category	Details of difference	Remarks
Annex 11	B (different in character	The proposed amendment	Alignment with
4.3.7	or the Contracting State	to points (c)(8) and (d)(7) of	Regulation (EU) No
4.3.8	has established other	point SERA.9010 does not	139/2014 and
4.3.9	means of compliance)	limit the reportable surface	Regulation (EU) No
		conditions to the significant	965/2012 ¹⁸ .
		ones and does not contain	
		the requirement of	
		providing information on	
		braking action as a result of	
		implementing the ICAO	
		Global Reporting Format	
		(GRF) in order to avoid the	
		provision of contradicting	
		information to the pilot.	
Doc 4444	B (different in character	The proposed amendment	
PANS-ATM	or the Contracting State	to point SERA.13015(a)	
8.5.3.3	has established other	allows the competent	
	means of compliance)	authority to approve other	
		than the aircraft registration	
		as aircraft identification for	
		flights without a flight plan.	

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 NPA will contribute to achieving these overall objectives by addressing the issues described in Section 2.1.

The specific objectives of this proposal are to:

- assist the Member States in exercising their rights and fulfilling their obligations under the Chicago Convention by updating the SERA regulatory framework through the transposition of the latest amendments to the relevant ICAO documentation, including the provisions related to new procedures on SID and STAR as well as 'rules-of-the-air' provisions that were not considered suitable for inclusion in Regulation (EU) 2017/373;
- contribute to the EU-wide aviation policy on the RCF procedure in anticipation of a future amendment to ICAO Annex 2, thus bringing forward in time the related operational benefits;
- promote technical and operational interoperability and sharing of administrative best practices through the inclusion of information in the flight plans about the ballistic parachute recovery systems that are installed on small aeroplanes and may not have been deployed during an occurrence, so that it can be made available to rescue and emergency personnel and thus minimise any potential risks;

¹⁸ 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) (<u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0965&qid=1650889887590</u>).



 maintain a high, uniform level of environmental protection in Europe by protecting European citizens from an unacceptable exposure to sonic booms that result from supersonic flights over the territory of the EU.

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

The detailed explanation of the amendments proposed in this NPA is provided in Chapter 3. The proposed SERA amendments may be categorised in four areas, as follows:

Area #1: Alignment with relevant ICAO provisions as last amended, in particular by considering Amendment 45 to Annex 2, Amendment 52 to Annex 11, Amendments 7-A and 7-B, 8, and 9 to Doc 4444 (PANS-ATM), and ICAO Doc 7030. In particular, the amendments concern the following SERA provisions:

- Article 2 'Definitions' (as regards definitions of data accuracy, AIRMET, SIGMET, instrument approach operations, meteorological watch office (MWO) and runway condition report);
- Article 5 'Differences' (as regards differences to ICAO provisions);
- New SERA.3212 and AMC1 SERA.3212 'Uncertainty as to the position on the manoeuvring area' regarding the actions to be undertaken by pilots or vehicle drivers being in doubt as to their position with respect to the manoeuvring area;
- SERA.5005(b) 'Visual flight rules', SERA.5010(c) and GM1 SERA.5010(c) 'Special VFR in control zones' about aligning the text with Annex 2 and ensure consistency with the rest of the regulation;
- New AMC1 SERA.6001(a)(6) 'Classification of airspaces' and related GM1, GM2 and GM3
 SERA.6001(a)(6) with regard to operations in Class F airspace;
- SERA.8015 'Air traffic control clearances' related to uncontrolled portions of flights and readback requirements for vehicle drivers;
- New AMC1, AMC2, GM1 and GM2 SERA.8015(b)(1) 'Air traffic control clearances' with regard to speed control;
- New GM1 SERA.8015(b)(8) 'Air traffic control clearances' related to final approach aids;
- New GM1 SERA.8015(d)(3)(ii) 'Air traffic control clearances' about the use of certain phrases in clearances;
- SERA.8020 'Adherence to current flight plan' about deviations;
- New AMC1 SERA.8020(b) 'Adherence to current flight plan' about deviations from the true Mach number;
- SERA.8025 'Position reports' about abbreviated position reports;
- New AMC1 SERA.8025(a) 'Position reports' about the transmission of position reports;
- SERA.8035 'Communications' related to the amendments of the new SERA.14083;
- SERA.9010 'Automatic terminal information service (ATIS)' related to the GRF;
- New GM1 SERA.10001 'Application' of Section 'Alerting Service' related to the issuance of NOTAMs in case of prolonged search and rescue (SAR) activities;



- GM1 SERA.11001 'General' of Section 'Interference, emergency contingencies and interception' related to emergency descent;
- New AMC1 SERA.12005(a)(9) 'Special aircraft observations' related to the GRF;
- SERA.12020(b) 'Exchange of air-reports' about the reporting of braking action and the related new GM1 SERA.12020(a)(1);
- SERA.13015 'Mode S aircraft identification setting' and the related new GM1 SERA.13015 and GM2 SERA.13015 considering ADS-B as well;
- Appendix 1 to AMC1 SERA.14001 'General' of Section 'Voice communication procedures' related to the SID and STAR phraseology, ground de-icing and aerodrome information;
- SERA.14045(c) 'Transmitting technique' about the use of the expression 'take-off';
- SERA.14065 'Radiotelephony procedures for air-ground voice communication channel changeover' related to the categories 'SUPER' and 'HEAVY';
- New SERA.14083 'Radio communication failure procedures' and the related AMC1 SERA.14083(b)(1), GM1 SERA.14083(b)(1), AMC1 SERA.14083(b)(3), GM1 and GM2 SERA.14083(c), GM1 SERA.14083(c)(4)(i)(B), AMC1 SERA.14083(d), GM1 and GM2 to SERA.14083(d), as well as new GM1 SERA.14085 'Use of blind transmission' and deleted SERA.14087 'Use of relay communication technique';
- SERA.14090 'Specific communication procedures' and the related new GM1 SERA.14090(a) and
 GM1 SERA.14090(d)(4) related to the category 'HEAVY', use of CPDLC and weather deviation;
- New AMC1 SERA.14090(e) and AMC2 SERA.14090(e) 'Specific communication procedures' related to the SID and STAR processes and phraseology;
- New SERA.14100 'Notification of suspected communicable diseases or other public health risk on board an aircraft' and the related GM1, GM2 and GM3 SERA.14100;
- Appendix 1 'Signals' related to instructions for ground vehicles;
- Appendix 5 'Technical specification related to aircraft observations and reports by voice communications' related to weather codes and runway braking action.

Area #2: Response to the safety recommendation, implementation feedback and stakeholders' proposals, standardisation inspections, concerning the following SERA provisions:

- New GM3 Article 4 'Exemptions for special operations';
- New GM1 Article 9 'Safety requirements';
- New GM3 SERA.3105 'Minimum heights' related to take-off and landing;
- New SERA.3210(c)(6) 'Right-of-way' and the related GM1 SERA.3210(c)(6)(i) and GM1 SERA.3210(c)(6)(ii) related to sailplane thermal flying;
- SERA.4005 'Contents of a flight plan' and the related new GM2 SERA.4005(a)(14) as a result of an accident investigation, regarding the inclusion in the flight plan of information about the existence of a ballistic parachute recovery system, if installed on the aeroplane;
- New GM2 SERA.5015(b) 'Instrument flight rules (IFR) Rules applicable to all IFR flights' with



regard to performance-based navigation;

- New GM1 SERA.6001(a)(5) 'Classification of airspaces' related to Class E airspace;
- New GM1 SERA.6005(d) 'Requirements for communications, SSR transponder and electronic conspicuity in U-space airspace' and the related new GM5 AIS.TR.305(c) 'Aeronautical information publication (AIP)';
- SERA.13015 'Mode S aircraft identification setting', as well as the related new AMC1 SERA.13015, GM1, GM2, GM3, GM4 and GM5 SERA.13015 regarding the requirements on call signs in case no flight plan has been submitted;
- GM1 SERA.14035 'Transmission of numbers in radiotelephony';
- New AMC1 SERA.14050 'Radiotelephony call signs for aircraft'.

Area #3: Speed restrictions for flights by SST aircraft over EU territory¹⁹, which concern the following SERA provisions:

- SERA.5005(d)(1) 'Visual flight rules';
- SERA.5015(d) 'Instrument flight rules (IFR) Rules applicable to all IFR flights';
- SERA.6001(c) 'Classification of airspaces';
- Appendix 4 'ATS airspace classes services provided and flight requirements'.

Area #4: Legal updates and editorial corrections, which concern the following SERA provisions:

- Article 3 'Compliance';
- GM1 Article 2(27) 'Air traffic advisory service';
- Article 10 'Amendments to Regulations (EC) No 1033/2006 and (EU) No 255/2010';
- GM1 SERA.8015(ec) 'Air traffic control clearances';
- GM1 SERA.11015 'Interception';
- Appendix 1 'Signals';
- Appendix 2 'Unmanned free balloons';
- Supplement to the Annex.

As part of the consultation process, EASA asks for the views of the stakeholders on the following subjects:

- The proposal to include specific requirements on sailplane thermal flight in point SERA.3210 'Right of way'.

A sailplane association drew the attention of EASA to the need for common rules on sailplane thermal, ridge or slope soaring. Hence, EASA requests its stakeholders to express their explicit views on the need to address the right of way for sailplanes and on the content of the proposed requirements.

¹⁹ The speed restriction proposed under this NPA does not apply to the high seas airspace where Annex 2 to the Chicago Convention applies.



 The most appropriate way to indicate RMZ or TMZ on a chart. The newly proposed GM1 SERA.6005(d) provides further guidance on the requirement to publish RMZs and TMZs in the AIP.

EASA requests its stakeholders to express their explicit views on the most appropriate way to indicate RMZ and TMZ on a chart.

The SERA framework is closely interrelated with the requirements for the provision of air traffic services stipulated in Regulation (EU) 2017/373 and in particular in Annex IV (Part-ATS) thereto (and the associated AMC and GM). The introduction of changes resulting from this regulatory initiative could consequentially generate amendments to the following related Part-ATS and Part-AIS (Annex VI) provisions:

- Definition of 'runway condition report (RCR)' in Annex I 'Part-Definitions';
- ATS.TR.270 'Authorisation of special VFR' (in relation to the proposed amendment to SERA.5010);
- GM1 ATS.TR.270(a)(3) 'Authorisation of special VFR' (in relation to the proposed amendment to SERA.5010(c));
- ATS.OR.445 'Communications for the control or management of vehicles other than aircraft on manoeuvring areas at aerodromes' and its related GM1 ATS.OR.445(a) (in relation to the proposed amendment to point 3.1.3 of Appendix 1 'Signals');
- GM5 AIS.TR.305(c) 'Aeronautical information publication (AIP)' (in relation to the proposed amendment to GM1 SERA.6005(d)).

Should the NPA consultation confirm the validity of such proposed amendments to the SERA framework, the documentation published with the resulting Opinion will include also the proposed amendments to the aforementioned provisions of Regulation (EU) 2017/373 and related AMC and GM. As a matter of principle, with this regulatory activity EASA will ensure full consistency between the two regulatory frameworks.

2.4. The expected benefits and drawbacks of the proposed amendments

The timely transposition of ICAO provisions, including the consideration of the European specificities, when necessary, ensures a high uniform level of safety in Europe and globally. See Chapter 4 regarding the impact of the transposition of ICAO provisions into the EU regulatory framework.

In particular, the amendments introduced in response to SR SPAN-2017-038, which resulted from the investigation of a safety occurrence by the CIAIAC, will bring safety benefits for both flight and SAR operations, without generating a significant burden for stakeholders in terms of flight plan filing.

A specific aspect of environmental and social protection is the prevention of sonic booms due to supersonic flights, which can be particularly loud and startling to people, both indoor and outdoor, and may cause building vibrations and minor damage to some structures²⁰. Sonic booms have been considered unacceptable to the public, thus leading to prohibition of routine supersonic flights over land in the past. Potential effects of sonic booms reaching the ground include the interference with

²⁰ Maglieri, D. et al: 'Sonic Boom: Six Decades of Research', NASA/SP-2014-622, December 2014.



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sleep and harmful effects to persons and property caused by the magnification of the sonic boom²¹. The benefit of the proposed speed restrictions for SST aircraft is that sonic booms and their aforementioned effects are prevented in Europe.

Concerning connectivity, the proposed speed restriction for environmental protection would reduce the potential for lower travel times by SST aircraft on certain routes over the EU territory, depending on the fraction of a route that is affected by the speed restriction. The speed restriction proposed under this NPA does not apply to the high seas airspace where Annex 2 to the Chicago Convention applies.

No further drawbacks are envisaged from the proposals stemming from this NPA, because they either provide clarification or enhancement to current requirements, or the requirements are not materially different from current procedures.

²¹ Appendix G to ICAO Assembly Resolution A40-17, in ICAO Doc 10140 'Assembly Resolutions in Force (as of 4 October 2019)', ICAO 2020.



3. Proposed amendments and rationale

The amendment is arranged to show deleted, new or amended, and unchanged text as follows:

- deleted text is struck through;
- new or amended text is highlighted in blue;
- an ellipsis '[...]' indicates that the rest of the text is unchanged.

The rationale is provided in *blue italics*.

3.1. Draft amendments to the SERA Regulation, as well as to the associated AMC & GM

Article 2 Definitions

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

1. 'data accuracy' means a degree of conformance between the estimated or measured value and the true value;

[...]

21. 'AIRMET-information' means information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather phenomena which may affect the safety of low-level aircraft operations and of the development of those phenomena in time and space, and which was not already included in the forecast issued for low-level flights in the flight information region concerned or sub-area thereof;

[...]

- 89a. 'instrument approach operations' means an approach and landing using instruments for navigation guidance based on an instrument approach procedure. There are two methods for executing instrument approach operations:
 - (a) a two-dimensional (2D) instrument approach operation, using lateral navigation guidance only; and
 - (b) a three-dimensional (3D) instrument approach operation, using both lateral and vertical navigation guidance;

[...]

119. 'SIGMET information' means information, issued by a meteorological watch office, concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere which may affect the safety of aircraft operations and of the development of those phenomena in time and space;

Rationale

The proposed amendments to the definitions of AIRMET and SIGMET ensure alignment with those in Regulation (EU) 2017/373.

[...]

148. 'meteorological watch office (MWO)' means an office monitoring meteorological conditions affecting flight operations and providing information concerning the occurrence or expected



occurrence of specified en-route weather and other phenomena in the atmosphere which may affect the safety of aircraft operations within its specified area of responsibility;

Rationale

The proposed amendment introduces the definition of meteorological watch office to ensure alignment with that in Regulation (EU) 2017/373. Consistency between definitions is considered necessary since the SERA regulatory framework uses the term as well.

149 'runway condition report (RCR)' means a comprehensive standardised report relating to the conditions of the runway surface and their effect on the aeroplane landing and take-off performance, described by means of runway conditions code;

Rationale

The proposed amendment introduces the definition of runway condition report to ensure alignment with Regulation (EU) No 139/2014 and Regulation (EU) No 965/2012.

