Comment-Response Document 2016-04

Appendix
to ED Decision 2016/027/R

RELATED NPA 2016-04— RMT.0591 — 8.12.2016

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1. Summary of the outcome of the consultation

During the preparation of this amendment EASA organised and performed thematic meetings with the NAAs and aerodrome operators concerning different topics: aerodrome physical characteristics, visual aids and obstacles and electrical systems. EASA also performed focused consultations with its Advisory Bodies (ABs), NAAs and industry via different communication platforms. The ABs, in general, agreed on the proposed changes and gave some advice in order to further improve the requirements. Because of the possible economic impact EASA performed a survey on some elements as runway centreline lights for CA I Runways, runway starter extension, windshear and other meteorological equipment and objects in runway strip. The outcome of the survey was considered during the preparation of this amendment. The draft proposed text for NPA was additionally consulted with the experts participating in the thematic meetings with the maximum level of balancing and taking into account the comments received during the NPA consultation.

In total 504 comments were received during the public consultation. Approximately two-third of the comments were received from the aerodrome operators. Around 80 comments were provided on the proposed provisions for the runway starter extension.

A number of comments were received on the new instrument and non-instrument approach runway definitions as a result of new approach classification definitions, which are encompassed by Amendment 11-B to ICAO Annex 14, Volume I, Aerodromes. Taking into account general concerns received EASA decided to remove the proposed amendment of the definitions for instrument runway and non-instrument runway from the current update of aerodrome rules in CS Issue 3. The amended definitions will be included in the CS after the adoption of Annex I 'Definitions' of Regulation (EU) No 139/2014 by the European Commission.

Although it was previously discussed and agreed at the thematic meetings, the majority of the comments received during the public consultation refer to the provisions of the runway starter extension, which is already in use in some Member States, however, without harmonised requirements at EU level. EASA discussed and agreed with the stakeholders to propose harmonised provisions for the runway starter extension in NPA 2016-04. During the public consultation of the NPA EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the additional thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS-ADR-DSN Issue 3). EASA will perform a focused consultation on the runway starter extension requirements to clarify all concerns and to get a common agreement on the provisions. The provisions for the runway starter extension will be proposed in one of the following NPAs as part of the regular update of the aerodrome rules.

A number of comments were received on the provisions of the runway end safety area (RESA) for code 1 & 2 non-instrument runways to take into account that this requirement is a Recommendation in Annex 14. Based on the comments received, the provisions for RESA are kept at CS level, however, giving the same implementation requirement as other ICAO provisions for RESA which are Recommendations in Annex 14. The wording 'where practicable' has been added to the requirements for RESA for non-instrument runways code 1 or 2 in order to avoid the economic impact on small aerodromes and to reflect the state of the art and current situation among aerodromes.

Other comments are equally spread out over the proposed amendments. Comments on CS B.165 'Objects on runways strip' were supportive on the proposal to remove the 1:10 slope requirement to give more flexibility with regard to 'buried surfaces'. The comment received was on CS D.335 on the proposal to require holding points to be sited in such way that aircraft waiting at them do not infringe the obstacle limitation surfaces. The comment was accepted and the proposal was amended in line with ICAO Annex 14. The comment on the slopes on apron and taxilanes was not accepted since both constitute one area and the text is identical to the corresponding paragraph provided in ICAO Annex 14. Comments received on the provisions for inner horizontal surface, contour, shape and elevation datum are partially accepted. The comments considering objects outside the obstacle limitation surfaces are noted, since the term 'The specifications below apply only to the area under control of the aerodrome operator' is already in use in the aerodrome rules. The term 'under control of aerodrome operator' normally means the aerodrome boundary, however, there are cases where the aerodrome operator controls areas which are outside the aerodrome boundary. The comments on apron service road are partially accepted, since EASA believes that there is a clear safety benefit introducing the proposed specifications, as the intent is to contribute to the save movement of vehicles at the aprons. The comments received on the provisions of simple touchdown zone lights are not accepted since the text is identical with ICAO Annex 14, Vol I, Aerodromes, including the 'and/or' clause. The purpose of simple touchdown zone lights is to provide pilots with enhanced situational awareness. The comments received on the proposed changes of CS M.710 taxiway centre-line lights are mutually different. After assessment of the comments they were partially accepted. Paragraph (b)(2) corresponds to Recommendation 5.3.17.2 of ICAO Annex 14 and the wording 'the traffic density is light and' is deleted, because, after the focused consultation with stakeholders it was agreed that it can be deleted, without having any safety impact. A justification was provided. Paragraph (b)(4) is Standard 5.3.17.4 of Annex 14 and the wording 'the traffic density is light and' will remain in the text, although it was discussed at the thematic meetings that there is no safety impact if deleted, however, a justification was not provided. The specifications for objects to be marked and/or lighted outside the lateral boundaries of the obstacle limitation surfaces apply only to the area under control of the aerodrome operator. The purpose of this amendment is to better align CS provisions with ICAO Annex 14, Vol I, Aerodromes and to provide users with the characteristics for marking and lighting of objects. The provisions are applicable only when the locations of these objects are under control of the aerodrome operator. The proposal was discussed at the thematic meetings and agreed with the stakeholders.

The comments to remove the requirement that no equipment or installation should be located within 240 m from the end of the strip defined in CS T.915 (b) were noted. EASA supports the intention of amending Chapter No 9.9 'Siting of equipment and installations on operational areas' of ICAO Annex 14, Vol I, Aerodromes. EASA follows the developments at ICAO level and will propose amendments of the appropriate CSs when commonly agreed.

When the comments on the particular proposed amendment where mutually different, EASA tried to align the text as much as possible with ICAO Annex 14. The replies to those comments were either noted, accepted, or not accepted.

The provided comments which are not in line with Annex 14 and were not previously assessed by EASA or discussed at the thematic meetings were, in most cases, not accepted, and at the same time, inviting the commentator to provide EASA with a proposal including a justification for assessment and possible future changes of CSs.

The comments which are provided on the provisions with an operational nature were commonly replied as 'noted' with the explanation that they will be assessed at the later stage and most probably be moved to Part ADR.OPS of the aerodrome rules.

2. Individual comments (and responses)

In responding to comments, a standard terminology has been applied to attest EASA's position. This terminology is as follows:

(a) **Accepted** — EASA agrees with the comment and any proposed amendment is wholly transferred to the revised text.

(b) **Partially accepted** — EASA either agrees partially with the comment, or agrees with it but the proposed amendment is only partially transferred to the revised text.

(c) **Noted** — EASA acknowledges the comment but no change to the existing text is considered necessary.

(d) **Not accepted** — The comment or proposed amendment is not shared by EASA.

CRD table of comments, responses and resulting text

(General Comments)	-

comment	*9* comment by: *René Meier, Europe Air Sports* Europe Air Sports,No assisted by PPL IR, European Powered Flying Union, and by the Aero-Club of Switzerland, thanks the Agency for preparing this NPA. We took a careful look at the set of proposed changes and at the new provisions, keeping in mind that most of the activities of our members do not take place on aerodromes which are under the Agency's competence. Those operators making use of aerodromes under the Agency's regime, however, are highly interested in risk-based rules helping to maintain safety at the highest possible level, costs at the lowest possible one. Balancing these two contradictionary requirements was our guideline when we prepared our comments.
response	Noted.

comment	*17* comment by: *René Meier, Europe Air Sports* Several times throughout the NPA: The use of full text titles and abbreviations or acronyms should be harmonised: You indicate the full text version once, then only abbreviations and acronmys should be used. Example: CS-ADR-DSN.N.775 General on page 92
response	Noted.

comment	*28* comment by: *René Meier, Europe Air Sports* Peanut comment: Sometimes we find "CS-ADR...", sometimes "CS ADR...". This could be adjusted in future texts. It is not important at all, however, applying one uniform set of titles and subtitles increases readability.
response	Noted. The abbreviation CS-ADR-DSN is used to refer to the CS rules in general, while 'CS

	ADR-DSN.X.XXX' is used to address particular CS. The text is corrected accordingly.
comment	*31* comment by: *René Meier, Europe Air Sports* The authors replaced in most cases "aircraft" by "aeroplane". We think this is not appropiate as fixed-wing and rotary-wing flying machines very often use the same aerodromes. Please use "aircraft" only, without plural "s" where a plural form is applicable.
response	Noted. CS ADR-DSN.A.005 Annex 14, Vol I, Aerodromes defines the aerodrome reference code (ARC) consists of a code number and letter. The ARC, selected for aerodrome planning purposes, should be determined in accordance with the characteristics of the aeroplane for which an aerodrome facility is intended. The code letter or number within an element selected for design purposes is related to the critical aeroplane characteristics for which the facility is provided. GM1 ADR-DSN.A.005 is reviewed and corrected in the places where the ARC refers to (critical) aeroplane characteristics. Paragraph (c) refers to the general impact of aircraft on the aerodrome design, therefore the text is returned back to refer to an aircraft. The typo 'aircrafts' refers only in GM1 ADR-DSN.M.625 and has been corrected to 'aircraft'.
comment	*48* comment by: *Union des Aéroports français - UAF* **UAF general comments** L'UAF regrette le peu de temps donné (1 mois) pour la consultation dans une telle période, alors que le document est très riche et volumineux. L'UAF demande que soient précisées les modalités d'application transitoires ou le calendrier d'application pour les aérodromes déjà certifiés et pour ceux qui ont déjà déposés un dossier de conversion auprès de leur autorité compétente.
response	Noted. The numbering of CS is returned, because it was decided to remove provisions for the runway starter extension from CS Issue 3. The existing numbering of CS will remain.
comment	*70* comment by: *EUROCONTROL* The EUROCONTROL Agency has no comment to make on Notice of Proposed Amendment 2016-04 whose objective is to update the certification specifications for aerodromes design and to maintain a high level of safety in aerodrome design. However, the EUROCONTROL Agency will continue to monitor future evolution of aerodrome design and the safety-related aspects within the framework of its airport-related activities.
response	Noted.
comment	*147* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* The Federal Office of Civil Aviation (FOCA) appreciates the opportunity to comment on this NPA and congratulates the Agency for this great work. Under comments 134 and 141, FOCA has suggested 2 new figures. Please do not hesitate to contact Mr. Philippe Roth (+41 58 465 13 20) if you want the figures to be adapted (e.g. less detailed) or if you need an other format.
response	Noted.

comment	*327* comment by: *Groupe ADP* Groupe ADP supports all comments made by ACI-Europe and is adding a few specific comments on its own.
response	Noted.

comment	*368* comment by: *Airbus* Not in NPA Refer to page 55 CS ADR-DSN.H.455 Not in NPA yet an amendment is missing as CS ADR-DSN-H.455 would largely deserve rephrasing for clarification. Use of “strip” is confusing since lower edge of Inner Transitional Surface is not coinciding with strip edge but is a line inside the strip. In addition one surface edge is missing! (1) (1) a lower edge beginning at the end of the inner approach surface and extending down the side of the inner approach surface to the ~~inner~~ start edge of that surface, from there along a line in the strip parallel to the runway centre line to the inner edge of the balked landing surface, and from there up the side of the balked landing surface to the point where the side intersects the inner horizontal surface; ~~and~~ (2) (2) an upper edge located in the plane of the inner horizontal surface; and (3) a lateral edge at the intersection of the inner transitional surface and the vertical plane comprising the end of the inner approach surface.
response	Not accepted. The text is identical to the relevant text in ICAO Annex 14, Vol I, Aerodromes. The proposal will be consulted in one of forthcoming NPAs to CS-ADR-DSN.

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comment	*297* comment by: *Flughafen Berlin Brandenburg GmbH* It is desirable that future CS-updates are (timewise) closely aligned with the updates and amendments of the corresponding ICAO-documents. Such an approach would prevent differing requirements.
response	Noted. The decision of the Rulemaking Groups for drafting the Initial issue of CS was not to take into account ICAO State Letters with the proposals of the Annex 14 amendment, because they are not always identical and sometimes they are changed during the consultation phase. This is the reason that the amendments to CS-ADR-DSN Issue 3 are mostly based on the ICAO Amendment 11 A&B to Annex 14, Vol. I. The forthcoming amendments of CS will be more in time line with ICAO developments.

2. Explanatory Note - 2.1 Overview of the issues to be addressed p. 4-7

comment	*159* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Comment FOCA: We suggest to adapt the title of CS ADR-DSN.L.567 to be consistent with the other CS ADR-DSN.Lxxx ("marking" always at the end of the title)

Proposed new title (p. 6):
CS ADR-DSN.L.567 ~~Marking of runway starter extension~~ Runway starter extension marking

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultations during thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

2. Explanatory Note - 2.4 Overview of the proposed amendments for CS ADR-DSN Issue 3 p. 7-39

comment *160* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Comment FOCA: Same comment as Nr. 159. We suggest to adapt the title of CS ADR-DSN.L.567 to be consistent with the other CS ADR-DSN.Lxxx ("marking" always at the end of the title)

Proposed new title (p. 24):
CS ADR-DSN.L.567 ~~Marking of runway starter extension~~ Runway starter extension marking

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultations during thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment *306* comment by: *daa - Dublin & Cork airports*

daa considers that in line with its response previously issued to the EASA survey in relation to this certification specification that the requirement to install slopes retroactively around buried or surface level fittings would be a complex and extremely expensive project with minimal evident safety benefits. The practical aspects, allied to the text in the suggested guidance material, i.e. 30cm below ground level, to a strength that would support the emergency passage of an aircraft would be very difficult to address and would lead to significant non-compliance at aerodromes throughout Europe and require the use of long term flexibility tools such as a Deviation.

Manifestly, these airfields are not unsafe to operate based on information that is to hand in relation to aircraft excursion occurrences to date and as such daa would support the deletion of this requirement entirely and its' associated guidance material from Issue 3.

response | Not accepted. The provided CS and GM refer to the text in ICAO Annex 14, Vol I, Aerodromes. The question on how to eliminate a buried vertical surface was widely discussed with the stakeholders. EASA also performed a survey and discussed the issue in thematic meeting. The requested slope is deleted from the CS provision, remaining only the requirement that a slope should be provided to minimise hazards to aeroplanes running off the runway. GM provides additional explanation and gives more flexibility on how to delethalise a buried vertical surface, for example providing the slope in the directions from which an aircraft is likely to approach. The proposed amendment of GM was agreed with the stakeholders at the thematic meeting. We appreciate your contribution to the survey.

comment | *309* comment by: *daa - Dublin & Cork airports*

daa agrees with ACI Europe's proposal that the Agency avoid changing the letter of the Chapter for the six CSs in Chapter C into Chapter B. This could cause problems with the verification management based on electronic data processing. We propose to simply add the paragraphs concerning runway starter extensions (if maintained) to Chapter B and keep Runway End Safety Areas in Chapter C.

response | Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultations during thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment | *318* comment by: *daa - Dublin & Cork airports*

This new requirement (CS ADR-DSN.M.696) would cause costs especially for smaller aerodromes where the approach angle is steeper than 3.5 degrees and/or the Landing Distance Available combine with other factors increases the risk of an overrun. daa agrees with ACI Europe's proposal to delete the "or" requirement from part (b) as the larger approach angle by itself will not increase the risk of an overrun as long as there is sufficient Landing Distance Available.

response | Not accepted. The text in paragraph (b) is identical with ICAO Annex 14, Vol I, Aerodromes, including the 'and/or' clause. The purpose of the simple touchdown zone lights in paragraph (a) refers to the provisions of providing enhanced situational awareness to pilots, while paragraph (b) excludes runways where touchdown zone lights are already provided and in addition refers to the approach angle in combination with the Landing Distance Available and to other factors, which could increase the risk of an overrun. With the provisions in the above mentioned paragraphs the aerodrome operator has the possibility to use one of flexibility tools and to consider the implementation of simple touchdown zone lights and to justify its appropriateness. The simple touchdown zone lights are already in use at some aerodromes and will support new Special Authorisation, SA CAT I type of approach operations.

comment | *319* comment by: *daa - Dublin & Cork airports*

	(c) (2) Add “where practicable”: “Where practicable, the first light in the exit centre line should always show green (…).” As the light nearest the perimeter should always show yellow, aerodromes would for 50% of taxiways either have to reduce the spacing between lights or add another light. On the other hand, the benefit of this requirement is not clear. (c) (3) It must be clarified that this is an additional measure to prevent runway incursions. Add “Where the proximity to a runway is already sufficiently indicated by signs, markings and runway guard lights or stop bars, taxiway centre line lights may show green.” It might be sufficient to make this addition to the GM.
response	Not accepted. The requirement in the paragraph (c) (2) is ‘Standard’ in ICAO Annex 14, Vol I, Aerodromes. Guidance material gives additional explanation to the CS and can’t be contradictory to the CS requirement. Paragraph (c)(3) follows paragraph (c)(2) with the substance and, at the same time, gives enough flexibility when starting with ‘where necessary …’.

comment	*328* comment by: *Fraport AG* **CS ADR-DSN.A.002 Definitions** Fraport recommends to clarify the scope of this definition, as it would be more appropriate if the traffic density referred to specific infrastructure elements and not to the aerodrome as a whole. For example, a taxiway used only in case of aborted take-off at a busy airport should be considered as a taxiway with “light traffic density” to comply with CS ADR-DSN.M.710 Taxiway centre line lights (b) (1, 2, 4).
response	Not accepted. The definition is taken from Annex 14, Vol I, Aerodromes.

comment	*329* comment by: *Fraport AG* **GM1 ADR-DSN.B.085 Runway Strength** As the text concerning overload operations is identical to GM2 ADR.OPS.C.010 (b) (1) of EASA’s Aerodrome Rules [Pavements, other ground surfaces, and drainage], Fraport agrees to remove this duplicated provision. Nevertheless we strongly recommend to insert in GM1 ADR-DSN.B.085 a cross-reference to GM2 ADR.OPS.C.010 (b) (1) to ensure that already existing demonstrations of compliance referring to the guidance material of this CS remain valid without future amendments.
response	Not accepted. GM1 ADR-DSN.B.085 is deleted because its nature is purely operational and is identical to the same requirement in Part ADR.OPS. Although we agree with the comment, CS-ADR-DSN can’t refer to Part ADR.OPS of the aerodrome rules.

comment	*330* comment by: *Fraport AG* **CS ADR-DSN.B165 Objects on runway strip** Fraport welcomes the proposed removal of the 1:10 slope requirement.

response	Noted.

comment	*331* comment by: *Fraport AG* **CS ADR-DSN.B.200 Stopways** Proposed alternative text:(e) The surface of a paved stopway should be constructed or resurfaced so as to provide surface friction characteristics at or above the minimum friction level. Comment: In this way, the requirement is aligned with B.090 and achieves the same safety goal. In terms of implementation, Fraport would only remark that in practice it is (technically) difficult to actually perform friction testing on areas like a stop way because of its proximity to the runway end.
response	Noted.

comment	*332* comment by: *Fraport AG* **CS ADR-DSN.~~C~~B.235 Strength of runway end safety areas** This is one more case of indeterminacy that will most likely lead to confusion. As the word "sufficient" is not clearly defined, Fraport proposes to better leave the CS "intentionally blank" as the proposed wording will most likely lead to confusion. Alternatively Fraport recommends to include a reference to CS.ADR-DSN.B.210 Runway end safety areas (RESA) concerning the primary purpose.
response	Not accepted. The guidance material provided should refer to CS. To state 'Intentionally blank' CS would not be correct. The requirement provided in the CS directly refers to the essential requirements provided in Annex Va of the Basic Regulation and was agreed at the specific thematic meeting with the stakeholders.

comment	*333* comment by: *Fraport AG* **CS ADR-DSN.E.360 Slopes on aprons** As an aircraft stand taxilane is by definition according to CS ADR-DSN.A.002 [Definitions] designated as a taxiway. Therefore CS ADR-DSN.D.280 Transverse slopes on taxiways applies, and an additional reference is not required. Therefore ACI Europe proposes to delete the new inclusion of aircraft stand taxilanes. Alternatively, exempt aircraft stand taxilanes from the requirements of CS ADR-DSN.D.280.
response	Not accepted. The apron and aircraft stand taxilane constitute one area and, therefore, slopes on both, apron and aircraft stand taxilane, should be sufficient to prevent accumulation of water. The text is identical to the SARP provided in Annex 14, Vol I, Aerodromes.

comment	*334* comment by: *Fraport AG* **CS ADR-DSN.L.575 Runway-holding position marking** Fraport proposes to delete paragraph (a) (6) as the issue is already covered by CS ADR-DSN.L.605 Mandatory instruction marking (a) (2).

response | Not accepted. The provisions of paragraphs CS ADR-DSN.L.575(a)(6) and CS ADR-DSN.L.605(a)(2) are not identical. At the thematic meeting with the stakeholders the location of the term “CAT II” or “CAT III” was discussed and the location of the marking was amended to be on the holding side of the runway-holding and not beyond. The height of the letters should be not less than 1.8 m, so the letters could be also higher. Concerning the colours of the letters, the text is amended to be consistent with CS ADR-DSN.L.605 to read: ‘… a mandatory instruction marking containing the term “CAT II” or “CAT III” …’, describing that a mandatory instruction marking should consist of an inscription in white on a red background. CS ADR-DSN.L.605(a)(2) defines that on taxiways exceeding 60 m in width, or to assist in the prevention of a runway incursion, a mandatory instruction sign should be supplemented by a mandatory instruction marking in accordance with paragraphs CS ADR-DSN.L.605(b)(1) or (b)(2).

comment | *336* comment by: *Fraport AG*

CS ADR-DSN.L.575 Runway-holding position marking
Fraport proposes to delete paragraph (a) (6) as the issue is already covered by CS ADR-DSN.L.605 Mandatory instruction marking (a) (2).
Markings according to L.575 are taxiway markings and therefore should consequently be yellow. Their size and location differ from the red and white mandatory instruction markings according to L.605. The runway-holding position would have a confusing layout, if both CSs are applied. Red and white markings are bigger (1,8 m vs. 4 m) and more conspicuous and should therefore be sufficient.
Moving the CAT II/III marking from beyond the marking to the holding side could cause confusions, as both types of markings would be on the holding side.
Alternatively add to GM:
“Where mandatory instruction markings in accordance with CS ADR-DSN.L.605 Mandatory instruction marking are provided, the markings described in (a) (2) are not required.”

response | Not accepted. The provisions of paragraphs CS ADR-DSN.L.575(a)(6) and CS ADR-DSN.L.605(a)(2) are not identical. At the thematic meeting with the stakeholders the location of the term ‘CAT II’ or ‘CAT III’ was discussed and the location of the marking was amended to be on the holding side of the runway-holding and not beyond. The height of the letters should be not less than 1.8 m, so the letters could be also higher. Concerning the colours of the letters, the text is amended to be consistent with CS ADR-DSN.L.605 to read: ‘… a mandatory instruction marking containing the term “CAT II” or “CAT III” …’, describing that a mandatory instruction marking should consist of an inscription in white on a red background. CS ADR-DSN.L.605(a)(2) defines that on taxiways exceeding 60 m in width, or to assist in the prevention of a runway incursion, a mandatory instruction sign should be supplemented by a mandatory instruction marking in accordance with paragraphs CS ADR-DSN.L.605(b)(1) or (b)(2).

comment | *337* comment by: *Fraport AG*

CS ADR-DSN.L.597 Apron service road marking
Fraport considers that (c) and (d) should be moved to GM.
Referring to (a) Fraport wonders whether there is the word “apron” missing previous to “service road markings”.
It is not useful to change road markings for drivers, who usually operate only on one airport. A harmonization of road markings at EASA level will therefore have limited benefit. It would

	only add to confusion when the service road marking differs substantially from the local road markings. Aerodromes can aim for a higher apron safety through apron service road markings that are wider and more conspicuous. It would be against EASA's intention of improving the safety level if the existing markings have to be adapted to the proposed CS's dimensions. In addition apron service roads needed to marked in different ways, if drivers should be aware of special operational situations.
response	Partially accepted. The word 'apron' has been inserted in paragraph (a) to read: 'apron service road markings'. The proposed solution is not possible, as there is no relevant certification specification to associate this guidance with. Moreover, there is a clear safety benefit arising from the introduction of the proposed specifications, as the intent is to contribute to the regulation, in a safe manner and using industry material, of the movement of vehicles on the aprons. Please also note that the introduction of these CSs aim at the development of a standardised operating environment in terms of visual aids, given the fact that aprons are also used by pilots. The aerodrome operator has the possibility to consider adequacy of the provided certification specification and to use one of available flexibility tools to consider the implementation of CSs.

comment	*338* comment by: *Fraport AG* **CS ADR-DSN.M.675 Runway edge lights** In this case ICAO Annex 14 provides an adequate regulatory provision and EU rules should follow suit. In Annex 14, a section of the runway edge lights 600 m or one-third of the runway length at the remote end of a runway from the end at which the take-off run is started may show yellow, therefore it offers this option but does not prescribe it. We therefore ask EASA to change the wording in (c) (1) (ii) from "should show yellow" to "may show yellow". If EASA wants to turn this into a binding Certification Specification then the relevant justification and safety benefits should properly be demonstrated by the agency. Alternatively Fraport suggests to add to GM: "Where the proximity of the runway end is indicated by runway centre line lights in accordance with CS ADR-DSN.M.690 (d) (1), all runway edge lights may be white."
response	Noted. NPA doesn't provide a proposal to change paragraph (c) (1). The provision in paragraph (c)(1)(ii) is transposed text from ICAO Annex 14, Vol I, Aerodromes and exists from the Initial Issue of CS. The aerodrome operator has already informed EASA about this proposal, which has been discussed internally and with the stakeholders. EASA invited the aerodrome operator to provide EASA the evidence of the number of airports that are affected with the above requirement and the safety and economic benefits of such proposal. The information received was not considered as sufficient to be proposed in the current NPA. EASA is anticipating from the aerodrome operator to provide the comprehensive justification for the proposal, to be considered on one of forthcoming NPAs.

comment	*339* comment by: *Fraport AG* **CS ADR-DSN.M.710 Taxiway centre line lights** (c) (2) Add "where practicable": "Where practicable, the first light in the exit centre line should always show green (…)." As the light nearest the perimeter should always show yellow, aerodromes would for 50% of taxiways either have to reduce the spacing between lights or add another light. On the other hand, the benefit of this requirement is not clear.

