



Explanatory Note to Decision 2015/001/R

Update of CS ADR-DSN.D.260 Taxiway minimum separation distance

'CS-ADR-DSN — Issue 2'

RELATED NPA/CRD 2014-21— RMT.0591 — 29.01.2015

EXECUTIVE SUMMARY

The purpose of this amendment of Certification Specifications and Guidance Material for Aerodrome Design (CS-ADR-DSN – Initial issue) is the update of CS ADR-DSN.D.260 'Taxiway minimum separation distance' in line with identical proposed changes in the respective ICAO provisions (ICAO State letter AN 4/1.1.54-14/97). This revision is proposed to be performed in advance of the formal adoption by ICAO, as the European airport industry, together with the respective competent authorities, currently perform a substantial certification process following Commission Regulation (EU) No 139/2014 and this certification process would need to take into account these envisaged changes in order to facilitate the process and to avoid unnecessary, potentially significant increase in effort.

The existing taxiway centre line separation distances, presented in Table 3-1 of Annex 14, Volume I, Aerodromes (the identical values are in Table D-1 of CS ADR-DSN.D.260 'Taxiway minimum separation distances') were created before emergence of new modern aircraft and technologies which are in use in aviation industry today. For many years the ICAO Aerodrome Design Working Group (ADWG), with other aerodromes and airline companies' experts, had intensely worked on possibilities of reducing the separation distances. As a result and based on risk based approach, analysis of actual movements of aircraft, statistical assessments and several scientific studies it was concluded by ADWG that the existing values of separation distances could be reduced without having a negative impact on the safety or regularity of taxiing operations and thus proposed a revision of Table 3-1. Consequently, the Agency is proposing a revision of Table D-1 in CS ADR-DSN.D.260. The proposed revisions are to retain the taxi centre line separation methodology and to introduce a new column in the table for separations between aircraft stand taxilane centre lines.

The changes to the design characteristics emerging from this amendment are of major significance to the airport industry also in an economic sense and, besides the facilitating effect along the now on-going certification exercise, do provide better clarity in operating larger aircraft in the existing airport infrastructure environment. Additionally, this revision will enable aerodromes to develop their facilities within existing infrastructure or future aerodrome extensions and to reduce the overall costs. Commentators strongly and unanimously supported the proposal provided in the NPA. Comments led to further improvements in form of minor administrative changes to related CS and the creation of one new paragraph in GM, to give better clarity of the CS requirement.

For information, the draft CS/GM is published in this CRD.

Applicability		Process map	
Affected regulations and decisions:	Regulation (EU) No 139/2014 ED Decision 2014/013/R CS-ADR-DSN - Initial issue	Concept Paper:	No
Affected stakeholders:	Aerodrome operators, Competent Authorities	Terms of Reference:	10.4.2014
Driver/origin:	Necessary amendments in response to developments of new Taxiway separation distances, Table 3-1 of ICAO, Annex 14, Vol I – Aerodromes	Rulemaking group:	No
Reference:		RIA type:	None
		Technical consultation during NPA drafting:	No
		Duration of NPA consultation:	2 months
		Review group:	No
		Focussed consultation:	Yes
		Publication date of the Opinion:	
		Publication date of the Decision:	2014/Q4



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1. Procedural information

1.1. The rule development procedure

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') developed this ED Decision in line with Regulation (EC) No 216/2008¹ (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure².

This rulemaking activity is included in the Agency's [4- years Rulemaking Programme](#) under RMT.0591. The scope and timescale of the task were defined in the related Terms of Reference (see process map on the title page).

The draft text of this Decision has been developed by the Agency. All interested parties were consulted through NPA 2014-21³. In total 37 comments were received from interested parties, including industry and national aviation authorities.

The Agency has reviewed the comments received on the NPA. The comments received and the Agency's responses are presented in the Comment-Response Document (CRD) 2014-21⁴.

The final text of this Decision with the amended Certification Specifications and Guidance Material has been developed by the Agency.

The process map on the title page summarizes the major milestones of this rulemaking activity.

1.2. Structure of the related documents

Chapter 1 contains the procedural information related to this task. Chapter 2 explains the core technical content. Chapter 3 contains references. The consolidated text of the CS-ADR-DSN – Issue 2 is annexed to the ED Decision. This explanatory note presents only the changes made to CS ADR.DSN.D.260 and other affected paragraphs.

¹ Regulation (EC) No 216/2008 of the European Parliament and the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1).

² The Agency is bound to follow a structured rulemaking process as required by Article 52(1) of the Basic Regulation. Such process has been adopted by the Agency's Management Board and is referred to as the 'Rulemaking Procedure'. See Management Board Decision concerning the procedure to be applied by the Agency for the issuing of opinions, certification specifications and guidance material (Rulemaking Procedure), EASA MB Decision No 01-2012 of 13 March 2012.

³ In accordance with Article 52 of the Basic Regulation and Articles 5(3) and 6 of the Rulemaking Procedure.