GM1 Article 2(27) Air traffic advisory service

AIR TRAFFIC ADVISORY SERVICE

[...]

- (b) Aircraft wishing to conduct IFR flights within advisory airspace, but not electing to use the air traffic advisory service, are nevertheless to submit a flight plan, and notify changes made thereto to the unit providing that service.
- (cb) ATS Air traffic services units providing air traffic advisory service:
- [...]

Rationale

This point (b) is proposed to be moved under point (b)(1) of the new AMC1 SERA.6001(a)(6), proposed to be introduced in this NPA.

Article 3 Compliance

The Member States shall ensure compliance with the common rules and provisions set out in the Annex to this Regulation without prejudice to the flexibility provisions contained in Article 1471 of the Regulation (ECU) No 216/20082018/1139 and the safeguards contained in Article 13 of Regulation (EC) No 549/2004.

Rationale

Update to refer to the currently applicable Basic Regulation.



Article 5 Differences

- 1. Further to the entry into force of this Regulation and at the latest by the date of its applicability, the Member States shall :
 - (a) formally notify ICAO that all previously notified differences with respect to ICAO Standards and recommended peractices that are covered by this Regulation are withdrawn, with the exception of those relating to essential security and defence policy interests of the Member States in accordance with Article 13 of Regulation (EC) No 549/2004;
 - (b) notify ICAO of the commonly agreed differences contained in the supplement to the Annex to this Regulation.
- 2. In accordance with Annex 15 to the Chicago Convention, each Member State shall publish through its Aaeronautical Information Ppublication the commonly agreed significant differences notified to ICAO in accordance with point (b) of paragraph 1 of this Article 90(4) of Regulation (EU) 2018/1139, as well as any other provisions necessitated by local air defence and security considerations in accordance with point (a) of paragraph 1 of this Article.

Rationale

Proposed amendment to align the requirements in the SERA Regulation with the Basic Regulation. EASA provides and maintains the CCs for the EFOD, which are intended to list the actual differences of the European requirements from ICAO SARPs, where applicable. Differences marked as significant differences in the EFOD CCs are considered as commonly agreed differences and shall be filed to ICAO.

GM3 Article 4 Exemptions for special operations

SPECIFIC APPROVALS

The requirement for the notification to EASA about exemptions granted to special operations carried out as general air traffic according to Article 4(1) does not affect operations:

- (a) carried out with the specific approvals granted based on Annex V to Commission Regulation
 (EU) No 965/2012; or
- (b) otherwise benefiting from the 'flexibility' allowed by a specific SERA provision.

Rationale

This GM is proposed, as a result of implementation feedback, with the intention of further clarifying the notification mechanism and the scope for exemptions granted according to Article 4.

GM1 Article 9 Safety requirements

SAFETY ASSESSMENT

The safety assessment on the implementation plan is to be conducted after the introduction of any amendment to this Regulation to identify any hazard, assess the risks and mitigate them before implementing the changes to the previously applied procedures.



Rationale

This GM, introduced as a result of the observations during the EASA standardisation inspections, clarifies when the safery assessment on the implementation plan is to be conducted, as well as its scope.

<u>Article 10 Amendments to Regulations (EC) No 730/2006, (EC) No 1033/2006, (EC) No 1794/2006, (EC) No 1265/2007, and (EU) No 255/2010 and Implementing Regulation (EU) No 1035/2011</u>

1. Regulation (EC) No 730/2006 is amended as follows:

(a) Article 2(3) and (4) shall be replaced by the following:

'3. "IFR" means the symbol used to designate instrument flight rules;

-4. "VFR" means the symbol used to designate visual flight rules.'

[...]

- Regulation (EC) No 1794/2006 is amended as follows:
 - (a) Article 2(c) and (d) shall be replaced by the following:

(c) "IFR" means the symbol used to designate instrument flight rules;

-(d) "VFR" means the symbol used to designate visual flight rules.'.

4. Regulation (EC) No 1265/2007 is amended as follows:

(a) Article 2(5) shall be replaced by the following:

'5. "flights operated under visual flight rules" (VFR flights) means any flights conducted in accordance with visual flight rules.'.

[...]

- Implementing Regulation (EU) No 1035/2011 is amended as follows:
 - (a) the reference in Annex II, point 4(a), to 'Annex 2 on rules of the air in its 10th edition of July 2005' shall be replaced by a reference to 'Implementing Regulation (EU) No 923/2012';
 - (b) the reference in Annex II, point 4(c), to 'Annex 11 on air traffic services in its 13th edition of July 2001, including all amendments up to No 47–B' shall be amended by adding at the end of that sentence 'and Implementing Regulation (EU) No 923/2012 as applicable.';
 - (c) the reference in Annex III, point 2(b), to 'Annex 11 on air traffic services in its 13th edition of July 2001, including all amendments up to No 47–B' shall be amended by adding at the end of that sentence 'and Implementing Regulation (EU) No 923/2012 as applicable;'

Rationale

Removal of references and amendments to Regulations no longer in force.



GM3 SERA.3105 Minimum heights

TERMS OF TAKE-OFF AND LANDING

In the context of SERA.3105, the terms 'take-off' and 'landing' include operations such as touch-andgo, go-around or missed approach performed to an aerodrome or operating site for which the necessary obstacle clearance assessment was conducted and approved by the relevant competent authorities.

Rationale

When designing runways, several requirements and criteria have to be addressed. One of them pertains to the establishment of the appropriate surfaces associated with runways which ensure safety of operations for aircraft approaching a runway and descending following a specified slope guaranteeing protection against potential obstacles. In the specified conditions, an obstacle-free descent is ensured for approaching aircraft when below the declared minimum flight altitudes.

As regards the exceptions in SERA.3105, aircraft engaged in an approach to a runway or taking off from a runway are protected through the design of these obstacle limitation surfaces from collision with objects as long as they remain within the limits published for that runway.

Consequently, aircraft approaching the runway, for landing, or for training to land and take off are protected from collision with obstacles if remaining within the published limits. Moreover, approaching for landing is one of the most critical phases of flight with heavy workload, which may result in unstabilised approaches. It is essential that the pilot is encouraged and allowed to interrupt an approach as soon it is assessed that continuing the approach might result in unsafe operations.

In summary, the exceptions in SERA.3105 incorporate, in addition to the take-off and landing, other scenarios such as touch-and-go, go-around, missed approach, cautionary circuits and other manoeuvres designed and published by the competent authorities for specific traffic scenarios.

SERA.3210 Right-of-way

[...]

- (c) [...]
 - (6) Sailplane thermal flight. Sailplanes already established circling in a thermal, or in ridge or slope soaring, have the right of way.
 - (i) All pilots shall circle in the same direction as the first sailplane already established in the area of lift.
 - (ii) In case of ridge or slope soaring, when approaching approximately head-on at or above a slope with a risk of collision, the sailplane with the slope at the left side shall alter the course to the right.

[...]

Rationale

The proposal addresses the potential safety issues which could result from sailplane operations not being addressed in the SERA regulatory framework.



Question

EASA requests its stakeholders to express their explicit views on the need to address the right of way for sailplanes and on the content of the proposed requirements.

GM1 SERA.3210(c)(6)(i) Right-of-way

COLLISION AVOIDANCE IN A THERMAL

- (a) A sailplane is thermaling when it is locating the thermal, entering the thermal, centring the thermal and leaving the thermal for soaring flight.
- (b) When thermaling with other sailplanes, in addition to the requirement of circling in the same direction, two sailplanes in the same thermal at the same or similar height should position themselves across from each other, so they can maintain best visual contact.
- (c) When entering the thermal, the later arriving sailplane should not interfere with the other sailplanes and cause hazard to the other sailplanes.
- (d) Different types of sailplanes in the same thermal should consider the different speeds of each type when positioning themselves in the thermal.

Rationale

Additional GM is proposed to support the implementation of the new requirements on sailplane thermal flight rules in SERA.3210(c)(6)(i).

GM1 SERA.3210(c)(6)(ii) Right-of-way

COLLISION AVOIDANCE IN RIDGE OR SLOPE SOARING

- (a) In ridge or slope soaring, special attention should be paid to avoid flying in the blind spot of other sailplanes.
- (b) Overtaking during ridge or slope soaring should be done on the slope side of the other sailplane. If there is not enough space between the slope and the other sailplane, changing direction if traffic allows, or flying away from the slope for rejoining later, should be done.

Rationale

Additional GM is proposed to support the implementation of the new requirements on sailplane thermal flight rules in SERA.3210(c)(6)(ii).

SERA.3212 Uncertainty as to the position on the manoeuvring area

- (a) Except as provided for in point (b), a pilot in doubt as to the position of the aircraft with respect to the manoeuvring area shall immediately:
 - (1) stop the aircraft; and
 - (2) simultaneously notify the appropriate air traffic services unit of the circumstances (including the last known position).



- (b) In those situations where a pilot is in doubt as to the position of the aircraft with respect to the manoeuvring area, but recognises that the aircraft is on a runway, the pilot shall immediately:
 - notify the appropriate air traffic services unit of the circumstances (including the last known position);
 - (2) if able to locate a nearby suitable taxiway, vacate the runway as expeditiously as possible, unless otherwise instructed by the air traffic services unit; and then,
 - (3) stop the aircraft.
- (c) A vehicle driver in doubt as to the position of the vehicle with respect to the manoeuvring area shall immediately:
 - notify the appropriate air traffic services unit of the circumstances (including the last known position);
 - (2) simultaneously, unless otherwise instructed by the air traffic services unit, vacate the landing area, taxiway, or other part of the manoeuvring area, to a safe distance as expeditiously as possible; and then,
 - (3) stop the vehicle.

Rationale

The proposed amendment stipulates the actions to be undertaken by pilots or vehicle drivers being in doubt as to their position with respect to the manoeuvring area. This is transposed from Section 7.4.1.5 of PANS-ATM in a harmonised manner with ADR.OPS.B.027 of Regulation (EU) No 139/2014 and AMC2 ATS.TR.240(a).

AMC1 SERA.3212 Uncertainty as to the position on the manoeuvring area

UNCERTAINTY AS TO THE AIRCRAFT AND/OR VEHICLES POSITION ON THE MANOEUVRING AREA ON CONTROLLED AERODROMES

In the event that the aerodrome air traffic controller becomes aware of an aircraft or vehicle that is lost or uncertain of its position on the manoeuvring area, he or she should immediately take appropriate action to safeguard operations and assist the aircraft or vehicle concerned in determining its position.

Rationale

The proposed amendment stipulates that air traffic services units should immediately take appropriate action in cases when the pilots or vehicle drivers are in doubt as to their position with respect to the manoeuvring area. This is transposed from Section 7.4.1.5 of PANS-ATM in a harmonised manner with AMC2 ATS.TR.240(a) of the AMC & GM to Regulation (EU) 2017/373.



SERA.4005 Contents of a flight plan

(a) A flight plan shall comprise information regarding such of the following items as are considered relevant by the competent authority:

[...]

(14) Emergency and survival equipment, including ballistic parachute recovery system

Rationale

This proposed amendment is introduced to address SR SPAN-2017-038 (CIAIAC) stating: 'It is recommended that the European Aviation Safety Agency (EASA) lay out the measures required so that aircraft equipped with a ballistic parachute reflect this in the flight plan as part of point SERA.4005, Contents of a flight plan, "Emergency and survival equipment".'

GM2 SERA.4005(a)(14) Contents of a flight plan

BALLISTIC PARACHUTE RECOVERY SYSTEM

The information on ballistic parachute recovery systems can be included in the field for Remarks under item 19 of the ICAO model flight plan, as specified in Appendix 2 to ICAO Doc 4444, Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM) Edition 16 up to and including Amendment 9.

Rationale

The proposed GM provides supporting information related to the proposed amendment to SERA.4005(a)(14).

SERA.5005 Visual flight rules

[...]

- (b) Except when a special VFR clearance is obtained from an air traffic control unit, VFR flights shall not take off or land at an aerodrome within a control zone, or enter the aerodrome traffic zone or aerodrome traffic circuit when the reported meteorological conditions at that aerodrome are below the following minima:
 - (1) the ceiling is less than 450 m (1 500 ft); or
 - (2) the ground visibility is less than 5 km.

Rationale

Special VFR exists only in a control zone. Therefore, the term 'special VFR' is erroneous and inconsistent with the rest of the Regulation and should be removed. With this correction, reflecting paragraph 4.2 of ICAO Annex2, the clearance could be a special VFR clearance for the case of the control zone, and another type of clearance for other relevant cases.

[...]

(d) VFR flights shall not be operated:



at transonic and supersonic speeds-unless authorised by the competent authority; (1)

[...]

Rationale

The proposed amendment is introduced for coherence with that proposed with the new point (d) of SERA.5015, while previously transonic and supersonic flights in VFR could be conducted, upon specific authorisation of the competent authority. See also Section 2.1 of this NPA.

This amendment constitutes a difference to point 4.4 of ICAO Annex 2.

SERA.5010 Special VFR in control zones

Special VFR flights may be authorised to operate within a control zone, subject to an ATC clearance. Except when permitted by the competent authority for helicopters in special cases such as, but not limited to, police, medical, search and rescue operations and fire-fighting firefighting flights, the following additional conditions shall apply be applied:

[...]

- (c) an air traffic control unit shall not issue a special VFR clearance to aircraft to take off or land at an aerodrome within a control zone, or enter the aerodrome traffic zone or aerodrome traffic circuit when the reported meteorological conditions at that aerodrome are below the following minima:
 - the ground visibility is less than 1 500 m or, for helicopters, less than 800 m; (1)
 - the ceiling is less than 180 m (600 ft). (2)

Rationale

This amendment is related to the amendment to SERA.5005(b) above. The presence of the term 'aerodrome traffic zone' is contradictory to the title of SERA.5010 'Special VFR in control zones'.

GM1 SERA.5010(c) Special VFR in control zones

When the reported ground visibility at the aerodrome is less than 1 500 m, ATC may issue a special VFR clearance for a flight crossing the control zone and not intending to take off or land at an aerodrome within athe control zone, or enter the aerodrome traffic zone or aerodrome traffic circuit when the flight visibility reported by the pilot is not less than 1 500 m, or, for helicopters, not less than 800 m.

Rationale

This amendment is related to the amendment to SERA.5010(c) above. The presence of the term 'aerodrome traffic zone' is contradictory to the title of SERA.5010 'Special VFR in control zones'. The text is further amended to clarify that it is the same CTR where ATC may deliver a special VFR clearence.



SERA.5015 Instrument flight rules (IFR) – Rules applicable to all IFR flights

[...]

(d) Speed limitation: IFR flights shall not be operated at transonic and supersonic speeds.

Rationale

Flights conducted at transonic and supersonic speeds over the European territory create sonic booms that generate unacceptable environmental impact on the public. With this proposed amendment, it is intended to prevent such environmental impact on the European citizens. See also Section 2.1 of this NPA.