	(c) (3) It must be clarified that this is an additional measure to prevent runway incursions. Add "Where the proximity to a runway is already sufficiently indicated by signs, markings and runway guard lights or stop bars, taxiway centre line lights may show green." It might be sufficient to make this addition to the GM.
response	Not accepted. The requirement in the paragraph (c)(2) is a 'Standard' in ICAO Annex 14, Vol I, Aerodromes. Guidance material gives additional explanation to CS and cannot be contradictory to the CS requirement. Paragraph (c)(3) follows paragraph (c)(2) with the substance and at the same time gives enough flexibility when starting with 'where necessary …'.

comment	*340* comment by: *Fraport AG* **CS ADR-DSN.M.715 Taxiway centre line lights on taxiways, runways, rapid exit taxiways, or on other exit taxiways** Table M-3: Max. 7.5 m, including 60 m before and after the curve: Insert "min." to avoid that spacing of centre line lights has to be adjusted to fit exactly to 60 m. "Max. 7.5 m, including min. 60 m before and after the curve."
response	Partially accepted. The text is amended with the identical wording from ICAO Annex 14, Vol I, Aerodromes.

comment	*341* comment by: *Fraport AG* **CS ADR-DSN.M.735 Intermediate holding position lights** Fraport proposes to move (a) (2) to the related Guidance Material. It makes no sense to restrict the requirement in (a) (1) to RVR < 350 m, and in the next paragraph to extend the requirement to all weather conditions.
response	Not accepted. The NPA does not provide any proposal to change the paragraph (a) of CS ADR-DSN.M.735. The text provided in paragraph (a) is identical to ICAO Annex 14, Vol I, Aerodromes text. The commentator is invited to provide EASA the proposed change to paragraph (a), with the explanation and justification to be considered in one of the forthcoming NPAs.

comment	*342* comment by: *Fraport AG* **GM1 ADR-DSN.S.875 Electrical power supply systems for air navigation facilities** Proposal to delete (e): As the overall purpose is to ensure the continuity of the visible lights of air navigation facilities, Fraport sees no need to measure the electrical switch-over time. The relevant switch-over time is the photometric based. As this is Guidance Material, ACI Europe recommends to change in paragraph (e) "should be established" into "may be established".
response	Accepted. The text is amended accordingly.

comment	*350* comment by: *René Meier, Europe Air Sports* Pages 9 and 10/196 GM1 ADR-DSN.A.005 Aerodrome reference code

	Your explanation of the change is insufficient. Rationale: "aircraft" and "aeroplanes" mean different things. Question to page 128/196: Why "aeroplanes" only, not "aircraft"? But why is there "aircraft" adjusted in (e) on line 5, replaced by "aeroplane" on line 7?
response	Noted. CS ADR-DSN.A.005 Annex 14, Vol I, Aerodromes defines the aerodrome reference code (ARC) consists of a code number and letter. The ARC, selected for aerodrome planning purposes, should be determined in accordance with the characteristics of the aeroplane for which an aerodrome facility is intended. The code letter or number within an element selected for design purposes is related to the critical aeroplane characteristics for which the facility is provided. GM1 ADR-DSN.A.005 is reviewed and corrected in the places where the ARC refers to (critical) aeroplane characteristics. Paragraph (c) refers to the general impact of aircraft on the aerodrome design, therefore the text is returned back to refer to an aircraft.

comment	*352* comment by: *Airbus* GM1 ADR-DSN.B.085 Precision about location in Part-ADR.OPS should be added Proposal "[…] and already contained in Part-ADR-OPS (in GM1 ADR.OPS.A005)."
response	Not accepted. Paragraph (d) of GM1 ADR-DSN.B.085 is deleted because its nature is purely operational and is identical to the same requirement in Part ADR.OPS. Although we agree with the comment, CS-ADR-DSN cannot refer to Part ADR.OPS of the aerodrome rules.

comment	*353* comment by: *Airbus* CS ADR-DSN.B.090 Precision about location in Part-ADR.OPS should be added Proposal "[…] as defined in Part-ADR-OPS (in AMC1 ADR.OPS.C010, Table 1), which will be kept […]"
response	Not accepted. Paragraph (d) of GM1 ADR-DSN.B.085 is deleted because its nature is purely operational and is identical to the same requirement in Part ADR.OPS. Although we agree with the comment, CS-ADR-DSN cannot refer to Part ADR.OPS of the aerodrome rules.

comment	*354* comment by: *Airbus* GM1 ADR-DSN.B.190 Strength of runway strips Question: is the nose landing gear collapse the runway strip sizing case for any type of aircraft?
response	Noted. GM provides additional non-binding material which helps to illustrate the meaning of the certification specification provided in CS ADR-DSN.B.195.

comment	*355* comment by: *Airbus* CS ADR-DSN.~~C.~~B.210 a) a) Inversion of "C" (today in Issue 2) and "B" b) Remark: deletion of (1) and (2) whereas RESA not requested for code 1 and 2 non instrumented runway è is EASA clearly willing to have RESA for all code number (instrumented and non instrumented runways)? Impact on small airports was assessed? For ACI to comment. proposal a) a) "[…]the titles of the CS are changed from 'C' to 'B' accordingly"
response	Partially accepted. Paragraph (b) of CS ADR-DSN.C.210 remains unchanged and new paragraph (c) is added to read: 'Where practicable, a runway end safety area should be provided at each end of a runway strip where the code number is 1 or 2 and the runway is a non-instrument one', which gives the sufficient level of flexibility. Proposed paragraph (a)(2) of CS ADR-DSN.C.215 is amended with the term 'as far as practicable' to address the same level of flexibility for the length of the runway end safety area as in two other paragraphs.

comment	*356* comment by: *Airbus* GM1 ADR-DSN.E.360 Addition of "apron" to "service road" increases clarification but impact on other sections than just E.350 & 360? proposal: Harmonize terminology for different chapters: Ex in GM1 ADR-DSN.M.625 (d) (2) where should say instead of just „service road", "service road (air side and apron)". Note "airside service road" terminology used in GM1 ADR-DSN.T.900 (a)!
response	Partially accepted. The term 'service road' is provided for the general use of different service roads. In GM1 ADR-DSN.T.900 the term 'air side service road' is amended to read 'service road at air side' for the better clarity and to point out that this is not a new type of a service road.

comment	*357* comment by: *Airbus* GM1 ADR-DSN.E.365 "The guidance provided in paragraphs (a) and (b) refers to reduced clearance distances on the aircraft stand, however, for better clarification a new paragraph(c), stating that any aircraft passing behind an aircraft parked on an aircraft stand should keep the required clearance distances as defined in Table D-1, is added.". proposal: No change to text but please adapt pages so that table title is under the table itself <u>on the same page.</u> Note: see Issue 2 where table is page 27 and title page 28.

response	Noted. The text is corrected accordingly.

comment	*358* comment by: *Airbus* CS & GM1 ADR-DSN.T.900 Clarification/harmonisation of terminology concerning “service road“ needed proposal: Harmonize terminology for different chapters: Ex in GM1 ADR-DSN.M.625 (d) (2) where should say instead of just „service road”, “service road (air side and apron)”. Note “airside service road” terminology used in GM1 ADR-DSN.T.900 (a)!
response	Partially accepted. The term ‘service road’ is provided for the general use of different service roads. In GM1 ADR-DSN.T.900 the term ’air side service road’ is amended to read ‘service road at air side’ for the better clarity and to point out that this is not a new type of a service road.

3. Proposed amendments p. 40

comment	*238* comment by: *ADV - German Airports Association* Especially since the certification process is currently in progress / some aerodromes have been certified already respectively, the restructuring of chapter B and C as well as the deletion of the subitems, places a burdon on the parties of the ongoing certification process while generating low benefit. The subitems that have been used so far, provided a good way of support and structure for the certification process. The reason for the restructuring is not comprehensible. When moving the chapter RESA from C to B, it is difficult to ensure the retraceability of the ongoing or already finished processes of certification in retrospect; especially when the process included a structure that was connected to the order of the CS or was even depicted via software tools.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*247* comment by: *ADV - German Airports Association* For new items (e.g. L.597, L.600), which have not been requested before, EASA should also publish a timeframe for the implementation / conversion (i.e. until 5 years after publication). After the publication of the EASA rules in 2014, aerodromes have until 2017 to get certified

	and prove compliance.
response	Not accepted. The aerodrome operator has the possibility to consider adequacy of the provided certification specification and to use one of available flexibility tools to consider the implementation of CSs.

comment	*281* comment by: *ADV - German Airports Association* ADV supports the comments from ACI Europe on: • CS-ADR.DSN.A.002 • GM1 CS-ADR.DSN.B.085 • CS-ADR.DSN.B.110 • CS-ADR.DSN.B.165 • CS-ADR.DSN.B.200 • CS-ADR.DSN.~~C~~B.235 • CS-ADR.DSN.C.236 • CS-ADR.DSN.C.238 • CS-ADR.DSN.E.360 • CS-ADR.DSN.L.567 • CS-ADR.DSN.L.597 • GM1 CS-ADR.DSN.L.595 • CS-ADR.DSN.M.645 • CS-ADR.DSN.M.710 • CS-ADR.DSN.M.715 • CS-ADR.DSN.M.735 • CS-ADR.DSN.M.771 • GM1 CS-ADR.DSN.S.875 • GM1 CS-ADR.DSN.T.915
response	Noted.

3. Proposed amendments - Contents of CS-ADS-DSN p. 40

comment	*149* comment by: *Bavarian Aviation Authority* Especially since the certification process is currently in progress / some aerodromes have been certified already respectively, the restructuring of chapter B and C as well as the deletion of the subitems, places a burdon on the parties involved in the ongoing certification process while generating low benefit. The subitems that have been used so far, provided a good way of support and structure for the certification process. The reason for the restructuring is not comprehensible. When moving the chapter RESA from C to B, it is difficult to ensure the retraceability of the ongoing or already finished processes of certification in retrospect; especially when the process included a structure that was connected to the order of the CS or was even depicted via software tools.
response	Noted. During the public consultation EASA received different comments on the proposed

runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.002 p. 40-42

comment *103* comment by: *French CAA*

'Non-precision approach runway'
This new definition is in accordance with annex 14. However, its implementation is going to be difficult, because some classic approaches are defined according to a criterion of minimal RVR instead of minimal visibility. To make sure that runways provided with such approaches actually comply with the new definition of non-precision approach runway, DGAC France asks AESA to specify a minimum RVR value in the definition of non-precision approach runways.
Looking forward to this clarification, we consider meanwhile that for such approaches, the minimal RVR shall be equal to the minimal visibility required by this new definition, namely 1000m.

Non-instrument runway'
Concerning the updated definition of «non-instrument runway», DGAC recognizes that it is in line with ICAO Annex 14 amendment 11B. However, it raises new interpretation difficulties. The definition of «visual meteorological conditions» (SERA.5001) differs according to the airspace class, and that definition can't be linked with any condition regarding minimum height.

EASA has indicated to us by email that the definition of "visual meteorological conditions" could be based on the operational minima defined by SERA 5005 : "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 are below the following minima
(a) the ceiling is less than 450 m (1500 ft)
(b) the ground visibility is less than 5 km."
According to this interpretation, an instrument approach procedure is possible on a non-instrument runway when the DH/MDH is equal to or greater than 1500 ft and the visibility is at least 5000m. It implies that some runways which are today certified as non precision approach runways or precision approach runways with high minima would be classified as non-instrument runways according to the new definitions. This could have an adverse impact on safety, because some CS related to instrument approach procedures, concerning for example meteorological equipment, interferences with the operation of radio navigation aids... would not be taken into account in the new Certification Basis of such a runway.
A detailed analysis is therefore necessary to identify if other requirements (specific CS) related to instrument approaches should still be required for non-instrument runways provided with instrument approach procedures (GNSS, ILS etc. ..).
As long as this analysis is not available, we consider that the former definition of non-

	instrument runways should be maintained instead of the new one.
response	Noted. The revised definitions for instrument runway and non-instrument runway, as a result of a new approach classification, are already adopted and amended in ICAO Annex 14, Vol I, Aerodromes. To be compliant as much possible with the ICAO provisions, EASA published the Opinion in the beginning of 2016 to amend the Annex I 'Definitions' of Regulation (EU) 139/2014. The Opinion on proposed amendment was already discussed at the EASA Committee, however the voting will presumably be in February 2017. Therefore, EASA decided to remove the proposed amendment of the revised definitions for instrument runway and non-instrument runway from the current update of aerodrome rules in CS Issue 3. The amended definitions will be included in the CS after the adoption of Annex I 'Definitions' by the European Commission.

comment	*151* comment by: *HCAA/D3A* **Various positions within the text:** [Editorial] Add "a" in the text "*after safety assessment*": *"after a safety assessment".* **CS ADR-DSN.A.002 Definitions** The definition of the term 'Aerodrome traffic density' includes the term "mean busy hour" which implies that a mean is calculated for the busiest hour itself and the movements are the yearly average which is calculated for this mean hour. Since this is not the case, a new wording is proposed as follows: *'Aerodrome traffic density' is the yearly average of the number of movements in the daily busiest hour. Movement is either a take-off or a landing.* *(a) — Light. Where the aerodrome traffic density is not greater than 15 per runway or typically less than 20 total aerodrome movements.* *(b) — Medium. Where the aerodrome traffic density is of the order of 16 to 25 per runway or typically between 20 to 35 total aerodrome movements.* *(c) — Heavy. Where the aerodrome traffic density is of the order of 26 or more per runway or typically more than 35 total aerodrome movements.* 2. In line with the corresponding GM and addition of the fact that the term "apron service road" includes only the roads that serve the apron the following text is proposed: *'Apron service road' means a road located on or adjacent to an apron that serves this apron and is intended for the exclusive use of vehicles.* 3. Since the dangers on the manoeuvring area may also include jet blasts, wrong taxiing of aircraft etc., and in order to attain a more generic definition of the hot spot the following text is proposed: *'Hot spot' means a location on an aerodrome movement area with a history or potential risk of collision, runway incursion or other safety occurrence, and where heightened attention by pilots/drivers is necessary.* 4. For clarification the following text is proposed for the definition of the "non-instrument runway" (addition of the word "only"): *'Non-instrument runway' means a runway intended for the operation of aircraft using visual approach procedures or an instrument approach procedure to a point beyond which the approach may continue only in visual meteorological conditions.*
response	Noted. First comment. The CS/GM text will be proofread.

Not accepted. Second comment. The definition is directly transposed from the definitions of ICAO Annex 14, Vol I, Aerodromes. The definitions to be added or amended in CS were discussed with the stakeholders and it was agreed to keep them as much possible uniformed and harmonised.
Not accepted. Third comment. This is the only comment received on the proposed definition of apron service road. The initial proposal of the definition provides sufficient clarity.
Not accepted. Fourth comment. The definition is directly transposed from the definitions of ICAO Annex 14, Vol I, Aerodromes. The definitions to be added or amended in CS were discussed with the stakeholders and it was agreed to keep them as much possible uniformed and harmonised.
Noted. Fifth comment. The revised definitions for instrument runway and non-instrument runway, as a result of a new approach classification, are already adopted and amended in ICAO Annex 14, Vol I, Aerodromes. To be compliant as much possible with the ICAO provisions, EASA published the Opinion in the beginning of 2016 to amend the Annex I 'Definitions' of Regulation (EU) 139/2014. The Opinion on proposed amendment was already discussed at the EASA Committee, however the voting will presumably be in February 2017. Therefore, EASA decided to remove the proposed amendment of the revised definitions for instrument runway and non-instrument runway from the current update of aerodrome rules in CS Issue 3. The amended definitions will be included in the CS after the adoption of Annex I 'Definitions' by the European Commission.

comment *185* comment by: *John Hamshare*

Heathrow Airport Ltd recommends that the scope of this definition is clarified, as it would be more appropriate if the traffic density referred to specific infrastructure elements and not to the aerodrome as a whole. For example, a taxiway used only in case of aborted take-off at a busy airport should be considered as a taxiway with "light traffic density" to comply with CS ADR-DSN.M.710 Taxiway centre line lights (b) (1, 2, 4).

response Not accepted. The definition is directly transposed from the definitions of ICAO Annex 14, Vol I, Aerodromes. The definitions to be added or amended in CS were discussed with the stakeholders and it was agreed to keep them as much possible uniformed and harmonised.

comment *193* comment by: *ACI EUROPE*

ACI Europe recommends to clarify the scope of the "aerodrome traffic density" definition, as it would be more appropriate if the traffic density referred to specific infrastructure elements and not to the aerodrome as a whole. For example, a taxiway used only in case of aborted take-off at a busy airport should be considered as a taxiway with "light traffic density" to comply with CS ADR-DSN.M.710 Taxiway centre line lights (b) (1, 2, 4).

response Not accepted. The definition is directly transposed from the definitions of ICAO Annex 14, Vol I, Aerodromes. The definitions to be added or amended in CS were discussed with the stakeholders and it was agreed to keep them as much possible uniformed and harmonised.

comment *222* comment by: *ADV - German Airports Association*

Clarification of the scope of this definition is nessecary, as it would be more appropriate if the traffic density referred to specific infrastructure elements and not to the aerodrome as a whole. For example, a taxiway used only in case of aborted take-off at a busy airport should

	be considered as a taxiway with "light traffic density" to comply with CS ADR-DSN.M.710 Taxiway centre line lights (b) (1, 2, 4).
response	Not accepted. The definition is directly transposed from the definitions of ICAO Annex 14, Vol I, Aerodromes. The definitions to be added or amended in CS were discussed with the stakeholders and it was agreed to keep them as much possible uniformed and harmonised.

comment	*230* comment by: *TRANSPORT AUTHORITY, Slovak republic* What is the difference between runway movement and total aerodrome movements? Clarification needed how aerodrome traffic density is applied for aerodromes with more than one RWY. Total aerodrome movement is meant as arithmetic mean for movements per day e.g. (a) less than 20 total aerodrome movements per day?
response	Noted. The definition is directly transposed from the definitions of ICAO Annex 14, Vol I, Aerodromes. The definitions to be added or amended in CS were discussed with the stakeholders and it was agreed to keep them as much possible uniformed and harmonised.

comment	*235* comment by: *TRANSPORT AUTHORITY, Slovak republic* Non-instrument runway - "or an instrument approach procedure to a point beyond which the approach..." means PinS flight procedures or other type of instrument approach? If RWY is equipped with ILS cat. I approach, but point from which pilot is obliged to continue in VMC means, that RWY is non-insturment one? When is this instrument approach procedure to a point as described used? e.g. when signal coverage of nav equipment (e.g. VOR) is not sufficient for whole approach to RWY THR?
response	Noted. The revised definitions for instrument runway and non-instrument runway, as a result of a new approach classification, are already adopted and amended in ICAO Annex 14, Vol I, Aerodromes. To be compliant as much possible with the ICAO provisions, EASA published the Opinion in the beginning of 2016 to amend the Annex I 'Definitions' of Regulation (EU) 139/2014. The Opinion on proposed amendment was already discussed at the EASA Committee, however the voting will presumably be in February 2017. Therefore, EASA decided to remove the proposed amendment of the revised definitions for instrument runway and non-instrument runway from the current update of aerodrome rules in CS Issue 3. The amended definitions will be included in the CS after the adoption of Annex I 'Definitions' by the European Commission.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.B.090 p. 43-44

comment	*104* comment by: *French CAA* We suggest transfering this requirement into guidance material, because there are runways surfaced with bituminous concrete with a PMT coefficient less than 1mm, and yet complying with the safety conditions mentioned in this CS.
response	Not accepted. The proposed updates of the CS are identical to the text in ICAO Annex 14, Vol

	I, Aerodromes. The commentator is invited to propose the update of the GM text in order to address the proposal.

comment	*223* comment by: *ADV - German Airports Association* "Impair the runway surface friction characteristics" is too general. Not every irregularity is avoidable due to other factors. The allowed severeness of the impairment should be clarified.
response	Noted. The proposed amendments of CS are identical to the text in ICAO Annex 14, Vol I, Aerodromes. The commentator is invited to propose the update of the GM text in order to address the proposal.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.B.110 p. 44

comment	*39* comment by: *Avinor AS* This is a recommendation in Annex 14. Avinor will suggest to delete "*at least*", not to make the requirement more stringent than ICAO.
response	Not accepted. The proposed amendment of CS is identical to the text in ICAO Annex 14, Vol I, Aerodromes.

comment	*69* comment by: *Union des Aéroports français - UAF* **UAF comments for CS ADR-DSN.B.110 Surface of runway turn pads** La modification proposée par l'AESA n'est pas pertinente. En effet, l'aire de demi-tour est concue pour le roulage et non pour le décollage ou l'atterrissage d'un aéronef, comme la piste. Il est inutile d'avoir des caractéristiques de frottement au moins égales à celles de la piste. Il suffit qu'il y ait compatibilité entre les caractéristiques de frottement. C'est pourquoi l'UAF est favorable au maintien de la rédaction antérieure.
response	Not accepted. The proposed amendment of CS is identical to the text in ICAO Annex 14, Vol I, Aerodromes.

comment	*195* comment by: *ACI EUROPE* ACI Europe considers this ICAO Recommendation to be inappropriate for the proposed insertion in a Certification Specification and proposes to move to Guidance Material. Whether in CS or GM however, ACI Europe finds the existing wording ("compatible with…") more appropriate than what is proposed. A runway turn pad is used by an aircraft to turn around which is comparable to taxiing. There is therefore no need to provide surface friction characteristics at least equal to that of the runway. It is sufficient to provide compatible friction characteristics.
response	Not accepted. The proposed amendment of CS is identical to the text in ICAO Annex 14, Vol I,

	Aerodromes.

comment	*305* comment by: *daa - Dublin & Cork airports* daa considers this ICAO Recommendation to be inappropriate for the proposed insertion in a Certification Specification and proposes to move to Guidance Material. However whether in CS or GM, daa finds the existing wording ("compatible with…") more appropriate. A runway turn pad is used by an aircraft to turn around which is comparable to taxiing. There is therefore no need to provide surface friction characteristics at least equal to that of the runway. It is sufficient to provide compatible friction characteristics.
response	Not accepted. The proposed amendment of CS is identical to the text in ICAO Annex 14, Vol I, Aerodromes.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.B.135 p. 44

comment	*148* comment by: *Bavarian Aviation Authority* The rearrangement of the CS could imply that there is more than one subitem (not only (a)), which is not the case. The order should be chosen to be in harmony with other specifications, such as B.155 "Length of runway strip".
response	Noted. EASA decided to keep the numbering for easier reference and future amendments.

comment	*239* comment by: *ADV - German Airports Association* The rearrangement of the CS could imply that there is more than on subitem (not only (a)), which is not the case. The order should be chosen to be in harmony with other specifications, such as B.155 "Length of runway strip".
response	Noted. EASA decided to keep the numbering for easier reference and future amendments

3. Proposed amendments - BOOK 1 - CS ADR-DSN.B.165 p. 45

comment	*40* comment by: *Avinor AS* Avinor agrees in removing the 1:10 slope requirement to give more flexibility with regard to «buried surfaces».
response	Noted.

comment	*192* comment by: *Copenhagen Airports A/S* With regard to **CS ADR-DSN.B.165 Objects on runway strips :** *To eliminate a buried vertical surface on objects situated on a graded portion of the runway*

	strip, a slope should be provided to minimise hazards to aeroplanes running off the runway Text suggested more clarified to : *To eliminate a buried vertical surface on objects situated on a graded portion of the runway strip, where **necessary a** slope should be provided to minimise hazards to aeroplanes running off the runway*
response	Not accepted. If it is considered not necessary to eliminate a buried vertical surface on objects situated on a graded portion of the runway strip, than paragraph (c) of the CS is not applicable.

comment	*196* comment by: *ACI EUROPE* ACI Europe welcomes the proposed removal of the 1:10 slope requirement.
response	Noted.

comment	*224* comment by: *ADV - German Airports Association* ADV strongly supports this amendment.
response	Noted.

comment	*307* comment by: *daa - Dublin & Cork airports* daa considers that in line with its response previously issued to the EASA survey in relation to this certification specification that the requirement to install slopes retroactively around buried or surface level fittings would be a complex and extremely expensive project with minimal evident safety benefits. The practical aspects, allied to the text in the suggested guidance material, i.e. 30cm below ground level, to a strength that would support the emergency passage of an aircraft would be very difficult to address and would lead to significant non-compliance at aerodromes throughout Europe and require the use of long term flexibility tools such as a Deviation. Manifestly, these airfields are not unsafe to operate based on information that is to hand in relation to aircraft excursion occurrences to date and as such daa would support the deletion of this requirement entirely and its' associated guidance material from Issue 3.
response	Not accepted. The provided CS and GM refer to the text in ICAO Annex 14, Vol I, Aerodromes. The question on how to eliminate a buried vertical surface was widely discussed with the stakeholders. EASA also performed the survey and discussed the issue at the thematic meeting. The requested slope is deleted from the CS provision, remaining only the requirement that a slope should be provided to minimise hazards to aeroplanes running off the runway. GM provides additional explanation and gives more flexibility on how to delethalise a buried vertical surface, for example providing the slope in the directions from which an aircraft is likely to approach. The proposed amendment of GM was agreed with the stakeholders at the thematic meeting. We appreciate your contribution to the survey.

comment	*359* comment by: *Airbus*

	CS ADR-DSN.B.165 Too ambiguous; risk of misreading with one “or” and two “and” in the same sentence proposal: “No fixed object sited on the runway strip, other than visual aids required for air navigation or those required for aircraft safety purposes should be permitted on a runway strip. These objects must satisfy the relevant frangibility requirement in Chapter T.”
response	Not accepted. The provided amendment refers to the identical text in ICAO Annex 14, Vol I, Aerodromes.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.B.191 p. 45

comment	*105* comment by: *French CAA* The introduction of a safety objective for the drainage system is welcome. It seems necessary to detail the elements contributing to the drainage performance with the following sentence : « The drainage performance of the movement area and adjacent areas is influenced by the longitudinal and transverse slopes of runways, taxiways, shoulders, strips and aprons, the surface texture of paved surfaces and by the water conveyances network. »
response	Not accepted. The comment is submitted to CS, however the proposal has no characteristics of the technical standard to be implemented in the certification requirement. Particular CS contains (only) the safety objective of the drainage systems of the movement area and adjacent areas as the hook for the guidance material. The commentator is invited to explain the proposal, if relevant to be considered in GM.

comment	*225* comment by: *ADV - German Airports Association* "shortest path possible" needs to be replaced by "shortest path practicable". The shortest path physically and/or technically possible may conflict with other CS.
response	Accepted. The term ‘possible’ is replaced with the term ‘practicable’.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.B.200 p. 46

comment	*187* comment by: *John Hamshare* <u>Proposed alternative text:</u> (e) *The surface of a paved stopway should be constructed or resurfaced so as to provide surface friction characteristics at or above the minimum friction level.* In this way, the requirement is aligned with B.090 and achieves the same safety goal. In terms of implementation, in practice it is difficult to actually perform friction testing on areas like a stop way as it may not be a paved surface and because of its proximity to the runway end.

response	Not accepted. The requirement for the surface friction characteristic of runway in CS B.090 refers to the minimum friction level (it is meant on the defined friction level), while the provision in CS B.200 requires that surface friction characteristic of paved stopway should be as or above those of the associated runway.

comment	*197* comment by: *ACI EUROPE* Proposed alternative text: e) The surface of a paved stopway should be constructed or resurfaced so as to provide surface friction characteristics at or above the minimum friction level. Comment: In this way, the requirement is aligned with B.090 and achieves the same safety goal. In terms of implementation, ACI Europe would only remark that in practice it is (technically) difficult to actually perform friction testing on areas like a stop way because of its proximity to the runway end.
response	Not accepted. The requirement for the surface friction characteristic of runway in CS B.090 refers to the minimum friction level (it is meant on the defined friction level), while the provision in CS B.200 requires that surface friction characteristic of paved stopway should be as or above those of the associated runway.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.B.205 p. 46

comment	*106* comment by: *French CAA* There is a misprint in the (c) we suggest correcting it as follows : (c) (…) less than 30 m if **a** safety assessment (…)
response	Accepted. The text is amended accordingly.

comment	*310* comment by: *daa - Dublin & Cork airports* daa agrees with ACI Europe's proposal that the Agency avoid changing the letter of the Chapter for the six CSs in Chapter C into Chapter B. This could cause problems with the verification management based on electronic data processing. We propose to simply add the paragraphs concerning runway starter extensions (if maintained) to Chapter B and keep Runway End Safety Areas in Chapter C.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.B.210 p. 46-47

comment	*107* comment by: *French CAA* We do not agree. EASA should maintain the former version, which does not require a runway end safety area for non-instrument runways code 1 and 2. This requirement has been introduced into annex 14 lately as a recommended practice. There is neither an impact assessment nor sufficient feedback to assess the advantages and difficulties linked to it
response	Partially accepted. Paragraph (b) of CS ADR-DSN.C.210 remains unchanged and a new paragraph (c) is added to read: 'Where practicable, a runway end safety area should be provided at each end of a runway strip where the code number is 1 or 2 and the runway is a non-instrument one', which gives sufficient level of flexibility. Proposed paragraph (a)(2) of CS ADR-DSN.C.215 is amended with the term 'as far as practicable' to address the same level of flexibility for the length of the runway end safety area as in another two paragraphs.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.B.215 p. 47

comment	*34* comment by: *Lugano Airport* This specific proposed amendment has a huge impact on smaller aerodromes such as Lugano. The mandatory introduction of the RESA in a code 2 non istrument runway airport like LSZA causes the reconsideration of the runway length. While taking into account the clear safety benefit of the introduction of the RESA, a reduction of about 10 metres of runway lenght, will have a negative impact on operations at our airport which due to its nature/size is already limited. The compliance to this new requirement would also, of course, involve financial aspects that should not be underrated. For the above reasons we propose to amend the requirement as follows: CS ADR-DSN.B.215 Dimensions of runway end safety areas A runway end safety area should be provided where the code number is 1 or 2 and the runway is a non-instrument one. The runway end safety area should extend from the end of a runway strip, as far as practicable, to a distance of 30 m.
response	Partially accepted. Paragraph (b) of CS ADR-DSN.C.210 remains unchanged and a new paragraph (c) is added to read: 'Where practicable, a runway end safety area should be provided at each end of a runway strip where the code number is 1 or 2 and the runway is a non-instrument one', which gives sufficient level of flexibility. Proposed paragraph (a)(2) of CS ADR-DSN.C.215 is amended with the term 'as far as practicable' to address the same level of flexibility for the length of the runway end safety area as in another two paragraphs.

comment	*41* comment by: *Avinor AS* The requirement for a 30 m RESA on a non-instrument runway in code 1 and 2 is a recommendation in Annex 14. To make this a CS would therefore make the requirement more stringent. Avinor will not support the change.

response	Partially accepted. Paragraph (b) of CS ADR-DSN.C.210 remains unchanged and a new paragraph (c) is added to read: 'Where practicable, a runway end safety area should be provided at each end of a runway strip where the code number is 1 or 2 and the runway is a non-instrument one', which gives sufficient level of flexibility. Proposed paragraph (a) (2) of CS ADR-DSN.C.215 is amended with the term 'as far as practicable' to address the same level of flexibility for the length of the runway end safety area as in another two paragraphs.

comment	*75* comment by: *Aena Aeropuertos, S.A.* There must be defined a dead-line to implement the RESA in airports with runway where the code number is 1 or 2 and the runway is a non-instrument one.
response	Noted. The aerodrome operator has the possibility to consider the adequacy of the provided certification specification and to use one of the available flexibility tools to show compliance with the CS.

comment	*109* comment by: *French CAA* We ask EASA to transfer this requirement into guidance material, because it has been introduced into annex 14 lately as a recommended practice. There is neither an impact assessment nor sufficient feedback to assess the advantages and difficulties linked to it. We suggest deleting the « and » at the end of the paragraph (1) (ii)
response	Partially accepted. Paragraph (b) of CS ADR-DSN.C.210 remains unchanged and a new paragraph (c) is added to read: 'Where practicable, a runway end safety area should be provided at each end of a runway strip where the code number is 1 or 2 and the runway is a non-instrument one', which gives sufficient level of flexibility. Proposed paragraph (a)(2) of CS ADR-DSN.C.215 is amended with the term 'as far as practicable' to address the same level of flexibility for the length of the runway end safety area as in another two paragraphs.

comment	*129* comment by: *Aalborg Airport / Thomas Hugo Møller* CS ADR-DSN.B.215 (a)(2) The RESA on a non-instrument runway code 1 or 2 is only a recommendation in ICAO. What is the idea behind making this mandatory for EU aerodromes? Is there a Safety assessment taking into account the financial impact to the industy?
response	Partially accepted. CS are technical standards and not mandatory material. The purpose of amending the CS is to address the amendment of ICAO Annex 14, Vol I, Aerodromes. Paragraph (b) of CS ADR-DSN.C.210 remains unchanged and a new paragraph (c) is added to read: 'Where practicable, a runway end safety area should be provided at each end of a runway strip where the code number is 1 or 2 and the runway is a non-instrument one', which gives sufficient level of flexibility. Proposed paragraph (a)(2) of CS ADR-DSN.C.215 is amended with the term 'as far as practicable' to address the same level of flexibility for the length of the runway end safety area as in another two paragraphs. With the provided flexibility it is not expected to have any financial impact.

comment	*198* comment by: *ACI EUROPE*

Comment 1:
ACI Europe opposes the proposal to require a 30 m RESA on a non-instrument runway in code 1 and 2. This is a recommendation in Annex 14 only and the implications of converting it into a Certification Specification have not been properly assessed. We propose to collaborate with the Agency to explore the relative merits of such a provision ahead of a subsequent revision of the Certification Specifications.