⁴ See: <http://easa.europa.eu/document-library/comment-response-documents>



2. Explanatory Note

2.1. Overview of the issues to be addressed

The purpose of the NPA was to propose amendments to CS ADR-DSN.D.260 Taxiway minimum separation distance ('CS-ADR-DSN – Initial issue'). This revision is proposed to be performed in advance of the adoption of identical draft changes in the respective ICAO provisions, which are expected to be adopted in 2016. As the European airport industry, together with the respective competent authorities, currently perform a substantial certification process following Commission Regulation (EU) 139/2014, this certification activity would need to take into account these envisaged changes in order to facilitate the process and to avoid unnecessary, potentially significant increase in effort. Therefore, the changes in the respective CS are proposed by the Agency to be adopted without delay.

2.2. Outcome of the consultation

In total 37 comments were received. Commentators strongly and unanimously supported the proposal provided in the NPA. Comments led to further improvements in form of minor administrative changes to related CS and the creation of one new paragraph in GM, to give better clarity of the CS requirement.

2.3. Overview of the amendments

2.3.1 Proposed amendments

The text of the amendment is arranged to show deleted text, new or amended text as shown below:

- (a) deleted text is marked with ~~strike through~~;
- (b) new or amended text is highlighted in grey;
- (c) an ellipsis (...) indicates that the remaining text is unchanged in front of or following the reflected amendment.

2.3.2 Draft Certification Specifications

Amend CS ADR-DSN.D.260 as follows:

CS ADR-DSN.D.260 Taxiway minimum separation distance

- (a) The safety objective of minimum taxi separation distances is to allow safe use of taxiways and aircraft stand taxilanes ~~taxi lanes~~ to prevent possible collision with other aeroplanes operating on adjacent runways or taxiways, or collision with adjacent objects.
- (b) The separation distance between the centre line of a taxiway and the centre line of a runway, the centre line of a parallel taxiway or an object should not be less than the appropriate dimension specified in Table D-1.



Code letter	Distance between taxiway centre line and runway centre line (metres)								Taxiway centre line to taxiway centre line (metres)	Taxiway, other than aircraft stand taxilane, centre line to object (metres)	Aircraft stand taxilane centre line to aircraft stand taxilane centre line (metres)	Aircraft stand taxilane centre line to object (metres)
	Instrument runways Code number				Non-instrument runways Code number							
	1	2	3	4	1	2	3	4				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13) (12)
A	82.5	82.5	—	—	37.5	47.5	—	—	23 (23.75)	15.5 (16.25)	19.5	12
B	87	87	—	—	42	52	—	—	32 (33.5)	20 (21.5)	28.5	16.5
C	—	—	168	—	—	—	93	—	44	26	40.5	22.5 (24.5)
D	—	—	176	176	—	—	101	101	63 (66.5)	37 (40.5)	59.5	33.5 (36)
E	—	—	—	182.5	—	—	—	107.5	76 (80)	43.5 (47.5)	72.5	40 (42.5)
F	—	—	—	190	—	—	—	115	91 (97.5)	51 (57.5)	87.5	47.5 (50.5)
<p>Note 1.— The separation distances shown in columns (2) to (9) represent ordinary combinations of runways and taxiways.</p> <p>Note 2.— The distances in columns (2) to (9) do not guarantee sufficient clearance behind a holding aeroplane to permit the passing of another aeroplane on a parallel taxiway.</p>												

Table D-1. Taxiway minimum separation distances

Amend CS ADR-DSN.G.400(c) as follows:

CS ADR-DSN.G.400 Clearance distances on a de-icing/anti-icing pad

...

- (c) If the pad layout is such as to include bypass configuration, the minimum separation distances specified in Table D-1, column (13) (12) should be provided.

...



Amend GM1 ADR-DSN.D.260(d) as follows:

GM1 ADR-DSN.D.260 Taxiway minimum separation distance

...

- (d) The separation distance between the centre line of an aircraft stand taxilane and an object, as prescribed in Table D-1, column ~~(13)~~12, may need to be increased when jet exhaust wake velocity may cause hazardous conditions for ground servicing.

...

- (f) The separation distances, as prescribed in Table D-1, may have to be increased on taxiway curves to accommodate the wing sweep of the critical aeroplane or on dual parallel taxiways when, as for example, used as bypass taxiways.

Amend CS ADR-DSN.T.915 (b)(1) as follows:

CS ADR-DSN.T.915 Siting of equipment and installations on operational areas

...

- (b) Unless its function requires it to be there for air navigation or for aircraft safety purposes, no equipment or installation endangering an aircraft should be located:
- (1) on a runway strip, a runway end safety area, a taxiway strip, or within the following distances:

Code Letter	Distance between taxiway (to — Taxiway) , other than aircraft stand taxilane, centre line to object (metres)
A	15.5 16.25
B	20 21.5
C	26
D	37 40.5
E	43.5 47.5
F	51 57.5

if it would endanger an aircraft, or ...



3. References

3.1. Related 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 (OJ L 44, 14.02.2014, p. 1).

3.2. Affected decisions

Decision 2014/013/R of the Executive Director of the Agency of 27 February 2014 on Certification Specifications and Guidance Material (CS-ADR-DSN — Initial issue).