The speed restriction proposed under this NPA applies to airspace over land and territorial waters, which usually include a 12-mile zone off the coast. The speed restriction does not apply to the high seas airspace where Annex 2 to the Chicago Convention applies.

GM2 SERA.5015(b) Instrument flight rules (IFR) – Rules applicable to all IFR flights

SPECIFIC AUTHORISATION

The approval of the instrument flight procedure for operation with performance-based navigation could be considered as specific authorisation by the competent authority.

Rationale

The proposed amendment aims to address the operational difficulties stemming from the requirement to comply with SERA.5015(b) by implementing performance-based navigation procedures.

SERA.6001 Classification of airspaces

[...]

(c) A general speed limitation that requires all flights to fly below transonic and supersonic speeds is applicable in all classes of European airspace.

Rationale

The proposed amendment is considered necessary for consistency with those proposed for SERA.5005 and SERA.5015 with regard to supersonic transportation.

GM1 SERA.6001(a)(5) Classification of airspaces

CLASS E AIRSPACE

Class E airspace is controlled airspace, in which the ATC unit is responsible for the provision of air traffic control service to IFR flights and traffic information to the VFR flights operating therein and having established two-way air-ground communication.



Rationale

The proposed GM, introduced as a result of the observations during the EASA standardisation inspections, aims at clarifying specific aspects of the ATS provision in Class E airspace.

AMC1 SERA.6001(a)(6) Classification of airspaces

OPERATIONS IN CLASS F AIRSPACE

(a) Aircraft using the air traffic advisory service

IFR flights electing to use or required by the competent authority on the basis of regional air navigation agreements to use the air traffic advisory service when operating within Class F airspace should comply with the same procedures as those applying to controlled flights except that:

- (1) the flight plan and changes thereto are not subjected to a clearance, since the unit furnishing air traffic advisory service will only provide advice on the presence of essential traffic or suggestions as to a possible course of action;
- (2) it is for the aircraft to decide whether or not it will comply with the advice or suggestion received and to inform the unit providing air traffic advisory service, without delay, of its decision;
- (3) air-ground contacts should be made with the air traffic services unit designated to provide air traffic advisory service within the advisory airspace or portion thereof.
- (b) Aircraft not using the air traffic advisory service
 - (1) Aircraft wishing to conduct IFR flights within advisory airspace, but not electing to use the air traffic advisory service, should nevertheless submit a flight plan, and notify changes made thereto to the unit providing that service.
 - (2) IFR flights intending to cross an advisory route should do so as nearly as possible at an angle of 90 degrees to the direction of the route and at a level, appropriate to its track, selected from the tables of cruising levels prescribed for use by IFR flights operating outside controlled airspace.

Rationale

The proposed AMC, transposed from PANS-ATM Section 9.1.4.2, addresses the actions to be taken by aircraft operating in advisory airspace, either with or without the support of the air traffic advisory services.

GM1 SERA.6001(a)(6) Classification of airspaces

AIR TRAFFIC ADVISORY SERVICE

The objective of the air traffic advisory service is to make information on collision hazards more effective than it would be in the mere provision of flight information service. It may be provided to aircraft conducting IFR flights in advisory airspace or on advisory routes (Class F airspace). Such areas or routes will be specified by the State concerned.



Rationale

The proposed GM, transposing point 9.1.4.1.1 of PANS-ATM, provides more information about the scope and the objectives of the air traffic advisory service in a coherent manner with points (a) and (b) of GM1 ATS.TR.105(b).

GM2 SERA.6001(a)(6) Classification of airspaces

FLIGHT PLAN CHANGES IN CLASS F AIRSPACE

It is assumed that a pilot will not effect a change in the current flight plan until he or she has notified the intended change to the appropriate air traffic services unit and, if practicable, has received acknowledgement or relevant advice.

Rationale

The proposed GM, transposing Note 1 to point 9.1.4.2.1 of PANS-ATM, elaborates on flight plan changes in the context of air traffic advisory service.

GM3 SERA.6001(a)(6) Classification of airspaces

CLEARANCES TO FLIGHTS OPERATING PARTIALLY IN CLASS F AIRSPACE

When a flight is operating or about to operate in a control area to continue eventually into an advisory area or along an advisory route, a clearance may be issued for the whole route, but the clearance as such, or revisions thereto, applies only to those portions of the flight conducted within control areas and control zones. Advice or suggestions would be provided as necessary for the remaining portion of the route.

Rationale

The proposed GM describes certain aspects related to clearances to aircraft transiting from controlled airspace into advisory airspace, and is transposed from Note 2 to point 9.1.4.2.1 of PANS-ATM.

GM1 SERA.6005(d) Requirements for communications, SSR transponder and electronic conspicuity in U-space airspace

PUBLICATION OF RADIO MANDATORY ZONES AND TRANSPONDER MANDATORY ZONES

- (a) Information on radio mandatory zones (RMZ) and transponder mandatory zones (TMZ) should be published in the aeronautical information publication (AIP) in a clear and unambiguous manner. This information should include a dedicated chart or dedicated charts.
- (b) The following illustrates an example of appropriate sections where the information should be easily retrievable for the airspace users:
 - (1) Section GEN 1.5 contains the general requirements regarding the aircraft equipment;
 - (2) Section ENR 2 contains the information on RMZ and TMZ in the air traffic services airspace and other regulated airspace;
 - (3) Section ENR 6 contains an en-route chart illustrating the RMZ and TMZ;



(4) Section AD 2 contains the aerodrome-specific requirements including the visual approach and landing charts with the information on RMZ and TMZ.

Rationale

The proposed GM provides clarity on the publication of RMZ and TMZ in the context of the AIP.

Question

EASA requests its stakeholders to express their explicit views on the most appropriate way to indicate RMZ and TMZ on a chart.

SERA.8015 Air traffic control clearances

[...]

- (b) Operation subject to clearance
 - (1) An air traffic control clearance shall be obtained prior to operating a controlled flight, or a portion of a flight as a controlled flight. Such clearance shall be requested through the submission of a flight plan to an air traffic control unit.
 - (2) When a flight plan specifies that the initial portion of a flight will be uncontrolled, and that the subsequent portion of the flight will be subject to air traffic control service, the flight crew shall obtain the clearance from the appropriate ATC unit prior to entering the area where controlled flight will be commenced.
 - (3) When a flight plan specifies that the first portion of a flight will be subject to air traffic control service, and that the subsequent portion will be uncontrolled, the limit of the clearance shall not normally be beyond the point at which the controlled flight terminates.
 - (2)(4) The pilot-in-command of an aircraft shall inform ATC the air traffic control unit if an air traffic control clearance is not satisfactory. In such cases, ATC the air traffic control unit will issue an amended clearance, if practicable.
 - (3)(5) Whenever an aircraft has requested a clearance involving priority, a report explaining the necessity for such priority shall be submitted, if requested by the appropriate air traffic control unit.
 - (4)(6) Potential reclearance in flight. If, prior to departure, it is anticipated that, depending on fuel endurance and subject to reclearance in flight, a decision may be taken to proceed to a revised destination aerodrome, the appropriate air traffic control units shall be so notified by the insertion in the flight plan of information concerning the revised route (where known) and the revised destination.
 - (5)(7) An aircraft operated on a controlled aerodrome shall not taxi on the manoeuvring area without clearance from the aerodrome control tower and shall comply with any instructions given by that unit.
 - (6)(8) When vectoring or assigning a direct routing not included in the flight plan, which takes an IFR flight off published ATS route or instrument procedure, an air traffic controller providing ATS surveillance service shall issue clearances such that the prescribed obstacle



clearance exists at all times until the aircraft reaches the point where the pilot re-joins the flight plan route or joins a published ATS route or instrument procedure.

[...]

Rationale

The proposed amendments to SERA.8015 stem from points 4.5.2.1 and 4.5.2.2 of PANS-ATM. As an outcome of the work of RMT.0464, EASA determined that the aforementioned provisions are relevant for transposition in the SERA Regulation since they imply collective actions and have a 'rules-of-the-air nature'. The proposed amendments stipulate the procedures for the issuance of clearances to aircraft transiting from controlled to uncontrolled airspace and vice versa. The PANS-ATM provisions are proposed to be transposed into the European regulatory framework with slight adjustments to the European ATM system without changing the intention of the ICAO provisions, so these would not constitute a difference to ICAO.

[...]

(d) Contents of clearances

[...]

- (3) route of flight<mark>:, ...</mark>
 - (i) the route of flight shall be detailed in each clearance when deemed necessary; and
 - the phrase 'cleared via-flight planned route' shall not be used when granting a reclearance;
- (4) level(s) or levels of flight for the entire route or part thereof and changes of levels if required;

[...]

Rationale

The proposed amendment aligns the text in SERA with points (b)(3) and (b)(4) of ATS.TR.235 in Annex IV (Part-ATS) to Regulation (EU) 2017/373. It is derived by point 4.5.7.2.2 in PANS-ATM as amended by its Amendment 7A.

(e) Read back of clearances, instructions and safety-related information

[...]

- (5) The drivers of a radio-equipped vehicle, operating or intending to operate on the manoeuvring area, shall read back to the air traffic services personnel safety-related parts of authorisations which are transmitted by voice. Authorisations to enter, hold short of, cross and operate on any runway, taxiway or runway strip shall always be read back.
- (6) The air traffic controller shall listen to the read-back to ascertain that the instruction has been correctly acknowledged by the vehicle driver and shall take immediate action to correct any discrepancies revealed by the read-back.



Rationale

The proposed amendments originate from Sections 3.7.3.3 and 3.7.3.4 of Annex 11 (as modified by its Amendment 52) about the read-back by drivers of operational vehicles, and establish coherence with points (c)(3) and (c)(4) of ADR.OPS.B.027 of Regulation (EU) No 139/2014. In point (5) the proposal is more exacting than the ICAO provision, as it is considered that the requirements for vehicle drivers should be as precise as for the flight crew.

Point (5) constitutes a difference to point 3.7.3.3 of ICAO Annex 11 as the EU regulation provides an explicit list of items to be read back.

The proposed transposition of point (6) would ensure alignment of the EU rules with point 3.7.3.4 of ICAO Annex 11.

AMC1 SERA.8015(b)(1) Air traffic control clearances

HORIZONTAL SPEED CONTROL INSTRUCTIONS

Speed control instructions should remain in effect unless explicitly cancelled or amended by the air traffic controller.

Rationale

The proposed AMC, transposed from point 4.6.1.2 of PANS-ATM, as modified by its Amendment 7A, concerns the applicability of speed control instructions, and is coherent with point (c) of AMC1 ATS.TR.210(a)(3).

AMC2 SERA.8015(b)(1) Air traffic control clearances

SID AND STAR SPEED RESTRICTIONS

The flight crew should comply with published SID and STAR speed restrictions unless the restrictions are explicitly cancelled or amended by the air traffic controller.

Rationale

The proposed AMC, transposed from point 4.6.4 of PANS-ATM, as modified by its Amendment 7A, addresses compliance with speed restrictions on SID and STAR.

GM1 SERA.8015(b)(1) Air traffic control clearances

HORIZONTAL SPEED CONTROL INSTRUCTIONS

Cancellation of any speed control instruction does not relieve the flight crew of compliance with the speed limitations associated with airspace classifications as specified in Appendix 4.

Rationale

The proposed GM, transposed from the Note to point 4.6.1.2 of PANS-ATM, as modified by its Amendment 7A, stipulates the aircrew responsibilities on speed limitations, in a coherent manner with GM3 to AMC1 ATS.TR.210(a)(3).



GM2 SERA.8015(b)(1) Air traffic control clearances

SID AND STAR SPEED RESTRICTIONS

Some SID and STAR speed restrictions ensure containment within RNAV departure or arrival procedure (e.g. maximum speed associated with a constant radius arc to a fix (RF) leg).

Rationale

The proposed GM, transposed from Note 1 to point 4.6.4 of PANS-ATM, as modified by its Amendment 7A, informs about certain characteristics of SID and STAR vis-à-vis RNAV departure or arrival procedures.

GM1 SERA.8015(b)(46) Air traffic control clearances

Rationale

Consequesntial renumbering following the proposed amendment to SERA.8015(b).

GM1 SERA.8015(b)(8) Air traffic control clearances

VECTORING TO PILOT-INTERPRETED FINAL APPROACH AID

When clearance for the approach is issued, the aircraft is expected to maintain the last assigned level until intercepting the specified or nominal glide path of the approach procedure. If the air traffic controller requires an aircraft to intercept the glide path at a level other than a level flight segment depicted on the instrument approach chart, the air traffic controller should instruct the pilot to maintain the particular level until established on the glide path.

Rationale

The proposed GM describes an operational procedure for aircrew and air traffic controllers in case of vectoring to pilot-interpreted final approach aid, and is transposed from point 8.9.4.2 of PANS-ATM in a coherent manner with GM1 to AMC2 ATS.TR.155(c)(3).

GM1 SERA.8015(d)(3)(ii) Air traffic control clearances

USE OF CERTAIN PHRASES IN A CLEARANCE

The phrase 'cleared flight planned route' may be used to describe any route or portion thereof, provided that the route or portion thereof is identical to that filed in the flight plan and sufficient routing details are given to definitely establish the aircraft on its route. The phrases 'cleared (designation) departure' or 'cleared (designation) arrival' may be used when standard departure or arrival routes have been established and published in AIPs.

Rationale

The proposed GM describes the use of the phrases 'cleared flight planned route' and 'cleared (designation) departure' or 'cleared (designation) arrival' in a clearance, and is transposed from point 4.5.7.2.1 of PANS-ATM as amended by Amendment 7-A, in a coherent manner with GM1 ATS.TR.235(b)(3)(i).



GM1 SERA.8015(gec) Air traffic control clearances

[...]

Rationale

Correction of an editorial mistake.

SERA.8020 Adherence to current flight plan

[...]

- (b) Inadvertent changes Deviations from the current flight plan. In the event that a controlled flight inadvertently deviates from its current flight plan, the following action shall be taken:
 - [...]
 - (2) Variation in true airspeed: if the average true airspeed at cruising level between reporting points varies or is expected to vary by plus or minus 5 per cent of the true airspeed, from that given in the flight plan, the appropriate air traffic services unit shall be so informed. Deviation from the air traffic control assigned Mach number/indicated airspeed: the appropriate air traffic services unit shall be informed immediately.
 - (3) Change in time estimate: if the time estimate for the next applicable reporting point, flight information region boundary or destination aerodrome, whichever comes first, is found to be in error in excess of 2 minutes from that notified to ATS or such other period of time as prescribed by the competent authority, a revised estimated time shall be notified as soon as possible to the appropriate ATS unit. Deviation from Mach number/true airspeed: if the sustained Mach number/true airspeed at cruising level varies by plus or minus Mach 0.02 or more, or plus or minus 19 km/h (10 kt) true airspeed or more from the current flight plan, the appropriate air traffic services unit shall be so informed.
 - (4) Change in time estimate: except where ADS-C is activated and serviceable in airspace where ADS-C services are provided, if the time estimate for the next applicable reporting point, flight information region boundary or destination aerodrome, whichever comes first, changes in excess of 2 minutes from that previously notified to air traffic services, or such other period of time as is prescribed by the competent authority, the flight crew shall notify the appropriate air traffic services unit as soon as possible.
 - (4)(5) Additionally, when an ADS-C agreement is in place, the air traffic services unit shall be informed automatically via data link whenever changes occur beyond the threshold values stipulated by the ADS-C event contract.
- (c) Intended changes. Requests for flight plan changes shall include information as indicated hereunder:
 - [...]
 - (3) Change of Mach number/true airspeed: aircraft identification; requested Mach number/true airspeed.
- [...]