Comment 2:
ACI Europe would request of the Agency to avoid changing the letter of the Chapter for the six CSs in Chapter C into Chapter B. This could cause problems with the verification management based on electronic data processing. We propose to simply add the paragraphs concerning runway starter extensions (if maintained) to Chapter B and keep Runway End Safety Areas in Chapter C.

response

Partially accepted. Comment 1: CSs are technical standards and not mandatory material. The purpose of amending the CS is to address the amendment of ICAO Annex 14, Vol I, Aerodromes. Paragraph (b) of CS ADR-DSN.C.210 remains unchanged and a new paragraph (c) is added to read: 'Where practicable, a runway end safety area should be provided at each end of a runway strip where the code number is 1 or 2 and the runway is a non-instrument one', which givessufficient level of flexibility. Proposed paragraph (a) (2) of CS ADR-DSN.C.215 is amended with the term 'as far as practicable' to address the same level of flexibility for the length of the runway end safety area as in another two paragraphs.
Noted. Comment 2: During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment

345 comment by: *IATA*

CS ADR DSN B.215 Dimensions of RESA
Concerning (b): IATA suggest to replace arresting system with the term "arrester bed" with the following reasoning.

Arresting system can be interpreted as a cable system which is decelerating a military aircraft. We may understand that one is trying to describe an situation in which the aircraft will lose its energy without damaging the aircraft structure. In this sense it would be better to use "arrester bed".

response

Not accepted. Arresting system is the common term used in ICAO Annex 14, Vol I, Aerodromes, as well as in other documents.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.B.235 p. 48

comment

50 comment by: *Union des Aéroports français - UAF*

UAF comments for CS ADR-DSN.B.235 Strength of runway end safety areas (a)

L'UAF ne croit pas à l'utilité d'une telle CS qui apporte de la confusion.

Le mot «*sufficient*», dans le cas d'espèce n'est pas clairement déterminé et «*primary purpose*» n'est pas défini (seul l'objectif de sécurité : «*safety objective*» l'est).

L'UAF estime que dans l'état actuel des réflexions (OACI, FAA…) sur les RESAs, il convient de ne rien indiquer dans cette CS. Dans le cas d'une décision contraire il faudrait au moins faire référence à l'objectif de sécurité, en écrivant par exemple:

"*A runway end safety area should have a bearing strength in accordance with CS ADR-DSN.B.210 Runway End Safety Areas (a)* "

response Not accepted. Guidance material is non-binding material which helps to illustrate the meaning of a requirement or specification and it cannot refer to the blank (Intentionally blank) CS. The problem of creating a CS and making the link to the guidance material was intensively discussed at the thematic meeting with the stakeholders. The solution was found and agreed with making in the CS reference to the essential requirements (Annex Va) of Regulation (EC) No 216/2008 ('each of these areas shall have a bearing strength sufficient to serve its purpose'). There is no change in establishing aerodrome certification basis to ensure compliance with the essential requirements.

comment *110* comment by: *French CAA*

We propose deleting this requirement, which is not verifiable in practice

response Not accepted. Guidance material is non-binding material which helps to illustrate the meaning of a requirement or specification and it cannot refer to the blank (Intentionally blank) CS. The problem of creating CS and making the link to the guidance material was intensively discussed at the thematic meeting with the stakeholders. The solution was found and agreed with making in the CS reference to the essential requirements (Annex Va) of Regulation (EC) No 216/2008 ('each of these areas shall have a bearing strength sufficient to serve its purpose'). There is no change in establishing aerodrome certification basis to ensure compliance with the essential requirements.

comment *150* comment by: *Bavarian Aviation Authority*

The text should be in accordance with the respective ICAO Annex 14 recommendation (3.5.12) in order to prevent misinterpretation and a high burden while proving compliance.

For new items, that have not been requested before, EASA should also publish a timeframe for the implementation / conversion (i.e. until 5 years after publication). After the publication of the EASA rules in 2014, aerodromes have until 2017 to get certified and prove compliance.

response Not accepted. Paragraph No 3.5.12 of ICAO Annex 14, Vol I, Aerodromes is already addressed in GM and it was not agreed to upgrade it into CS. With the proposed amendment there is no change in establishing aerodrome certification basis to ensure compliance with the essential requirements. Guidance material is non-binding material which helps to illustrate the meaning of a requirement or specification and it cannot refer to the blank (Intentionally blank) CS. The problem of creating CS and making the link to the guidance material was

	intensively discussed at the thematic meeting with the stakeholders. The solution was found and agreed with making in the CS reference to the essential requirements (Annex Va) of Regulation (EC) No 216/2008 ('each of these areas shall have a bearing strength sufficient to serve its purpose').

comment	*199* comment by: *ACI EUROPE* This is one more case of indeterminacy that will most likely lead to confusion. As the word "sufficient" is not clearly defined, ACI Europe proposes to better leave the CS "intentionally blank" as the proposed wording will most likely lead to confusion. Alternatively ACI Europe recommends to include a reference to CS.ADR-DSN.~~C~~B.210 Runway end safety areas (RESA) concerning the primary purpose.
response	Not accepted. Guidance material is non-binding material which helps to illustrate the meaning of a requirement or specification and it cannot refer to the blank (Intentionally blank) CS. The problem of creating CS and making the link to the guidance material was intensively discussed at the thematic meeting with the stakeholders. The solution was found and agreed with making in the CS reference to the essential requirements (Annex Va) of Regulation (EC) No 216/2008 ('each of these areas shall have a bearing strength sufficient to serve its purpose'). There is no change in establishing aerodrome certification basis to ensure compliance with the essential requirements.

comment	*260* comment by: *ADV - German Airports Association* There is no benefit and / or more clarity from this provision. It should be deleted.
response	Not accepted. Guidance material is non-binding material which helps to illustrate the meaning of a requirement or specification and it cannot refer to the blank (Intentionally blank) CS. The problem of creating CS and making the link to the guidance material was intensively discussed at the thematic meeting with the stakeholders. The solution was found and agreed with making in CS reference to the essential requirements (Annex Va) of Regulation (EC) No 216/2008 ("each of these areas shall have a bearing strength sufficient to serve its purpose"). There is no change in establishing aerodrome certification basis to ensure compliance with the essential requirements.

comment	*311* comment by: *daa - Dublin & Cork airports* daa agrees with ACI Europe's proposal to retain the CS wording "intentionally blank" as the new proposed wording will most likely lead to confusion.
response	Not accepted. Guidance material is non-binding material which helps to illustrate the meaning of a requirement or specification and it cannot refer to the blank (Intentionally blank) CS. The problem of creating CS and making the link to the guidance material was intensively discussed at the thematic meeting with the stakeholders. The solution was found and agreed with making in the CS reference to the essential requirements (Annex Va) of Regulation (EC) No 216/2008 ('each of these areas shall have a bearing strength sufficient to serve its purpose"'). There is no change in establishing aerodrome certification basis to ensure compliance with the essential requirements.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.C.236 p. 48

comment	*1* comment by: *Swedish Transport Agency* What is the rationale with a maximum length of 150 meter? Sweden recommend to delete CS ADR-DSN-C.236 (b)(1) or change the text in the CS ADR-DSN-C.236 (b)(1) to "The length of a runway starter extension should be decided and justified by an aeronautical study."
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*42* comment by: *Avinor AS* Avinor is not sure whether this will have any consequences for existing runways with very long displaced THR. Since Starter Extension is a brand new design element, our main concern is that this new set of requirements possibly might result in unintended consequences for existing runways, and/or conflict with other requirements. Thus, our first proposal is not to take it in, but instead suggest to aerodrome operators to handle existing starter extensions as Special Conditions or DAAD.If EASA decides to keep them in the regulation, we ask for clarification of the difference between a starter extension and take-off runway, and reassurance that there still will be no limit in length for the displacement of a threshold. For runways where THR and END are not co-located, it would also be valuable if EASA could clarify the requirements for strip ahead of the take-off runway; f.ex. long displaced THR, and area in front of THR used for take-off. Avinor has the following comments to these paragraphs: CS ADR-DSN.C.236 (a)(2): Avinor will suggest to delete this paragraph. One should not have to document it further, as long as one follows the basic requirements. A safety assessment should rather be done according to (b)(2) if width is reduced. CS ADR-DSN.C.236 (b)(1): Is there any rationale for the 150 m limit, as it would be the same for a code 2 and code 4 runways. CS ADR-DSN.C.236 (b)(5): Avinor will suggest to delete "at least".
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*51* comment by: *Union des Aéroports français - UAF* **UAF comments for CS ADR-DSN.C.236 Runway starter extension physical characteristics**

	D'un point de vue général, pour traiter les CS relatives à la «starter extension», l'UAF estime que le principe de cette infrastructure ne doit pas relever d'une CS mais plutôt d'un ELOS. En effet, cette infrastructure est utilisée pour le décollage et fait donc partie de la piste par définition. Pour aller plus dans les détails : (b) (1) on ne comprend pas bien quel est l'objectif de sécurité pour proposer une longueur maximum de 150 m, pourquoi pas une autre longueur ? (b) (2) la *runway stater extension* faisant partie de la piste, car utilisée pour le décollage, comment envisagée une réduction de sa largeur ? (b) (4) le mot « *compatible* » a été utilisé à bon escient ici, alors qu'il a été supprimé dans le (b) de la CS ADR-DSN.B.110 *Surface of runway turn pads* pour lequel il aurait été opportun de le conserver.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*76* comment by: *Aena Aeropuertos, S.A.* Attachment #1 An airplane starting the take-off in an area that is not considered to be a part of a runway is a deep incoherence, furthermore when it does not affect the declared distances but can modify the reference code of the aerodrome (GM1 ADR-DSN.C.236) Considering the RESA in the runway at the expense of reducing the declared distances, its currently being performed more efficiently in Spain than using the so-called "starter extension" concept. Next figure illustrates it (SEE ATTACHED DOCUMENT). The area previous to the runway 09 threshold is used, exclusively, to initiate the take-off run of the aircraft, and is taken into account for the calculation of the TORA09, TODA09 y ASDA09 distances. Such area will not be used for the LDA and TORA distance calculation. We assume that the area previous to the runway 09 is considered as a section of the runway and must be protected by a strip of size and specifications similar to those of a strip for non-instrumental approaches with the same code number as that of the runway 09. This strip section could be overlapped with the RESA of the opposite runway, as it shows figure. With regard to runway and runway lightning, the individual declared distance limits are neither marked nor identified on the runway. The criteria we consider in these cases is referred to AC 150/5340 (figures 9 and 10).
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to

	perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*93* comment by: *Juanmolina* The width of a runway starter extension not associated with a taxiway should guarantee autonomous and safe turnaround of aircraft.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPA as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*102* comment by: *Aalborg Airport / Thomas Hugo Møller* Regarding the Runway starter extention, it is unclear in the content what the definition of the Runway starter extention is compared to GM1 ADR.OPS.A.005 - Declared distances. Is the starter extention also part of the stopway or clearway? Should the RESA also start after the end of the Runway starter extention strip or does it start 60 meter after the runway end? (can be inside the starter extention area)
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*111* comment by: *French CAA* We consider it premature to adopt Runway Starter Extension at this stage. We suggest discussing it further, including at ICAO level. The definition of starter extension and its safety objectives are missing. In the paragraph (a)(1), we do not understand the meaning of the sentence "It relates to runways only". There seems to be an inconsistency with figure M-10B, which shows on the contrary that a taxiway can be related to a starter extension. Paragraph (a) (2) mentions that the implementation of the CS require a safety assessment.

We would like to know what are the conditions under which a starter extension can or cannot be implemented (reference code)?

In the paragraphs (b)(4) and (5) we suggest using the terms “constructed and resurfaced” as in B.090 (b) instead of "prepared or constructed".

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment *152* comment by: *Bavarian Aviation Authority*

When implementing new rules on runway starter extensions, it has to be clearly defined, when those regulations come into consideration. Many aerodromes may already have displaced thresholds and concerned area might have also been allowed to be used by airplanes taking-off. Since the requirements for displaced thresholds and runway starter extensions (i.e. marking) differ, it hast to be clearly defined how to deal with cases where there is a displaced threshold as well as a runway starter extension. The rules concerning the use of displaced thresholds and runway starter extensions have to be compared in detail to rule out possible conflicts.

Regulations should be moved to GM.

For new items, that have not been requested before, EASA should also publish a timeframe for the implementation / conversion (i.e. until 5 years after publication). After the publication of the EASA rules in 2014, aerodromes have until 2017 to get certified and prove compliance.

The implementation of the runway starter extension (when backtrack operation is needed) induces, that a plane has to pass over the red runway end lights. This should be questioned, especially considering operational and safety aspects. In this case the crew has to deviate from the hitherto principle of not passing over switched red lights. This could also be dealt with in GM.

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment *200* comment by: *ACI EUROPE*

	ACI EUROPE is of the opinion that the provisions proposed for starter extensions will have consequences for existing runways with very long displaced thresholds. Since Starter Extension is a brand new design element, our main concern is that this new set of requirements possibly might result in unintended consequences for existing runways, and/or conflict with other requirements. Thus, our first proposal will be not to take it in, but instead suggest to aerodrome operators to handle existing starter extensions as Special Conditions or DAAD. However, in the case that the Agency decides to keep it in the regulation, ACI Europe sees the need for the following clarifications: Difference between a starter extension and take-off runway; there will not be a limit in length for the displacement of a threshold For runways where THR and END are not co-located: Clarification of the requirements for strip ahead of the take-off runway; e.g. long displaced THR, and area in front of THR used for take-off. Proposed alternative text/comments on specific paragraphs: (2) Proposal to delete this paragraph: There should not be the requirement to perform a safety assessment as long as the basic requirements are fulfilled. A safety assessment should rather be done according to (b)(2) if width is reduced. (b)(1) Is there a rationale for the 150 m limit as it is the same for a code 2 and 4 runway? (5) As a starter extension is only dedicated for the start of a take-off, ACI Europe sees no need for friction level and therefore proposes to delete (b) (5). Notwithstanding the aforementioned, ACI Europe proposes to delete “at least”.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*240* comment by: *TRANSPORT AUTHORITY, Slovak republic* (b) (1) how was the max. length of 150 m for RWY starter extension established - based on historical data, safety assessment or...?
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*242* comment by: *ADV - German Airports Association*

When implementing new rules on runway starter extensions, it has to be clearly defined, when those regulations come into consideration. Many aerodromes may already have displaced thresholds and that concerned area might have also been allowed to be used by airplanes taking-off. Since the requirements for displaced thresholds and runway starter extensions (i.e. marking) differ, it hast to be clearly defined how to deal with cases where there is a displaced threshold as well as a runway starter extension. The rules concerning the use of displaced thresholds and runway starter extensions have to be compared in detail to rule out possible conflicts. The implementation of the runway starter extension induces, that a plane has to pass over the red runway end lights. This should be questioned, especially considering operational and safety aspects. In this case the crew has to deviate from the hitherto principle of not passing over switched red lights. This could be dealt with in GM.

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment

284 comment by: *HCAA/D3A*

CS ADR-DSN.C.236 Runway starter extension physical characteristics

1. In (a) (1) the reasons to adopt a runway starter extension need not be given. Also the sentence *"It relates to runways only"* is superfluous. Therefore the text is proposed to read:

A runway starter extension is intended where additional runway distance is required for take-off, by adding a starter extension to the beginning of the runway.

2. [Editorial] In (b) (4) it is proposed to add the word "the": "*… for <u>the</u> expected number of movements …*"

3. In general, when an a/c performs a 180° turn (the end of the runway starter extension is not served by a taxiway) it is proposed that the characteristics of the runway starter extension comply with the specifications of a runway turn pad. (This comment applies also to its shoulders and strip.)

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment

312 comment by: *daa - Dublin & Cork airports*

daa is of the view that this new CS and part (b)(3) in particular, will impose overly onerous criteria for physical characteristics for the transverse and longitudinal slopes of a starter extension.

- Starter extensions would be required to follow the runway alignment rules which can

	be difficult to achieve at the beginning of a runway due to a number of factors such as ground condition, existing pavement profiles, clearances & cost; • By definition, this pavement is at the beginning of the runway whereby the aircraft is commencing its take off run from a standing start. The maximum length of the starter extension is limited to 150ms as per clause (b)(1), therefore the speed to which the aircraft can accelerate to in that distance would be very low therefore the slopes of the starter extension are not critical by definition; • In many cases, aerodromes utilise existing / older runway/taxiway/apron surfaces to deliver a runway starter extension and this achieves a level of cost effectiveness valued by economic regulators and customer airlines. However, this new CS would mean such cost-efficient solutions would not be able to achieve compliance with these slope criteria due to the orientation and utilisation of existing runway surfaces and the engineering requirements from a drainage perspective for both runways requiring divergent slope characteristics without significant investment, reducing the likelihood of such developments; • This could in fact lead to increased safety risk associated with sub-optimal drainage profiles being the unintended consequence of delivering compliance in this regard where there are legacy runways/taxiways/aprons; • If this new CS is adopted, it will lead to immediate non-compliances and require major changes to the profile of starter extension pavements at high cost without a corresponding or demonstrable improvement in safety; • Consequently, instead of improving safety, this development would likely cause aerodrome operators to avoid the development of starter extensions into the future and/or lead to the removal over time of such infrastructure where it exists already impacting capacity and the safety of those airfields. This would obviously be contrary to the intended objective of the EASA conversion process and the Certification Specifications. daa therefore recommends the deletion of the requirements in relation to runway starter extensions. As a secondary proposal, daa would support the retention of the length, width, strength and surface friction requirements but that the longitudinal and transverse slope requirements should be a maximum of 1.5% in any direction and that the profile of the starter extension should be such that it promotes good drainage (in line with proposed CS ADR-DSN.B.191: Drainage characteristics of the movement area and adjacent area).
response	Noted. The requirements for the runway starter extension imply only “where provided” and only where the aerodrome operator finds it beneficial and cost effective. Some Member States are already operating with the RSE and in some of these Member States the national regulation for the runway starter extension already exists. The purpose of this amendment is to harmonise the requirements for the runway starter extension. During the public consultation of NPA EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to temporarily remove the proposed amendment for the runway starter extension (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming amendments of the aerodrome rules in future. The numbering of Chapter C will remain unchanged.

comment	*344* comment by: *IATA* **CN ADR –DSN.C.236 Runway Starter Extension** It is not clear whether the term "runway starter extension" is defined in ICAO Annex 14, an ICAO reference was not readily available. For this reason we would ask clarification from EASA why there is a need to deviate from ICAO. From the IATA side it is not clear whether the introduction of a new term and **infrastructure provisions**, including dimensions, markings and lights, will add to the global alignment and standardization of terminology and of physical characteristic which are so important for pilots in particular and our industry in general. Moreover the RSE does not provide additional performance capabilities for aircraft as the declared distances remain unaffected. Annex 14 provides Standards and Recommended Practices for "Displaces thresholds" and the graphics provided in Annex 14 are quite similar to those used for RSE, which could be very confusing for interpretation. Another confusion that arises is the interpretation of RSE seen from the opposite direction of the runway. The question is how this additional part should be interpreted with respect to aircraft performance and / or additional safety, for which we ask further clarification from EASA. It is also our opinion that RSE dimensions are in contradiction with **CS ADR-DSN.B.215** related to "**Dimensions of runway end safety areas**" and Annex 14 requirements, as the dimensions of RSE are different from RESA. If the RSE is not considered to be a RESA then CS ADR-DSN.B.215 should be better clarified at which location the RESA will start. Therefore, we strongly suggest to bring the RSE proposal forward to ICAO first and seek global recognition through the ICAO amendment process rather than introduce regional differences .
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*360* comment by: *Airbus* CS ADR-DSN.C.236 Para (a) (1) Applicability, with a 4 lines sentence, is unclear. Should be reworded
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of

Chapter C will remain unchanged.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.C.237 p. 49

comment *52* comment by: *Union des Aéroports français - UAF*

UAF comments for CS ADR-DSN.C.237 Runway starter extension shoulders

Comme la *runway stater extension* fait partie de la piste, car utilisée pour le décollage, les accotements doivent être traités de la même manière que ceux de la piste.

response Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment *130* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Comment FOCA: CS ADR-DSN.C.237 (b)(2): (ii) and (iii) fixe the overall width of the runway starter extension and its shoulders to 60 m resp. 75 m. The width of the associated runway is only useful for (i).

Proposed new text:
(2) Width of the runway starter extension shoulders should extend symmetrically on each side of the runway starter extension so that the overall width of the runway starter extension and its shoulders is not less than ~~the width of the associated runway~~,
(i) the width of the associated runway where the code letter is A, B or C;
(ii) 60 m where the code letter is D or E; and
(iii) 75 m where the code letter is F.

response Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment *285* comment by: *HCAA/D3A*

CS ADR-DSN.C.237 Runway starter extension shoulders
1. [Editorial] In (a) (1) it is proposed to add the word "the": "*… the width of <u>the</u> associated runway ...*"
2. [Editorial] In (b) (2) it is proposed to add the word "the": "*<u>The</u> width of the runway starter*

	extension ..." 3. [Editorial] In (b) (2) it is proposed to move the text *"the width of the associated runway"* from the end of the first paragraph to the beginning of (i).
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*361* comment by: *Airbus* CS ADR-DSN.C.237 Runway starter extension is a very specific situation which needs local study and adaptation. Paragraph (b) could be more appropriate in the GM to leave some flexibility to build the most adapted design.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.C.238 p. 49-50

comment	*77* comment by: *Aena Aeropuertos, S.A.* According to (b) (2) the "*Width of the runway starter extension strip should be the same as associated runway strip on its inner edge….",* but Figure C-1 shows the criteria of CAP 168, part 3.48, which states that the width of the inner edge must be the same than the strip of a non-instrumental runway with the associated runway code. That incoherence must be solved.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*91* comment by: *Juanmolina* The description of the Runway starter extension strip geometry is confusing. Inner edge and outer edge can be subjective, and may be replaced by clearer descriptions such as "edge closer to the threshold" and "edge farther away from the threshold".
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*112* comment by: *French CAA* How are the obstacle limitation surfaces defined along the starter extension?
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*131* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* One of the aims of the strip before the runway starter extension is to protect from jet blast. So, we propose to take the same safety margin that for the runway strip. **Proposed new text:** (1) Length of the runway starter extension strip should be provided to cover wing overhang of the largest aeroplane plus a safety margin of ~~7.5 m or 20 % of wingspan of the largest aeroplane, whichever is greater (see Figure C-1).~~ 30 m resp. 60 m according to CS ADR-DSN.B.155.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*201* comment by: *ACI EUROPE*

ACI EUROPE is of the opinion that the provisions proposed for starter extensions will have consequences for existing runways with very long displaced thresholds.
Since Starter Extension is a brand new design element, our main concern is that this new set of requirements possibly might result in unintended consequences for existing runways, and/or conflict with other requirements. Thus, our first proposal will be not to take it in, but instead suggest to aerodrome operators to handle existing starter extensions as Special Conditions or DAAD.

If, however, the Agency decides to go ahead with it, then in the case of the starter extension strip it would be necessary to provide a definition of the term "critical aeroplane".
Furthermore, ACI Europe wonders whether this concept of reduced strip width can be applied for one-direction take-off only runways without starter extension as well. The type of operations in this case is the same.

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment

271 comment by: *ADV - German Airports Association*

This illustration – in the current form - might cause the impression that the RWY-side marking in the area between RWY-end and adjacent RWY threshold has to be marked by a continuous line.

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment

286 comment by: *HCAA/D3A*

CS ADR-DSN.C.238 Runway starter extension strip
1. In (b) (2) the splay of the reduction is stated to be at least 20%. This indicates that the requirement is that the strip's width should reduce as fast as possible. If this is not intended, it is proposed that the wording should change to:
"The splay of this reduction should not be more than 20%."
2. In Figure C-1 it is shown that the width of the inner edge of the runway starter extension strip is equal to the width of the graded portion of the runway strip (75m) and not to the width of the runway strip (150m) as stated in (b) (2). Therefore it is proposed that either the text of (b)(2) is changed or the Figure modified. Moreover, it is proposed that either the specific numbers be removed from the Figure, or its text modified so as to indicate that the Figure is an example for a rwy with a strip of the specific geometry

response | Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment | *323* comment by: *Aéroports de Lyon*

Figure C-1 is misleading. Strip width from runway centerline is shown as 150 m which relates to code number 3 or 4 (which is not mentioned below the figure) while runway designation marking is not the common pattern where the numbers are placed beyond the threshold marking.

response | Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment | *362* comment by: *Airbus*

CS ADR-DSN.C.238

“Figure C-1. Runway starter extension strip” should be indicated as being an example for code number 3 or 4.

proposal:
“Figure C-1. Runway starter extension strip (example where code number is 3 or 4)”

response | Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment | *363* comment by: *Airbus*

CS ADR-DSN.C.238

On Figure C-1. Runway starter extension strip figure should explain more clearly the meeting point of the splay end and the dotted line at 75m (graded area?) and if confirmed, add a

	legend for the dotted line accordingly
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.D.290 p. 50

comment	*10* comment by: *René Meier, Europe Air Sports* CS ADR-DSN.D.290: Question: (b): Is there not a "so" too many in this sentence?
response	Accepted. The text is amended accordingly to read: 'The surface of a paved taxiway should be so constructed or resurfaced as to provide suitable surface friction characteristics'.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.D.335 p. 51

comment	*191* comment by: *John Hamshare* There are significant concerns about the proposal to require holding points to be sited such that aircraft waiting at them do not infringe the Obstacle Limitation Surfaces. If a runway has an inset or displaced threshold – the threshold is not at the end of the runway but part way along it - the proposed requirement to hold aircraft such that they do not infringe the OLS – means that the Approach Surface, which is funnel shaped, will require aircraft holding at the end of the runway for take-off to hold further back, away from the runway. This will greatly increase line-up times for aircraft departing the runway and reduce runway capacity. This requirement is not in place in the UK and therefore Heathrow strongly objects to this paragraph. This has been considered before and if we recall correctly it was estimated this could lead to a significant reduction in runway capacity at some major airports from existing levels of use and therefore raise problems about existing airline slots, which would not be available to them if this proposal was put in place. UK airports have operated successfully for many years without this requirement and therefore the need for it is questioned. The costs to the whole aviation industry of implementing this change would be large and unnecessarily make airports less efficient by reducing runway capacity from existing levels at some locations.
response	Accepted. Paragraph CS ADR-DSN.D.335(b)(1) is amended by deleting the word 'holding' to be in line with ICAO Annex 14, Vol I, Aerodromes, paragraph 3.12.3. CS ADR-DSN.D.340 will

	be amended in line with paragraph 3.12.9 of Annex 14: 'The location of a runway-holding position established in accordance with CS ADR-DSN.D.335 should be such that a holding aircraft or vehicle will not infringe the obstacle free zone, approach surface, take-off climb surfaces or ILS/MLS critical/sensitive area or interfere with the operation of radio navigation aids.'
comment	*325* comment by: *Gatwick Airport* There are significant concerns about the proposal to require holding points to be sited such that aircraft waiting at them do not infringe the Obstacle Limitation Surfaces. If a runway has an inset or displaced threshold – the threshold is not at the end of the runway but part way along it - the proposed requirement to hold aircraft such that they do not infringe the OLS – means that the Approach Surface, which is funnel shaped, will mean aircraft holding at the end of the runway for take-off will have to hold further back, away from the runway. This will greatly increase line-up times for aircraft departing the runway and reduce runway capacity. This requirement is not in place in the UK and therefore Gatwick Airport strongly objects to this paragraph. This will lead to a significant reduction in runway capacity at some major airports from existing levels of use and therefore raise problems about existing slots airlines use, which would not be available to them if this proposal was put in place. UK airports have operated successfully for many years without this requirement and therefore the need for it is questioned. The costs to the whole aviation industry of implementing this change would be large and unnecessarily make airports less efficient by reducing runway capacity from existing levels at some locations."
response	Accepted. Paragraph CS ADR-DSN.D.335(b)(1) is amended by deleting the word 'holding' to be in line with ICAO Annex 14, Vol I, Aerodromes, paragraph 3.12.3. CS ADR-DSN.D.340 will be amended in line with paragraph 3.12.9 of Annex 14: 'The location of a runway-holding position established in accordance with CS ADR-DSN.D.335 should be such that a holding aircraft or vehicle will not infringe the obstacle free zone, approach surface, take-off climb surfaces or ILS/MLS critical/sensitive area or interfere with the operation of radio navigation aids.'
comment	*351* comment by: *UK CAA* **Page No:** 52 **Paragraph No:** CS ADR-DSN.D.335 Holding bays, runway-holding positions, intermediate holding positions, and road-holding positions, (b) **Comment:** The UK permits the location of a runway-holding position that will cause an infringement of the 'planning' OLS, but not the 'operational' OFZ, by a manoeuvring aircraft; this is permissible only if no interference with radio navigation aids occurs and the impact of the infringement is addressed in the calculation of the OCA/H. **Justification:**

	The guidance given in ICAO Annex 14 Volume 1, which forms the basis for the EASA CS is ambiguous: a. Annex 14 Vol 1, Chapter 3, Table 3-2 indicates that Obstacle Free Zone (OFZ) has been used to decide the position of Category I, II or III holds (Note b), which does not correspond with Chapter 3, paragraph 3.12.3. b. Annex 14 Vol 1 Chapter 3, paragraph 3.12.3 states that; "A runway-holding position shall be established on a taxiway if the location or alignment of the taxiway is such that a taxiing aircraft or vehicle can infringe an obstacle limitation surface or interfere with the operation of radio navigation aids." This paragraph directly conflicts with Table 3-2 as aircraft holding at the distance specified in this table would conflict with the Transitional Surface (one of the obstacle limitation surfaces). c. Annex 14 Vol 1 Chapter 3, Paragraph 3.12.9 introduces specific reference to the "obstacle free zone, approach surface, take-off climb surface" and refers back to paragraph 3.12.3 which, if complied with, would have already resulted in a hold which would not introduce an infringement of the approach or take-off climb surfaces, these both being part of the obstacle limitation surfaces referred to in paragraph 3.12.3. EASA has adopted only Annex 14, article 3.12.3 and not 3.12.9. However, the reference to the approach surface and take-off climb surface can be considered to be superfluous as they are already included in paragraph 3.12.3.
response	Accepted. Paragraph CS ADR-DSN.D.335(b)(1) is amended by deleting the word 'holding' to be in line with ICAO Annex 14, Vol I, Aerodromes, paragraph 3.12.3. CS ADR-DSN.D.340 will be amended in line with paragraph 3.12.9 of Annex 14: 'The location of a runway-holding position established in accordance with CS ADR-DSN.D.335 should be such that a holding aircraft or vehicle will not infringe the obstacle free zone, approach surface, take-off climb surfaces or ILS/MLS critical/sensitive area or interfere with the operation of radio navigation aids.'

