



Explanatory Note to Decision 2022/006/R

Issue 6 of the Certification Specifications and Guidance Material for Aerodrome Design (CS-ADR-DSN)

RELATED NPA/CRD 2020-10 — RMT.0591

EXECUTIVE SUMMARY

The objective of this Decision is to maintain a high and uniform level of safety in terms of aerodrome design.

This Decision amends the certification specifications (CS) and guidance material (GM) for the aerodrome design (CS-ADR-DSN) and transposes Amendment 15 to ICAO Annex 14, on Aerodrome Design and Operations. The changes are of non-controversial nature with a positive safety benefit and are not expected to induce significant efforts on the industry and national competent authorities.

The main changes concern:

- the standardised naming of taxiways;
- location of holding bays, runway-holding positions, intermediate holding positions and road-holding positions;
- runway guard lights, no-entry bar, information signs.

These changes aim to improve the navigation and efficiency on the aerodrome surface for both flight crews and vehicle operators, thus reducing the risk of runway incursions and taxiway confusion. The changes will reduce fuel burn while taxiing thus increasing environmental performance.

Additionally, this Decision introduces a new set of certification specifications for the design of aircraft arresting systems to ensure the harmonisation of the design within the Member States, the same level of safety, and, in addition, to facilitate the certification process in accordance with Commission Regulation (EU) No 139/2014.

Furthermore, it also clarifies that the provision of runway shoulders for 60 m-wide runways is not necessary for certain wide-body aircraft. This will avoid significant costs for the aerodrome operators and administrative burden for both the aerodrome operators and national competent authorities.

Finally, this Decision includes some changes of editorial nature to improve the overall quality of the aerodrome certification specifications. These changes improve consistency and are not expected to incur any impact on the stakeholders.

Domain:	Aerodromes		
Related rules:	CS-ADR-DSN		
Affected stakeholders:	Aerodrome operators, national competent authorities		
Driver:	Efficiency/proportionality	Rulemaking group:	No
Impact assessment:	No	Rulemaking Procedure:	Standard

EASA rulemaking procedure milestones

Start	Public Consultation	Decision
Terms of Reference	draft NPA 2020-10	Certification Specifications, Acceptable Means of Compliance, Guidance Material
6.3.2017 (Issue 3)	17.11.2020	29.3.2022



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1. About this Decision

The European Union Aviation Safety Agency (EASA) developed Decision 2022/006/R in line with Regulation (EU) 2018/1139¹ (the ‘Basic Regulation’) and the Rulemaking Procedure².

This Rulemaking Task (RMT).0591 is included in Volume II of the [European Plan for Aviation Safety \(EPAS\) for 2022-2026](#). The scope and timescales of the task were defined in the related Terms of Reference (ToR)³. The major milestones of this RMT are presented on the cover page.

EASA developed the *draft* text of this Decision. All the interested parties were consulted through the Notice of Proposed Amendment (NPA) [2020-10](#)⁴ which included proposed amendments to Commission Regulation (EU) No 139/2014⁵ and its Acceptable Means of Compliance (AMC) and Guidance Material (GM), as well as to the CS and GM of CS-ADR-DSN.

In total, 256 comments were submitted on this NPA. On the proposed changes to CS-ADR-DSN, 90 comments were received from all the interested parties, including from industry and national competent authorities (NCAs).

The final text of this Decision regarding the CS and GM in CS-ADR-DSN has been developed by EASA based on the review and analysis of the relevant comments received during the public consultation of [NPA 2020-10](#). The comments received and the EASA responses to them are presented in the Comment-Response Document (CRD) 2020-10 for CS-ADR-DSN.

This Decision is published on the Official Publication⁶ of EASA.

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

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 (<http://www.easa.europa.eu/the-agency/management-board/decisions/easa-mb-decision-18-2015-rulemaking-procedure>).

³ See: [ToR RMT.0591 | EASA \(europa.eu\)](#)

⁴ In accordance with Article 115 of Regulation (EU) 2018/1139 and Articles 6(3) and 7 of the Rulemaking Procedure

⁵ 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) ([EUR-Lex - 32014R0139 - EN - EUR-Lex \(europa.eu\)](#)).