Rationale

The proposal introduces amendments about the deviations from the current flight plan in order to ensure alignment with changes to points 3.6.2.2 and 3.6.2.3 of ICAO Annex 2 introduced with its Amendment 45.

AMC1 SERA.8020(b) Adherence to current flight plan

ADHERENCE TO THE TRUE MACH NUMBER

- (a) Aircraft subject to the Mach number technique should adhere to the true Mach number approved by ATC and should request ATC approval before making any changes thereto. If it is essential to make an immediate temporary change in the Mach number (e.g. due to turbulence), ATC should be notified as soon as possible that such a change has been made.
- (b) If it is not feasible, due to aircraft performance, to maintain the last assigned Mach number during en-route climbs and descents, pilots of the aircraft concerned should advise ATC at the time of the climb/descent request.

Rationale

The proposed AMC addresses the adherence to the true Mach number and the interface between flight crew and air traffic controllers for this purpose. It originates from points 5.4.2.4.1 and 5.4.2.4.2 of PANS-ATM, as modified by its Amendment 9.

SERA.8025 Position reports

[...]

(b) (3) The format of position reports shall be in accordance with <u>Appendix 5</u>, Point A.

- (c) By derogation from point (a), when prescribed by the competent authority or by the appropriate air traffic services unit under conditions specified by that authority, abbreviated position reports shall only contain the aircraft identification, position, time and flight level or altitude.
- (d) In defined portions of the airspace, designated by the competent authority, where:
 - (1) through secondary surveillance radar (SSR), individual identity and verified Mode C information are permanently available in the form of labels associated with the radar position of the aircraft concerned; and
 - (2) reliable air-ground communications coverage and direct pilot-to-controller communications exist,

the initial call after changing a radio channel may contain only the aircraft identification and level; subsequently, position reports may contain only aircraft identification, position and time.

Rationale

The proposal removes a numbering error related to point (a)(3). The requirement regarding the format of position reports is now under point (b). The content of voice position reports as in Chapter 4.11.2 of PANS-ATM is not proposed to be transposed into the SERA Regulation, because it is considered that



the reference to Appendix 5, Point A in the new point (b) is sufficient and provides the same information.

As a result of the focused consultation held in 2017, it is now proposed to transpose the requirements for abbreviated position reports from ICAO Doc 7030 to the SERA Regulation as new points (c) and (d).

AMC1 SERA.8025(a) Position reports

TRANSMISSION OF POSITION REPORTS

- (a) In the absence of designated reporting points, position reports should be made by the aircraft as soon as possible after the first half hour of the flight and at hourly intervals thereafter.
- (b) Under conditions specified by the competent authority, flights may be exempted from the requirement to make position reports at each designated compulsory reporting point or interval. In applying this, account should be taken of the meteorological requirement for the making and reporting of routine aircraft observations.

Rationale

This proposed AMC provides the circumstances under which positions reports have to be made by aircraft, including related exemptions. It originates from the transposition of points 4.11.1.2 and 4.11.1.3 of PANS-ATM.

SERA.8035 Communications

[...]

(b) The Member States shall comply with the appropriate provisions on communication failures as have been adopted under the Chicago Convention. The Commission shall take the necessary measures for the transposition of those provisions into Union law so as to establish common European procedures on communication failures by 31 December 2017 at the latest. If a communication failure precludes compliance with point (a), the procedures on communication failures shall be followed, as specified in SERA.14083.

Rationale

The proposed new SERA.14083 addresses in detail the procedures for communication failure. SERA.8035 is amended according to this evolution. The details of the proposed regulatory approach are provided in this NPA in association with the proposed SERA.14083.

SERA.9010 Automatic terminal information service (ATIS)

[...]

(b) ATIS for arriving and departing aircraft

ATIS messages containing both arrival and departure information shall contain the following elements of information in the order listed:

[...]

(8) significant runway surface conditions and, if appropriate, braking action;



[...]

(c) ATIS for arriving aircraft

ATIS messages containing arrival information only shall contain the following elements of information in the order listed:

[...]

(8) significant-runway surface conditions-and, if appropriate, braking action;

[...]

(d) ATIS for departing aircraft

ATIS messages containing departure information only shall contain the following elements of information in the order listed:

[...]

 (7) significant-surface conditions of runway(s) to be used for take-off-and, if appropriate, braking action;

[...]

Rationale

*The proposed amendments ensure alignment with the GRF based on SIB 2021-12R1*²². *They constitute a difference from Annex 11 until the contradiction between the GRF and Annex 11 is resolved.*

GM1 SERA.10001 Application

ALERTING SERVICE — PROMULGATION OF NOTAM FOR SEARCH AND RESCUE OPERATIONS

It may be advisable, in case of a search and rescue operation of a substantial duration, to promulgate by NOTAM the lateral and vertical limits of the area of a search and rescue action, and to warn aircraft not engaged in actual search and rescue operations and not controlled by air traffic control to avoid such areas unless otherwise authorised by the appropriate air traffic services unit.

Rationale

The proposed GM underlines the importance of considering issuing NOTAMs in case of envisaged prolonged SAR operations, in support of safety of flights and effectiveness of such operations. It originates from the transposition of point 9.2.1.4 of PANS-ATM.

GM1 SERA.11001 General

EMERGENCY DESCENT PROCEDURES

(a) When an aircraft-operated as a controlled flight experiences sudden decompression or a malfunction requiring an emergency descent, the aircraft should, if able pilot should take the following steps as soon as practicable in the order appropriate for the circumstance:

²² https://ad.easa.europa.eu/ad/2021-12R1



- (1) initiate a turn away from the assigned route or track before commencing the emergency descent navigate as deemed appropriate by the pilot;
- advise the appropriate ATCS unit as soon as possible of the emergency descent and, if able, intentions;
- (3) set transponder to Code 7700 and, if applicable, select the appropriate emergency mode on the automatic dependent surveillance/controller-pilot data link communications (ADS/CPDLC) system, if applicable-broadcast and or automatic dependent surveillancecontract (ADS-B/ADS-C);
- (4) turn on aircraft exterior lights (commensurate with appropriate operating limitations);
- (5) watch for conflicting traffic both visually and by reference to airborne collision avoidance system (ACAS) (if equipped); and
- (6) when emergency descent is complete, coordinate its further intentions with the appropriate AT<mark>CS</mark> unit.
- (b) The aircraft is should not to descend below the lowest published minimum altitude that will provide a minimum vertical clearance of 300 m (1 000 ft) or, in designated mountainous terrain, of 600 m (2 000 ft) above all obstacles located in the area specified.
- (c) Immediately upon recognising that an emergency descent is in progress, ATC units are to acknowledge the emergency on radiotelephony.

In particular, when recognising that an emergency descent is in progress, ATC may, as required by the situation:

- (1) suggest a heading to be flown, if able, by the aircraft carrying out the emergency descent in order to achieve separation from other aircraft concerned;
- (2) state the minimum altitude for the area of operation, only if the level-off altitude stated by the pilot is below such minimum altitude, together with the applicable QNH altimeter setting; and
- (3) as soon as possible, provide separation from conflicting traffic, or issue essential traffic information, as appropriate.

When deemed necessary, ATC will broadcast an emergency message, or cause such message to be broadcast, to other aircraft concerned to warn them of the emergency descent. Upon recognition that an aircraft is making an emergency descent, all appropriate actions should be taken immediately by the air traffic services unit to safeguard all aircraft concerned. Appropriate actions may include the following, in the order appropriate for the circumstance:

(1) broadcasting an emergency message;

(2) issuing traffic information and/or instructions to aircraft affected by the descent;

(3) advising the minimum flight altitude and altimeter setting for the area of operation; and

(4) informing any other air traffic services units which may be affected by the emergency descent.



- (d) Unless specifically instructed by the air traffic services unit to clear the area or threatened by immediate danger, the pilot of an aircraft receiving emergency descent broadcast should take the following actions:
 - (1) continue according to current clearance and maintain listening watch on the frequency in use for any further instructions from the air traffic services unit; and
 - (2) watch for conflicting traffic both visually and by reference to ACAS (if equipped).

The proposed amendments of this GM originate from the amendment of the ICAO Regional Supplementary Procedures, EUR Region (Doc 7030/5) and Amendment 7-A of Doc 4444 'PANS-ATM'. The European Aviation System Planning Group (EASPG) proposed to ICAO to delete Chapter 9.1.1. of Doc 7030/5, since the global provisions of Chapter 15.1.4 of Edition 16 of PANS-ATM as amended by Amendment 7-A are covering all the necessary aspects. Chapter 15.1.4 of PANS-ATM consolidated the provisions for emergency descent occurrences and introduced specific actions to be followed by the pilot of the aircraft executing an emergency descent, as well as revised the actions to be followed by pilots receiving an emergency descent broadcast. The proposal above would ensure alignment with PANS-ATM and Doc 7030.

GM21 SERA.11015 Interception

[...]

Rationale

Correction of an editorial mistake in the numbering of this GM.

AMC1 SERA.12005(a)(9) Special aircraft observations

GLOBAL REPORTING FORMAT

As soon as practicable, pilots should report by means of a special air-report (AIREP) as prescribed in CAT.OP.MPA.311 of Annex IV (Part-CAT) to Regulation (EU) No 965/2012.

Rationale

The proposed amendment ensures alignment with Regulation (EU) No 965/2012.

SERA.12020 Exchange of air-reports

- (a) ATS Air traffic services units shall transmit, as soon as practicable, special and non-routine air-reports to:
 - (1) other aircraft concerned;
 - (2) the associated meteorological watch office (MWO) in accordance with point 3 of Appendix 5; and
 - (3) other ATS air traffic services units concerned.



- (b) When receiving special air-reports by voice communications concerning braking action encountered that is not as good as reported, air traffic services units shall forward them without delay to the appropriate aerodrome operator.
- (bc) Transmissions to aircraft shall be repeated at a frequency and continued for a period of time which shall be determined by the ATS air traffic services unit concerned.

The proposed amendment ensures coordination among flight crews, air traffic services units and aerodrome operators with regard to reporting the braking action in accordance with point 4.12.7 of PANS-ATM as amended by Amendment 7-B.

GM1 SERA.12020(a)(1) Exchange of air-reports

GLOBAL REPORTING FORMAT

The term 'other aircraft concerned' refers to both departing and arriving aircraft.

Rationale

The proposed amendment is based on SIB 2021-12R1 and is developed to provide further clarification.

SECTION 13 SSR TRANSPONDER AND ADS-B TRANSMITTERS

SERA.13015 SSR transponder Mode S aircraft identification setting

- (a) Aircraft equipped with Mode S or ADS-B transmitter that has having an aircraft identification feature shall transmit the aircraft identification as specified in Item 7 of the ICAO flight plan or, when no flight plan has been filed, the aircraft registration, unless the aircraft operator holds a specific approval from the competent authority to use other than the aircraft registration as aircraft identification for flights without a flight plan.
- (b) Whenever it is observed on the situation display that the aircraft identification transmitted by an Mode S equipped aircraft equipped with Mode S or ADS-B transmitter is different from that expected from the aircraft, the pilot shall be requested to confirm and, if necessary, re-enter the correct aircraft identification.
- (c) If, following confirmation by the pilot that the correct aircraft identification has been set on the Mode S or ADS-B transmitter identification feature, the discrepancy continues to exist, the air traffic controller shall take the following actions:

[...]

Rationale

The issue relates to several occurrences recorded in operations with regard to the use of the radiotelephony call sign and the aircraft identification selected on board the aircraft and transmitted automatically to the ground surveillance systems. Although the EU requirements cover all the aspects related to the selection of the radiotelephony call sign, as well as of the aircraft identification, there



are scenarios where they could be different, introducing limitations in operations and increasing the workload of ATS personnel, hence a potential risk to safety of operations.

The assessment of those scenarios identified a number of circumstances, within the competence of the national authorities, for which flexibility in the EU rules should be allowed. In order to provide the necessary guidance and to ensure the required robustness of the requirements, it is proposed that such flexibility is supported by specific AMC and GM.

The amendments proposed for this purpose also include the transposition of point 8.5.4 of PANS-ATM. During the work of RMT.0464 on Part-ATS the group considered the provisions related to ADS-B not suitable to be transposed into Part-ATS as they are more relevant for transposition in the SERA Regulation since they imply collective actions and have a 'rules-of-the-air' nature.

AMC1 SERA.13015 Mode S aircraft identification setting

AIRCRAFT IDENTIFICATION SETTING

- (a) The aircraft identification transmitted should conform to the format specified for Item 7 of the ICAO flight plan form.
- (b) The competent authority should only authorise aircraft operators to use other than aircraft registration as aircraft identification when operating without a flight plan provided that:
 - the aircraft operator demonstrates that procedures have been implemented to ensure uniqueness of the aircraft identification for flights that might operate simultaneously;
 - (2) the air traffic services provider has indicated that the air traffic services surveillance system is capable of managing duplication of Mode S aircraft identification;
 - (3) the need for individual identification for other authorities is addressed accordingly.

Rationale

See the rationale for the amendments to SERA.13015.

GM1 SERA.13015 Mode S aircraft identification setting

OPERATION OF ADS-B TRANSMITTERS

To indicate that it is in a state of emergency or to transmit other urgent information, an aircraft equipped with ADS-B might operate the emergency and/or urgency mode in the following cases:

- (a) emergency;
- (b) communication failure;
- (c) unlawful interference;
- (d) minimum fuel; and/or
- (e) medical.



See the rationale for the amendments to SERA.13015. The proposed GM is based on the content of Note 1 to point 8.5.4 of PANS-ATM.

GM2 SERA.13015 Mode S aircraft identification setting

OPERATION OF ADS-B TRANSMITTERS

Some aircraft equipped with first-generation ADS-B avionics do not have the capability described in GM1 SERA.13015 and only have the capability to transmit a general emergency alert regardless of the code selected by the pilot.

Rationale

See the rationale for the amendments to SERA.13015. The proposed GM is based on the content of Note 2 to point 8.5.4 of PANS-ATM.

GM3 SERA.13015 Mode S aircraft identification setting

AIRCRAFT IDENTIFICATION SETTING

As an example of a mechanism that assures the uniqueness of aircraft call signs to incorporate into an operations manual, as required by point (b)(1) of AMC1 SERA.13015, aircraft operators may elect to assign each pilot-in-command or each airframe with a unique number, which may also be augmented with the addition of letters. The call sign consisting of the operator designator issued by ICAO and the unique number together with any augmenting letter is to be inserted into the mode S identification feature prior to departure and used in all radio communications unless instructed otherwise by air traffic services.