3. Proposed amendments - BOOK 1 - CS ADR-DSN.D.340 p. 51-52

comment	*11* comment by: *René Meier, Europe Air Sports* CS ADR-DSN.D.340 (c): There are misleading figures in the word "established" on the first line of the text, please delete/correct this.
response	Accepted. The typo is corrected accordingly.

comment	*92* comment by: *Juanmolina* "es350tablished" should be replaced with "established".
response	Accepted. The typo is corrected accordingly.

comment	*100* comment by: *Airport Zurich*

	The location of a runway-holding position es~~350~~tablished in accordance with CS ADR-DSN.D.335 should be such that a holding aircraft or vehicle will not infringe the obstacle limitation surfaces or ILS/MLS critical/ sensitive area or interfere with the operation of radio navigation aids.
response	Accepted. The typo is corrected accordingly.

comment	*113* comment by: *French CAA* Looking forward to a more thorough impact assessment, we suggest keeping the current version of the article 3.12.9 of annex 14, which limits the obligations introduced by c) to the case defined in 335 (b) (1). Indeed, dozens of runway-holding positions mentioned in the CS ADR-DSN.D.335 b(2) are located in the OLS but outside the approach and take-off surfaces. The implementation of these new requirements would require the relocation of those several runway-holding positions. For the concerned aerodromes, this would mean on the one hand important financial costs, and on the other hand, an important capacity decrease.
response	Noted. The text in paragraph CS ADR-DSN.D.335(b)(1) is amended by deleting the word 'holding' to be in line with ICAO Annex 14, Vol I, Aerodromes, paragraph 3.12.3. CS ADR-DSN.D.340 will be amended in line with paragraph 3.12.9 of Annex 14.

comment	*132* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* typing error **Proposed new text** (c) The location of a runway-holding position es~~350~~tablished in accordance with CS ADR-DSN.D.335 should be (…)
response	Accepted. The text in paragraph CS ADR-DSN.D.335(b)(1) is amended by deleting the word "'holding' to be in line with ICAO Annex 14, Vol I, Aerodromes, paragraph

comment	*153* comment by: *Bavarian Aviation Authority* typo - established
response	Noted. The typo is corrected accordingly.

comment	*188* comment by: *John Hamshare* There are significant concerns about the proposal to require holding points to be sited such that aircraft waiting at them do not infringe the Obstacle Limitation Surfaces. If a runway has an inset or displaced threshold – the threshold is not at the end of the runway but part way along it - the proposed requirement to hold aircraft such that they do not infringe the OLS – means that the Approach Surface, which is funnel shaped, will require aircraft holding at the end of the runway for take-off to hold further back, away from the runway. This will greatly increase line-up times for aircraft departing the runway and reduce runway capacity.

This requirement is not in place in the UK and therefore Heathrow strongly objects to this paragraph.
This has been considered before and if we recall correctly it was estimated this could lead to a significant reduction in runway capacity at some major airports from existing levels of use and therefore raise problems about existing airline slots, which would not be available to them if this proposal was put in place.
UK airports have operated successfully for many years without this requirement and therefore the need for it is questioned.
The costs to the whole aviation industry of implementing this change would be large and unnecessarily make airports less efficient by reducing runway capacity from existing levels at some locations.

response

Accepted. Paragraph CS ADR-DSN.D.335(b)(1) is amended by deleting the word 'holding' to be in line with ICAO Annex 14, Vol I, Aerodromes, paragraph 3.12.3. CS ADR-DSN.D.340 will be amended in line with paragraph 3.12.9 of Annex 14: 'The location of a runway-holding position established in accordance with CS ADR-DSN.D.335 should be such that a holding aircraft or vehicle will not infringe the obstacle free zone, approach surface, take-off climb surfaces or ILS/MLS critical/sensitive area or interfere with the operation of radio navigation aids.'

comment

221 comment by: *ACI EUROPE*

The requirement to not infringe the obstacle limitation surfaces (OLS) would affect a lot of runway-holding positions in Europe, especially those where the threshold is inset or displaced or the runway-holding position is angled. To be compliant with this provision, the positions have to be moved further back, away from the runway. This will greatly increase line-up times for aircraft departing and reduce runway capacity at a lot of European airports. Even though the provision stems from ICAO Annex 14 3.12.9, aerodromes with angled line-up taxiways are designed according to ICAO Doc 9157 Aerodrome Design Manual part 2 – taxiways. This document foresees this taxiway design. If an aerodrome follows the ICAO's Aerodrome Design Manual, it is not possible to fulfil the provisions of ICAO Annex 14 3.12.9 without referring to ICAO PANS-OPS argumentation.

In order to maintain the existing runway capacity at European's aerodromes, ACI Europe strongly recommend to implement a reference to ICAO PANS-OPS in order to ensure that runway-holding positions at displaced or inserted thresholds as well as angled line-up taxiways according to ICAO Aerodrome Design Manual can remain in place in order to maintain the existing capacity and to ensure a harmonised approach in Europe.

response

Noted. Paragraph CS ADR-DSN.D.335(b)(1) is amended by deleting the word holding to be in line with ICAO Annex 14, Vol I, Aerodromes, paragraph 3.12.3. CS ADR-DSN.D.340 will be amended in line with paragraph 3.12.9 of Annex 14: 'The location of a runway-holding position established in accordance with CS ADR-DSN.D.335 should be such that a holding aircraft or vehicle will not infringe the obstacle free zone, approach surface, take-off climb surfaces or ILS/MLS critical/sensitive area or interfere with the operation of radio navigation aids.'

comment

233 comment by: *ADV - German Airports Association*

This amendment contains a typo.

response	Noted. The typo is corrected accordingly.

comment	*241* comment by: *TRANSPORT AUTHORITY, Slovak republic* .D.340 (c) correct "es350tablished"
response	Noted. The typo is corrected accordingly.

comment	*261* comment by: *ADV - German Airports Association* Table D-2: Delete road-holding position. The distances are calculated for aircraft and should not apply to vehicles. Distances for vehicles (and therefore distances for road-holding positions to runways) are already defined by CS ADR-DSN.B.165 (b) (1) and (d).
response	Noted. The typo is corrected accordingly.

comment	*287* comment by: *HCAA/D3A* **CS ADR-DSN.D.340 Location of holding bays, runway-holding positions, intermediate holding positions, and road-holding positions** [Editorial] In (c) it is proposed to delete the "350" within the word "*es350tablished*".
response	Noted. The typo is corrected accordingly.

comment	*298* comment by: *Flughafen Berlin Brandenburg GmbH* typo
response	Noted. The typo is corrected accordingly.

comment	*326* comment by: *Gatwick Airport* There are significant concerns about the proposal to require holding points to be sited such that aircraft waiting at them do not infringe the Obstacle Limitation Surfaces. If a runway has an inset or displaced threshold – the threshold is not at the end of the runway but part way along it - the proposed requirement to hold aircraft such that they do not infringe the OLS – means that the Approach Surface, which is funnel shaped, will mean aircraft holding at the end of the runway for take-off will have to hold further back, away from the runway. This will greatly increase line-up times for aircraft departing the runway and reduce runway capacity. This requirement is not in place in the UK and therefore Gatwick Airport strongly objects to this paragraph. This will lead to a significant reduction in runway capacity at some major airports from existing levels of use and therefore raise problems about existing slots airlines use, which would not be available to them if this proposal was put in place. UK airports have operated successfully for many years without this requirement and therefore the need for it is questioned. The costs to the whole aviation industry of implementing this change would be large and

	unnecessarily make airports less efficient by reducing runway capacity from existing levels at some locations.”
response	Accepted. Paragraph CS ADR-DSN.D.335(b)(1) is amended by deleting the word ‘holding’ to be in line with ICAO Annex 14, Vol I, Aerodromes, paragraph 3.12.3. CS ADR-DSN.D.340 will be amended in line with paragraph 3.12.9 of Annex 14: ‘The location of a runway-holding position established in accordance with CS ADR-DSN.D.335 should be such that a holding aircraft or vehicle will not infringe the obstacle free zone, approach surface, take-off climb surfaces or ILS/MLS critical/sensitive area or interfere with the operation of radio navigation aids.’

comment	*335* comment by: *Groupe ADP* There are differences between the proposed new § c and the § 3.12.9 of Annex 14: "...obstacle limitation surfaces ..." instead of "...obstacle free zone, approach surface, take off climb surface...". As OFZ are less stringent than OLS, there are some cases where, being clear of any other limitations, some existing holding points respect OFZ but infringe OLS, and still comply with ICAO. In particular, this is the case in CAT I and it can be found in the 2nd sentence of DSN J 480 e) (equivalent to § 4.2.18 of Annex 14.) We propose either to suppress the new § c or to change it to make it clearer AND consistent with DSN J 480 e).
response	Accepted. Paragraph CS ADR-DSN.D.335(b)(1) is amended by deleting the word ‘holding’ to be in line with ICAO Annex 14, Vol I, Aerodromes, paragraph 3.12.3. CS ADR-DSN.D.340 will be amended in line with paragraph 3.12.9 of Annex 14: The location of a runway-holding position established in accordance with CS ADR-DSN.D.335 should be such that a holding aircraft or vehicle will not infringe the obstacle free zone, approach surface, take-off climb surfaces or ILS/MLS critical/sensitive area or interfere with the operation of radio navigation aids.’

comment	*364* comment by: *Airbus* CS ADR-DSN.C.340 Typo “es350tablished”. proposal: “established”
response	Noted. The typo is corrected accordingly.

comment	*365* comment by: *Airbus* CS ADR-DSN.C.340 Typo “categories II and III”. proposal: “Categories II and III”

response	Noted. The text is corrected accordingly.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.D.360 p. 52

comment	*202* comment by: *ACI EUROPE* THIS COMMENT CONCERNS CS ADR-DSN E.360 (Slopes on Aprons) WHICH IS MISTAKENLY TAGGED AS ADR-DSN.D.360 As an aircraft stand taxilane is by definition according to CS ADR-DSN.A.002 [Definitions] designated as a taxiway. Therefore CS ADR-DSN.D.280 Transverse slopes on taxiways applies, and an additional reference is not required. Therefore ACI Europe proposes to delete the new inclusion of aircraft stand taxilanes. Alternatively, exempt aircraft stand taxilanes from the requirements of CS ADR-DSN.D.280.
response	Not accepted. The apron and aircraft stand taxilane constitute one area and therefore slopes on both, apron and aircraft stand taxilane, should be sufficient to prevent accumulation of water. The text is identical to the corresponding paragraph provided in ICAO Annex 14, Vol I, Aerodromes.

comment	*262* comment by: *ADV - German Airports Association* CS ADR-DSN.E.360: Delete new reference to aircraft stand taxilane. An aircraft stand taxilane is by definition in CS ADR-DSN.A.002 designated as a taxiway. Therefore CS ADR-DSN.D.280 Transverse slopes on taxiways applies, and an additional reference is not required. Alternatively, exempt aircraft stand taxilanes from the requirements of CS ADR-DSN.D.280.
response	Not accepted. The apron and aircraft stand taxilane constitute one area and therefore slopes on both, apron and aircraft stand taxilane, should be sufficient to prevent accumulation of water. The text is identical to the SARP provided in Annex 14, Vol I, Aerodromes

comment	*314* comment by: *daa - Dublin & Cork airports* As an aircraft stand taxilane is by definition according to CS ADR-DSN.A.002 [Definitions] designated as a taxiway. Therefore CS ADR-DSN.D.280 Transverse slopes on taxiways applies and an additional reference is not required. Therefore daa agrees with ACI Europe's proposal to delete the reference to aircraft stand taxilanes and limit this CS to apron slopes. Alternatively, the CS could exempt aircraft stand taxilanes from the requirements of CS ADR-DSN.D.280.
response	Not accepted. The apron and aircraft stand taxilane constitute one area and therefore slopes on both, apron and aircraft stand taxilane, should be sufficient to prevent accumulation of water. The text is identical to the SARP provided in Annex 14, Vol I, Aerodromes

3. Proposed amendments - BOOK 1 - CS ADR-DSN.D.365 p. 52-53

comment	*218* comment by: *ADV - German Airports Association* Para (c) implies an applicability only for stands at terminal buidlings. This also needs to be applicable for apron aircraft stands wehere the other requirements are met.
response	Noted. Paragraph (c) is not limited only to the stands connected with the terminal building.

comment	*219* comment by: *ADV - German Airports Association* The Amendment of (b) contains a typo.
response	Noted.

comment	*227* comment by: *ADV - German Airports Association* ADV strongly supports the Amendment of para (b)
response	Noted.

comment	*299* comment by: *Flughafen Berlin Brandenburg GmbH* FBB welcomes this clarification.
response	Noted.

comment	*315* comment by: *daa - Dublin & Cork airports* daa would request that EASA would ensure greater clarity in terms of the interpretation of this certification specification by separating the minimum separation distance requirements for: • Aircraft nose to building; • Wingtip to wingtip; • Wingtip to other object (including vehicle); • Tailfin to outer apron service roadway. This could be achieved through the inclusion of a table. daa is of the opinion that where the language of the CS currently is clear that Code D-E-F clearances may be reduced, it is unclear whether this pertains in all cases identified above. Clearly, the intent of the Annex 14 proposed changes is to facilitate flexibility in terms of clearances to outer apron service roadways in particular and as such, achieving as much clarity regarding the correct interpretation of these requirements will lead to the development of a harmonised approach across Europe in relation to the implementation of these requirements.
response	Noted. The purpose of the proposed change is to implement the forthcoming ICAO Amendment No. 13 to Annex 14, Vol I, Aerodromes (the term 'using' is changed with 'entering or exiting'). The comment contains also the proposal to EASA for additional interpretations on separation distances provided in paragraph (c), which will be considered in further developments of aerodrome rules. Commentator is kindly invited to contribute on

this subject with providing his proposals.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.H.420 p. 53

comment *53* comment by: *Union des Aéroports français - UAF*

Attachment #2

UAF comments for CS ADR-DSN.H.420 Inner horizontal surface (c)

Même si la proposition amène une amélioration dans la compréhension du texte, la définition ne correspond pas à la figure H-1. De plus il n'est pas indiqué dans la CS de hauteur de cette surface ni les rayons des cercles sur lesquels elle s'appuie, si ce n'est de manière anecdotique à la figure H-1, mais que pour les pistes de code 4, or la définition de cette surface est inhérente à ces éléments.

L'UAF propose de rédiger le paragraphe (c) comme suit :

La surface horizontale intérieure est située à 45m au-dessus du point choisi de référence de l'aérodrome et délimitée par le contour convexe obtenu à partir :

• de deux demi-circonférences horizontales centrées chacune sur la verticale passant par le milieu du bord intérieur de la trouée d'atterrissage correspondante et dont le rayon 'en metres) est donné par le tableau ci-après,

(voir tableau en pièce jointe)

'

• et des tangentes, parallèles à l'axe de la piste, communes à ces deux demi-circonférences.

response Partially accepted. Paragraph (c) refers to Figures H-1 and H-2. The height of the inner horizontal surface is defined in Table J-1, while paragraph (h) defines the elevation datum. The characteristics of the inner horizontal surface when refer to combination of circles are corrected accordingly.

comment *154* comment by: *Bavarian Aviation Authority*

The text should be in accordance with that of the respective ICAO Annex 14 chapter (i.e. "The shape of the inner hoizontal surface need not necessarily be circular...") in order to prevent misinterpretation. The exact text of the relevant description of the inner horizontal surface in ICAO ASM Part 6 may then be depicted in GM.

response Not accepted. The text is in line with ICAO Annex 14, Vol I, Aerodromes, which defines for the radius of outer limits of the inner horizontal surface to be measured from a reference point or points established for such purpose. Note, 'The shape of the inner horizontal surface need not necessarily be circular...' is addressed in GM. CS and GM text refer to ICAO Doc 9137, Airport Services Manual, Part 6, Control of Obstacles.

comment *366* comment by: *Airbus*

	CS ADR-DSN.H.420 No use of mentioning circle centred on geometric centre of the runway as: - - Not useful: both extreme circles are enough - This circle is not even drawn on Figure H-1 proposal: Remove "by a circle centred on the geometric centre of the runway,"
response	Not accepted. The amended text refers to ICAO Annex 14, Vol I, Aerodromes which provides both options for the inner horizontal surface to be a circle or combination. The example with a circle is presented at Figure H-2, and the combination of the circle and its tangents at Figure H-1. Additional guidance is provided in GM.

comment	*367* comment by: *Airbus* CS ADR-DSN.H.420 Typo "by a circular arcs centred". proposal: "by circular arcs centred"
response	Noted. The text is corrected accordingly.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.H.445 p. 53

comment	*155* comment by: *Bavarian Aviation Authority* The adaptation is appreciated.
response	Noted.

comment	*228* comment by: *ADV - German Airports Association* ADV strongly supports this amendment.
response	Noted.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.J.487 p. 56

comment	*54* comment by: *Union des Aéroports français - UAF* **<u>UAF comments for CS ADR-DSN.J.487 Objects outside the obstacle limitation surfaces</u>** Cette CS n'a pas sa place dans le règlement relatif aux aérodromes car les objets à l'extérieur de la surface de limitation d'obstacles ne sont pas du domaine aéroportuaire. Par ailleurs, le terme « au-delà des zones touchées par les OLS » serait plus précis et plus juste.

response | Noted. The term 'The specifications below apply only to the area under control of the aerodrome operator' is already in use in the aerodrome rules and have been communicated with the stakeholders. Common understanding of the term 'under control of aerodrome operator' is the aerodrome boundary, however there are cases when the aerodrome operator has also areas under its control which are outside the aerodrome boundary. The term 'outside' in the wording 'objects outside the obstacle limitation surfaces' is taken from ICAO Annex 14, Vol I, Aerodromes.

comment | *78* comment by: *Aena Aeropuertos, S.A.*

The explanatory note regarding the **CS-ADR-DSN.J.487** says that the new CS intend to define obstacles outside the OLSs in line with the ICAO definition, but the new CS sets that it is limited to "area under control of the aerodrome" which is ambiguous and not defined by ICAO nor EASA. A clear definition of the new concept "area under control of the aerodrome" is required to make the new CS feasible.

response | Noted. The term 'The specifications below apply only to the area under control of the aerodrome operator' is already in use in the aerodrome rules and have been communicated with the stakeholders. Common understanding of the term 'under control of aerodrome operator' is the aerodrome boundary, however there are cases when the aerodrome operator has also areas under its control which are outside the aerodrome boundary.

comment | *114* comment by: *French CAA*

Some guidance material could be helpful to specify the terms "area under control of the aerodrome operator". Is it similar to "the perimeter fence of the aerodrome" as mentionned in AMC1 ADR OPS B075 ?

response | Noted. The term 'The specifications below apply only to the area under control of the aerodrome operator' is already in use in the aerodrome rules and have been communicated with the stakeholders. Common understanding of the term 'under control of aerodrome operator' is the aerodrome boundary, however there are cases when the aerodrome operator has also areas under its control which are outside the aerodrome boundary. It is assumed that the aerodrome operator controls the area inside the aerodrome perimeter fence.

comment | *189* comment by: *John Hamshare*

The "area under control of the aerodrome operator" as a concept is problematic and would require further explanation in order to clarify responsibilities regarding marking and lighting
This comment also applies to similar wording used in the proposed CS ADR-DSN.Q.840 and CS ADR-DSN.Q.841.

response | Noted. The term 'The specifications below apply only to the area under control of the aerodrome operator' is already in use in the aerodrome rules and have been communicated with the stakeholders. Common understanding of the term 'under control of aerodrome operator' is the aerodrome boundary, however there are cases when the aerodrome operator has also areas under its control which are outside the aerodrome boundary.

comment | *203* comment by: *ACI EUROPE*

	ACI Europe would remark that the “area under control of the aerodrome operator” as a concept is not fully clear and would require further explanation in order to designate responsibilities regarding marking and lighting. It is unclear whether it refers to a surface area or activity area, although either of these would raise further questions. A key question that should be answered is what is meant by "control". This definition should not lead to measures whose implementation would necessitate the agreement of stakeholders other than the aerodrome operator. This comment also applies to similar wording used in the proposed CS ADR-DSN.Q.840 and CS ADR-DSN.Q.841. ACI Europe considers that this provision would be better positioned in another regulatory text than in the Certification Specifications.
response	Noted. The term ‘The specifications below apply only to the area under control of the aerodrome operator’ is already in use in the aerodrome rules and have been communicated with the stakeholders. Common understanding of the term ‘under control of aerodrome operator’ is the aerodrome boundary, however there are cases when the aerodrome operator has also areas under its control which are outside the aerodrome boundary.

comment	*234* comment by: *ADV - German Airports Association* ADV strongly supports the amendment regarding applicability.
response	Noted.

comment	*316* comment by: *daa - Dublin & Cork airports* daa would agree with ACI’s view that the “area under control of the aerodrome operator” as a concept is problematic and would require further explanation in order to clarify responsibilities regarding marking and lighting. This comment also applies to similar wording used in the proposed CS ADR-DSN.Q.840 and CS ADR-DSN.Q.841.
response	Noted. The term ‘The specifications below apply only to the area under control of the aerodrome operator’ is already in use in the aerodrome rules and have been communicated with the stakeholders. Common understanding of the term ‘under control of aerodrome operator’ is the aerodrome boundary, however there are cases when the aerodrome operator has areas under its control which are outside the aerodrome boundary.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.L.545 p. 57-58

comment	*32* comment by: *René Meier, Europe Air Sports* CS ADR-DSN.L.545 (c)(2) page 55 last sentence: Question: Is there a word missing behind the comma?
response	Noted. The text is amended to be in line with ICAO Annex 14, Vol I, Aerodromes.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.L.567 p. 58-59

comment	*5* comment by: *UK CAA* **Page No:** 60 **Paragraph No:** Figure L-5A **Comment:** For the runway starter extension there is no need to extend the yellow centreline markings into the starter extension. Additionally, we believe the yellow runway turn pad marking is incorrect. It is recommended that EASA should use the runway starter extension material provided. **Justification:** Accuracy.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*43* comment by: *Avinor AS* Ref. (b)(2): the centre line marking should be straight lines only and should not indicate the safe turnaround of an aircraft. Such marking should if possible/feasible, be given a different name.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*55* comment by: *Union des Aéroports français - UAF* **<u>UAF comments for CS ADR-DSN.L.567 Marking of runway starter extension</u>** Voir commentaire de la CS ADR-DSN.C.237 De plus, la figure L-5A, amène à penser qu'il est obligatoire de créer un taxiway aboutissant à l'extrémité et dans l'axe de la piste, puisqu'il n'y a pas d'aire de demi-tour possible (sauf pour les petits avions pouvant faire demi-tour sur les 2/3 de la piste).
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to

	perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*79* comment by: *Aena Aeropuertos, S.A.* This CS has an inconsistency: (a) states that the marking should comply with CS ADR-SSN.L.550 (side stripe marking must be continuous), but (c) (1) and Figure L-5A states that the marking should be dashed.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*94* comment by: *Juanmolina* CS ADR-DSN.L.567 (c) (3) could be slightly modified as follows: Where the end of the runway starter extension is not associated with a taxiway, the centre line of the runway starter extension should indicate the path for the aeroplane to make a safe and autonomous turnaround. These modifications attempt to make more general the case by replacing "the" with "a" taxiway, and re-enforce the idea that the centre line design must allow for a safe and autonomous taxii procedure. Furthermore, the specification for runway starter extension edge marking should probably demand symmetry about the centre line.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*115* comment by: *French CAA* To avoid confusions, the colour of centre line marking of the runway starter extension should be different from the taxiway's one.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the

	thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*133* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* CS ADR-DSN.L.567 (b)(2): Safe turnaround path is a runway turn pad and marking is still described in CS ADR-DSN.L.565 **Proposed new text:** A runway starter extension centre line marking should have the same characteristics as the runway centre line marking located before a displaced threshold.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*134* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* Attachment #3 *Comments FOCA:* In our opinion, the Figure L-5A does not specify adjustment in runway marking between the runway and the runway starter extension. Potential displaced threshold is not taken into account. **Proposed new figure**: FOCA suggests to replace Figure L-5A by a more precise figure (see attachment: "*EASA_ADR_Issue-3_Figures_Starter-extension_Markings.pdf*"). FOCA is ready to adjust and send the new figure in any required format by EASA.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*162* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comments FOCA:* Same comment as Nr. 159 & 160: We suggest to adapt the title of CS ADR-DSN.L.567 to be

consistent with the other CS ADR-DSN.Lxxx ("marking" always at the end of the title).

Proposed new title (p. 59):
CS ADR-DSN.L.567 ~~Marking of runway starter extension~~ Runway starter extension marking

FOCA suggests to add a new paragraph under (c) in CS ADR-DSN.L.567 with the following text:
Proposed new paragraph (p. 59): A runway starter extension centre line marking should have the same characteristics as the runway centre line marking located before a displaced threshold.

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment

204 comment by: *ACI EUROPE*

ACI EUROPE is of the opinion that the provisions proposed for starter extensions will have consequences for existing runways with very long displaced thresholds.
Since Starter Extension is a brand new design element, our main concern is that this new set of requirements possibly might result in unintended consequences for existing runways, and/or conflict with other requirements. Thus, our first proposal will be not to take it in, but instead suggest to aerodrome operators to handle existing starter extensions as Special Conditions or DAAD.

If, however, the Agency decides to go ahead with it, then regarding markings and CS ADR-DSN.L.567:

Referring to paragraph (b)(2), ACI Europe recommends a change to the paragraph: The centre line marking should be straight lines only and should not indicate the safe turnaround of an aircraft. Such marking should if possible/feasible, be given a different name.

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment

243 comment by: *TRANSPORT AUTHORITY, Slovak republic*

.L.567 (b) (2) provision contains same requirement as .L.567 (c) (3)

response | Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment | *272* comment by: *ADV - German Airports Association*

The marking requirements for the RWY-side in cases of displaced thresholds should be clarified:

Currently, L.550 (a) (1) stipulates, that a runway side stripe marking should be provided between the thresholds of a runway [...]

Based on the definition of a runway starter extension (RSE) contained in ADR-DSN.C.236, the markings of a RSE end at the beginning of a runway.

As a result, in cases of displaced thresholds the marking requirements for the section between runway ends and adjacent thresholds are unclear. (No line, continuous line or dashed line?)