⁶ <https://www.easa.europa.eu/official-publication>.



2. In summary — why and what

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

The following main drivers are at the basis of the amendments contained in this Decision:

1. The transposition of Amendment 15 (ICAO State Letter AN 4/1.2.28-20/35) to ICAO Annex 14, Aerodromes, Volume I, Aerodrome Design and Operations to ensure global harmonisation of aerodrome safety.
2. The need for design specifications of an arresting system to address the difficulties encountered by stakeholders in the design and certification process of such systems in the absence of a CS on this topic.
3. Rulemaking proposals which were assessed and considered appropriate for implementation.

The rationale for these amendments has been thoroughly described in the [NPA 2020-10](#).

2.2. What we want to achieve — objectives

The overall objectives of the EASA system are defined in Article 1 of the Basic Regulation. This Decision will contribute to the achievement of the overall objectives by addressing the issues outlined in Section 2.1.

The specific objectives of this Decision are, therefore, to:

- maintain a high and uniform level of safety for the aerodrome design;
- keep the aerodrome design requirements contained in CS-ADR-DSN up to date and aligned with the latest Standards and Recommended Practices (SARPs) of ICAO Annex 14, Aerodromes, Volume I;
- provide the competent authorities, aerodrome operators, and arresting system designers with a set of certification specifications for the design of arresting systems. This will ensure harmonisation of the design, the same level of safety, and, in addition, it will facilitate the certification process in accordance with Commission Regulation (EU) No 139/2014; and
- avoid significant costs for the aerodrome operator and additional administrative burden for both the competent authority and the aerodrome operator.

Further details on the specific objectives for this regulatory material have been provided in the [NPA 2020-10](#).

2.3. How we want to achieve it — CS-AR-DSN Issue 6

The main amendments introduced by this Decision transpose changes stemming from Amendment 15 (ICAO State Letter AN 4/1.2.28-20/35) to ICAO Annex 14, Aerodromes, Volume I, Aerodrome Design and Operations concerning the following aerodrome design features:

- aeroplanes with folding wing tips,
- standardised nomenclature for taxiways,



- location of holding bays, runway-holding positions, intermediate holding positions and road-holding positions,
- runway guard lights,
- no-entry bar,
- information signs,
- autonomous aircraft detection system, and
- siting of equipment and installation on operational areas.

In addition, this Decision introduces amendments to the CS and GM based on rulemaking proposals from stakeholders which EASA has assessed as beneficial. The amendments concern the following areas:

- arresting systems,
- provision of runway shoulders on 60-m wide runways,
- remote de-icing/anti-icing facilities, and
- specifications concerning the design of taxiing guidance signs.

Finally, this Decision includes some changes of editorial nature to improve the overall quality of the aerodrome certification specifications. These changes improve consistency and are not expected to incur any impact on the stakeholders.

Further details on how to achieve the objective are included in [NPA 2020-10](#).

A summary of the main changes compared to [NPA 2020-10](#) is presented below.

Arresting systems

The proposed amendment included in [NPA 2020-10](#) contained two certification specifications and corresponding guidance material: one for arresting systems in general (CS ADR-DSN.C.236) and a second one for engineered materials arresting systems (EMAS) (CS ADR-DSN.C.237), which is a type of arresting systems. This proposed amendment was based on the existing ICAO material on this topic at the time when [NPA 2020-10](#) was developed and then published. To further align with the latest material adopted by ICAO regarding the arresting systems and which is now included in Doc 9157, Part 1, the following main changes have been made with respect to the proposed amendment included in [NPA 2020-10](#):

- The certification specifications of CS ADR-DSN.C.236 and CS ADR-DSN.C.237 and their corresponding guidance material have been merged into one CS and GM respectively, i.e. CS ADR-DSN.C.236 and GM1 ADR-DSN.C.236; and
- The exit speed not lower than 40 knots has been removed from the design certification specification where a 'standard EMAS' (designed for aircraft with an exit speed of 70 knots) cannot be provided.

Runway guard lights (RGL)

The proposed amendment included in [NPA 2020-10](#) is in line with the change introduced by Amendment 15 to ICAO Annex 14, Volume I where the RGL should be installed on the holding side of the runway-holding position marking.