Rationale

See the rationale for the amendments to SERA.13015.

GM4 SERA.13015 Mode S aircraft identification setting

DUPLICATED AIRCRAFT IDENTIFICATION

For demonstrating the resilience of the ATS surveillance system to duplicated aircraft identification, as prescribed in point (b)(2) of AMC1 SERA.13015, it is normally enough to indicate that a duplicated downlinked aircraft identification would not affect, or reduce in any form, the performance of the surveillance tracker for generating and validating system tracks. In the case of a multi-sensor tracking system, using surveillance information from sensors from neighbouring air traffic services providers, indication that their surveillance tracker is not affected by potential duplication of the aircraft identification is needed.

Rationale

See the rationale for the amendments to SERA.13015.



GM5 SERA.13015 Mode S aircraft identification setting

AIRCRAFT IDENTIFICATION SETTING

The ATS surveillance information used by an air navigation service provider is in many Member States also used by other authorities (e.g. air defence, search and rescue). The impact, if any, of allowing aircraft operating without a flight plan to transmit aircraft identification other than aircraft registration needs to be assessed and documented accordingly, as prescribed in point (b)(3) of AMC1 SERA.13015.

Rationale

See the rationale for the amendments to SERA.13015.

Appendix 1 to AMC1 SERA.14001 General

- 1. ATC PHRASEOLOGIES
 - 1.1 General

Section	Circumstances	Phraseologies	Applica ATC	able to FIS
[]			AIC	115
1.1.2	Level changes, reports and rates	[]		
	clearance to cancel level restriction(s) of the vertical profile of a SID during climb	z) CLIMB TO (level) [LEVEL RESTRICTION(S) (SID designator) CANCELLED (or) LEVEL RESTRICTION(S) (SID designator) AT (point) CANCELLED];	Ð	Ð
	clearance to cancel level restriction(s) of the vertical profile of a STAR during descent	aa) DESCEND TO (level) [LEVEL RESTRICTION(S) (STAR designator) CANCELLED (or) LEVEL RESTRICTION(S) (STAR designator) AT (point) CANCELLED].	Ð	Ð
	clearance to climb on a SID which has published level and/or speed restrictions, where the pilot is to climb to the cleared level and comply with published level restrictions, follow the lateral profile of the SID, and comply with published speed restrictions or ATC-issued speed control instructions as applicable.	z) CLIMB VIA SID TO <i>(level)</i>		
	clearance to cancel level restriction(s) of the vertical profile of a SID during climb	aa) [CLIMB VIA SID TO <i>(level)</i>], CANCEL LEVEL RESTRICTION(S)		
	clearance to cancel specific level restriction(s) of the vertical profile of a SID during climb	bb) [CLIMB VIA SID TO <i>(level)</i>], CANCEL LEVEL RESTRICTION(S) AT <i>(point(s))</i>		



3. Proposed amendments and rationale

	clearance to cancel speed restrictions of a SID during climb	cc) [CLIMB VIA SID TO <i>(level)</i>], CANCEL SPEED RESTRICTION(S)		
	clearance to cancel specific speed restrictions of a SID during climb	dd) [CLIMB VIA SID TO <i>(level)</i>], CANCEL SPEED RESTRICTION(S) AT <i>(point(s))</i>		
	clearance to climb and to cancel level and speed restrictions of a SID	ee) CLIMB UNRESTRICTED TO <i>(level) (or)</i> CLIMB TO <i>(level),</i> CANCEL LEVEL AND SPEED RESTRICTIONS		
	clearance to descend on a STAR which has published level and/or speed restrictions, where the pilot is to descend to the cleared level and comply with published level restrictions, follow the lateral profile of the STAR, and comply with published speed restrictions or ATC-issued speed control instructions	ff) DESCEND VIA STAR TO <i>(level)</i>		
	clearance to cancel level restrictions of a STAR during descent	gg) [DESCEND VIA STAR TO <i>(level)</i>], CANCEL LEVEL RESTRICTION(S)		
	clearance to cancel specific level restrictions of a STAR during descent	hh) [DESCEND VIA STAR TO <i>(level)</i>], CANCEL LEVEL RESTRICTION(S) AT <i>(point(s))</i>		
	clearance to cancel speed restrictions of a STAR during descent	ii) [DESCEND VIA STAR TO <i>(level)</i>], CANCEL SPEED RESTRICTION(S)		
	clearance to cancel specific speed restrictions of a STAR during descent	jj) [DESCEND VIA STAR TO <i>(level)</i>], CANCEL SPEED RESTRICTION(S) AT <i>(point(s))</i>		
	clearance to descend and to cancel speed and level restrictions of a STAR	kk) DESCEND UNRESTRICTED TO <i>(level)</i> or DESCEND TO <i>(level),</i> CANCEL LEVEL AND SPEED RESTRICTIONS		
[]				
1.1.11	Aerodrome information	a) [(location)] RUNWAY (number) SURFACE CONDITION [CODE (three-digit number)]; []		
[]			l	
1.2.2	Indication of route and clearance limit	[]		
		b) TO (location), followed as necessary by:		



	Note. — Conditions associated with the use of this phrase are in SERA.8015(d)(3) and in ATS.TR.235(b)(3) of and GM1 ATS.TR.235(b)(3)(i) to Regulation (EU) 2017/373.	[] 3) VIA FLIGHT PLANNED ROUTE;	Ŋ	
[]		[]		
1.3.1	Departure instructions	[]		_
	Note. — Conditions associated with the use of this phrase are in SERA.8015(d)(3) and in ATS.TR.235(b)(3) of and GM1 ATS.TR.235(b)(3)(i) to Regulation (EU) 2017/373.	f) CLEARED VIA (designation) DEPARTURE		
	clearance to proceed direct with advance notice of a future instruction to rejoin the SID	g) CLEARED DIRECT (waypoint), CLIMB TO (level), EXPECT TO REJOIN SID [(sid designator)] [AT (waypoint)] then		
		REJOIN SID [(sid designator)] [AT (waypoint)]		
		h) CLEARED DIRECT (<i>waypoint</i>), CLIMB TO (<i>level</i>) then		-
4.2.2		REJOIN SID (sid designator) AT (waypoint)	\checkmark	
1.3.2	Approach instructions	 a) CLEARED (or PROCEED) VIA (designation) ARRIVAL; b) CLEARED TO (clearance limit) VIA (designation); 	V	
		c) CLEARED (or PROCEED) VIA (details of the route to be followed);	V	
	clearance to proceed direct with advance notice of a future instruction to rejoin the STAR	d) CLEARED DIRECT (waypoint), DESCEND TO (level), EXPECT TO REJOIN STAR [(star designator)] AT (waypoint) then		
		REJOIN STAR [(star designator)] [AT (waypoint)];		_
		e) CLEARED DIRECT (<i>waypoint</i>), DESCEND TO (<i>level</i>) then		
		REJOIN STAR (star designator) AT (waypoint); d)f) CLEARED (type of approach) APPROACH [RUNWAY (number)];		



Editorial Note. – Subsequent bullets to be renumbered accordingly. [...] 2.1.6 Speed control [...] \checkmark k) RESUME PUBLISHED SPEED; ☑ k)I) NO [ATC] SPEED RESTRICTIONS. [...] 5. GROUND CREW/FLIGHT CREW PHRASEOLOGIES [...] 5.2 De/anti-icing operations Section Phraseologies Circumstances 5.2.1 Prior to de-icing/anti-icing a) STANDING BY TO DE-ICE. CONFIRM BRAKES SET (ground crew (iceman)/flight AND TREATMENT REQUIRED; crew) *b) [AFFIRM] BRAKES SET, REQUEST (type of de/antiicing treatment and areas to be treated); c) HOLD POSITION AND CONFIRM AIRCRAFT ...aircraft configuration CONFIGURED; confirmation *d) [AFFIRM] AIRCRAFT CONFIGURED, READY FOR DE-ICING; e) DE-ICING STARTS NOW. '*' denotes pilot transmission. 5.2.2 Upon concluding de-icing/antiicing procedure a) DE-ICING ON (areas treated) COMPLETE. ADVISE ...for de-icing operation WHEN READY FOR INFORMATION; b) TYPE OF FLUID (Type I or II or III or IV); c) HOLDOVER TIME STARTED AT (time); d) ANTI-ICING CODE (appropriate anti-icing code). ...for a two-step de-icing/antiicing operation Note. – Anti-icing code example: A de-icing/anti-icing procedure whose last step is the use of a mixture of 75 % of a Type II fluid and 25 % of water, commencing



	at 13:35 local time, is recorded as follows:	
	TYPE II/75 13:35 (followed by the complete name of the anti- icing fluid)	
		e) FINAL STEP STARTED AT (time);
	de-icing/anti-icing complete	f) POST DE-ICING CHECK COMPLETED;
		g) PERSONNEL AND EQUIPMENT CLEAR OF AIRCRAFT.
<mark>5.2.3</mark>	Abnormal operations	
	for spray nozzle proximity sensor activation	a) BE ADVISED NOZZLE PROXIMITY ACTIVATION ON (significant point on aircraft) [NO VISUAL DAMAGE or DAMAGE (description of damage) OBSERVED] [SAY INTENTIONS];
	for other aircraft having an emergency in the de-icing bay	b) EMERGENCY IN DE-ICING BAY (<i>de-icing bay number</i>) [SHUT DOWN ENGINES <i>or</i> STANDBY FOR FURTHER INSTRUCTIONS].

The proposed amendments ensure alignment with the air-ground phraseology as modified by Amendment 7-A of PANS-ATM.

GM5 SERA.14035(a)(2) Transmission of numbers in radiotelephony INDICATED AIRSPEED

Indicatd airspeed	transmitted as
250 knots	two five zero knots
300 knots	three hundred knots

Rationale

This additional GM is proposed to provide examples with regard to the transmission of indicated airspeed.

SERA.14045 Transmitting technique

[...]

(c) The expression TAKE-OFF shall only be used in radiotelephony when an aircraft is cleared for take-off or when cancelling a take-off clearance.



The proposed amendment is considered relevant for the SERA Regulation containing the air-ground phraseology as modified by Amendment 7A of PANS-ATM.

AMC1 SERA.14050 Radiotelephony call signs for aircraft

AIRCRAFT RADIOTELEPHONY CALL SIGN SETTING

Unless otherwise instructed by the air traffic controller in accordance with point (a) of SERA.14055, the mode S or ADS-B equipped aircraft should use a radiotelephony call sign corresponding to the aircraft identification transmitted by the mode S transponder or ADS-B transmitter.

Rationale

See the rationale for the amendments to SERA.13015.

SERA.14065 Radiotelephony procedures for air-ground voice communication channel changeover

(a) Unless otherwise prescribed by the ANSP responsible for the provision of services and approved by the competent authority, the initial call to an ATS air traffic services unit after a change of air-ground voice communication channel shall contain the following elements:

[...]

- (2) call sign and, for aircraft in the SUPER and heavy HEAVY wake turbulence category categories, the word 'Heavy super' or 'Superheavy' respectively, if that aircraft has been so identified by the competent authority;
- [...]

Rationale

The proposed amendments introduce the requirement to explicitly include the indication of the 'SUPER' wake turbulence category in communications between pilots and air traffic services units. It is based on the contents of point 4.11.3 of PANS-ATM as modified by its Amendment 9.

(c) Initial call to aerodrome control tower

For aircraft being provided with aerodrome control service, the initial call shall contain:

- [...]
- (2) call sign and, for aircraft in the SUPER orheavy HEAVY wake turbulence category, the word 'Heavy super' or 'Superheavy' respectively, if that aircraft has been so identified by the competent authority;
- [...]



The proposed amendments introduce the requirement to explicitly include the indication of the 'SUPER' wake turbulence category in communications between pilots and air traffic services units. It is based on the contents of point 7.3 of PANS-ATM as modified by its Amendment 9.

SERA.14083 Radio communication failure procedures

- (a) When an aircraft is unable to comply with SERA.8035(a), the flight crew shall attempt to establish contact on the previous channel used and, if not successful, on another channel appropriate to the route. If these attempts fail, the flight crew shall attempt to establish communication with:
 - (1) the appropriate air traffic services unit,
 - (2) other air traffic services units, or
 - (3) other aircraft,

using all available means, including, inter alia, data link, satellite voice and mobile phones and, when successful, advise that contact on the assigned channel could not be established.

- (b) When an expected communication from an aircraft has not been received within a time period such that the occurrence of a communication failure is suspected, or when requested by other air traffic services units, the air traffic controller shall call the aircraft on the frequencies on which the aircraft is believed to be listening, and:
 - (1) when providing surveillance service, the air traffic controller shall normally determine whether or not the aircraft's receiver is functioning, and if successful, continue providing air traffic control service using SSR code/ADS-B transmission changes or IDENT transmissions to obtain acknowledgement of clearances issued to the aircraft;
 - (2) if not successful, the air traffic control unit shall:
 - (i) request other air traffic services units to render assistance by calling the aircraft and relaying messages, if necessary;
 - (ii) request aircraft on the route to attempt to establish communication with the aircraft and relay messages, if necessary;
 - (iii) initiate the notification to the aircraft operator, as soon as possible, of any failure in air-ground communication.
 - (3) if the attempts described in points (2)(i) and (2)(ii) fail, blind transmission of air traffic control clearances shall not be made to aircraft, except at the specific request of the originator. Other messages should be transmitted by blind transmission on the frequencies on which the aircraft is believed to be listening.
- When an aircraft is unable to comply with SERA.8035(a) and the attempts described in point (a) to establish communications are not successful, the radio communication failure procedures described below shall be applied:
 - (1) The aircraft, when forming part of the aerodrome traffic at a controlled aerodrome, shall keep a watch for such instructions as may be issued by visual signals.



- (2) The aircraft shall set the transponder on Mode A Code 7600 and/or set the ADS-B transmitter to indicate the loss of air-ground communications and comply with such of the following procedures as are appropriate.
- (3) A VFR flight shall continue to fly in visual meteorological conditions; land at the nearest suitable aerodrome; and report its arrival by the most expeditious means to the appropriate air traffic services unit.
- (4) Except as provided in point (5), an IFR flight shall:
 - (i) maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of 20 minutes following:
 - (A) the aircraft's failure to make a required report; or
 - (B) the time the transponder is set to 7600 and/or the appropriate ADS-B emergency and/or urgency mode is transmitted if surveillance service is provided;

and thereafter adjust level and speed in accordance with the filed flight plan as amended by delay and modification messages to the filed flight plan;

- (ii) when being vectored or having been directed by ATC to proceed offset using area navigation (RNAV):
 - (A) with a specified limit, continue to that limit, then rejoin the last received and acknowledged route, taking into consideration the applicable minimum flight altitude; or
 - (B) without a specified limit, rejoin the last received and acknowledged route no later than the next significant point, taking into consideration the applicable minimum flight altitude;
- (iii) proceed according to the last received and acknowledged route clearance to the appropriate designated navigation aid or fix serving the destination aerodrome and, when required to ensure compliance with point (iv) below, hold over this aid or fix until commencement of descent;
- (iv) commence descent from the navigation aid or fix specified in point (iii) at, or as close as possible to, the expected approach time last received and acknowledged; or, if no expected approach time has been received and acknowledged, at, or as close as possible to, the estimated time of arrival;
- (v) complete an instrument approach procedure as specified for the designated navigation aid or fix; and
- (vi) land, if possible, within 30 minutes after the estimated time of arrival specified in point (iv) or the last acknowledged expected approach time, whichever is later.
- (5) An IFR flight following a standard instrument departure route or a standard instrument arrival route shall comply with the provisions for radio communication failure specified on the Standard Departure Chart - Instrument (SID) or Standard Arrival Chart - Instrument (STAR).