A clarification is necessary.

response | Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment | *300* comment by: *Flughafen Berlin Brandenburg GmbH*

With the introduction of Runway Starter Extensions the requirements for RWY edge markings should be clarified for the cases of displaced thresholds. (Continuous line, dashed line or no line at all?)

response | Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*324* comment by: *Aéroports de Lyon* Figure L-5A is misleading as it seems possible for an aircraft to make a turnaround on the runway starter extension, which is narrower than the runway, while a standard turnaround requires a runway turn pad which is larger than the runway. The purpose of the runway starter extension to provide additional runway distance for take-off (CS ADR-DSN.C.236) is intended for large aircraft but only small aircraft seem able to make a turnaround on such a narrow pavement.
response	Noted. During the public consultation the Agdency received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.L.570 p. 59-61

comment	*101* comment by: *Airport Zurich* (3) If the enhanced taxiway centre line marking continues through a taxiway/taxiway intersection that is located within 47 m of the runway-holding position marking, the enhanced taxiway centre line marking should be interrupted ~~1.5 m~~ prior to and after the point where the intersected taxiway centre line crosses the enhanced taxiway centre line. (3) We consider that enhanced taxiway center line marking on crossing taxiways should be interrupted prior to and after the point where the intersected taxiway center line crosses for at least 3 m.
response	Not accepted. The wording is identical to the wording of the corresponding paragraph of ICAO Annex 14, Vol I, Aerodromes, No 5.2.8.5.

comment	*156* comment by: *Bavarian Aviation Authority* The wordings "where provided" and "installed at each taxiway/runway intersections" seem to contradict each other. Not every taxiway or runway an aerodrome might have is used by the same kind of airplanes. The wording initiates that an aerodrome has either no enhanced marking or on every above mentioned intersection.
response	Noted. The wording is identical to the wording of the corresponding paragraph of ICAO Annex 14, Vol I, Aerodromes, No 5.2.8.5. Paragraph (a) of CS ADR-DSN.L.570 is also amended with the provision of paragraph No 5.2.8.4 of ICAO Annex 14, Vol I, Aerodromes, which was initially proposed in the GM. The text in GM is deleted accordingly.

comment	*229* comment by: *ADV - German Airports Association* This amendment shows the problems in transitioning ICAO Recommendations (here 5.2.8.8) into CS. The amended appclicabilty provision has limited benefit will propably result in

	binding application as long as the criteria for application are only mentioned in GM. The wording of section 5.2.8.4 of Annex 14, Vol. I should be added to the first sentence of section (a) to add clarity.
response	Accepted. Paragraph (a) of CS ADR-DSN.L.570 is amended with the provision of paragraph No 5.2.8.4 of ICAO Annex 14, Vol I, Aerodromes, which was initially proposed in the GM. The proposed text in GM is deleted accordingly. Paragraph (b) of GM ADR-DSN.L.570 is deleted, because the provision was with the same meaning as the provision in paragraph (a).

comment	*244* comment by: *ADV - German Airports Association* ADV supports the amendment regarding dimensions.
response	Noted.

comment	*245* comment by: *ADV - German Airports Association* The wordings "where provided" and "installed at each taxiway/runway intersections" seem to contradict each other. This leaved out every consideration, that not every taxiway or runway an aerodrome might have is used for similar aircraft operation. The wording initiates that an aerodrome has either no enhanced marking or on every above mentioned intersection.
response	Noted. The wording is identical to the wording of the corresponding paragraph No 5.2.8.5 in ICAO Annex 14, Vol I, Aerodromes. Paragraph (a) of CS ADR-DSN.L.570 is also amended with the provision of paragraph No 5.2.8.4 of ICAO Annex 14, Vol I, Aerodromes, which was initially proposed in the GM. The text in GM is deleted accordingly.

comment	*288* comment by: *HCAA/D3A* **CS ADR-DSN.L.570 Enhanced taxiway centre line marking** 1. Figure L-6 patterns (d) and (e) are not described in paragraph (b) "Characteristics". The adoption of the corresponding text of Annex 14 – Vol. I (with some modification) is proposed as follows: *(b)(4) Where two taxiway centre lines converge at or before the runway-holding position marking, the inner dashed line should not be less than 3 m in length. If the enhanced taxiway centre line marking intersects a taxiway centre line marking the latter should be interrupted at such point so that the distance of the point of interruption to the closest side of the enhanced taxiway centre line marking is 1.5 m (see Figure L-6(d)).* *(b)(5) Where there are two opposing runway-holding position markings and the distance between the markings is less than 94 m, the enhanced taxiway centre line markings shall extend over this entire distance. The enhanced taxiway centre line markings shall not extend beyond either runway-holding position marking (see Figure L-6(e)).* 2. It is proposed that in Figure L-6(b) a note is included with an arrow showing the 3 dashed lines on the right of the second runway holding point marking and with the following text: *"at least 3 dashes or 47m from start to finish, whichever is greater"* 3. It is proposed that in Figure L-6(c) the following text is added to the note: *"... or 47m from start to finish, whichever is greater"* 4. It is proposed that in Figure L-6(d) notes reading "*1.5 m*" with arrows are added so that the indicate the distance mentioned in the abovementioned proposed text (b)(4).

response	Not accepted. The wording is identical to the wording of the corresponding paragraph No 5.2.8.9 in ICAO Annex 14, Vol I, Aerodromes. The proposed changes should have been previously consulted with the stakeholders. The commentator is invited to provide to EASA the proposed amendment with the text, drawings and justifications for the consideration into one of the forthcoming NPAs.

comment	*302* comment by: *Flughafen Berlin Brandenburg GmbH* The wording of section 5.2.8.4 of Annex 14, Vol. I should be added to the first sentence of section (a). Rationale: Better understanding and facilitation of a sound judgement where enhanced taxiway centre line markings should be provided.
response	Accepted. Paragraph (a) of CS ADR-DSN.L.570 is amended with the provision of paragraph No 5.2.8.4 of ICAO Annex 14, Vol I, Aerodromes, which was initially proposed in the GM. The initially proposed text in GM is deleted. Paragraph (b) of GM ADR-DSN.L.570 is also deleted, because the provision had the same meaning as the provision in paragraph (a).

3. Proposed amendments - BOOK 1 - CS ADR-DSN.L.575 p. 61-62

comment	*135* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* CS ADR-DSN.L.575 (a)(2): The reference to Figure L-5 seems to be wrong. **Proposed new text:** (2) Where a single runway-holding position is provided at an intersection of a taxiway and a precision approach Category I, II or III runway, the runway-holding position marking should be as shown in ~~Figure L-5~~ Figure L-7, pattern A.
response	Not accepted. The wording is identical to the corresponding paragraph of ICAO Annex 14, Vol I, Aerodromes.

comment	*190* comment by: *John Hamshare* Heathrow Airport Ltd proposes to delete paragraph (a) (6) as the issue is already covered by CS ADR-DSN.L.605 Mandatory instruction marking (a) (2). Markings according to L.575 are taxiway markings and therefore should be yellow. Their size and location differ from the red and white mandatory instruction markings according to L.605. The runway-holding position could have a confusing layout, if both CSs are applied. Red and white markings are bigger (1,8 m vs. 4 m) and more conspicuous and should therefore be sufficient. Alternatively add to GM: "Where mandatory instruction markings in accordance with CS ADR-DSN.L.605 Mandatory instruction marking are provided, the markings described in (a) (2) are not required."
response	Not accepted. The provisions of paragraphs CS ADR-DSN.L.575(a)(6) and CS ADR-DSN.L.605(a)(2) are not identical. At the thematic meeting with the stakeholders the location of the term 'CAT II' or 'CAT III' was discussed and the location of the marking was amended to be on the holding side of the runway-holding and not beyond. The height of the letters

should be not less than 1.8 m, so the letters could be also higher. Concerning the colours of the letters, the text is amended to be consistent with CS ADR-DSN.L.605 to read: '… a mandatory instruction marking containing the term "CAT II" or "CAT III" …', describing that a mandatory instruction marking should consist of an inscription in white on a red background. CS ADR-DSN.L.605(a)(2) defines that on taxiways exceeding 60 m in width, or to assist in the prevention of a runway incursion, a mandatory instruction sign should be supplemented by a mandatory instruction marking in accordance with paragraphs CS ADR-DSN.L.605(b)(1) or (b)(2).

comment

205 comment by: *ACI EUROPE*

ACI Europe proposes to delete paragraph (a) (6) as the issue is already covered by CS ADR-DSN.L.605 Mandatory instruction marking (a) (2).
Markings according to L.575 are taxiway markings and therefore should consequently be yellow. Their size and location differ from the red and white mandatory instruction markings according to L.605. The runway-holding position would have a confusing layout, if both CSs are applied. Red and white markings are bigger (1,8 m vs. 4 m) and more conspicuous and should therefore be sufficient.
Moving the CAT II/III marking from beyond the marking to the holding side could cause confusions, as both types of markings would be on the holding side.
Alternatively add to GM:
"Where mandatory instruction markings in accordance with CS ADR-DSN.L.605 Mandatory instruction marking are provided, the markings described in (a) (2) are not required."

response

Not accepted. The provisions of paragraphs CS ADR-DSN.L.575(a)(6) and CS ADR-DSN.L.605(a)(2) are not identical. At the thematic meeting with the stakeholders the location of the term 'CAT II' or 'CAT III' was discussed and the location of the marking was amended to be on the holding side of the runway-holding and not beyond. The height of the letters should be not less than 1.8 m, so the letters could be also higher. Concerning the colours of the letters, the text is amended to be consistent with CS ADR-DSN.L.605 to read: '… a mandatory instruction marking containing the term "CAT II" or "CAT III" …', describing that a mandatory instruction marking should consist of an inscription in white on a red background. CS ADR-DSN.L.605(a)(2) defines that on taxiways exceeding 60 m in width, or to assist in the prevention of a runway incursion, a mandatory instruction sign should be supplemented by a mandatory instruction marking in accordance with paragraphs CS ADR-DSN.L.605(b)(1) or (b)(2).

comment

263 comment by: *ADV - German Airports Association*

Delete paragraph (a) (6) as the issue is already covered by CS ADR-DSN.L.605 Mandatory instruction marking (a) (2).
Markings according to L.575 are taxiway markings and should consequently be yellow. Their size and location differ from the red and white mandatory instruction markings according to L.605. The runway-holding position would have confusing layout, if both CS are applied. Red and white markings are bigger (1,8 m vs. 4 m) and more conspicuous and should therefore be sufficient.
Moving the CAT II/III marking from beyond the marking to the holding side would make the situation even more confusing, as both types of markings would be on the holding side.
Alternatively add to GM:
"Where mandatory instruction markings in accordance with CS ADR-DSN.L.605 Mandatory

	instruction marking are provided, the markings described in (a) (2) are not required."
response	Not accepted. The provisions of paragraphs CS ADR-DSN.L.575(a)(6) and CS ADR-DSN.L.605(a)(2) are not identical. At the thematic meeting with the stakeholders the location of the term 'CAT II' or 'CAT III' was discussed and the location of the marking was amended to be on the holding side of the runway-holding and not beyond. The height of the letters should be not less than 1.8 m, so the letters could be also higher. Concerning the colours of the letters, the text is amended to be consistent with CS ADR-DSN.L.605 to read: '… a mandatory instruction marking containing the term "CAT II" or "CAT III" …', describing that a mandatory instruction marking should consist of an inscription in white on a red background. CS ADR-DSN.L.605(a)(2) defines that on taxiways exceeding 60 m in width, or to assist in the prevention of a runway incursion, a mandatory instruction sign should be supplemented by a mandatory instruction marking in accordance with paragraphs CS ADR-DSN.L.605(b)(1) or (b)(2).

3. Proposed amendments - BOOK 1 - CS ADR-DSN.L.580 p. 62

comment	*56* comment by: *Union des Aéroports français - UAF* **<u>UAF comments for CS ADR-DSN.L.580 Intermediate holding position marking (b) (2)</u>** L'UAF soutient pleinement la prise en compte des nouvelles valeurs de marges de séparation.
response	Noted.

comment	*273* comment by: *ADV - German Airports Association* It might be beneficial to introduce a cross-reference to table D-1 and to replace the figures listed in this section. Future amendments and updates are less work intensive, as only table D-1 needs to be considered. A separate listing of distance requirements is only necessary if different safety/ protection requirements have to be considered. From today's point of view this is not the case. CS ADR-DSN-G.400 contains such a reference as well.
response	Noted. CS ADR-DSN.L.580 indeed refers to Table D-1, however it was decided by the rulemaking groups during drafting the initial issue of CS to list the clearances in paragraph (b)(2) for better transparency. Figure G-1 defines minimum separation distance on a de-icing/anti-icing facility and refers to Table D-1, column (11) Taxiway, other than aircraft stand taxilane, centre line to object.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.L.597 p. 63

comment	*3* comment by: *CAA State of Hessen (Germany)* <u>Comment</u>: (c)(3) of CS ADR-DSN.L.597 should be moved to the Guidance Material. Alternatively, the word "preferably" should be added to the last sentence.

Rationale:
There are two reasons why the provision (c)(3) should not be part of the Certification Specification ADR-DSN.L.597:

1. (c)(3) deals with the service road markings of taxiway/taxilane crossings. These crossings are not in line with the provision (b) of CS ADR-DSN.L.597 because the crossing portion of an apron service road does not provide safe separation from aircraft.
2. Providing specific dimensions of the stripe markings within CS ADR-DSN.L.597 is too restrictive. There are other similar options for those type of markings which differ. Moving the dimensions of the marking to the GM would reflect its status as "best practice".

If moving (c)(3) to the GM is not possible, a solution might be, to add the word "preferably" to the last sentence. "*Dimensions of stripes are preferably 1.0 m x 0.1 m.*"

response

Partially accepted. Paragraph (b) of the proposed CS defines the purpose of an apron service road, which is to delineate the area within which vehicles and other equipment must be moving in order to ensure safe separation from an aircraft. On the other hand, paragraph (c)(3) describes the characteristics of service road markings (dashed instead of continuous), providing also relevant dimensions, in case of an apron service road crossing a taxiway or aircraft stand taxilane. Such crossings are a usual situation on an apron, and depend on the apron design. However, such a crossing is not in any case related to the dimensions of the apron service road markings to be provided in such cases, as the comment suggests. The proposed dimensions aim at the standardisation of the characteristics of the visual aids to ensure a harmonised operating environment in terms of visual aids, as is the case of any other marking contained in Annex 14.

comment

57 comment by: *Union des Aéroports français - UAF*

UAF comments for CS ADR-DSN.L.597 Apron service road marking (a)

Le mot «*apron*» a été oublié dans le paragraphe (a). L'UAF propose la rédaction suivante pour le (a):
*Applicability: The limits of an apron service road, should be defined by **apron** service road markings.*

L'UAF s'interroge sur la différence de traitement entre les routes de services sur l'aire de trafic et les autres routes de service du reste de l'aéroport. C'est pourquoi il est proposé de ne conserver que le (d) dans cette CS afin de garder la priorité de marquage pour les aéronefs.

response

Partially accepted. The word 'apron' is inserted in paragraph (a) and now the text reads 'apron service road markings'. This CS deals exclusively with apron service roads and their characteristics as it highlighted in paragraph (a) of the associated GM. EASA has the opinion that maintaining dashed markings in such crossings provides the necessary visual cues for the pilots and the drivers.

comment

80 comment by: *Aena Aeropuertos, S.A.*

	Attachment #4 We agree with the statement but we consider that the CS must be more flexible regarding the dimension of the stripes. We use the marking dashed on edges of the service road when crossing taxiway or taxilane showed in the attached figure,
response	Noted.

comment	*116* comment by: *French CAA* As these requirements are new and as there is no impact assessment on the safety gain with regard to the costs, we suggest transferring them into guidance material.
response	Not accepted. The proposed solution is not possible, as there is no relevant certification specification to associate this guidance with. Moreover, EASA believes that there is a clear safety benefit arising from the introduction of the proposed specifications, as the intent is to contribute to the regulation, in a safe manner and using industry material, of the movement of vehicles on the aprons.

comment	*136* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* we suggest to define apron service road marking when crossing a taxiway or taxilane. See new (e) below **Proposed new text :** (e) Apron service road markings should be laterally dashed (white, 1 m x .01 m) on the edges, when the service road crosses a taxiway. (See ACI Handbook)
response	Accepted. Paragraph (c)(3) has been amended in the suggested direction.

comment	*157* comment by: *Bavarian Aviation Authority* Apron service roads are used by aerodrome users and serice personnel and not by internationally operating air crews. Therefore the focus should not be placed on standardization but rather on safety by adapting the marking to local traffic regulations at the respective aerodrome, so that vehicle drivers are not alienated. This rule should be move to GM. For new items, that have not been requested before, EASA should also publish a timeframe for the implementation / conversion (i.e. until 5 years after publication). After the publication of the EASA rules in 2014, aerodromes have until 2017 to get certified and prove compliance.
response	Not accepted. The proposed solution is not possible, as there is no relevant certification specification to associate this guidance with. Moreover, EASA believes that there is a clear safety benefit arising from the introduction of the proposed specifications, as the intent is to contribute to the regulation, in a safe manner and using industry material, of the movement of vehicles on the aprons. Please also note that the introduction of these CS aims at the

	development of a standardised operating environment in terms of visual aids, given the fact that aprons are also used by pilots. The aerodrome operator has the possibility to consider the adequacy of the provided certification specification and to use one of available flexibility tools to consider the implementation of CSs.
comment	*178* comment by: *John Hamshare* Heathrow Airport Ltd considers that (c) and (d) should be moved to GM. Referring to (a) Heathrow Airport Ltd wonders whether the word "apron" is missing previous to "service road markings". It is not useful to change road markings for drivers, who usually operate only on one airport. A harmonization of road markings at EASA level will therefore have limited benefit. It would only add to confusion when the service road marking differs substantially from the local road markings. Aerodromes can aim for a higher apron safety through apron service road markings that are wider and more conspicuous. It would be against EASA's intention of improving the safety level if the existing markings have to be adapted to the proposed CS's dimensions.
response	Partially accepted. The word 'apron' has been inserted in paragraph (a) and now the text reads 'apron service road markings'. The text of the CS has been adopted, to indicate that these are the minimum dimensions of the width of such markings, while nothing in the proposed specifications prevents an aerodrome operator from using more conspicuous apron service road markings than it is usually done. Moreover, EASA believes that there is a clear safety benefit arising from the introduction of the proposed specifications, as the intent is to contribute to the regulation, in a safe manner and using industry material, of the movement of vehicles on the aprons. Please also note that the introduction of these CS aims at the development of a standardised operating environment in terms of visual aids, given the fact that aprons are also used by pilots.
comment	*206* comment by: *ACI EUROPE* ACI Europe considers that (c) and (d) should be moved to GM. Referring to (a) ACI Europe wonders whether there is the word "apron" missing previous to "service road markings". It is not useful to change road markings for drivers, who usually operate only on one airport. A harmonization of road markings at EASA level will therefore have limited benefit. It would only add to confusion when the service road marking differs substantially from the local road markings. Aerodromes can aim for a higher apron safety through apron service road markings that are wider and more conspicuous. It would be against EASA's intention of improving the safety level if the existing markings have to be adapted to the proposed CS's dimensions.
response	Partially accepted. The word 'apron' has been inserted in paragraph (a) and now the text reads 'apron service road markings'. The text of the CS has been adopted, to indicate that these are the minimum dimensions of the width of such markings, while nothing in the proposed specifications prevents an aerodrome operator from using more conspicuous apron service road markings than it is usually done. Moreover, EASA believes that there is a clear safety benefit arising from the introduction of the proposed specifications, as the intent is to contribute to the regulation, in a safe manner and using industry material, of the movement of vehicles on the aprons. Please also note that the introduction of these CS aims at the development of a standardised operating

	environment in terms of visual aids, given the fact that aprons are also used by pilots.
comment	*246* comment by: *ADV - German Airports Association* Apron service roads are used by aerodrome users and serice personnel and not by internationally operating air crews. Therefore the focus should not be placed on standardization but rather on safety by adapting the marking to local traffic regulations at the respective aerodrome, so that vehicle drivers are not alienated. This rule should be move to GM.
response	Noted The proposed solution is not possible, as there is no relevant certification specification to associate this guidance with. Moreover, EASA believes that there is a clear safety benefit arising from the introduction of the proposed specifications, as the intent is to contribute to the regulation, in a safe manner and using industry material, of the movement of vehicles on the aprons. Please also note that the introduction of these CS aims at the development of a standardised operating environment in terms of visual aids, given the fact that aprons are also used by pilots.
comment	*289* comment by: *HCAA/D3A* **CS ADR-DSN.L.597 Apron service road marking** 1. In (c)(1) in order to allow for a combination of colours in cases where the use of only white colour could lead to confusion with other apron markings, it is proposed that the text is changed to: *"Apron service road markings should be white if no danger of confusion with other markings exists, otherwise a combination of colours, preferably white and red."* 2. In (c)(3) the last sentence indicates the length and width of the stripe in cases of the dashed apron service road marking. However the width has already been mentioned in (c)(2) to be "at least 10cm" and furthermore no specification is given for the gap between successive stripes. Therefore, it is proposed to change the last sentence as follows: "*Length of stripes should be 1m, with gaps of 1m between successive stripes. The width of the stripes should be equal to the width of the continuous lines used.*" 3. In (d) it is mentioned that the apron service road marking should be interrupted when it intersects with other markings on an apron. However, this might lead to lengthy gaps of the apron service road marking. Having in mind the proposed text for (c)(1) it is proposed to adopt the following text for (d): "*When the apron service road marking intersects with other markings on an apron, it should be interrupted 2 m before and after the point of intersection*."
response	Partially accepted. Paragraph (c)(3) and (d) have been amended in order to provide clarification in the suggested direction. Regarding the proposal to amend paragraph (c)(1), EASA is of the view that as the intent is to contribute to the regulation, in a safe manner and using industry material, of the movement of vehicles on the aprons. Please also note that the introduction of these CSs aims at the development of a standardised operating environment in terms of visual aids, given the fact that aprons are also used by pilots. The aerodrome operator has the possibility to consider adequacy of the provided certification specification and to use one of available flexibility tools to consider the implementation of CSs.

comment	*301* comment by: *Flughafen Berlin Brandenburg GmbH* - Delete the last sentence of (c)(3) or change it into "Dimensions of the stripes should allow for a clear identification of the laterally dashed edges from a vehicle driver's perspective" Rationale: There is no additional safety gain by exactly prescribing the stipe dimensions down to the cm. Furthermore, national road/traffic regulations may stipluate a differing pattern.
response	Partially accepted. The text of the CS has been adopted, to indicate that these are the minimum dimensions of the width of such markings. Moreover, EASA believes that there is a clear safety benefit arising from the introduction of the proposed specifications, as the intent is to contribute to the regulation, in a safe manner and using industry material, of the movement of vehicles on the aprons. Please also note that the introduction of these CSs aims at the development of a standardised operating environment in terms of visual aids, given the fact that aprons are also used by pilots.

comment	*317* comment by: *daa - Dublin & Cork airports* daa considers that (c) and (d) should be moved to GM. It is not useful to change road markings for drivers, who usually operate only on one airport. A harmonisation of road markings at EASA level will therefore have limited benefit. It would only add to confusion when the service road marking differs substantially from the local road markings. Aerodromes can aim for a higher apron safety through apron service road markings that are wider and more conspicuous. It would be against EASA's intention of improving the safety level if the existing markings have to be adapted to the proposed CS's dimensions.
response	Not accepted. The text of the CS has been adopted, to indicate that these are the minimum dimensions of the width of such markings, while nothing in the proposed specifications prevents an aerodrome operator from using more conspicuous apron service road markings than it is usually done. Moreover, EASA believes that there is a clear safety benefit arising from the introduction of the proposed specifications, as the intent is to contribute to the regulation, in a safe manner and using industry material, of the movement of vehicles on the aprons. Please also note that the introduction of these CSs aims at the development of a standardised operating environment in terms of visual aids, given the fact that aprons are also used by pilots.

comment	*343* comment by: *Groupe ADP* Groupe ADP considers with ACI-E that § c) and d) should be moved to GM. Furthermore, we think that markings for taxiway crossing (§ c)3) should better comply with ACI-W Handbook on Apron Markings and Signs (2nd. Ed. 2009) as GM.
response	Noted. EASA believes that there is a clear safety benefit arising from the introduction of the proposed specifications, as the intent is to contribute to the regulation, in a safe manner and using industry material, of the movement of vehicles on the aprons. Please also note that the introduction of these CS aims at the development of a standardised operating environment

	in terms of visual aids, given the fact that aprons are also used by pilots.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.L.600 p. 63

comment	*35* comment by: *René Meier, Europe Air Sports* CS ADR-DSN.L.600 (a) Question: Is "...at all road entrances to a runway and to a taxiway" not clearer than the text you propose?
response	Accepted. The text is amended accordingly to read: 'A road-holding position marking should be provided at all road entrances or intersections to a runway or a taxiway'.

comment	*36* comment by: *Cologne Bonn Airport/Marcus Kunze* (a) Applicability: A road-holding position marking should be provided at all road entrances to a runway ~~or where a road intersects a taxiway~~. Comment: Annex 14 only demands road holding position for runways. In our opinion it is not necessary on taxiways, since airports typically only have roads to the movement area, which are for emergency purposes. If we need to establish signage and marking even for taxiway, we need to establish in particular between runway and taxiway more signage (especially in not emergency directions), which are another negative objects in the area around the runway and possible obstacles for emergency vehicles or emergency situations. The same is between parallel taxiways. We don't see here a safety improvement. We see here a new possible danger to aircraft.
response	Not accepted. The proposed change is relevant to the road-holding position marking and not sign. It is based on the proposal that was discussed with the stakeholders at the thematic meetings, when it was concluded that the proposed change is of the safety benefit. The provisions for the road-holding position signs are not changed and they are defined by CS ADR-DSN.N.800.

comment	*158* comment by: *Bavarian Aviation Authority* For new items, that have not been requested before, EASA should also publish a timeframe for the implementation / conversion (i.e. until 5 years after publication). After the publication of the EASA rules in 2014, aerodromes have until 2017 to get certified and prove compliance.
response	Noted. The aerodrome operator has the possibility to consider the adequacy of the provided certification specification and to use one of available flexibility tools to show compliance with the CS.

comment	*257* comment by: *ADV - German Airports Association* ADV rejects the amendment of para (a).
response	Noted.

comment	*274* comment by: *ADV - German Airports Association* Change (c) (2) to "...should be in accordance with the local traffic regulations for a yield right-of-way or a stop marking. A stop marking provides a more compelling instruction and should not be excluded.
response	Accepted. The text is amended accordingly to read: '… for a yield right-of-way or mandatory stop'.

comment	*290* comment by: *HCAA/D3A* **CS ADR-DSN.L.600 Road-holding position marking** Since road holding position markings are to be defined not only at entrances to runway or taxiway but to sensitive/critical areas of ILS/MLS and other radio navigation aids, the following (more generic) text is proposed for (a): *Applicability: A road-holding position marking should be provided at all road holding positions.*
response	Not accepted. The proposed change should have been previously consulted with the stakeholders. EASA will consider the proposal during one of the forthcoming NPAs .

comment	*303* comment by: *Flughafen Berlin Brandenburg GmbH* Change the sentence to "...should be in accordance with the local traffic regulations for a yield right-of-way or a stop marking.
response	Accepted. The text is amended accordingly to read: '… for a yield right-of-way or mandatory stop'.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.L.615 p. 65-66

comment	*58* comment by: *Union des Aéroports français - UAF* **<u>UAF comments for CS ADR-DSN.M.615 General</u>** Voir commentaire de la CS ADR-DSN.C.237
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.626 p. 67

comment	*117* comment by: *French CAA* In the paragrah (a) (ii) we propose the following correction : "(…) in the spacing between centre line lights and crossbar~~s~~" Indeed, there is only one crossbar
response	Accepted. The text is amended accordingly.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.630 p. 67-68

comment	*118* comment by: *French CAA* There is an inconsistency between the paragraphe (c) (2) (ii) which indicates " The barrettes should be at least 4 m in length" and the figure M-2 which mentionned a barette length of 4,5m
response	Noted. The text is the same as in ICAO Annex 14, Vol I, Aerodromes. For the simple approach lighting system the length of the barrette is 4 m, as defined in paragraph CS ADR-DSN.M.626(e) and the same length is presented at Figure M-1(A). For the precision approach Category I lighting system the length of the barrette should be at least 4 m, while the Figure M-2 shows 4.5 m for the length of the barrette. The possible inconsistence will be reviewed with ICAO and in one of the forthcoming NPAs.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.635 p. 68-69

comment	*95* comment by: *Juanmolina* It is internationally common practice for CAT II/III approach lighting systems consisting of centre line barrettes to be provided with 21 capacitor discharge lights installed in the outermost barrettes. This configuration installs one light at each barrette beyond the 300 m barrette, and one in the 300 m crossbar. The latter would not be needed, as per the current CS text. I would suggest either clarify the requirement further, possibly with an accompanying figure, or amending the requirement to suit the established de-facto standard.
response	Noted. The proposed changes of the CS ADR-DSN.M.635 are only of administrative nature and not changing the existing substance. The requirements of installing the capacitor discharge lights at precision approach Category II/III lighting system is defined with CS ADR-DSN.M.635(b)(5) and (b)(6). The commentator is asked to provide EASA further clarification on the comment, which will be considered in one of the forthcoming NPAs.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.645 p. 70-72

comment	*119* comment by: *French CAA* There is an editorial mistake , the paragraph (b) (1) repeats some terms already mentionned in previous (b)

response	Noted. The text is amended accordingly.

comment	*179* comment by: *John Hamshare* M.645 - Figure M-4 notes (f) and (g) are contrary to the two figures Typical PAPI and APAPI wing bar. Note (f) is referring to sizing requirements of PAPI (should be APAPI) and note (g) to sizing requirements of APAPI (should be PAPI). Suggest: correspond the contents of notes (f) and (g) with the figures of Typical PAPI and APAPI wing bar. Figure M-4 notes (f) and (g) are referring to '…the runway edge' which can be confused by the edge of the runway shoulder because this can also be considered as the edge of a runway. Suggest: Replace '…the runway edge' by '…the edge of the full strength runway pavement' to prevent misunderstanding.
response	Not accepted. No change of Figure M-4 is proposed. The figures in CS and Annex 14 are identical. Note (f) refers to installing the PAPI units on code 1 and 2 runways, while note (g) refers to installing the APAPI units when a greater range is required.