However, based on the comments received on [NPA 2020-10](#) (which are further detailed in Section 2.4 below) and following additional evaluation, EASA has found it acceptable that the runway guard lights can be installed within the area delimited by the inner and the outer edges of the runway holding position marking. This change is reflected in points (c)(1) and (c)(2) of CS ADR-DSN.M.745.

Objects on the runway strips

Based on the comments received on [NPA 2020-10](#) (which are further detailed in Section 2.4 below) and after additional evaluation, EASA has decided that the proposed changes to CS ADR-DSN.B.165 are not going to be implemented in this issue of CS-ADR-DSN until further developments from ICAO.

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

Comments were submitted on almost all the proposed amendments to the CS and GM of CS-ADR-DSN of NPA 2020-10, ranging from support to the proposed amendments, to proposals for changes or improvements and, in some cases, expressing disagreement.

The main concerns raised during the public consultation of [NPA 2020-10](#) focused on the following topics:

Arresting systems

The comments focused mainly on the fact that the new certification specifications regarding the arresting systems proposed under CS ADR-DSN.C.236 and CS ADR-DSN.C.237 and their corresponding guidance material should be merged and aligned to the extent possible with the material adopted by ICAO and which is included in Doc 9157, Part 1. EASA agrees with the commentators' views (see Section 2.3 summarising the changes on this topic). For the detailed replies to these comments, please refer to the corresponding CRD 2020-10.

Runway guard lights (RGL)

In most of the cases the commentators disagreed with the proposal to change the location for the installation of the RGL from 'at the same distance as the runway-holding position marking' to 'on the holding side of the runway-holding position marking'. The commentators stated that it will have a major impact on the aerodrome infrastructure in terms of costs without bringing an added safety benefit. EASA has considered the commentators' views (see Section 2.3 summarising the changes on this topic). For detailed replies please refer to the corresponding CRD.

No-entry bars

Most of the comments disagreed with the rationale for removing the design specifications of the lighting circuit, stating that operational scenarios will dictate the use of a taxiway in either entry/exit only configuration or dual configuration.

EASA does not share these views, since, in accordance with point (b)(1) of CS ADR-DSN.M.711, a no-entry bar should be installed across the end of an exit only taxiway. The amendment to CS ADR-

DSN.M.711 is therefore fully in line with the corresponding SARP of ICAO Annex 14, Volume I. For detailed replies please refer to the corresponding CRD 2020-10.

Objects on the runway strips

Stakeholders asked for further clarifications regarding which certification specifications apply to objects on the runway strip after the beginning of the balked landing surface (1 800 m).

After further evaluation, EASA has decided that the proposed changes to CS ADR-DSN.B.165 are not going to be implemented in this issue of CS-ADR-DSN until further developments from ICAO. For detailed replies please refer to the corresponding CRD 2020-10.

2.5. What are the benefits and drawbacks of the amendments

[NPA 2020-10](#) contains a summary of the benefits and drawbacks.

Regular updates of the aerodrome rules are issued based on the selection of non-complex, non-controversial or mature subjects originating from ICAO developments, and feedback from stakeholders, expert groups or individuals, which EASA has assessed as beneficial. Therefore, there was no need to develop a regulatory impact assessment (RIA).



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

EASA will monitor and evaluate the implementation of the certification specification contained in CS-ADR-DSN through regular standardisation activities. In addition, the monitoring of the implementation of the resulting amendments will be carried out through regular feedback received from EASA's Advisory Bodies. These inputs will facilitate the assessment of how efficiently the adopted implementing measures are applied.



4. References

4.1. Related EU regulations

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

4.2. Related EASA decisions

Decision 2014/013/R of the Executive Director of the Agency of 27 February 2014 adopting Certification Specifications and Guidance Material for Aerodromes Design 'CS-ADR-DSN — Initial issue'

4.3. Other reference documents

ICAO Annex 14 to the Convention on International Civil Aviation, Aerodromes, Volume I, Aerodrome Design and Operations, 8th Edition, July 2018, Amendment 15



5. Related document

CRD 2020-10 'Regular update of the aerodrome rules' – Part 1 (CS-ADR-DSN).