- (6) If an IFR flight encounters visual meteorological conditions and the pilot-in-command decides to continue to fly in visual meteorological conditions, the pilot shall set Mode A Code 7601, land at the nearest suitable aerodrome, and report arrival by the most expeditious means to the appropriate air traffic services unit.
- (d) The provision of air traffic control service to flights operating in the airspace concerned shall be based on the premise that an aircraft experiencing communication failure complies with point (c).
- (e) As soon as it is known that an aircraft operating in its area of responsibility is experiencing an apparent radio communication failure, an air traffic control unit shall forward information concerning the radio communication failure to all air traffic services units concerned along the route of flight. The area control centre in whose area the destination aerodrome is located shall take steps to obtain information on the alternate aerodrome(s) and other relevant information specified in the filed flight plan, if such information is not available.
- (f) When an air traffic control unit receives information that an aircraft, after experiencing a communication failure, has re-established communication or has landed, that unit shall inform the air traffic control unit in whose area the aircraft was operating at the time the failure occurred, and other air traffic services units concerned along the route of flight, giving necessary information for the continuation of control if the aircraft is continuing in flight.

SERA.8035(b) required the transposition of ICAO provisions on communication failures by 31 December 2017. Accordingly, in 2017 EASA issued a regulatory proposal consulted with its Advisory Bodies to transpose the provisions of point 3.6.5.2 of ICAO Annex 2. Numerous comments were received highlighting very diverging views on the proposal. As a result, the Agency put the development of a regulatory proposal on hold waiting for further clarification from ICAO and concurrently informed its stakeholders about this situation. In the meantime, in March 2021 the Eurocontrol ATM Procedures Development Sub-Group (APDSG) submitted a new proposal, which EASA has scrutinised and on that basis has developed the amendments submitted hereby to address the subject of RCF procedures. This approach foresees the introduction of the new SERA.14083 and of related AMC and GM, as well as the amendment of other related SERA provisions.

A comprehensive scrutiny and review of the existing provisions was conducted, followed by an encompassing exercise to transpose them in the SERA regulatory framework. The approach followed the logical sequence of events and actions to be taken by the air traffic control and by pilots respectively to re-establish communications, to try to communicate using other means, including signals, and to apply the agreed actions for the event of RCF in line with the following:

- a. Actions to be taken by flight crew:
 - *i.* Attempts to re-establish communications with the normal combox, with other means.
 - *ii.* In RCF status continue the flight in accordance with agreed actions for IFR or VFR, and for IFR to indicate the intention to remain in VMC by squawking a specific code, reserved for such use.
 - *iii.* Apply potential RCF procedures published on arrival and departure charts.



- iv. Transmit in blind.
- b. Actions to be taken by air traffic control:
 - *i.* If surveillance service is used, assess if partial failure occurred.
 - *ii.* Coordinate with upstream units for re-establishment of communications and relaying instructions.
 - *iii.* Provide service on the assumption that the flight crew will operate in accordance with the agreed actions.
 - *iv.* Transmit instructions in blind.
 - v. Provide information to the downstream units.

The exercise gave the unique opportunity to be forward thinking and take on board some initial promising drafting recorded at global level in one of the coordination groups convened by the ICAO Air Navigation Bureau. Therefore, in addition to the improvements proposed by the ICAO European Air Navigation Planning Group (EANPG) developed and agreed in 2010, additional elements were considered, such as simplifying the actions to be followed by pursuing a common time parameter — 20 minutes for both procedural and surveillance environment — to be observed before adapting the speed and vertical profile in accordance with the filed flight plan, as amended by the modification and delay messages. The addition of the 'as amended by the modification and delay messages' is justified by the fact that all these represent updates to the intentions of the pilots.

The feedback received from stakeholders did not indicate issues in pursuing such a solution (i.e. one time parameter of 20 minutes, irrespective of surveillance availability), as one of the key factors which led to introducing 7 minutes was related to the RVSM transition area, where allowing an aircraft with RCF to fly for 20 minutes at CVSM levels above FL 290 would create major disruptions to operations.

The issue of the use of the SSR code A7601 as explained in Section 2.1 of this NPA should be considered at SERA.14083(c)(6) of the proposal.

Another element of the proposal is that the flight crew is required to use arrival charts and departure charts during the arrival and departure phases of the flight for information pertaining to actions to be taken in case of air-ground voice communication failure, which are made available on those charts. This should be considered by airspace and procedure designers when preparing those charts.

Other options to be applicable for VFR flights experiencing RCF (e.g. to leave the controlled airspace, to remain in VMC and continue the flight to destination in uncontrolled airspace) were also considered, but in the end, it was agreed that limiting the options for the VFR flight to remain in VMC and land at the nearest suitable aerodrome is the safest solution.

The proposal in point SERA.14083(b) incorporates the requirements of the present SERA.14087; that is why it is proposed to delete the latter from the SERA Regulation.



AMC1 SERA.14083(b)(1) Radio communication failure procedures

ATC ATTEMPT TO ESTABLISH COMMUNICATION

The air traffic controller should determine whether or not the aircraft's receiver is functioning by instructing the aircraft on the channel so far used, or on any other available channel on which it is believed that the aircraft might be listening, to acknowledge by making a specified manoeuvre and by observing the aircraft's track, or by instructing the aircraft to operate IDENT or to make SSR code and/or ADS-B transmission changes. Any manoeuvring instructions should be such that the aircraft would regain its current cleared track after having complied with the instructions received.

Rationale

The details of the proposed regulatory approach on RCF procedures are provided in this NPA in association with the proposed SERA.14083.

GM1 SERA.14083(b)(1) Radio communication failure procedures

ATC ATTEMPT TO ESTABLISH COMMUNICATION

Some aircraft equipped with first-generation ADS-B avionics do not have the capability of squawking IDENT while the emergency and/or urgency mode is selected.

Rationale

The details of the proposed regulatory approach on RCF procedures are provided in this NPA in association with the proposed SERA.14083.

AMC1 SERA.14083(b)(3) Radio communication failure procedures

BLIND TRANSMISSION OF OTHER MESSAGES

Appropriate information describing the action taken by the air traffic control unit, or instructions justified by any emergency situation, should be transmitted by blind transmission for the attention of the aircraft concerned, on the frequencies available on which the aircraft is believed to be listening, including the voice frequencies of available radio navigation or approach aids. Information should also be given concerning:

- (a) meteorological conditions favourable to a cloud-breaking procedure in areas where congested traffic may be avoided; and
- (b) meteorological conditions at suitable aerodromes.

Rationale

The details of the proposed regulatory approach on RCF procedures are provided in this NPA in association with the proposed SERA.14083.



GM1 SERA.14083(c) Radio communication failure procedures

RADIO COMMUNICATION FAILURE PROCEDURE — MULTIPLE AIRCRAFT

The air-ground voice communication failure procedures specifically address failure of communications affecting a single aircraft. In situations where multiple aircraft may be involved, especially when operating in an environment where high-frequency communications are used as primary means for voice communication, the safety of operations is best assured when aircraft adhere to the last ATC clearance received and acknowledged, similar to the case of ground radio station failure.

Rationale

The details of the proposed regulatory approach on RCF procedures are provided in this NPA in association with the proposed SERA.14083.

GM2 SERA.14083(c) Radio communication failure procedures

LANDING AT THE NEAREST SUITABLE AERODROME

When assessing the suitability for landing of an aerodrome, the pilot should consider runway characteristics, aerodrome facilities and the complexity of the operating environment at that aerodrome.

Rationale

The details of the proposed regulatory approach on RCF procedures are provided in this NPA in association with the proposed SERA.14083.

GM1 SERA.14083(c)(4)(i)(B) Radio communication failure

procedures

AIRCRAFT ADS-B CAPABILITIES

Some aircraft equipped with first-generation ADS-B avionics have the capability to transmit a general emergency alert only, regardless of the code selected by the pilot.

Rationale

The details of the proposed regulatory approach on RCF procedures are provided in this NPA in association with the proposed SERA.14083.

AMC1 SERA.14083(d) Radio communication failure procedures

ATC ACTIONS IN CASE OF RADIO COMMUNICATION FAILURE

(a) Except for the case when the aircraft flying in accordance with instrument flight rules and experiencing communication failure transmits A7601, the air traffic controller should apply separation between such aircraft and other aircraft, based on the assumption that the aircraft will operate according to SERA.14083(c)(3) and (4), until:



- (1) it is determined that the aircraft is following a procedure differing from those in SERA.14083(c)(3) and (4) (e.g. observing that the aircraft set the transponder code 7601) and (b) should be applied;
- (2) through the use of electronic or other aids, the air traffic controller determines that actions differing from those required by SERA.14083(c)(3) and (4) may be taken without impairing safety; or
- (3) positive information is received that the aircraft has landed.
- (b) The air traffic controller should take all possible actions to safeguard all aircraft concerned based on the assumption that an aircraft operating in accordance with visual flight rules or an aircraft operating in accordance with instrument flight rules transmitting A7601 will continue to fly in visual meteorological conditions, land at the nearest suitable aerodrome, and report its arrival by the most expeditious means to the appropriate air traffic services unit.
- (c) Pertinent information should be given to other aircraft in the vicinity of the presumed position of the aircraft experiencing the failure.
- (d) If circumstances indicate that the controlled flight experiencing a communication failure might proceed to (one of) the alternate aerodrome(s) specified in the filed flight plan, the air traffic control unit(s) serving the alternate aerodrome(s) and any other air traffic control units that might be affected by a possible diversion should be informed of the circumstances of the failure and requested to attempt to establish communication with the aircraft at a time when the aircraft could possibly be within communication range. This should apply particularly when, by agreement with the operator or a designated representative, a clearance has been transmitted blind to the aircraft concerned to proceed to an alternate aerodrome, or when meteorological conditions at the aerodrome of intended landing are such that a diversion to an alternate is considered likely.
- (e) When an air traffic control unit at the arrival aerodrome has suspended normal operations in anticipation of the arrival of an aircraft experiencing communication failure, and that aircraft has not reported or landed within 30 minutes after:
 - (1) the estimated time of arrival indicated by the pilot;
 - (2) the estimated time of arrival calculated by the area control centre; or
 - (3) the last acknowledged expected approach time, whichever is latest,

pertinent information concerning the aircraft should be forwarded by ATC to aircraft operators, or their designated representatives, and pilots-in-command of any aircraft concerned, and normal control resumed if they so desire. It is the responsibility of the aircraft operators, or their designated representatives, and pilots-in-command of aircraft to determine whether they will resume normal operations or take other action.

Rationale

The details of the proposed regulatory approach on RCF procedures are provided in this NPA in association with the proposed SERA.14083.

**** * * ***

GM1 SERA.14083(d) Radio communication failure procedures

SEPARATION FOR ATS SURVEILLANCE SERVICES

When a controlled aircraft experiencing complete communication failure is operating or expected to operate in an area and at flight levels where an ATS surveillance service is applied, separation specified in AMC1 ATS.TR.210(c)(2) to Regulation (EU) 2017/373 may continue to be used.

Rationale

The details of the proposed regulatory approach on RCF procedures are provided in this NPA in association with the proposed SERA.14083.

GM2 SERA.14083(d) Radio communication failure procedures

ALERTING SERVICE

The pertinent information to be provided as described in point (e) of AMC1 SERA.14083(d) does not preclude compliance with the requirements on alerting service as described in ATS.TR.405(a)(1) of Regulation (EU) 2017/373.

Rationale

The details of the proposed regulatory approach on RCF procedures are provided in this NPA in association with the proposed SERA.14083.

GM1 SERA.14085 Use of blind transmission

ATC SERVICE PROVISION TO OTHER FLIGHTS

The provision of air traffic control service to other flights operating in the airspace concerned will be based on the premise that an aircraft experiencing communication failure will comply with SERA.14083.

Rationale

This proposed GM transposes Note 1 to point 3.6.5.2.2 of ICAO Annex 2, and provides additional information on the RCF procedures.

SERA.14087 Use of relay communication technique

- (a) When an ATS unit has been unable to establish contact with an aircraft after calls on the frequencies on which the aircraft is believed to be listening, it shall:
 - (1) request other ATS units to render assistance by calling the aircraft and relaying traffic, if necessary; and
 - (2) request aircraft on the route to attempt to establish communication with the aircraft and relay traffic, if necessary.
- (b) The provisions of point (a) shall also be applied:

(1) at request of the ATS unit concerned;



(2) when an expected communication from an aircraft has not been received within a time period such that the occurrence of a communication failure is suspected.

Rationale

It is proposed to delete SERA.14087 and to include its contents in point (c) of SERA.14083. The details of the proposed regulatory approach on RCF procedures are provided in this NPA in association with the proposed SERA.14083.

SERA.14090 Specific communication procedures

(a) Movement of vehicles

Phraseologies for the movement of vehicles, other than tow tractors, on the manoeuvring area shall be the same as those used for the movement of aircraft, with the exception of taxi instructions, in which case the word 'PROCEED' shall be substituted for the word 'TAXI' when communicating with vehicles.

Rationale

The proposed amendment aligns the text of point (a) SERA.14090 with that of point 12.2.6 of PANS-ATM as modified by its Amendment 8.

[...]

(c) Indication of heavy wake turbulence category

[...]

(2) For specific aircraft in the SUPER or heavy HEAVY wake turbulence category categories, as identified by the competent authority, the word 'Super super' or 'heavy' shall be included, as appropriate, immediately after the aircraft call sign in the initial radiotelephony contact between such aircraft and ATS-air traffic services units.

Rationale

The proposed amendments introduce the requirement to explicitly include the indication of the 'SUPER' wake turbulence category in communications between pilots and air traffic services units. It is based on the transposition of point 4.9.2 PANS-ATM as modified by its Amendment 9.

- (d) Procedures related to weather deviation
 - (1) When weather deviation is required, the pilot shall initiates communications with ATC, via voice or CPDLC. a rapid response may be obtained by either:
 - (i) stating 'WEATHER DEVIATION REQUIRED' to indicate that priority is desired on the frequency and for ATC response-; or
 - (ii) requesting a weather deviation using a CPDLC lateral downlink message.
 - (2) When necessary, the pilot shall initiate communications using the urgency call 'PAN PAN' (preferably spoken three times) or by using a CPDLC urgency downlink message.