comment	*208* comment by: *ACI EUROPE* ACI EUROPE has the following comments on this CS: Change1: Figure M-4 notes (f) and (g) are contrary to the two figures Typical PAPI and APAPI wing bar. Note (f) is referring to sizing requirements of PAPI (should be APAPI) and note (g) to sizing requirements of APAPI (should be PAPI). ACI E Proposal1: correspond the contents of notes (f) and (g) with the figures of Typical PAPI and APAPI wing bar. Change2: Figure M-4 notes (f) and (g) are referring to '…the runway edge' which can be confused by the edge of the runway shoulder because this can also be considered as the edge of a runway. ACI E Proposal2: Replace '…the runway edge' by '…the edge of the full strength runway pavement' to prevent misunderstanding.
response	Not accepted. No change of Figure M-4 is proposed. The figures in CS and Annex 14 are identical. Note (f) refers to installing the PAPI units on code 1 and 2 runways, while note (g) refers to installing the APAPI units when a greater range is required. Considering the forthcoming ICAO amendments, your second proposal will be previously consulted with the stakeholders and considered in one of the forthcoming NPAs.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.650 p. 73-75

comment	*12* comment by: *René Meier, Europe Air Sports* CS ADR-DSN.M.650 Top of page 76

	"exiting" surely shoud read "existing"?
response	Noted. The text is corrected as suggested.

comment	*120* comment by: *French CAA* In paragraph (b) (3), there is a misprint. We propose the following correction : (…) of the obstacle protection surface and ~~an~~ **a** safety assessment indicates (…)
response	Noted. The text is corrected accordingly.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.655 p. 76

comment	*121* comment by: *French CAA* Paragraph (d) there is a misprint. We propose the following correction : Where ~~an~~ **a** safety assessment (…)
response	Noted. The text is corrected accordingly.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.675 p. 76

comment	*180* comment by: *John Hamshare* ICAO Annex 14 provides an adequate regulatory provision and EU rules should follow suit. In Annex 14, a section of the runway edge lights 600 m or one-third of the runway length at the remote end of a runway from the end at which the take-off run is started may show yellow, therefore it offers this option but does not prescribe it. We therefore ask EASA to change the wording in (c) (1) (ii) from “should show yellow” to “may show yellow”. If EASA wants to turn this into a binding Certification Specification then the relevant justification and safety benefits should properly be demonstrated. Alternatively EASA could add this to GM: “Where the proximity of the runway end is indicated by runway centre line lights in accordance with CS ADR-DSN.M.690 (d) (1), all runway edge lights may be white.”
response	Noted. NPA does not provide a proposal to change paragraph (c)(1). The provision in paragraph (c)(1)(ii) is transposed text from ICAO Annex 14, Vol I, Aerodromes and exists from the Initial Issue of CS. The aerodrome operator has already informed EASA about this proposal, which has been discussed internally and with the stakeholders. EASA invited the aerodrome operator to provide EASA with evidence of the number of airports that are affected by the above requirement and the safety and economic benefits of such proposal. The information received was not considered as sufficient to be proposed in the current NPA. EASA is anticipating from the aerodrome operator to provide the comprehensive justification for the proposal, to be considered on one of forthcoming NPAs.

comment	*209* comment by: *ACI EUROPE* In this case ICAO Annex 14 provides an adequate regulatory provision and EU rules should

	follow suit. In Annex 14, a section of the runway edge lights 600 m or one-third of the runway length at the remote end of a runway from the end at which the take-off run is started may show yellow, therefore it offers this option but does not prescribe it. We therefore ask EASA to change the wording in (c) (1) (ii) from "should show yellow" to "may show yellow". If EASA wants to turn this into a binding Certification Specification then the relevant justification and safety benefits should properly be demonstrated. Alternatively add to GM: "Where the proximity of the runway end is indicated by runway centre line lights in accordance with CS ADR-DSN.M.690 (d) (1), all runway edge lights may be white."
response	Noted. NPA does not provide a proposal to change paragraph (c)(1). The provision in paragraph (c)(1)(ii) is transposed text from ICAO Annex 14, Vol I, Aerodromes and exists from the Initial Issue of CS. The aerodrome operator has already informed EASA about this proposal, which has been discussed internally and with the stakeholders. EASA invited the aerodrome operator to provide EASA with evidence of the number of airports that are affected with the above requirement and the safety and economic benefits of such proposal. The information received was not considered as sufficient to be proposed in the current NPA. EASA is anticipating from the aerodrome operator to provide the comprehensive justification for the proposal, to be considered on one of forthcoming NPAs.

comment	*265* comment by: *ADV - German Airports Association* The possibility of yellow runway edge lights is an option and not the requirement, therefore the term "should" should be changed with "may" for better clarification of the requirement. Alternatively add to GM: "Where the proximity of the runway end is indicated by runway centre line lights in accordance with CS ADR-DSN.M.690 (d) (1), all runway edge lights may be white."
response	Noted. NPA does not provide a proposal to change paragraph (c)(1). The provision in paragraph (c)(1)(ii) is transposed text from ICAO Annex 14, Vol I, Aerodromes and exists from the Initial Issue of CS. The aerodrome operator has already informed EASA about this proposal, which has been discussed internally and with the stakeholders. EASA invited the aerodrome operator to provide EASA with evidence of the number of airports that are affected with the above requirement and the safety and economic benefits of such proposal. The information received was not considered as sufficient to be proposed in the current NPA. EASA is anticipating from the aerodrome operator to provide the comprehensive justification for the proposal, to be considered on one of forthcoming NPAs.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.690 p. 78-79

comment	*13* comment by: *René Meier, Europe Air Sports* CS ADR-DSN.M.690 (b)(2) "below an RVR of 400 m" would be simpler.
response	Noted. The text is identical to ICAO Annex 14, Vol I, Aerodromes wording.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.695 p. 79

comment	*137* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* CS ADR-DSN.M.695 (c): we suggest to invert (4) and (5), due to sequence of the Figures and CS.
response	Noted. The proposal is reasonable, but due to sequences it would be then necessary to change the position of paragraphs with the reference to'Figure U-1' in 21 paragraphs which would not be beneficial. The proposal will be consulted in one of the forthcoming NPAs.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.696 p. 79-80

comment	*44* comment by: *Avinor AS* This new requirement could potentially represent a cost for Avinor, as it could require such lights to be established at several runways where the approach angle is steeper than 3.5 degrees and/or the Landing Distance Available combined with other factors increases the risk of an overrun. However; for local runways with steep approach, Avinor has an existing solution approved by CAA involving "aiming point lights" and "balked landing lights", on longer runways "aiming point lights" are installed and approved by CAA. If the new requirement is adopted, Avinor would apply for an ELOS for the existing solution.The requirement is a recommendation in Annex 14. Avinor does not support this to become a requirement in the EASA regulation.
response	Not accepted. The text in paragraph (b) is identical with ICAO Annex 14, Vol I, Aerodromes, including the 'and/or' clause. The purpose of the simple touchdown zone lights in paragraph (a) refers to the provisions of providing enhanced situational awareness to pilots, while paragraph (b) excludes runways where touchdown zone lights are already provided and in addition refers to the approach angle in combination with the Landing Distance Available and to other factors, which could increase the risk of an overrun. With the provisions in the above mentioned paragraphs the aerodrome operator has the possibility to use one of flexibility tools and to consider the implementation of simple touchdown zone lights and to justify its appropriateness. The simple touchdown zone lights are already in use at some aerodromes and will support new Special Authorisation, SA CAT I type of approach operations.

comment	*59* comment by: *Union des Aéroports français - UAF* **<u>UAF comments for CS ADR-DSN.M.696 Simple touchdown zone lights (b)</u>** L'applicabilité de cette spécification n'est pas proportionnée au type d'aéronef utilisé ni au type de risques rencontrés sur certains aérodromes. C'est pourquoi l'UAF propose de rédiger le paragraphe (b) de la façon suivante : *(b) Applicability: Except where touchdown zone lights are provided in accordance with CS ADR-DSN.M.695, at a runway where ~~the approach angle is greater than 3.5 degrees and/or~~ the Landing Distance Available combined with other factors increases the risk of an overrun,*

	simple touchdown zone lights should be provided. Cette modification permet de couvrir tous les cas en y incluant celui où la pente d'approche est supérieure à 35° qui n'est qu'un facteur pouvant accroitre le risque d' «overrun».
response	Not accepted. The text in paragraph (b) is identical with ICAO Annex 14, Vol I, Aerodromes, including the 'and/or' clause. The purpose of the simple touchdown zone lights in paragraph (a) refers to the provisions of providing enhanced situational awareness to pilots, while paragraph (b) excludes runways where touchdown zone lights are already provided and in addition refers to the approach angle in combination with the Landing Distance Available and to other factors, which could increase the risk of an overrun. With the provisions in the above mentioned paragraphs the aerodrome operator has the possibility to use one of flexibility tools and to consider the implementation of simple touchdown zone lights and to justify its appropriateness. The simple touchdown zone lights are already in use at some aerodromes and will support new Special Authorisation, SA CAT I type of approach operations.

comment	*81* comment by: *Aena Aeropuertos, S.A.* There must be defined a dead-line to implement this lights.
response	Noted. The aerodrome operator has the possibility to consider the adequacy of the provided certification specification and to use one of available flexibility tools to show compliance with the CS.

comment	*122* comment by: *French CAA* In paragraph (b), the installation of simple touchdown zone lights should not be systematically required on runways where the approach slope is greater than 3,5 °, but only where there is an operational need to strengthen the signalization of the touchdown zones, for example when the runway is short. So we suggest transferring those requirements into guidance material.
response	Not accepted. The text in paragraph (b) is identical with ICAO Annex 14, Vol I, Aerodromes, including the 'and/or' clause. The safety objective in paragraph (a) refers to the provisions of providing enhanced situational awareness to pilots, while paragraph (b) excludes runways where touchdown zone lights are already provided and in addition refers to the approach angle in combination with the Landing Distance Available and to other factors, which could increase the risk of an overrun. With the provisions in the above mentioned paragraphs the aerodrome operator has the possibility to use one of flexibility tools and to consider the implementation of simple touchdown zone lights and to justify its appropriateness. The simple touchdown zone lights are already in use at some aerodromes and will support new Special Authorisation, SA CAT I type of approach operations.

comment	*138* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* CS ADR-DSN.M.696 (d): we suggest to invert (2) and (3), due to sequence of the Figures and CS.
response	Noted. The proposal is reasonable, but due to sequences it would be then necessary to

	change the position of paragraphs with the reference to 'Figure U-1' in 21 paragraphs which would not be beneficial. The proposal will be consulted in one of the forthcoming NPAs.
comment	*210* comment by: *ACI EUROPE* This new requirement would cause costs especially for smaller aerodromes where the approach angle is steeper than 3.5 degrees and/or the Landing Distance Available combine with other factors increases the risk of an overrun. ACI EUROPE proposes in (b) to delete "or" as the larger approach angle by itself will not increase the risk of an overrun as long as there is sufficient Landing Distance Available.
response	Not accepted. The text in paragraph (b) is identical with ICAO Annex 14, Vol I, Aerodromes, including the 'and/or' clause. The safety objective in paragraph (a) refers to the provisions of providing enhanced situational awareness to pilots, while paragraph (b) excludes runways where touchdown zone lights are already provided and in addition refers to the approach angle in combination with the Landing Distance Available and to other factors, which could increase the risk of an overrun. With the provisions in the above mentioned paragraphs the aerodrome operator has the possibility to use one of flexibility tools and to consider the implementation of simple touchdown zone lights and to justify its appropriateness. The simple touchdown zone lights are already in use at some aerodromes and will support new Special Authorisation, SA CAT I type of approach operations.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.705 p. 81

comment	*161* comment by: *Bavarian Aviation Authority* The text should be in accordance with the respective ICAO Annex 14 in order to prevent misinterpretation and a high burden on the aerodrome operator when proving compliance or having to adapt to the new rules.
response	Noted. The provisions of paragraphs (b)(1) and (b)(2) are in accordance with ICAO Annex 14, Vol I, Aerodromes and in addition provide specification for spacing between the lights along the edge of the stopway, which refers to the CS on runway edge lights, and number of the stopway lights at the end of the stopway. The provisions about the spacing and number of lights are made based on the received proposals and comments from the stakeholders and after focused consultation with the stakeholders.
comment	*249* comment by: *ADV - German Airports Association* The text should be in accordance with the respective ICAO Annex 14 in order to prevent misinterpretation and a high burden on the aerodrome operator when proving compliance.
response	Noted. The provisions of paragraphs (b)(1) and (b)(2) are in accordance with ICAO Annex 14, Vol I, Aerodromes and in addition provide specification for spacing between the lights along the edge of the stopway, which refers to the CS on runway edge lights, and number of the stopway lights at the end of the stopway. The provisions about the spacing and number of lights are made based on the received proposals and comments from the stakeholders and after focused consultation with the stakeholders.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.710 p. 81-83

comment	*14* comment by: *René Meier, Europe Air Sports* CS ADR-DSN.M.710 (c)(4) and (5) "...conditions of less than a value of 350 m;" should be replaced by "...of less than 350 m;"
response	Not accepted. The text is identical to the relevant text in ICAO Annex 14, Vol I, Aerodromes.

comment	*60* comment by: *Union des Aéroports français - UAF* **UAF comments for CS ADR-DSN.M.710 Taxiway centre line lights** L'UAF soutient cette modification qui apporte de la flexibilité.
response	Noted.

comment	*82* comment by: *Aena Aeropuertos, S.A.* We propose this alternative wording: *(c) Characteristics:* *(1) Except as provided for in paragraphs (c) (2) and (c)(3) below, ~~T~~taxiway centre line lights on a taxiway ~~other than an exit taxiway~~ and on a runway forming part of a standard taxi-route should be fixed lights showing green with beam dimensions such that the light is visible only from aeroplanes on, or in the vicinity of the taxiway.*
response	Not accepted. Paragraphs (1) and (2) are identical to the relevant text in ICAO Annex 14, Vol I, Aerodromes and contain different specifications.

comment	*163* comment by: *Bavarian Aviation Authority* The text in (2) and (4) should remain in accordance with the respective ICAO Annex 14 recommendation (5.3.17.2) in order to prevent misinterpretation and disproportionality.
response	Partially accepted. Paragraph (b)(2) corresponds to Recommendation 5.3.17.2 of ICAO Annex 14, Vol I, Aerodromes. The wording 'the traffic density is light and' is deleted, because, after the focused consultation with the stakeholders it was agreed that the wording 'the traffic density is light' could be deleted, without any safety impact and the justification was provided. Paragraph (b)(4) is Standard 5.3.17.4 of Annex 14 ICAO Annex 14, Vol I, Aerodromes and the wording 'the traffic density is light and' will remain in the text. Although it was discussed at the thematic meetings that there is no safety impact if deleting it, the justification was not provided.

comment	*211* comment by: *ACI EUROPE* (c) (2) Add "where practicable": "Where practicable, the first light in the exit centre line should always show green (…)."

	As the light nearest the perimeter should always show yellow, aerodromes would for 50% of taxiways either have to reduce the spacing between lights or add another light. On the other hand, the benefit of this requirement is not clear. (c) (3) It must be clarified that this is an additional measure to prevent runway incursions. Add "Where the proximity to a runway is already sufficiently indicated by signs, markings and runway guard lights or stop bars, taxiway centre line lights may show green." It might be sufficient to make this addition to the GM.
response	Not accepted. The requirement in the paragraph (c)(2) is 'Standard' in ICAO Annex 14, Vol I, Aerodromes. Guidance material gives additional explanation to CS and cannot be contradictory to the CS requirement. Paragraph (c)(3) follows paragraph (c)(2) with the substance and at the same time gives enough flexibility when starting with 'where necessary …'.

comment	*236* comment by: *ADV - German Airports Association* ADV strongly supports the amendment of para (b) (2).
response	Noted.

comment	*248* comment by: *TRANSPORT AUTHORITY, Slovak republic* (c) (3) please add an example at which cases it is necessary to denote the proximity to a runway... by green and yellow lights
response	Noted. Paragraph (c) is identical to the adequate ICAO Annex 14, Vol I, Aerodromes text and provides sufficient interpretations on the lights characteristics. However, the commentator is invited to provide to EASA the proposed change to the paragraph, with the explanation and justification, to be considered in one of the forthcoming NPAs.

comment	*266* comment by: *ADV - German Airports Association* (c) (2) Add "where practicable": "Where practicable, the first light in the exit centre line should ~~always~~ show green (…)." As the light nearest the perimeter should always show yellow, aerodromes would for 50% of taxiways either have to reduce spacing between lights or add another light. On the other hand, the benefit of this requirement is not clear. (c) (3) It must be clarified that this is an additional measure to prevent runway incursions. Add "Where the proximity to a runway is already sufficiently indicated by signs, markings and runway guard lights or stop bars, taxiway centre line lights may show green." It might be sufficient to make this addition to the GM.
response	Not accepted. The requirement in the paragraph (c)(2) is 'Standard' in ICAO Annex 14, Vol I, Aerodromes. Guidance material gives additional explanation to CS and cannot be contradictory to the CS requirement. Paragraph (c)(3) follows paragraph (c) (2) with the substance and at the same time gives enough flexibility when starting with 'where necessary …'.

comment	*320* comment by: *daa - Dublin & Cork airports* (c) (2) Add "where practicable":

	"Where practicable, the first light in the exit centre line should always show green (…)." As the light nearest the perimeter should always show yellow, aerodromes would for 50% of taxiways either have to reduce the spacing between lights or add another light. On the other hand, the benefit of this requirement is not clear. (c) (3) It must be clarified that this is an additional measure to prevent runway incursions. Add "Where the proximity to a runway is already sufficiently indicated by signs, markings and runway guard lights or stop bars, taxiway centre line lights may show green." It might be sufficient to make this addition to the GM.
response	Not accepted. The requirement in paragraph (c)(2) is 'Standard' in ICAO Annex 14, Vol I, Aerodromes. Guidance material gives additional explanation to CS and cannot be contradictory to the CS requirement. Paragraph (c)(3) follows paragraph (c) (2) with the substance and at the same time gives enough flexibility when starting with 'where necessary …'.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.715 p. 83-84

comment	*165* comment by: *Bavarian Aviation Authority* In comparison with the already published documents, subitem (c) should probably be renamed subitem (d) in the NPA document.
response	Noted.

comment	*181* comment by: *John Hamshare* M.715 - Suggested amendment: Table M-3: Max. 7.5 m, including 60 m before and after the curve: Insert "min." to avoid that spacing of centre line lights has to be adjusted to fit exactly to 60 m. "Max. 7.5 m, including min. 60 m before and after the curve."
response	Partially accepted. The text is amended with the identical wording from ICAO Annex 14, Vol I, Aerodromes.

comment	*212* comment by: *ACI EUROPE* Table M-3: Max. 7.5 m, including 60 m before and after the curve: Insert "min." to avoid that spacing of centre line lights has to be adjusted to fit exactly to 60 m. "Max. 7.5 m, including min. 60 m before and after the curve."
response	Partially accepted. The text is amended with the identical wording from ICAO Annex 14, Vol I, Aerodromes.

comment	*251* comment by: *ADV - German Airports Association* In comparison with the already published documents, para (c) should probably be renamed (d).
response	Noted.

comment	*267* comment by: *ADV - German Airports Association* Table M-3: Max. 7.5 m, including 60 m before and after the curve: Insert “approximately” or “min.” to avoid that spacing of centre line lights has to be adjusted to fit exactly to 60 m. “Max. 7.5 m, including approximately 60 m before and after the curve.”
response	Partially accepted. The text is amended with the identical wording from ICAO Annex 14, Vol I, Aerodromes.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.725 p. 84-85

comment	*45* comment by: *Avinor AS* Avinor agrees that edge lights and markings should be sufficient on a runway turn pad for use at night.
response	Noted.

comment	*61* comment by: *Union des Aéroports français - UAF* **<u>UAF comments for CS ADR-DSN.M.725 Runway turn pad lights (b) (2)</u>** Le complément de texte apporté dans le paragraphe (b) (2) risque d’apporter de la confusion dans la compréhension du texte. L’UAF demande sa suppression.
response	Not accepted. The proposed change gives more flexibility and was widely discussed and agreed at the thematic meetings with the stakeholders.

comment	*139* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* CS ADR-DSN.M.725: Runway turn pad lights deals with centre line lights and not with edge lights. In our opinion, the title on p. 85 should be completed as follow: "Runway turn pad centre line lights"
response	Partially accepted. Runway turn pad lights deals with the continuous guideline to enable an aeroplane to complete a 180-degree turn and align with the runway centre line and are placed along the runway turn pad marking as defined in CS ADR-DSN.L.565. Explanation is provided accordingly in the GM.

comment	*182* comment by: *John Hamshare* Heathrow Airport Ltd agrees that edge lights and markings should be sufficient on a runway turn pad for use at night.
response	Noted.

comment	*213* comment by: *ACI EUROPE* ACI Europe agrees that edge lights and markings should be sufficient on a runway turn pad for use at night.
response	Noted.

comment	*250* comment by: *TRANSPORT AUTHORITY, Slovak republic* .M.725 we propose to specify, that RWY turn pad lights means turn pad centre line lights
response	Partially accepted. Runway turn pad lights deals with the continuous guideline to enable an aeroplane to complete a 180-degree turn and align with the runway centre line and are placed along the runway turn pad marking as defined in CS ADR-DSN.L.565. Explanation is provided accordingly in the GM.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.727 p. 85-86

comment	*6* comment by: *UK CAA* **Page No:** 86 **Paragraph No:** CS ADR-DSN.M.727, (a) Applicability **Comment:** It is recommended that it should be made more obvious that sub-paragraphs (1) and (2) are options, i.e. one or the other, not both. **Justification:** Clarity.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*46* comment by: *Avinor AS* Avinor supports this requirement.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the

	thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*83* comment by: *Aena Aeropuertos, S.A.* The runway end light configuration included in Figure M-10A is not compatible with precision approach runways. In Spain pilots are not in favor of crossing a runway end light system to exit the runway.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*96* comment by: *Juanmolina* Figure M-10A (A) does not accurately correspond to CS ADR-DSN.M.717 (b) (3): Runway starter extension centre line lights, when the end of the runway starter extension is not associated with the taxiway (or as suggested in another comment, a taxiway) and the aeroplane is assumed to backtrack to the start position for take-off, the (centre line) lights should indicate the safe turnaround path of the aeroplane. Runway starter extension edge lights being installed coincident with the edge of the pavement of the runway starter extension will be difficult to achieve in practice. Moreover, it would be desirable to allow some installation offset from the runway starter extension edge marking to ease marking works. Where the runway starter extension is as wide as the runway, it could effectively be declared as a Stopway for the opposite runway direction. Under such circumstances, the blue edge lights required by the NPA would potentially conflict with the Stopway lights, which are supposed to be red seen in the same direction as the NPA-proposed blue lights. Lastly, where the runway starter extension is not associated with a taxiway and the aircraft will be required to backtrack, specific guidelines should be given so as to how to dispose the runway end lights, or possibly how they could be interlocked with the starter extension lights, so that pilots are not made to cross over a lit red bar.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The

	certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*140* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comments FOCA:* CS ADR-DSN.M.727 (b)(1): In our opinion, this text has nothing to do with edge lighting. We suggest to delete the last sentence of the paragraph (b)(1): (…)~~When the beginning of the runway starter extension is not associated with the taxiway at least five edge lights of the runway starter extension should be placed across the transverse side.~~ CS ADR-DSN.M.727 (b)(3): Safe turnaround path is a small turn pad. **Proposed nex text:** (3) When the end of the runway starter extension is ~~not~~ associated with ~~the taxiway and the aeroplane is assumed to backtrack to the start position for take-off, the lights should indicate the safe turnaround path of the aeroplane.~~ a turn pad, centre line lights will consist of runway turn pad lights according to CS ADR-DSN.M.725.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*141* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* Attachment #5 *CommentsFOCA:* Instead of Figure M-10A, we would like to suggest an other figure that takes into account more parameters such as a displaced threshold or a turn pad. **Proposed new figure**: see attachment: "*EASA_ADR_Issue-3_Figures_Starter-extension_Lights.pdf*
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*256* comment by: *TRANSPORT AUTHORITY, Slovak republic*

	.M.727 (b) Location:(3) Should be specified if lights for safe turnaround are required always or only when the RWY starter extension is used for take-off with RVR less than 400 m as it is defined for RWY starter extension centre line lights see .M.727 (a) (2)
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*258* comment by: *TRANSPORT AUTHORITY, Slovak republic* .M.727 (c) (5) (first and last light of the runway starter extension should show green) - is it always possible to adhere to this requirement even if RWY starter extension is shorter than 150 m (e.g. 60 m we have only two lights when one is green and second is yellow) and spacing of RWY starter extension centre line lights should be the same as RWY centre line lights spacing
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*291* comment by: *HCAA/D3A* **CS ADR-DSN.M.727 Lights of the runway starter extension** In (c)(1) red colour is specified for the edge lights of the runway starter extension in the take-off direction. Since, usually the red light is used in order to indicate a region not to be used, and in order to avoid the white colour that could confuse crews of approaching aircraft, the adoption of the yellow colour is proposed for these lights. For the same reason as above, the yellow colour is proposed for the centre line lights of the runway starter extension, instead of white as specified in (c)(5). [Editorial] In (b)(3) substitute the word “the” with “a”: “… is not associated with <u>a</u> taxiway and the aeroplane…”
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*348* comment by: *Manchester Airport (MAG)* CS ADR-DSN.M.727 (c) Characteristics & Figure M-10A (on page 87) (c) (1) & (2): Unsure as to whether the narrative is specifying the use of separate (individual) red and blue edge Aeronautical Ground Lighting (AGL) fittings or a single bi-directional AGL fitting showing red in the direction of take-off and blue in the opposite direction. Specifying the former, would prove a high-cost and undesirable change to the existing characteristics of the LED blue omni-directional edge lighting currently employed on EGCC Runway 23L Starter Extension. These have been in situ since Runway 05R-23L was introduced into service at the start of 2011. Specifying the latter (single bi-direction), may also prove problematic in adopting the respective red, CS ADR-DSN.M.675 (c) and blue, CS ADR-DSN.M.720 (c)(2) characteristics within a single AGL inset fitting. If EGCC current use of LED blue omni-directional starter extension edge AGL is to be deemed a non-compliace within the draft CS, EASA should consider the following CS option: 1. The 23L starter extension associated taxiway (EGCC Taxiway Tango) is a runway ***entry taxiway only and not a runway exit taxiway*** (for EGCC Runway 05R). Therefore, replace the existing starter extension LED blue omni-directional edge AGL with LED red omni-directional or a single LED uni-directional red (in the direction of take-off) starter extension edge AGL. EGCC 23L starter extension is not included within the opposite Runway 05R declared distances. Aircraft ***must*** vacate 05R before the 23L starter extension as the extension occupies part of the 05R ILS (LOC) Critical Area.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*349* comment by: *Manchester Airport (MAG)* CS ADR-DSN.M.727 (c) Characteristics & Figure M-10A (on page 87) (c)(5) Unsure as to whether the draft narrative is specifying the use of separate (individual) uni-directional white and uni-directional alternately green and yellow Aeronautical Ground Lighting (AGL) fittings or a single bi-directional fitting show white in the direction of take-off and alternately green and yellow in the opposite direction. Specifying the former (separate uni-directional AGL fittings), would prove a high-cost and

undesirable change to the existing characteristics of the LED bi-directional alternately green and yellow centre line lights currently employed on EGCC Runway 23L Starter Extension. These have been in situ since Runway 05R-23L was introduced into service at the start of 2011.

If EGGC current use of LED bi-directional alternately green and yellow starter extension centre line AGL is to be deemed a non-compliance within the CS draft, EASA should consider the following CS options:

1. Where the runway concerned is both a take-off and landing runway (as EGCC 23L), provide white runway starter extension centre lights (in the direction of take-off) by the use of pre-threshold runway approach centre line lights already inset into the starter extension pavement. I believe this could be achieved by changes to the existing AGL control software and the possible installation of some additional 'field' AGL control cabling.
2. The EGCC 23L starter extension associated taxiway (EGCC Taxiway Tango) is a runway ***entry taxiway only and not a runway exit taxiway*** (for EGCC Runway 05R). Therefore, replace a section of the existing straight alternately green and yellow bi-directional extended Taxiway Tango centre line lights on the starter extension with white (in the direction of take-off) uni-directional AGL fittings. The change to white uni-directional AGL would take effect circa 60m beyond the entry taxiway (Tango) centre line radius leading into the starter extension. Given existing infrastructure, the replacement white uni-directional AGL would essentially extend the length of the EGCC 23L starter extension.

EGCC 23L starter extension is not included within the opposite Runway 05R declared distances. Aircraft ***must*** vacate 05R before the starter extension as the extension occupies part of the 05R ILS (LOC) Critical Area.