**** * * ***

The proposed amendment aims at better clarifying the communication procedure between pilots and ATC units in the scenario of a necessary weather deviation, including the use of CPDLC. It is based on the transposition of point 15.2.4.1 of PANS-ATM as modified by its Amendment 9.

- (3) The pilot shall inform the air traffic controller when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to its cleared route.
- (4) The pilot should notify the air traffic controller and request clearance to deviate from track or ATS route, advising, when possible, the extent of the deviation requested. The flight crew will use whatever means are appropriate (i.e. voice and/or CPDLC) to communicate during a weather deviation.

Rationale

The proposed amendment aims at better clarifying the communication procedure between pilots and ATC units in the scenario of a necessary weather deviation, including the use of CPDLC. It is based on the transposition of points 15.2.4.1.3 and 15.2.4.2.1 of PANS-ATM as modified by its Amendment 9.

(e) Clearances on standard instrument departure and standard instrument arrival

Clearances on SID and/or STAR shall unambiguously indicate the constraints, where applicable.

Rationale

The proposed amendment introduces the requirement to unambiguously indicate constraints when issuing clearance on a SID or on a STAR. Consequently, AMC1 and AMC2 SERA.14090(e) (transposing points 6.3.2.4 and 6.5.2.4 of PANS-ATM respectively) are introduced to support the implementation of the detailed provisions. Such AMC are coherent with certain AMC and GM on the same subject related to ATS.TR.235(b) of Annex IV (Part-ATS) to Regulation (EU) 2017/373.

GM1 SERA.14090(a) Specific communication procedures

VEHICLE TRAFFIC ON THE MANOEUVRING AREA

Specific communication procedures and signals are detailed in point 3.1.3 of Appendix 1 'Signals'.

Rationale

The proposed new GM provides an explicit link between the requirements in SERA.14090(a) and the newly proposed point 3.1.3 of Appendix 1 'Signals' concerning communications between ATS and vehicles on the manoeuvring area.



GM1 SERA.14090(d)(4) Specific communication procedures ACTIONS TO BE TAKEN WHEN AIR TRAFFIC CONTROLLER-PILOT COMMUNICATIONS ARE ESTABLISHED

Pilots should contact ATC as soon as possible with requests for clearance in order to provide adequate time for the request to be assessed and acted upon.

Rationale

The proposed new GM concerns the appropriate timing for pilots to communicate with ATC concerning requests for clearances. It is based on the transposition of the Note to point 15.2.4.2.1 of PANS-ATM as modified by its Amendment 9.

AMC1 SERA.14090(e) Specific communication procedures

CLEARANCES ON STANDARD INSTRUMENT DEPARTURE (SID)

- (a) Clearances to aircraft on a SID with remaining published level and/or speed restrictions should indicate if such restrictions are to be followed or are cancelled. The following phraseologies should be used with the following meanings:
 - (1) CLIMB VIA SID TO (level):
 - (i) climb to the cleared level and comply with published level restrictions;
 - (ii) follow the lateral profile of the SID; and
 - (iii) comply with published speed restrictions or ATC-issued speed control instructions as applicable.
 - (2) CLIMB VIA SID TO (level), CANCEL LEVEL RESTRICTION(S):
 - (i) climb to the cleared level; published level restrictions are cancelled;
 - (ii) follow the lateral profile of the SID; and
 - (iii) comply with published speed restrictions or ATC-issued speed control instructions as applicable.
 - (3) CLIMB VIA SID TO (level), CANCEL LEVEL RESTRICTION(S) AT (point(s)):
 - (i) climb to the cleared level; published level restriction(s) at the specified point(s) are cancelled;
 - (ii) follow the lateral profile of the SID; and
 - (iii) comply with published speed restrictions or ATC-issued speed control instructions as applicable.
 - (4) CLIMB VIA SID TO (level), CANCEL SPEED RESTRICTION(S):
 - (i) climb to the cleared level and comply with published level restrictions;
 - (ii) follow the lateral profile of the SID; and
 - (iii) published speed restrictions and ATC-issued speed control instructions are cancelled.
 - (5) CLIMB VIA SID TO (level), CANCEL SPEED RESTRICTION(S) AT (point(s)):



- (i) climb to the cleared level and comply with published level restrictions;
- (ii) follow the lateral profile of the SID; and
- (iii) published speed restrictions are cancelled at the specified point(s).
- (6) CLIMB UNRESTRICTED TO (level) or CLIMB TO (level), CANCEL LEVEL AND SPEED RESTRICTION(S):
 - (i) climb to the cleared level; published level restrictions are cancelled;
 - (ii) follow the lateral profile of the SID; and
 - (iii) published speed restrictions and ATC-issued speed control instructions are cancelled.
- (b) If there are no remaining published level or speed restrictions on the SID, the phrase CLIMB TO (level) should be used.
- (c) When subsequent speed restriction instructions are issued, and if the cleared level is unchanged, the phrase CLIMB VIA SID TO (level) should be omitted.
- (d) When a departing aircraft is cleared to proceed direct to a published waypoint on the SID, the speed and level restrictions associated with the bypassed waypoints are cancelled. All remaining published speed and level restrictions should remain applicable.
- (e) When a departing aircraft is vectored or cleared to proceed to a point that is not on the SID, all published speed and level restrictions of the SID are cancelled and the air traffic controller should:
 - (1) reiterate the cleared level;
 - (2) provide speed and level restrictions as necessary; and
 - (3) notify the pilot if it is expected that the aircraft will be instructed to subsequently rejoin the SID.
- (f) ATC instructions to an aircraft to rejoin a SID should include:
 - the designator of the SID to be rejoin, unless advance notification of rejoin has been provided in accordance with point (e);
 - (2) the cleared level in accordance with point (a); and
 - (3) the position at which it is expected to rejoin the SID.

The proposed new AMC provides the description of the scenario and the phraseologies to be used by pilots and ATC concerning the clearances on SID. It is based on the transposition of point 6.3.2.4 of PANS-ATM as modified by its Amendment 7A.



AMC2 SERA.14090(e) Specific communication procedures

CLEARANCES ON STANDARD INSTRUMENT ARRIVAL (STAR)

(a) Clearances to aircraft on a STAR with remaining published level and/or speed restrictions should indicate if such restrictions are to be followed or are cancelled. The following phraseologies should be used with the following meaning:

(1) DESCEND VIA STAR TO (level):

- (i) descend to the cleared level and comply with published level restrictions;
- (ii) follow the lateral profile of the STAR; and
- (iii) comply with published speed restrictions or ATC-issued speed control instructions as applicable.
- (2) DESCEND VIA STAR TO (level), CANCEL LEVEL RESTRICTION(S):
 - (i) descend to the cleared level; published level restrictions are cancelled;
 - (ii) follow the lateral profile of the STAR; and
 - (iii) comply with published speed restrictions or ATC-issued speed control instructions as applicable.
- (3) DESCEND VIA STAR TO (level), CANCEL LEVEL RESTRICTION(S) AT (point(s)):
 - descend to the cleared level; published level restriction(s) at the specified point(s) are cancelled;
 - (ii) follow the lateral profile of the STAR; and
 - (iii) comply with published speed restrictions or ATC-issued speed control instructions as applicable.
- (4) DESCEND VIA STAR TO (level), CANCEL SPEED RESTRICTION(S):
 - (i) descend to the cleared level and comply with published level restrictions;
 - (ii) follow the lateral profile of the STAR; and
 - (iii) published speed restrictions and ATC-issued speed control instructions are cancelled.
- (5) DESCEND VIA STAR TO (level), CANCEL SPEED RESTRICTION(S) AT (point(s)):
 - (i) descend to the cleared level and comply with published level restrictions;
 - (ii) follow the lateral profile of the STAR; and
 - (iii) published speed restrictions are cancelled at the specified point(s).
- (6) DESCEND UNRESTRICTED TO *(level)* or DESCEND TO *(level)*, CANCEL LEVEL AND SPEED RESTRICTION(S):
 - (i) descend to the cleared level; published level restrictions are cancelled;
 - (ii) follow the lateral profile of the STAR; and



- (iii) published speed restrictions and ATC-issued speed control instructions are cancelled.
- (b) If there are no remaining published level or speed restrictions on the STAR, the phrase DESCEND TO (level) should be used.
- (c) When subsequent speed restriction instructions are issued and if the cleared level is unchanged, the phrase DESCEND VIA STAR TO *(level)* should be omitted.
- (d) When an arriving aircraft is cleared to proceed direct to a published waypoint on the STAR, the speed and level restrictions associated with the bypassed waypoints are cancelled. All remaining published speed and level restrictions should remain applicable.
- (e) When an arriving aircraft is vectored or cleared to proceed to a point that is not on the STAR, all the published speed and level restrictions of the STAR are cancelled and the air traffic controller should:
 - (1) reiterate the cleared level;
 - (2) provide speed and level restrictions as necessary; and
 - (3) notify the pilot if it is expected that the aircraft will be instructed to subsequently rejoin the STAR.
- (f) ATC instructions to an aircraft to rejoin a STAR should include:
 - the designator of the STAR to be rejoined, unless advance notification of rejoin has been provided in accordance with point (e);
 - (2) the cleared level on rejoining the STAR in accordance with point (a); and
 - (3) the position at which it is expected to rejoin the STAR.

The proposed new AMC provides the description of the scenario and the phraseologies to be used by pilots and ATC concerning the clearances on STAR. It is based on the transposition of point 6.5.2.4 of PANS-ATM as modified by its Amendment 7A.

SERA.14100 Notification of suspected communicable diseases or other public health risk on board an aircraft

- (a) The flight crew of an en-route aircraft shall, upon identifying a suspected case(s) of communicable disease, or other public health risk, on board the aircraft, promptly notify the air traffic services unit with which the pilot is communicating, the information listed below:
 - (1) aircraft identification;
 - (2) departure aerodrome;
 - (3) destination aerodrome;
 - (4) estimated time of arrival;
 - (5) number of persons on board;



- (6) number of suspected case or cases on board; and
- (7) nature of the public health risk, if known.
- (b) The air traffic services unit, upon receipt of information from a pilot regarding suspected case(s) of communicable disease, or other public health risk, on board the aircraft, shall forward a message as soon as possible to the air traffic services unit serving the destination/departure, unless procedures exist to notify the appropriate authority designated by the State and the aircraft operator or its designated representative.
- (c) When a report of a suspected case(s) of communicable disease, or other public health risk, on board an aircraft is received by an air traffic services unit serving the destination/departure, from another air traffic services unit or from an aircraft or an aircraft operator, the unit concerned shall forward a message as soon as possible to the public health authority or the appropriate authority designated by the State as well as the aircraft operator or its designated representative, and the aerodrome operator.

The proposed new SERA.14100 concerns the actions to be taken by pilots and ATS regarding the notifications about suspected communicable diseases or other public health risks on board an aircraft. It is based on the transposition of Chapter 16.6 of PANS-ATM.

GM1 SERA.14100 Notification of suspected communicable diseases or other public health risk on board an aircraft

ACTIONS OF THE PUBLIC HEALTH AUTHORITY

The public health authority (PHA) may contact the representative or operating agency of the aircraft operator as well as the aerodrome operator, if applicable, for subsequent coordination with the aircraft concerning clinical details and aerodrome preparation. Depending on the communications facilities available to the aircraft operator or its designated representative, it may not be possible to communicate with the aircraft until it is closer to its destination. Apart from the initial notification to the air traffic services unit while en route, ATC communications channels should be avoided.

Rationale

The proposed new GM is based on the transposition of Note 2 to point 16.6.3 of PANS-ATM.

GM2 SERA.14100 Notification of suspected communicable diseases or other public health risk on board an aircraft

INFORMATION TO THE DEPARTURE AERODROME

The information to be provided to the departure aerodrome will prevent the potential spread of communicable disease, or other public health risk, through other aircraft departing from the same aerodrome.



The proposed new GM is based on the transposition of Note 3 to point 16.6.3 of PANS-ATM.

GM3 SERA.14100 Notification of suspected communicable diseases or other public health risk on board an aircraft

MEANS OF TRANSMISSION OF INFORMATION

The Aeronautical Fixed Telecommunications Network (AFTN) (urgency message), telephone, fax or other means of transmission may be used by the air traffic services unit.

Rationale

The proposed new GM is based on the transposition of Note 4 to point 16.6.3 of PANS-ATM.

APPENDIX 1 SIGNALS

1. DISTRESS AND URGENCY SIGNALS

[...]

- 1.2. Distress signals
 - 1.2.1. The following signals, used either together or separately, mean that grave and imminent danger threatens, and immediate assistance is requested:
 - (a) a signal made by radiotelegraphy or by any other signalling method consisting of the group SOS (... - ... in the Morse Code)(... - ... in the Morse Code);

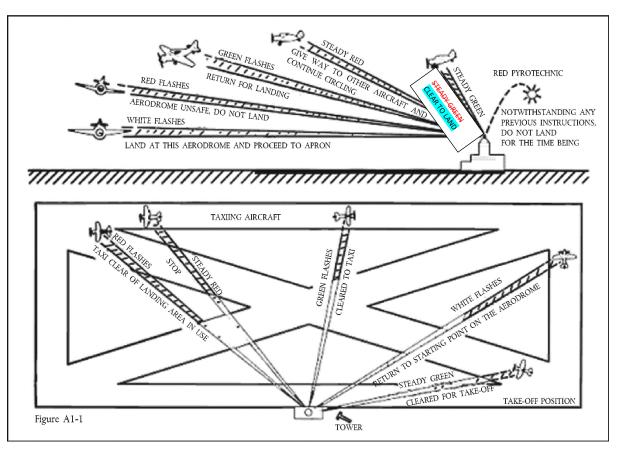
[...]

3. SIGNALS FOR AERODROME TRAFFIC

- 3.1. Light and pyrotechnic signals
 - 3.1.1. Instructions for aircraft

[...]





[...]

Rationale

Correction of an editorial mistake in the figure.

[...]

3.1.3. Instructions for ground vehicles

- (a) At controlled aerodromes all vehicles employed on the manoeuvring area shall be capable of maintaining two-way radio communication with the aerodrome control tower, except when the vehicle is only occasionally used on the manoeuvring area and is:
 - accompanied by a vehicle with the required communications capability; or
 - (2) employed in accordance with a pre-arranged plan established with the aerodrome control tower.
- (b) When communications by a system of visual signals is deemed to be adequate, or in the case of radio communication failure, the signals given hereunder shall have the meaning indicated in the table below.



Light signal from aerodrome control	Meaning
Green flashes	Permission to cross landing area or to move onto taxiway
Steady red	Stop
Red flashes	Move off the landing area or taxiway and watch out for aircraft
White flashes	Vacate manoeuvring area in accordance with local instructions
(c)	In emergency conditions or if the signals in point (a) are not observed the

signal given hereunder shall be used for runways or taxiways equipped with a lighting system and shall have the meaning indicated in the table below.