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment

369 comment by: *Airbus*

CS ADR-DSN.M.727 Lights of the runway starter extension

Comment provided by Airbus Flight test pilot:
Figure M-10A and associated text. I find rather odd the colours of the lights. As an example, after landing, on the side after the runway end, you switch from red lights to blue as a taxiway (understandable), but from red to green/yellow on the centre line. But the main issue is at take-off where you start to accelerate with red lights on the side. The fact that it is neither a real runway, nor a taxiway creates confusion in the lighting. May not be fully intuitive for pilots. Can you please confirm that this was discussed and agreed by pilots

	associations?
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.730 p. 86-87

comment	*15* comment by: *René Meier, Europe Air Sports* CS ADR-DSN.M.730 (a)(1) and (1)(ii) "less than a value of 550 m" could be shortened to "less than 550 m"
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes wording.

comment	*62* comment by: *Union des Aéroports français - UAF* **UAF comments for CS ADR-DSN.M.730 Stop bars lights** La rédaction précédente «*aircraft and vehicule*» est meilleur que celle proposée. En effet, le terme « *traffic* » porte à confusion. L'UAF souhaite le maintien de la rédaction initiale. Dans le paragraphe c) le terme « *uniform* » semble inutile et apporte de la confusion.
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes wording.

comment	*321* comment by: *daa - Dublin & Cork airports* daa strongly supports the deletion of c(3) in line with ICAO Annex 14, 6th Edition.
response	Noted.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.735 p. 88

comment	*214* comment by: *ACI EUROPE* ACI Europe proposes to move (a) (2) to the related Guidance Material. It makes no sense to restrict the requirement in (a) (1) to RVR < 350 m, and in the next paragraph to extend the requirement to all weather conditions.
response	Not accepted. The NPA does not provide any proposal to change paragraph (a) of CS ADR-DSN.M.735. The provided text in paragraph (a) is identical to ICAO Annex 14, Vol I, Aerodromes text. The commentator is invited to provide EASA with the proposed change to

	paragraph (a), with the explanation and justification, to be considered in one of the forthcoming NPAs.

comment	*268* comment by: *ADV - German Airports Association* (a) (2) should be moved to the GM. It makes no sense to restrict the requirement in (a) (1) to RVR < 350 m, and in the next paragraph to extend the requirement to all weather conditions.
response	Not accepted. The NPA does not provide any proposal to change the paragraph (a) of CS ADR-DSN.M.735. The provided text in paragraph (a) is identical to ICAO Annex 14, Vol I, Aerodromes text. The commentator is invited to provide EASA with the proposed change to paragraph (a), with the explanation and justification, to be considered in one of the forthcoming NPAs.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.745 p. 88-89

comment	*16* comment by: *René Meier, Europe Air Sports* CS ADR-DSN.M.745 (b)(1)(i) "less than a value of 550 m" could be shortened to "less than 550 m" and in (ii) "values" could be deleted.
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes.

comment	*142* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* CS ADR-DSN.M.745 (b)(1)(i): In our opinion the previous text was much more clear than the new one. We suggest to go back to the previous version: "(i) runway visual range conditions less than a value of 550 m ~~where~~ regardless of whether or not a stop bar is ~~not~~ installed; and"
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes wording.

comment	*167* comment by: *Bavarian Aviation Authority* Text should be reworded as follows: "As part of runway incursion prevention measures,..."
response	Accepted. The text is amended accordingly.

comment	*252* comment by: *ADV - German Airports Association* Text should be amended: "**As part of runway incursion prevention measures, is the purpose of Runway Guard lights** to warn pilots and drivers of vehicles when they are operating ..."
response	Partially accepted. Paragraph (a) is identical to ICAO Annex 14, Vol I, Aerodromes wording, while word 'prevention' is added in paragraph (b)(2).

comment	*292* comment by: *HCAA/D3A* **CS ADR-DSN.M.745 Runway guard lights** According to (b)(1)(i) runway guard lights (RGLs) may not be installed, if stop bars are installed, at an RVR value of less than 550m. According to (b)(1)(ii) the specification is that RGLs should be installed with RVR value between 550 m and 1 200 m where the traffic density is heavy, without any reference on whether stop bars are installed. With this wording, RGLs should be installed at higher values of RVR even if stop bars are present, but not at lower values. Since this is contradictory, it is proposed to move the text "where a stop bar is not installed" from the end of (b)(1)(i) below (b)(1)(ii), so that it is valid both for (b)(1)(i) and for (b)(1)(ii).
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes wording.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.750 p. 89

comment	*84* comment by: *Aena Aeropuertos, S.A.* Apron should be illuminated whenever required not only by night, so we prefer to maintain the actual wording.
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes wording.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.M.771 p. 90-91

comment	*63* comment by: *Union des Aéroports français - UAF* **<u>UAF comments for CS ADR-DSN.M.771</u>** L'expression « *Where it is desired* » dans le paragraphe b) doit être placé dans le paragraphe lié à l'applicabilité pour plus de carté. L'UAF propose la rédaction suivante: *(a) Applicability: A no-entry bar should be provided,* ***where it is desired****, across a taxiway which is intended to be used as an exit only taxiway. The purpose of a no-entry bar is to assist in preventing inadvertent access of traffic to that taxiway.*
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes wording. The 'application' paragraph requires that a no-entry bar should be provided, while the 'location' paragraph requires that a no-entry bar should be located at the end of an exit only taxiway where it is desired to prevent traffic from entering the taxiway in the wrong direction.

comment	*85* comment by: *Aena Aeropuertos, S.A.* When a No-entry bar is illuminated, the centre line lights installed beyond the no-entry bar and the runway must be extinguished completely.
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes wording.

comment	*97* comment by: *Juanmolina* Greater clarity would be needed so as to where to locate No-entry bars, in respect to the runway and/or to the parallel taxiway if there is any.
response	Noted. Paragraph 5.3.29 “No-entry bar” of ICAO Annex 14, Vol I, Aerodromes is completely transposed into CS DR-DSN.M.771 and into relevant GM text. The proposal will be considered in one of the forthcoming NPAs.

comment	*123* comment by: *French CAA* This CS stems from a lately adopted ICAO recommandation, and will have an important impact on existing installations. We suggest transferring it into guidance material.
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes wording. The aerodrome operator has the possibility to consider adequacy of the provided certification specification and to use one of available flexibility tools to consider the implementation of CSs.

comment	*183* comment by: *John Hamshare* As it is stated in the “Location” in (b), Heathrow Airport Ltd proposes to insert “where it is desired” in the “Applicability” under (a) as well: Applicability: A no-entry bar should be provided, where it is desired, across a taxiway which is intended to be used as an exit only taxiway. The purpose of a no-entry bar is to assist in preventing inadvertent access of traffic to that taxiway.
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes wording. The ‘application’ paragraph requires that a no-entry bar should be provided, while the ‘location” paragraph requires that a no-entry bar should be located at the end of an exit only taxiway where it is desired to prevent traffic from entering the taxiway in the wrong direction.

comment	*215* comment by: *ACI EUROPE* As it is stated in the “Location” in (b), ACI Europe proposes to insert “where it is desired” in the “Applicablity” under (a) as well: Applicability: A no-entry bar should be provide, where it is desired across a taxiway which is intended to be used as an exit only taxiway. The purpose of a no-entry bar is to assist in preventing inadvertent access of traffic to that taxiway.
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes wording. The ‘application’ paragraph requires that a no-entry bar should be provided, while the ‘location” paragraph requires that a no-entry bar should be located at the end of an exit only taxiway where it is desired to prevent traffic from entering the taxiway in the wrong direction.

comment	*264* comment by: *TRANSPORT AUTHORITY, Slovak republic* .M.771 - we propose to add to (a)applicability section under which conditions it is mandatory to install No-entry bars - for operation in night, day, under RVR 350 m, or always? Is it mandatory to provide NO ENTRY signs at the position of No-entry bar? (see page 92

	(c) (3) (iii) if we suppose that stop bar might be installed between no-entry bar and RWY it means that at some time TWY may be used for operation hence when no-entry bar is swithed off, NO ENTRY signs would give pilot wrong indication)
response	Not accepted. Note No 2, under paragraph 5.3.29 'No-entry bar' of ICAO Annex 14, Vol I, Aerodromes specify: 'Runway incursions may take place in all visibility or weather conditions. The provision of no-entry bars at taxiway/runway intersections and their use at night and in all visibility conditions can form part of effective runway incursion prevention measures'. The text is completely transposed into the GM text. The mandatory 'NO ENTRY' sign should be provided when entry into an area is prohibited (and not only taxiway) and the combination of No-entry bar, No entry signs and stop bars are of operational nature and requires from the aerodrome operator to provide clarity of use.

comment	*293* comment by: *HCAA/D3A* **CS ADR-DSN.M.771 No-entry bar** In (b) a specification/description of what the term "at the end of an exit only taxiway" means should be given. If the corresponding runway holding position of the exit taxiway is defined as the end of an exit only taxiway and an aircraft has inadvertently already taxied towards the holding position, the twy width might be too narrow to permit a 180^{o} turn. Furthermore, during LVP with low values of RVR, the crew might not be able to see the no-entry bar, if it is collocated with the holding position marking, until it has already entered the wrong taxiway. Therefore, it is proposed that the no-entry bar is placed at the edge of the taxiway on which the aircraft is to continue its taxi, or at least close to it (for instance in line with the taxiway edge lights, if they exist before and after the exit taxiway). Characteristic (c)(2) is proposed to be moved to the corresponding GM1 ADR-DSN.M.771 (as is the case with the similar specification for the stop bars).
response	Partially accepted. The comment is of operational nature and requires from the aerodrome operator to provide clarity of use. Paragraph (c)(2) is moved to GM.

comment	*322* comment by: *daa - Dublin & Cork airports* As it is stated in the "Location" in (b), propose to insert "where it is desired" in the "Applicablity" under (a) as well: Applicability: A no-entry bar should be provided, where it is desired, across a taxiway which is intended to be used as an exit only taxiway. The purpose of a no-entry bar is to assist in preventing inadvertent access of traffic to that taxiway.
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes wording. The 'application' paragraph requires that a no-entry bar should be provided, while the 'location' paragraph requires that a no-entry bar should be located at the end of an exit only taxiway where it is desired to prevent traffic from entering the taxiway in the wrong direction.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.N.780 p. 93-94

comment	*18* comment by: *René Meier, Europe Air Sports* CS ADR-DSN.N.780

	(a)(1) Question: Does "authorised by the aerodrome control tower" cover the activities of a remote tower?
response	Noted. Both cases are covered.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.N.785 p. 94-95

comment	*86* comment by: *Aena Aeropuertos, S.A.* *(c) Characteristics:* *(...)* *(13) The use of numbers alone on the maneuvering area should be reserved for the designation of runways, ~~or to indicate the location of aircraft stands~~* The possibility of a misunderstanding between a runway and an aircraft stand is very remote: When the aircraft arrives, the information received has to do with the aircraft stand, and when the aircraft departs, the information is regarding the runway. We prefer to maintain the actual wording.
response	Noted. The paragraph refers to identical ICAO Annex 14, Vol I, Aerodromes text. Apron is not considered as part of manoeuvring area.

comment	*124* comment by: *French CAA* Paragraph (a) (11) : there is a misprint we suggest correcting it as follows : (a) (11) (…) it may be omitted where ~~**an**~~ **a** safety assessment indicates (…)
response	Noted. The text is corrected accordingly.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.Q.840 p. 95-96

comment	*71* comment by: *Copenhagen Airports A/S* Delete column (12) so the text only refer to column (11) and (13): *All obstacles within the distance specified in Table D-1, column (11) or (13), from the centre line of a taxiway, an apron taxiway or aircraft stand taxilane should be marked and, if the taxiway, apron taxiway or aircraft stand taxilane is used at night, lighted.* Justification: Column (12) refers only to the distance between "aircraft stand taxilane centre line to aircraft stand taxilane centre line "
response	Not accepted. Paragraph (c) refers to aircraft stand taxilane which is defined in column (12).

comment	*143* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* CS ADR-DSN.Q.840 (f): we suggest to add "conical" surface under (f). **Proposed new text** (p. 96):

	(f) A fixed obstacle that extends above a horizontal or conical surface should be marked (…)
response	Not accepted. The text refers to the identical text in ICAO text of Annex 14, Vol I, Aerodromes. The commentator is invited to contribute with the material and justification for the proposed amendment of the relevant CS/GM for aerodrome design in future.

comment	*275* comment by: *TRANSPORT AUTHORITY, Slovak republic* .Q.840 (d) how to adhere to this requirement when there is no definition of inner edge of transitional surface? Transitional surface will never reach 3000m based on prescribed slopes for AD category
response	Noted. Paragraph (d) refers to take-off, climb, approach or transitional surface and the term 'inner edge' refers to the take-off climb or approach surface. Reference to 3 000 m does not concern the transitional surface at its entire distance.

comment	*278* comment by: *TRANSPORT AUTHORITY, Slovak republic* .Q.840 (f) horizontal surface means both inner and outer in this case?
response	Noted. Paragraph (f) refers to a horizontal surface. Chapter H – Obstacle Limitation Surfaces defines in CS H.410 Outer horizontal surface, and in CS H.420 Inner horizontal surface. However, characteristics of outer horizontal surface are not provided in Book 1, but only as guidance material in Book 2.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.Q.841 p. 96

comment	*7* comment by: *UK CAA* **Page No:** 97-111 **Paragraph No:** Lighting and marking of obstacles **Comment:** UK currently does not apply these specifications and suggests that they should only be applied following a risk assessment. **Justification:** Proportionality.
response	Noted. The specifications for objects to be marked and/or lighted outside the lateral boundaries of the obstacle limitation surfaces apply only to the area under control of the aerodrome operator.

comment	*64* comment by: *Union des Aéroports français - UAF* **UAF comments for CS ADR-DSN.Q.841 Objects to be marked and/or lighted outside the lateral boundaries of the obstacle limitation surfaces (a)** Le terme « outside the lateral boundaries of the OLS » n'est pas clair du tout. On ne sait pas s'il s'agit des limites des surfaces de transition ou des surfaces coniques, ou s'il s'agit des objets à l'extérieur des OLS (cf CS ADR-DSN.J.487 Objects outside the obstacle limitation

	surfaces) ou plutôt au-delà, des zones touchées par les OLS. S'il s'agit de ce dernier cas, la place de cette CS n'est pas dans ce règlement relatif à la certification aéroportuaire. Par ailleurs, il semble plus adapté d'utiliser l'expression « *under the authority* » plutôt que « under control ».
response	Noted. The provided text is identical to the relevant text in ICAO Annex 14, Vol I, Aerodromes. The phrase 'Objects outside the obstacle limitation surfaces' is used in paragraph No 4.3 of Annex 14, as in CS ADR-DSN.J.487. The phrase 'Objects to be marked and/or lighted within the lateral boundaries of the obstacle limitation surfaces' is used in paragraph 6.1.1, as in CS ADR-DSN.Q.840. The phrase 'Objects outside the lateral boundaries of the obstacle limitation surfaces' is used in paragraph No 6.1.2, as in CS ADR-DSN.Q.841. The applicability clauses of CS ADR-DSN.J.487, CS ADR-DSN.Q.840, CS ADR-DSN.Q.841 contain the term 'under control of the aerodrome operator' to emphasise when they are applicable for the aerodrome operator. The term 'under control of the aerodrome operator' exists in the aerodrome rules from its initial issue and is broadly accepted. The proposal to use the term 'authority' instead of 'control' will be consulted with the stakeholders in one of the forthcoming NPAs.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.Q.845 p. 96-99

comment	*65* comment by: *Union des Aéroports français - UAF* **<u>UAF comments for CS ADR-DSN.Q.845 Marking of fixed objects (a)</u>** Il convient de conserver le paragraphe (a) initial en remplaçant l'expression «under control» par celle de «*under the authority*». Cela deviendrait donc : « *(a) The specifications below apply only to the area under the authority* of *aerodrome operator".*
response	Noted. The term 'under control of the aerodrome operator' exists in the aerodrome rules from its initial issue and is broadly accepted. The proposal to use the term 'authority' instead of 'control' will be consulted with the stakeholders in one of the forthcoming NPAs.

comment	*370* comment by: *Airbus* DSN.Q.845 to 852 Marking of fixed obstacles 14 pages to explain with full details the markings of fixed obstacles. That is too much. There should be a couple of paragraphs to outline the general rules and all these details should be in a GM.
response	Noted. Chapter 6 – 'Visual aids for denoting obstacles' of ICAO Annex 14, Vol I, Aerodromes is almost completely changed. The chapters of Annex 14 are transformed into two groups; the objects within and the objects outside the lateral boundaries of the obstacle limitation surfaces. CS and GM reflect the Annex 14 transformation.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.Q.846 p. 100-101

comment	*66* comment by: *Union des Aéroports français - UAF* **UAF comments for CS ADR-DSN.Q.846 Lighting of fixed objects** Il convient de conserver le paragraphe (a) initial en remplaçant l'expression «under control» par celle de «*under the autority*» « *(a) The specifications below apply only to the area under the authority* of *aerodrome operator".*
response	Noted. The term 'under control of the aerodrome operator' exists in the aerodrome rules from its initial issue and is broadly accepted. The proposal to use the term 'authority' instead of 'control' will be consulted with the stakeholders in one of the forthcoming NPAs.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.Q.850 p. 103-106

comment	*4* comment by: *CAA State of Hessen (Germany)* Comment: With regard to the lighting of vehicles (CS ADR-DSN.Q.850 (a), (b) and (c)), it is strongly recommended to include a further specification which would allow the use of lights which fulfill the technical standard of the Economic Commission for Europe ECE R-65 instead of the specifications of low-intensity obstacle lights Type C and Type D. Rationale: Most vehicles operating on the manoeuvring area of aerodromes are also used in public places outside the airport perimeter where it is required to use lights with technical specifications according to ECE R-65. This kind of dual use of vehicles especially applies to the emergency or security vehicles of the operator as well as to vehicles of authorities and public rescue services. If, for example, the airport's RFFS vehicles were using Type C lights, they would not be allowed to utilize public streets in cases of aviation related emergencies occurring outside the aerodrome boundaries. There is no vehicle light available which is at the same time in accordance with the ECE as well as with EASA specifications or any kind of technical solution for switching specifications on the push of a button. Furthermore, it is neither technically nor financially practical to equip vehicles with parallel lighting systems. Thus, most authorities – at least in Germany - will have to assess and approve Alternative Means of Compliance (AltMOC) to allow the use of lights that confirm to ECE R-65. To avoid this effort, it is recommended to include a further specification which would allow the use of ECE R-65 lights on vehicles that are subject to a dual use (aerodrome/public areas).
response	Noted. The current NPA does not provide proposal to change the characteristics of the lights. EASA is aware about the issue of the characteristics of the lights displayed on the vehicles provided in ICAO Annex 14, Vol I, Aerodromes and in CS/GM that when they are on the public roads outside the aerodrome area, they are non-compliant with the relevant road regulation. This regulation is not in the remit of EASA. The issue was already discussed at the visual aids thematic meeting. EASA will present and coordinate the issue with ICAO and further consult the issue at the European level. The commentator is also invited to contribute to the subject with the available material and clarifications.

comment	*72* comment by: *Copenhagen Airports A/S* "Use of the wording "shall" is inappropriate" "Shall" should be replaced with the wording "should". The CS should be moved to AMC1 ADR.OPS.B.080. Reference to the specifications in relevant CS should be added. Justification: This way there will be consistency with other Part-ADR.OPS such as AMC3 ADR.OPS.B.070 and the NPA proposed CS ADR-DSN.R.855.
response	Noted. Typos are corrected and 'shalls' are changed with 'shoulds', as appropriate. We agree with the comment that the specifications provided in CS are more suitable for Part ADR.OPS. As stated in explanatory note of NPA, since there is no adequate reference in AMC the specifications will remain in CS and paragraphs (a), (b) and (c) will be moved to AMC with amendments of aerodrome rules.

comment	*125* comment by: *French CAA* This amendment of CS ADR-DSN.Q.850 does not take into account remarks from France concerning lights used on French airports by the various vehicles, among which RFF vehicles - orange or blue revolving lights, which are also approved for use on public highway. These should be allowed, even though they do not comply with every characteristic of low-intensity type C lights.
response	Noted. The current NPA does not provide proposal to change the characteristics of the lights. EASA is aware about the issue of the characteristics of the lights displayed on the vehicles provided in ICAO Annex 14, Vol I, Aerodromes and in CS/GM that when they are on the public roads outside the aerodrome area, they are non-compliant with the relevant road regulation. This regulation is not in the remit of EASA. The issue was already discussed at the visual aids thematic meeting. EASA will present and coordinate the issue with ICAO and further consult the issue at the European level. The commentator is also invited to contribute to the subject with the available material and clarifications.

comment	*220* comment by: *ACI EUROPE* *Concerning part (a):* According to the explanatory note, the intention of this amendment is to go in line with ICAO Annex 14 since Part ADR.OPS has no adequate reference for the lighting of mobile objects. But as ADR.OPS.B.080 "Marking and lighting of vehicles and other mobile objects" does provide a clear reference for mobile objects, we see some overlap between ADR-DSN.Q.850 (a) which requires lighting of any mobile objects whereas ADR.OPS.B.080 (in line with ICAO 6.1.1.1) exempts Aircraft servicing equipment and vehicle used only on aprons. ACI Europe therefore proposes to either remove this provision or to narrow it down to be in line with ADR.OPS.B.080 and ICAO Annex 14 6.1.1.1 and to exempt Aircraft servicing equipment and vehicle used only on aprons.
response	Not accepted. As stated in explanatory note of NPA, since there is no adequate reference in AMC the specifications will remain in CS and paragraphs (a), (b) and (c) will be moved to AMC with amendments of aerodrome rules. Paragraph (a) presents the characteristics of the lights

	when provided on vehicles, while AMC1 ADR.OPS.B.080 addresses the conditions and prevails as the requirement according to paragraph (a).
comment	*276* comment by: *ADV - German Airports Association* ADV rejects the amendment of para (a). The propopsed wording "...shall be displayed on vehicles and other mobile objects excluding aircraft..." would require each GSE to carry such lights. Especially in cases of non-powered equipment (e.g. passenger steps or baggage dollies) this is not practicable. Despite identical wording in Annex 14, section 6.2.2.5 , this particular requirement should be narrowed down to certain vehicle categories and/or locations - e.g. “operating regularly within the manoeuvring area”. Annex 14 contains a more or less comparable clarification in section 6.1.1.1: “Vehicles and other mobile objects, excluding aircraft, on the movement area of an aerodrome are obstacles and shall be marked and, if the vehicles and aerodrome are used at night or in conditions of low visibility, lighted, except that aircraft servicing equipment and vehicles used only on aprons may be exempt.”
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes. The requirement should be considered in line with ADR.OPS.B.080 Marking and lighting of vehicles and other mobile objects.
comment	*304* comment by: *Flughafen Berlin Brandenburg GmbH* FBB advocates for a limitation in terms of vehicle types and/or area within the airport boundaries. The current wording would require even non-powered GSE like passenger steps and baggage-dollies to be lighted. This would not be reasonably practicable. See also ICAO Annex 14, section 6.1.1.1.
response	Not accepted. The text is identical to ICAO Annex 14, Vol I, Aerodromes. The requirement should be considered in line with ADR.OPS.B.080 Marking and lighting of vehicles and other mobile objects.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.Q.851 p. 106-107

comment	*67* comment by: *Union des Aéroports français - UAF* **<u>UAF comments for CS ADR-DSN.Q.851 … of wind turbines</u>** L’UAF estime que cette CS doit au moins être complétée en précisant qu’elle ne s’applique que dans le cas où la zone est placée sous l’autorité de l’exploitant d’aérodrome, et considère même qu’elle ne devrait pas figurer dans les règles relatives aux aérodromes.
response	Noted. The purpose of the proposed amendment is to better align CS provisions with ICAO Annex 14, Vol I, Aerodromes and to provide users with the characteristics for marking and

	lighting of objects. The provisions are applicable only when the location of the wind turbine is under control of the aerodrome operator. The proposal was discussed the thematic meeting and agreed with the stakeholders. NPA contains further explanation on the provision.
comment	*144* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* we suggest to restructure the text under CS ADR-DSN.Q.851. See our suggestion below. **Proposed new text:** **CS ADR-DSN.Q.851 Marking and lighting of wind turbines** (a) When considered as an obstacle, a wind turbine should be marked and/or lighted. (b) Markings: The rotor blades except their extremities, the nacelle and the upper 2/3 of the supporting mast of wind turbines should be painted white, unless otherwise indicated by a safety assessment. The extremities of the rotor blades should be painted with red stripes. (c) Lighting of a single wind turbine: Where lighting is deemed necessary for a single wind turbine, the installation should be in accordance with the specifications below, or as determined by a safety assessment. 1. For wind turbines of less than 150 m in overall height (hub height plus vertical blade height), medium intensity lighting on the nacelle; 2. For wind turbines from 150 m to 315 m in overall height, in addition to the medium intensity light installed on the nacelle, a redundant light should be provided in case of failure of the operating light. The lights should be installed to assure that the output of either light is not blocked by the other; 3. In addition, for wind turbines from 150 m to 315 m in overall height, an intermediate level at half the nacelle height of at least 3 low intensity Type E lights, as specified in CS ADR-DSN.Q.846(c), that are configured to flash at the same rate as the light on the nacelle. Low-intensity type A or B lights may be used if a safety assessment shows that low intensity type E lights are not suitable. 4. The obstacle lights should be installed on the nacelle in such a manner as to provide an unobstructed view for aircraft approaching from any direction. (d) Lighting of wind farms: When lighting is deemed necessary, in the case of a wind farm (i.e. a group of two or more wind turbines), the wind farm should be regarded as an extensive object and lights should be installed: 1. On selected wind turbines and according to CS ADR-DSN.Q.851 (c) to identify the perimeter of the wind farm; 2. Respecting the maximum spacing, in accordance with CS ADR-DSN.Q.846 (i), between the lights along the perimeter, unless an safety assessment indicates that a greater spacing can be used; 3. Where flashing lights are used, they flash simultaneously throughout the wind farm; 4. Within a wind farm, any wind turbine of significantly higher elevation is also identified wherever they are located.
response	Not accepted. The text is in line with the Amendment 13 to ICAO Annex 14, Vol I,

	Aerodromes. The commentator is invited to provide to EASA the proposal with the justification, to be further consulted for one of the forthcoming NPAs.

comment	*168* comment by: *Bavarian Aviation Authority* Since this NPA regulates aerodromes it is questionable to what extend wind turbines are relevant within that scope. Wind turbines and wind farms around aerodromes should not be regulated differnetly than those occuring throughout the rest of the country or in the vicinity of aerodromes outside the scope of EASA rules. Therefore rules and regulations have to cover the whole spectrum of wind turbines and not only in relation to a certified aerodrome. Marking and lighting of wind turbines is covered by German legislation already. The chapter wind turbines should be moved to GM.
response	Noted. The purpose of the proposed amendment is to better align CS provisions with ICAO Annex 14, Vol I, Aerodromes and to provide users with the characteristics for marking and lighting of objects. The provisions are applicable only when the location of the wind turbine is under control of the aerodrome operator. The proposal was discussed the thematic meeting and agreed with the stakeholders. NPA contains further explanation on the provision.

comment	*253* comment by: *ADV - German Airports Association* Since CS only adress aerodromes it is questionable to what extend wind turbines are relevant within that scope. Wind turbines and wind farms around aerodromes should not be regulated other than those occuring throughout the whole country or in the vicinity of aerodromes outside the scope of EASA rules. Therefore rules and regulation have to cover the whole spectrum of wind turbines and not only in accordance with a certified aerodrome. If this CS shall adress Wind Turbines within the area under the control of the aerodrome operator, that has to be made clear within the CS! However, ADV is not aware of the existence of such Wind turbines.
response	Noted. The purpose of the proposed amendment is to better align CS provisions with ICAO Annex 14, Vol I, Aerodromes and to provide users with the characteristics for marking and lighting of objects. The provisions are applicable only when the location of the wind turbine is under control of the aerodrome operator. The proposal was discussed the thematic meeting and agreed with the stakeholders. NPA contains further explanation on the provision. CS ADR-DSN.Q.840 and CS ADR-DSN.Q.841 define which objects to be marked and/or lighted within or outside the lateral boundaries of the obstacle limitation surfaces. These specifications apply only to the area under control of the aerodrome operator.

comment	*294* comment by: *HCAA/D3A* **CS ADR-DSN.Q.851 Marking and lighting of wind turbines** [Editorial] The numbering (1) … (3) should be corrected to (a) … (c). In (c)(2)(v)(C) “low intensity Type E lights” are mentioned, but their characteristics are not given in Tables Q-1 or Q-2, or anywhere else.
response	Partially accepted. The numbering is correct. The table Q-2 is amended with the

characteristics of the low-intensity Type E lights according to the Amendment 13 to ICAO Annex 14, Vol I, Aerodromes.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.Q.852 p. 107-113

comment	*68* comment by: *Union des Aéroports français - UAF* **<u>UAF comments for CS ADR-DSN.Q.852 … of wind turbines</u>** L'UAF estime que cette CS doit au moins être complétée en précisant qu'elle ne s'applique que dans le cas où la zone est placée sous l'autorité de l'exploitant d'aérodrome, et considère même qu'elle ne devrait pas figurer dans les règles relatives aux aérodromes.
response	Noted. The purpose of the proposed amendment is to better align CS provisions with ICAO Annex 14, Vol I, Aerodromes and to provide users with the characteristics for marking and lighting of objects. The provisions are applicable only when the location of the wind turbine is under control of the aerodrome operator. The proposal was discussed the thematic meeting and agreed with the stakeholders. NPA contains further explanation on the provision.

comment	*169* comment by: *Bavarian Aviation Authority* According to ICAO Annex 14 (Table 6-3), column should be changed from "1 25" to "1125".
response	Noted. The text is corrected accordingly.

comment	*254* comment by: *ADV - German Airports Association* See comment on CS ADR-DSN.Q.852 respectively.
response	Noted.

comment	*255* comment by: *ADV - German Airports Association* Table Q-3 contains a typo. 1 25 should be changed to 1 125.
response	Noted. The text is corrected accordingly.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.R.855 p. 114

comment	*73* comment by: *Copenhagen Airports A/S* The deleted requirements (a) (2) and (d) should be moved to ADR.OPS.B.070 "Aerodrome works" under GM3 ADR.OPS.B.070 subitem (c): *GM supplement:* *A closed marking may be displayed on a temporarily closed runway, or taxiway, or portion thereof, except that such marking may be omitted when the closing is of short duration, and adequate warning by air traffic services is provided.*

	Lighting on a temporarily closed runway, or taxiway, or portion thereof may not be operated, except as required for maintenance purposes. *Radio navigation equipment like LOC, DME, GP to a temporarily closed runway may not be in operation, except as required for maintenance purposes.* Different means can be used as marking for a temporarily closed runway or taxiway. A safety assessment should lead to which means are necessary depending on the specific aerodrome works.
response	Noted. Paragraphs (a) (2) and (d) are relevant for the OPS part and are deleted from CS. It is possible to use flexibility tools to show compliance with the CS.

comment	*126* comment by: *French CAA* The corresponding amendment of part ADR.OPS should have been simultaneously included in this NPA. Besides, we propose to EASA that technical specifications (characteristics and operational procedures) are introduced concerning mobile lighted crosses, which are used in some states to mark out runways temporarily closed on aerodromes with parallel or almost parallel runways, in order to avoid confusion between both runways.
response	Noted. The proposed amendments on AMC ADR will be included in a separate NPA. The commentator is invited to provide EASA with the proposal and justification, to be further consulted in one of the forthcoming NPAs.

comment	*295* comment by: *HCAA/D3A* **CS ADR-DSN.R.855 Closed runways and taxiways, or parts thereof** Old paragraph (d) is proposed either to preserved, or to be moved to CS ADR-DSN.M.615 General, where it could form a new paragraph (e).
response	Noted. Paragraph (d) is relevant for the OPS part and is deleted from CS.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.R.880 p. 114-116

comment	*19* comment by: *René Meier, Europe Air Sports* CS ADR-DSN.S.880 New Table S-1 Change right column title "Maximum switch-over time" please.
response	Noted. The typo is corrected accordingly.

comment	*127* comment by: *French CAA* Some footnotes are missing in the table S-1
response	Noted. Table S-1 is reviewed accordingly.

comment	*237* comment by: *ADV - German Airports Association*

	The head of Table S-1 contains a typo.
response	Noted. The typo is corrected accordingly.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.S.890 p. 116

comment	*20* comment by: *René Meier, Europe Air Sports* CS ADR-DSN.S.890 (d) and (e) Delete "than a value of...", please make it read "of 550 m" only.
response	Not accepted. The text remains unchanged, because the consistency with ICAO Annex 14, Vol I, Aerodromes.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.T.900 p. 119

comment	*128* comment by: *French CAA* We suggest introducing in the CS itself the exception related to emergency access road meant for RFF, which is currently only mentionned in the GM1 ADR-DSN.T.900
response	Noted. The proposed change is not provided in the current NPA. The proposal will be further consulted in one of the forthcoming NPAs.

3. Proposed amendments - BOOK 1 - CS ADR-DSN.T.915 p. 119

comment	*47* comment by: *Avinor AS* The working group suggested to exchange 240m with "within RESA", as it makes no sense to talk about 240 m on a code 1 or 2 runway. We understand EASA will probably wait for ICAO to make this change, but Avinor will still give EASA a reminder on this inconsistency.
response	Noted. EASA supports the intention of amending the chapter No 9.9 'Siting of equipment and installations on operational areas' of ICAO Annex 14, Vol I, Aerodromes, follows the developments at the ICAO level and will propose amendment of the appropriate CS when commonly agreed.

comment	*270* comment by: *ADV - German Airports Association* The 240 m provision should be changed into "within RESA" to remove the existing inconsistency.
response	Noted. EASA supports the intention of amending the chapter No 9.9 'Siting of equipment and installations on operational areas' of ICAO Annex 14, Vol I, Aerodromes, follows the developments at the ICAO level and will propose amendment of the appropriate CS when commonly agreed.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.A.002 p. 127

comment	*87* comment by: *Aena Aeropuertos, S.A.* The reference to ICAO Annex 6, Chapter 4 is incorrect or incomplete.
response	Noted. The text is amended accordingly.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.A.005 p. 128

comment	*21* comment by: *René Meier, Europe Air Sports* GM1 ADR-DSN.A.005 (c) and others Question: Why "aeroplanes" only, not "aircraft"? But why is there "aircraft" adjusted in (e) on line 5, replaced by "aeroplane" on line 7? Rationale: There are many aerodromes with mixed operations, i.e. considerably rotary wing ops in parallel with fixed wing ops. Did I miss something en-route?
response	Noted. CS ADR-DSN.A.005 Annex 14, Vol I, Aerodromes defines the aerodrome reference code (ARC) consisting of a code number and letter. The ARC, selected for aerodrome planning purposes, should be determined in accordance with the characteristics of the aeroplane for which an aerodrome facility is intended. The code letter or number within an element selected for design purposes is related to the critical aeroplane characteristics for which the facility is provided. GM1 ADR-DSN.A.005 is reviewed and corrected in the places where the ARC refers to (critical) aeroplane characteristics. Paragraph (c) refers to the general impact of aircraft on the aerodrome design, therefore the text is returned back to refer to an aircraft.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.B.085 p. 130

comment	*186* comment by: *John Hamshare* As the text concerning overload operations is identical to GM2 ADR.OPS.C.010 (b) (1) of EASA's Aerodrome Rules [Pavements, other ground surfaces, and drainage], Heathrow Airport Ltd agrees to remove this duplicated provision. Nevertheless we propose to insert in GM1 ADR-DSN.B.085 a cross-reference to GM2 ADR.OPS.C.010 (b) (1) to ensure that already existing demonstrations of compliance referring to the guidance material of this CS remain valid without future amendments.
response	Not accepted. Paragraph (d) of GM1 ADR-DSN.B.085 is deleted because its nature is purely operational and is identical to the same requirement in Part ADR.OPS. Although we agree with the comment, CS-ADR-DSN cannot refer to Part ADR.OPS of the aerodrome rules.

comment	*194* comment by: *ACI EUROPE* As the text concerning overload operations is identical to GM2 ADR.OPS.C.010 (b) (1) of

	EASA's Aerodrome Rules [Pavements, other ground surfaces, and drainage], ACI Europe agrees to remove this duplicated provision. Nevertheless we propose to insert in GM1 ADR-DSN.B.085 a cross-reference to GM2 ADR.OPS.C.010 (b) (1) to ensure that already existing demonstrations of compliance referring to the guidance material of this CS remain valid without future amendments.
response	Not accepted. Paragraph (d) of GM1 ADR-DSN.B.085 is deleted because its nature is purely operational and is identical to the same requirement in Part ADR.OPS. Although we agree with the comment, CS-ADR-DSN can not refer to Part ADR.OPS of the aerodrome rules.

comment	*231* comment by: *ADV - German Airports Association* Guidance of overload Operations should remain at least as a cross reference to GM2 ADR.OPS.C.010.
response	Not accepted. Paragraph (d) of GM1 ADR-DSN.B.085 is deleted because its nature is purely operational and is identical to the same requirement in Part ADR.OPS. Although we agree with the comment, CS-ADR-DSN cannot refer to Part ADR.OPS of the aerodrome rules.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.B.090 p. 130-131

comment	*74* comment by: *Copenhagen Airports A/S* Recommend to include ICAO Annex 14, item 3.1.24 under GM1 ADR-DSN.B.090: "The surface of a paved runway should be evaluated when constructed or resurfaced to determine that the surface friction characteristics achieve the design objectives." And finally add reference to Table 1 under GM1 ADR.OPS.C.010(b)(3). Additional guidance will help the reader to find the link between the CS and the OPS.
response	Partially accepted. The GM is amended with the proposed text, since it has design requirements, while the reference to the table in OPS is not relevant to the CS/GM provisions.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.B.125 p. 132

comment	*22* comment by: *René Meier, Europe Air Sports* GM1 ADR-DSN.B.125 (c) Text and idea behind fully understood, but there are some aircraft, very few indeed, with more than four engines. Should we change to the formula "distance of the outermost engine from the fuselage centerline"? Rationale: This would cater for the An-225, a rare bird, I know...; today already projects with even more than 6 engines exist, we should therefore be open to new aircraft designs.
response	Noted. The guidance material is provided to give further guidance to CS. The location of the

engine and also its height should be considered which depends of the aerodrome design requirements.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.B.165 p. 134

comment	*23* comment by: *René Meier, Europe Air Sports* GM1 ADR-DSN.B.165 "...delethalised..." is a bit strong, we believe. We propose: "...the strip surface, the negative effects should be reduced to an absolute minimum, that is..." Rationale: Our proposal better reflects the situation described.
response	Not accepted. The term 'delethalised' is already in use in some national regulations and provides just the explanation and not any strict requirement.

comment	*37* comment by: *Cologne Bonn Airport/Marcus Kunze* Since the CS B.165 (c) demand it for the graded portion, it would be uniform, if the wording would be the same in the CS and GM. Graded area should be renamed in graded portion.
response	Accepted. Both terms 'graded area' and 'graded portion' of the runway strip are in use in ICAO Annex 14, Vol I, Aerodromes. In the current GM the term 'graded area' is change with 'graded portion' to be consistent with the CS text.

comment	*259* comment by: *ADV - German Airports Association* Since the CS B.165 (c) demand it for the graded portion, it would be uniform, if the wording would be the same in the CS and GM. Graded area should be renamed in graded portion.
response	Accepted. Both terms 'graded area' and 'graded portion' of the runway strip are in use in ICAO Annex 14, Vol I, Aerodromes. In the current GM the term 'graded area' is change with 'graded portion' to be consistent with the CS text.

comment	*280* comment by: *ADV - German Airports Association* ADV strongly support this amendmend regarding the qualified description of slopes for underground vertical surfaces.
response	Noted.

comment	*308* comment by: *daa - Dublin & Cork airports* daa considers that in line with its response previously issued to the EASA survey in relation to this certification specification that the requirement to install slopes retroactively around buried or surface level fittings would be a complex and extremely expensive project with minimal evident safety benefits. The practical aspects, allied to the text in the suggested guidance material, i.e. 30cm below ground level, to a strength that would support the emergency passage of an aircraft would be very difficult to address and would lead to

	significant non-compliance at aerodromes throughout Europe and require the use of long term flexibility tools such as a Deviation. Manifestly, these airfields are not unsafe to operate based on information that is to hand in relation to aircraft excursion occurrences to date and as such daa would support the deletion of this requirement entirely and its' associated guidance material from Issue 3.
response	Not accepted. The provided CS and GM refer to the text in ICAO Annex 14, Vol I, Aerodromes. The question on how to eliminate a buried vertical surface was widely discussed with the stakeholders. EASA also performed a survey and discussed the issue at the thematic meeting. The requested slope is deleted from the CS provision, remaining only the requirement that a slope should be provided to minimise hazards to aeroplanes running off the runway. GM provides additional explanation and gives more flexibility on how to delethalise a buried vertical surface, for example providing the slope in the directions from which an aircraft is likely to approach. The proposed amendment of GM was agreed with the stakeholders at the thematic meeting. We appreciate your contribution to the survey.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.B.175 p. 134-135

comment	*24* comment by: *René Meier, Europe Air Sports* GM1 ADR-DSN.B.175 (b) The meaning of this text is not precise enough in our view: Which aircraft mass the author was thinking of: Max. take-off mass, max landing mass, something in-between? Rationale: More precise guidance is needed, in our view.
response	Noted. ICAO Aerodrome Design Manual, Doc 9157, part 1 Runways emphasises that runway strip should provide a graded area for aeroplanes for which the runway is intended to serve in the event of an aeroplane running off the runway. The graded portion of a strip should be designed using information on aircraft running off runways.GM is amended with the reference to ICAO Aerodrome Design Manual.

comment	*232* comment by: *ADV - German Airports Association* Changing the text from "may be desirable" to "should be considered" weakens the clarity of this guidance. There are no criterias set for this consideration. Especially, the necessity of stopping an aircraft beeing able to leave the 105m strip has to be taken into account.
response	Noted. That portion of a strip to be graded is defined in CS ADR-DSN.B.175 and refers to the requirements provided in ICAO Annex 14, Vol I, Aerodromes. The rest of the strip area is provided to protect overflying. The proposal on defining criteria for stopping an aircraft leaving 105 m width will be consulted, however the commentator is invited to provide to EASA the proposed amendment of GM with the text and justification for the consideration into one of the forthcoming NPAs.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.B.191 p. 136-138

comment	*38* comment by: *Cologne Bonn Airport/Marcus Kunze* Such requirements, even if they are in the first step only GM, the method of proof of compliance should be named, since it is hard for middle to small airports to find and know, which are the proper testing methods for confirmation. If they can't be named in the CS, the EASA should give out information and suggestions, how airports can proof their competent authority their compliance.
response	Noted. Paragraph ATT-A-8 Drainage characteristics of the movement area and adjacent areas of Annex 14, Vol I, Aerodromes is transposed into GM in order to give maximum level of flexibility. The aerodrome operator should show compliance with CS/ER to his competent authority.

comment	*347* comment by: *Manchester Airport (MAG)* GM1 ADR-DSN.B.191 Joint technical query from the resident Manchester Airport (MAG Capital Delivery) and design partner (AECOM) pavement civil engineers: *'The explanation of dynamic drainage and contact friction given within the draft narrative is informative as to the aspects and background, the understanding is good. However, what is the guidance as a target to actually achieve / target for macro texture of both grooved and un-grooved new surface layers and how is this catered for in service life durability terms? Is this explicit criteria for sawn closed and open textured material suitable for all locations or what is the target zoned figures (and test standards)? Is the end result ultimately based on wet friction testing under controlled conditions?'*
response	Noted. Paragraph ATT-A-8 Drainage characteristics of the movement area and adjacent areas of Annex 14, Vol I, Aerodromes is directly transposed into GM in order to give maximum level of flexibility with the hook to the safety objective in CS to minimise water depth on the surface. Further questions do not require the amendment of the GM, however, EASA will review the questions with ICAO and provide commentator with the replies. If helpful, GM will be updated accordingly in one of the forthcoming NPAs.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.B.200 p. 138

comment	*25* comment by: *René Meier, Europe Air Sports* GM1 ADR-DSN.B.200 (c) Is "economy of a stopway" the best possible wording? Question: Would "efficiency" not be a better term?
response	Noted. The text is identical to ICAO Annex 14, Vol I, Aerodromes and already exists from the initial issue of aerodrome rules. However, the proposal is noted and will be consulted in one of the forthcoming NPAs.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.C.210 p. 139-141

comment	*26* comment by: *René Meier, Europe Air Sports* GM1 ADR-DSN.B.210 (a)(1) Between"railroad", and "or other constructed or natural features" you may add "power lines". Rationale: Power lines are a common sight in the vincinity of many aerodromes of all sizes. In GM1 ADR-DSN.Q.841 such power lines are mentioned.
response	Noted. The text is identical to ICAO Annex 14, Vol I, Aerodromes and already exists from the initial issue of aerodrome rules. The comment does not refer to the proposed amendment of GM in NPA. However, the proposal is noted and will be consulted in one of the forthcoming NPAs.

comment	*88* comment by: *Aena Aeropuertos, S.A.* Figure GM-C-1 should show the width of the RESA stated in CS ADR-DSN.C.215, which says that the width of the RESA must be equal, wherever practicable, to that of the graded portion of the associated runway strip.
response	Not accepted. The text and figure are identical to ICAO Annex 14, Vol I, Aerodromes. The width of a runway end safety area should be at least twice that of the associated runway and, wherever practicable, be equal to that of the graded portion of the associated runway strip. The comment does not refer to the proposed amendment of GM in NPA. Showing both possibilities at the drawing might be confusing, however, the proposal is noted and will be consulted in one of the forthcoming NPAs.

comment	*108* comment by: *French CAA* The "and " in the last sentence of §b) (2) (iii) shall be replaced by "or" : “to reducing some of the declared distances of the runway for the provision of a RESA **or** installation of an arresting system”.
response	Partially accepted. The text is amended as follows: ‘… to reducing some of the declared distances of the runway for the provision of a runway end safety area and/or installation of an arresting system’.

comment	*164* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* GM1 ADR-DSN.BC.210 Figure GM-C-1: In order to follow the same logic as used in the proposed figure, which specifies the possible length (standard 90 m and recommended 240 m), we suggest to add also the full possible width of a RESA to the figure.
response	Not accepted. The text and figure are identical to ICAO Annex 14, Vol I, Aerodromes. The width of a runway end safety area should be at least twice that of the associated runway and, wherever practicable, be equal to that of the graded portion of the associated runway

	strip. The comment does not refer to the proposed amendment of GM in NPA. Showing both possibilities at the drawing might be confusing, however, the proposal is noted and will be consulted in one of the forthcoming NPAs.
comment	*371* comment by: *Airbus* GM1 ADR-DSN.B~~C~~.210 (c) (1) Rewording for increased clarity (underlined in bold) assuming that our proposal is of the right understanding of the text intent. Proposal: "This research was driven by the recognition that many runways where natural obstacles, local development, and/or environmental constraints inhibiting the provision of RESA and leading to limited dimension RESAs
response	Partially accepted. The text is amended to read: This research was driven by the recognition that many runways where natural obstacles, local development, and/or environmental constraints inhibit the provision of RESA and lead to limited dimension of RESA.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.C.236 p. 142

comment	*2* comment by: *Swedish Transport Agency* Why will not then the actual length of the runway starter extension affect the runways declared distances? The main purpose with a runway starter extension is to add an extra distance for take-off. It should therefore be logical to add the length of the runway starter extension to the declared distances.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.
comment	*8* comment by: *UK CAA* **Page No:** 143 **Paragraph No:** GM1 ADR-DSN.C.236 Runway Starter Extension Physical Characteristics **Comment:** It is believed that paragraph (a) is incorrect and we recommend that it should be removed or reworded. **Justification:** The reason for using a Runway Starter extension is to provide additional ASDA/TORA/TODA for a given runway, therefore the declared distances will by default

	become longer.
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*145* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* GM1 ADR-DSN.C.236: we suggest to add the following paragraph (c): **Proposed new paragraph (c)** (c) The inclusion of a runway starter extension at an aerodrome needs to be assessed by the local ANSP (e.g. radio phraseology).
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*282* comment by: *TRANSPORT AUTHORITY, Slovak republic* .C.236 (a) need to by clarified, what is the purpose of RWY starter extension if declared distances are not affected by starter extension, what is than operational benefit of it? this statement is in contradiction with see page 5 2. Explanatory note, 2.1 CS ADR-DSN.C.236 "for the runway starter extension which may be used for runways where additional distance is requied for take-off
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment	*346* comment by: *Manchester Airport (MAG)* Attachment #6 GM1 ADR-DSN.C.236 (a)

We do not agree that the declared distances for a take-off runway remain unaffected by the addition of a runway starter extension. The extra take-off distance a starter extension provides may be included within the runway's declared TORA, TODA and ASDA but not LDA.

Please see attached current EGCC AIP (declared distances) entry extract. Runway 23L has a 150m Starter Extension.

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

comment

372 comment by: *Airbus*

GM1 ADR-DSN.C.236

Rewording of (a) “In certain cases, it may be needed to reconsider Obstacle Limitation Surfaces (OLS) and procedures for air navigation services – aircraft operations. (PANS-OPS) surfaces to correspond with requirements for higher aerodrome reference code.”for increased clarity needed as do not understand the sentence as is and text intent as a result.

response

Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.C.238 p. 143

comment

373 comment by: *Airbus*

GM1 ADR-DSN.C.238

“The length of the runway starter extension strip may need to be increased for other factors, e.g. blast (see Figure C-1)”. There is no straightforward link between Figure C-1 and consideration of other factors?

proposal:
Remove reference to Figure C-1 and add examples of “other factors”

response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.D.240 p. 143

comment	*374* comment by: *Airbus* GM1 ADR-DSN.D.240 Lack of clarity: (g) The runway/taxiway configuration should be 'regular', for example with single taxiway entrances The ex mentioning "single taxiway entrances" is not clear as many airports have multiple taxiway entrances è puts into question the added value of the example. The term used "regular" as no precise meaning
response	Noted: With the term 'single taxiway entrances' it is not meant the number of entrances across the runway, but the type of the design, unlike the term 'dual taxiway entrances', when the taxiways are close to each other and are used for the aeroplane bypasses entering and/or exiting the runway. The terms are used in ICAO Aerodrome design manuals. The text is amended to read: The runway/taxiway junction configuration should be simple, for example with single taxiway entrances; this is particularly relevant for taxiways crossing runways.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.D.340 p. 147-148

comment	*375* comment by: *Airbus* GM1 ADR-DSN.D.340 Rephrasing for better clarity: "The critical area is protected ~~because~~ the presence of vehicles and/or aircraft inside its boundaries will cause unacceptable disturbance to the ILS signal-in-space. proposal: "As the presence of vehicles and/or aircraft inside the critical area boundaries would cause systematically unacceptable disturbance to the ILS signal, the critical area is protected"
response	Accepted: the text is amended to read: The critical area is protected, since the presence of vehicles and/or aircraft inside the critical area boundaries would cause unacceptable disturbance to the ILS signal

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.H.420 p. 150

comment	*376* comment by: *Airbus* GM1 ADR-DSN.H.420 Proposed guidance would deserve clarification proposal: (e) For relatively level runways the selection of elevation datum location is not critical, but when the thresholds differ by more than 6 m, the ~~location of the elevation datum should be considered and~~ choice of the elevation datum should have particular regard to the following factors ~~as~~: i) the elevation of the most frequent used altimeter setting datum points, ii) minimum circling altitudes in use or required, and iii) the nature of operations at the aerodrome. For more complex inner horizontal surfaces, with runways on different levels, as shown in Figure GM-H-2, or runways where the thresholds differ more than 6 m, a common elevation is not essential, but where surfaces overlap, the lower surface should be regarded as dominant.
response	Partially accepted. The text is amended accordingly, however the choice of the elevation datum should regard to different factors. The guidance material refers to three factors, but does not limit their number.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.J.487 p. 153

comment	*146* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* *Comment FOCA:* We do not understand the value added by the GM1 ADR-DSN.J.487 and suggest to delete it.
response	Noted. The text corresponds to paragraph 4.3 Objects outside the obstacle limitation surfaces of ICAO Annex 14, Vol I, Aerodromes.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.L.567 p. 157

comment	*283* comment by: *TRANSPORT AUTHORITY, Slovak republic* .L.567 Figure L-5A does not exist (might be Figure GM - L-1???)
response	Noted. During the public consultation EASA received different comments on the proposed runway starter extension requirements. After the subsequent consultation during the thematic meetings, EASA decided to remove the certification specifications for the runway starter extension from the current update of the aerodrome rules (CS Issue 3) and to perform additional focused consultation on the runway starter extension requirements. The certification specifications for the runway starter extension will be proposed in one of the forthcoming NPAs as part of the regular updates of the aerodrome rules. The numbering of Chapter C will remain unchanged.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.L.595 p. 158

comment	*207* comment by: *ACI EUROPE* ACI Europe recommends the adoption of ACI World industry standards (Apron Safety Handbook) as Guidance Material in this case. For example the above mentioned “wing tip clearance lines”, are very well described and could be used here.
response	Not accepted. CS-ADR-DSN Books 1 and 2 refer only to available ICAO material.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.L.597 p. 158-159

comment	*277* comment by: *ADV - German Airports Association* (b) add: When an apron service road crosses a taxiway, a separate road traffic sign **or marking** should indicate that vehicles are required to stop. Especially within the apron area a sign might represent an obstable. Hence, the word "marking" should be added.
response	Accepted. The GM is amended accordingly to cover the case when a sign is not possible to be provided, and the marking on the road indicate that the vehicle is required to stop.

comment	*279* comment by: *ADV - German Airports Association* (b) might be in slight contradiction to the requirements of CS ADR-DSN.L.600 (c)(2), where only a "right-of-way" is required.
response	Accepted. The GM is amended accordingly to cover the case when a sign is not possible to be provided, and the marking on the road indicate that the vehicle is required to stop.

comment	*296* comment by: *HCAA/D3A* **GM1 ADR-DSN.L.597 Apron service road marking** The wording “or marking” is proposed to be added in (b) after the word “signs”, since signs are probably not possible to be installed on the apron.
response	Accepted. The GM is amended accordingly to cover the case when a sign is not possible to be provided, and the marking on the road indicate that the vehicle is required to stop.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.M.730 p. 165-166

comment	*99* comment by: *Airport Zurich* Whereas the respective article in Annex 14 also refers to ICAO Doc 9157 and whereas this Aerodrome Design Manual has helped a lot in the past, technology has evolved over the course of more than 30 years when this Doc 9157 has been published. Hence, any reference to it seems not appropriate and should be deleted.

response	Not accepted. The text refers to ICAO text in Annex 14, Vol I, Aerodromes and is kept because the consistency with ICAO. We agree with the comment that the ICAO Doc 9157, Aerodrome Design Manual, Part 5, Electrical Systems is relatively old and will work on updating the text with more accurate guidance in the future issues of CS. Zurich Airport is invited to continue its contribution to the developments of CS/GM for aerodrome design as well in the future.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.S.875 p. 191

comment	*184* comment by: *John Hamshare* Proposal to delete (e): As the overall purpose is to ensure the continuity of the visible lights of air navigation facilities, there is no need to measure the electrical switch-over time. The relevant switch-over time is the photometric based. As this is Guidance Material, Heathrow Airport Ltd recommends to change paragraph (e) from “should be established” to “may be established”.
response	Accepted. The text is amended accordingly.

comment	*216* comment by: *ACI EUROPE* Proposal to delete (e): As the overall purpose is to ensure the continuity of the visible lights of air navigation facilities, ACI Europe sees no need to measure the electrical switch-over time. The relevant switch-over time is the photometric based. As this is Guidance Material, ACI Europe recommends to change in paragraph (e) “should be established” into “may be established”.
response	Accepted. The text is amended accordingly.

comment	*269* comment by: *ADV - German Airports Association* (e) Replace „should be established“ by „may be established“. This should only be required if changes in times are expected.
response	Accepted. The text is amended accordingly.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.S.890 p. 192

comment	*27* comment by: *René Meier, Europe Air Sports* GM1 ADR-DSN.S.890 (a) Please replace "appropriate authority" by "competent authority" as used in the Executive Summary. Rationale: Our proposal sounds better and is more widely used in our circles.
response	Accepted. The text is corrected accordingly.

comment	*89* comment by: *Aena Aeropuertos, S.A.* *(a) For a runway meant for use in runway visual range conditions less than a value of 550 m, the minimum serviceability level of any element of the lighting system detailed in Table S-1, below which operations should not continue, is normally set up by the appropriate authority.* The "appropriate authority" must be defined.
response	Accepted. The text is corrected accordingly.

comment	*98* comment by: *Juanmolina* As per CS ADR-DSN.S.895, a light shall be deemed unserviceable when the main beam average intensity is less than 50 % of the value specified in the appropriate Figure in CS ADR-DSN.U.940. Furthermore, CS ADR-DSN.S.890 recommends lighting systems intended for RVR of less than 550 m to automatically monitor systems specified in CS ADR-DSN.S.895 and indicate when the serviceability level falls below a minimum level. The issue is that there is no commercially available system that can achieve these requirements, specifically the automatic monitoring and indication. The only system available for aerodromes to actually assess these serviceability levels is on-site photometric testing, which is not automatic, and which results are not usually relayed back to air traffic services. The suggestion would be to alter the CS ADR-DSN.S.890 clause so that it reflects what is currently possible, possibly aiming for the operational objective of the system to be automatic.
response	Not accepted. The text refers to ICAO text of Annex 14, Vol I, Aerodromes. The commentator is invited to contribute with the material and justification for the proposed amendment of the relevant CS/GM for aerodrome design in future.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.S.895 p. 192

comment	*90* comment by: *Aena Aeropuertos, S.A.* The eliminated sentence in (a) can generate interpretations problems. From our point of view, the sentence must be maintained.
response	Noted. The text is deleted because its nature is purely operational and belongs to Part-OPS.

3. Proposed amendments - BOOK 2 - GM1 ADR-DSN.T.915 p. 193-194

comment	*217* comment by: *ACI EUROPE*

	ACI Europe suggests to replace “within 240 m” by “within RESA” as it is inconsistent with the RESA requirements for code 1 and 2 runways.
response	Noted. EASA supports the intention of amending the chapter No 9.9 ‘Siting of equipment and installations on operational areas’ of ICAO Annex 14, Vol I, Aerodromes, follows the developments at the ICAO level and will propose amendment of the appropriate CS when commonly agreed.

3. Attachments

STARTER EXTENSION COMMENTS.pdf
Attachment #1 to comment #76

Piste exploitée à vue				Piste exploitée aux instruments						
				Approche classique				Approche de précision		
								catégorie I		catégorie II ou III
chiffre de code				chiffre de code				chiffre de code		chiffre de code
1	2	3	4	1	2	3	4	1 ou 2	3 ou 4	3 ou 4
2 000 m	2 500 m	4 000 m		3 500 m		4 000 m		3 500 m	4 000 m	4 000 m

Attachment #2 to comment #53

EASA_ADR_Issue-3_Figures_Starter-extension_Markings.pdf
Attachment #3 to comment #134

Service road comments.pdf
Attachment #4 to comment #80

EASA_ADR_Issue-3_Figures_Starter-extension_Lights.pdf
Attachment #5 to comment #141

EGCC AD 2.13 DECLARED DISTANCES.pdf
Attachment #6 to comment #346