Light signal from aerodrome control	Meaning
Flashing runway or taxiway lights	Vacate the runway and observe the tower for light signal

Rationale

This amendment is proposed to ensure alignment with point 7.6.3.2.3 of PANS-ATM. The same signals are currently included in GM1 ATS.OR.445(a). Subject to the outcomes of the consultation of this NPA, EASA will ensure the necessary regulatory consistency and consider amending provision ATS.OR.445 and the related GM as appropriate.

APPENDIX 2 UNMANNED FREE BALLOONS

[...]

5. FLIGHT NOTIFICATION

[...]

- 5.3. Notification of cancellation
 - 5.3.1. The operator shall notify the appropriate air traffic services unit immediately when it is known that the intended flight of a medium or heavy unmanned free balloon, previously notified in accordance with paragraph 5.1, has been cancelled.

Rationale

Correction of an editorial mistake in the text.



Appendix 4 ATS airspace classes – services provided and flight requirements

(SERA.6001 and SERA.5025(b) refers)

Class	Type of flight	Separation provided	Service provided	Speed limitation ²³	Radio communication capability requirement	Continuous two-way air- ground voice communication required	Subject to an ATC clearance
A	IFR only	All aircraft	Air traffic control service	Not applicable Below transonic and supersonic speed	Yes	Yes	Yes
В	IFR	All aircraft	Air traffic control service	Not applicable Below transonic and supersonic speed	Yes	Yes	Yes
	VFR	All aircraft	Air traffic control service	Not applicable Below transonic and supersonic speed	Yes	Yes	Yes
С	IFR	IFR from IFR IFR from VFR	Air traffic control service	Not applicable Below transonic and supersonic speed	Yes	Yes	Yes
	VFR	VFR from IFR	 (1) Air traffic control service for separation from IFR; (2) Air traffic control service, VFR/VFR traffic information (and traffic avoidance advice on request) 	250 kts IAS below 3 050 m (10 000 ft) AMSL, and below transonic and supersonic speed above 3 050 m (10 000 ft) AMSL	Yes	Yes	Yes
D	IFR	IFR from IFR	Air traffic control service, traffic information	250 kt s IAS below 3 050 m (10 000 ft) AMSL , and	Yes	Yes	Yes

²³ When the level of the transition altitude is lower than 3 050 m (10 000 ft) AMSL, FL 100 should be used in lieu of 10 000 ft. Competent authority may also exempt aircraft types, which for technical or safety reasons, cannot maintain this speed.



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3. Proposed amendments and rationale

Class	Type of flight	Separation provided	Service provided	Speed limitation ²³	Radio communication capability requirement	Continuous two-way air- ground voice communication required	Subject to an ATC clearance
			about VFR flights d traffic avoidance advice on request)	below transonic and supersonic speed above 3 050 m (10 000 ft) AMSL			
	VFR	Nil	Air traffic control service, IFR/VFR and VFR/VFR traffic information (and traffic avoidance advice on request)	250 kts IAS below 3 050 m (10 000 ft) AMSL, and below transonic and supersonic speed above 3 050 m (10 000 ft) AMSL	Yes	Yes	Yes
Ε	IFR	IFR from IFR	Air traffic control service and, as far as practical, traffic information about VFR flights	250 kts IAS below 3 050 m (10 000 ft) AMSL, and below transonic and supersonic speed above 3 050 m (10 000 ft) AMSL	Yes	Yes	Yes
	VFR	Nil	Traffic information as far as practical	250 kts IAS below 3 050 m (10 000 ft) AMSL, and below transonic and supersonic speed above 3 050 m (10 000 ft) AMSL	No ²⁴	No ²⁴	Νο
F	IFR	IFR from IFR as far as practical	Air traffic advisory service; flight	250 kt s IAS below 3 050 m	Yes ²⁵	No ²⁵	No

²⁴ Pilots shall maintain continuous air-ground voice communication watch and establish two-way communication, as necessary, on the appropriate communication channel in RMZ.

²⁵ Air-ground voice communications mandatory for flights participating in the advisory service. Pilots shall maintain continuous air-ground voice communication watch and establish two-way communication, as necessary, on the appropriate communication channel in RMZ.



3. Proposed amendments and rationale

Class	Type of flight	Separation provided	Service provided	Speed limitation ²³	Radio communication capability requirement	Continuous two-way air- ground voice communication required	Subject to an ATC clearance
			information service if requested	(10 000 ft) AMSL, and below transonic and supersonic speed above 3 050 m (10 000 ft) AMSL			
	VFR	Nil	Flight information service if requested	250 kts IAS below 3 050 m (10 000 ft) AMSL, and below transonic and supersonic speed above 3 050 m (10 000 ft) AMSL	No ²⁴	No ²⁴	No
G	IFR	Nil	Flight information service if requested	250 kts IAS below 3 050 m (10 000 ft) AMSL, and below transonic and supersonic speed above 3 050 m (10 000 ft) AMSL	Yes ²⁴	No ²⁴	No
	VFR	Nil	Flight information service if requested	250 kt s IAS below 3 050 m (10 000 ft) AMSL, and below transonic and supersonic speed above 3 050 m (10 000 ft) AMSL	No ²⁴	No ²⁴	No

Rationale

The proposed amendments are intended to align Appendix 4 with the newly proposed SERA.6001(c).



APPENDIX 5 TECHNICAL SPECIFICATIONS RELATED TO AIRCRAFT OBSERVATIONS AND REPORTS BY VOICE COMMUNICATIONS

A. REPORTING INSTRUCTIONS

MODEL AIREP SPECIAL

	ITEM	PARAMETER	TRANSMIT IN TELEPHONY as appropriate		
	-	Message-type designator	[AIREP] SPECIAL		
		 special air-report 			
	1	Aircraft identification	(aircraft identification)		
		Position	POSITION (latitude and longitude)		
	2		OVER (significant point)		
	2		ABEAM (significant point)		
			(significant point) (bearing) (distance)		
H	3	Time	(time)		
Section 1		Level	FLIGHT LEVEL (number) or (number) METERS or FEET		
ŝĊŢ			CLIMBING TO FLIGHT LEVEL (number) or (number) METERS or		
S	4		FEET		
			DESCENDING TO FLIGHT LEVEL (number) or (number) METERS or		
			FEET		
	_	Next position and	(position) (time)		
	5	estimated time over			
	6	Ensuring significant point	(position) NEXT		
		Estimated time of arrival	(aerodrome) (time)		
5 U	7				
Section 2		Endurance	ENDURANCE (hours and minutes)		
Sei	8	Endurance			
		Phenomenon encountered			
		or observed prompting a			
		special air-report: – Moderate turbulence			
		– Severe turbulence	TURBULENCE SEVERE		
		– Moderate icing			
		– Severe icing			
		– Severe mountain wave	MOUNTAIN WAVE SEVERE		
		– Thunderstorms without	THUNDERSTORMS		
		hail			
33		– Thunderstorms with hail	THUNDERSTORMS WITH HAIL		
ction 3	9	 Heavy dust/sandstorm 	DUSTSTORM or SANDSTORM HEAVY		
Sect	_	– Volcanic ash cloud	VOLCANIC ASH CLOUD		
0)		 Pre- eruption volcanic 	PRE-ERUPTION VOLCANIC ACTIVITY or VOLCANIC ERUPTION		
		activity or volcanic			
		eruption			
		Runway braking action			
		• Good	GOOD		
		 Good to medium 	GOOD TO MEDIUM		
		• Medium	MEDIUM		
		 Medium to poor 	MEDIUM TO POOR		
		• Poor	POOR		
		 Less than poor 	LESS THAN POOR		
[]					





2. DETAILED REPORTING INSTRUCTIONS

2.1 Items of an air-report shall be reported in the order in which they are listed in the model AIREP SPECIAL form.

[...]

Section 3

Item 9 – PHENOMENON PROMPTING A SPECIAL AIR-REPORT. Report one of the following phenomena encountered or observed:

[...]

- Good braking action as 'BRAKING ACTION GOOD'
- Good to medium braking action as 'BRAKING ACTION GOOD TO MEDIUM'
- Medium braking action as 'BRAKING ACTION MEDIUM'
- Medium to poor braking action as 'BRAKING ACTION MEDIUM TO POOR'
- Poor braking action as 'BRAKING ACTION POOR'
- Less than poor braking action as 'BRAKING ACTION LESS THAN POOR'

The following specifications apply:

Good — Braking deceleration is normal for the wheel braking effort applied, and directional control is normal.

Good to medium — Braking deceleration or directional control is between good and medium.

Medium — Braking deceleration is noticeably reduced for the wheel braking effort applied, or directional control is noticeably reduced.

Medium to poor — Braking deceleration or directional control is between medium and poor.

Poor — Braking deceleration is significantly reduced for the wheel braking effort applied, or directional control is significantly reduced.

Less than poor — Braking deceleration is minimal to non-existent for the wheel braking effort applied, or directional control is uncertain.

[...]

3. FORWARDING OF METEOROLOGICAL INFORMATION RECEIVED BY VOICE COMMUNICATIONS

[...]

Section 2

Item 9 – PHENOMENON PROPMPTING A SPECIAL AIR-REPORT.

[...]

- thunderstorm with hail as 'TSGR',
- heavy duststorm or sandstrom as 'HVY SS',



heavy duststrom as 'HVY DS',

[...]

Rationale

The proposed amendment is based on the transposition of the amendment to Appendix 1 to PANS-ATM as modified by its Amendments 7-B and 9.

SUPPLEMENT TO THE ANNEX

List of commonly agreed differences to be notified to ICAO in accordance with <u>Article 5</u> of this <u>Regulation: [...]</u>

Rationale

Proposed amendment to align the requirements in the SERA Regulation with the Basic Regulation. See the rationale for the amendments in Article 5 above.

3.2. Draft consequential amendments to the AMC & GM to Regulation (EU) 2017/373

GM5 AIS.TR.305(c) Aeronautical information publication (AIP)

PUBLICATION OF RADIO MANDATORY ZONES AND TRANSPONDER MANDATORY ZONES

- (a) Information on radio mandatory zones (RMZ) and transponder mandatory zones (TMZ) should be published in the Aeronautical Information Publication (AIP) in a clear and unambiguous manner as required by SERA.6005(d) of Regulation (EU) No 923/2012. This information should include a dedicated chart or dedicated charts.
- (b) The following illustrates an example of appropriate sections where the information should be easily retrievable for the airspace users:
 - (1) Section GEN 1.5 contains the general requirements regarding the aircraft equipment;
 - (2) Section ENR 2 contains the information on RMZ and TMZ in the air traffic services airspace and other regulated airspace;
 - (3) Section ENR 6 contains an en-route chart illustrating the RMZ and TMZ;
 - (4) Section AD 2 contains the aerodrome-specific requirements including the visual approach and landing charts with the information on RMZ and TMZ.

Rationale

The proposed GM provides clarity on the publication of RMZ and TMZ in the context of the AIP. For consistency in the implementation (see GM1 SERA.6005(d)), this GM is duplicated in the AMC & GM to Regulation (EU) 2017/373, which contains the detailed requirements on the AIP.



4. Impact assessment (IA)

The general benefits and drawbacks are described in Section 2.4. No detailed impact assessment has been conducted, since this NPA only proposes amendments to the existing SERA regulatory framework primarily for alignment with the related originating ICAO provisions. The ICAO amendments concerned have already been subject to a thorough assessment and consultation process under ICAO arrangements, which led to their substantial validation from a global perspective.



5. Proposed actions to support implementation

- Focused communication to Advisory Body meeting(s) (MAB/SAB/TeB/TEC/COM)
- Implementation workshops, as considered appropriate upon EASA decision or stakeholders' request
- Monitoring of implementation via EASA Standardisation activities



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6. References

6.1. Related EU regulations

- 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)

6.2. Related EASA decisions

- 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 730/2006, (EC) 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 'Acceptable Means of Compliance and Guidance Material to the rules of the air'
- 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'

6.3. Other references

- 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 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 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)



- Accident investigation of a RANS S6 type of aircraft, registered as EC-YDQ on 15 July 2016 at San Javier-Murcia, in Spain: https://www.icao.int/safety/airnavigation/AIG/Documents/Safety%20Recommendations%20t
 <u>0%20ICAO/Final%20Reports/ULM%20A-016-2016 final report.en.pdf</u>
- ICAO State Letters:
 - AN 13/1.1-16/37 Adoption of Amendment 45 to Annex 2
 - AN 13/2.1-16/54 Approval of Amendment 7 to the PANS-ATM
 - AN 13/2.1-18/67 Approval of Amendment 8 to the PANS-ATM
 - AN 13/2.1-20/27 Approval of Amendment 9 to the PANS-ATM
 - AN 13/13.1-20/39 Adoption of Amendment 52 to Annex 11
 - EUR/NAT 21-0018.TEC Approval of a Proposal for Amendment of Regional Supplementary Procedures Doc 7030/5



Quality of the NPA 7.

To continuously improve the quality of its documents, EASA welcomes your feedback on the quality of this NPA with regard to the following aspects:

7.1. The regulatory proposal is of technically good/high quality

Please choose one of the options below and place it as a comment in CRT; if you disagree or strongly disagree, please provide a brief justification.

Fully agree / Agree / Neutral / Disagree / Strongly disagree

7.2. The text is clear, readable and understandable

Please choose one of the options below and place it as a comment in CRT; if you disagree or strongly disagree, please provide a brief justification.

Fully agree / Agree / Neutral / Disagree / Strongly disagree

7.3. The regulatory proposal is well substantiated

Please choose one of the options below and place it as a comment in CRT; if you disagree or strongly disagree, please provide a brief justification.

Fully agree / Agree / Neutral / Disagree / Strongly disagree

7.4. The regulatory proposal is fit for purpose (capable of achieving the objectives set)

Please choose one of the options below and place it as a comment in CRT; if you disagree or strongly disagree, please provide a brief justification.

Fully agree / Agree / Neutral / Disagree / Strongly disagree

7.5. The impact assessment (IA), as well as its qualitative and quantitative data, is of high quality

Please choose one of the options below and place it as a comment in CRT; if you disagree or strongly disagree, please provide a brief justification.

Fully agree / Agree / Neutral / Disagree / Strongly disagree

7.6. The regulatory proposal applies the 'better regulation' principles^[1]

Please choose one of the options below and place it as a comment in CRT; if you disagree or strongly disagree, please provide a brief justification.

Fully agree / Agree / Neutral / Disagree / Strongly disagree

7.7. Any other comments on the quality of this NPA (please specify)

Note: Your comments on Chapter 7 will be considered for internal quality assurance and management purposes only and will not be published in the related CRD.

https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-andhow/better-regulation-guidelines-and-toolbox/better-regulation-toolbox en



^[1] For information and guidance, see:

⁻ https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-andhow en

⁻ https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-andhow/better-regulation-guidelines-and-toolbox en