



European Union Aviation Safety Agency
Comment-Response Document 2017-14

Appendix
to ED Decision 2019/012/R

RELATED NPA 2017-14 — RMT.0638 — 23.05.2019

Table of contents

1. Summary of the outcome of the consultation	2
2. Individual comments and responses	3
3. Attachments	93



1. Summary of the outcome of the consultation

Please refer to Section 2.4. of the Explanatory Note to ED Decision 2019/012/R.



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.

(General Comments)	-
---------------------------	---

comment	1		comment by: <i>Aena Aeropuertos, S.A.</i>
---------	---	--	---

response		<p>Regarding the content of the document, Aena has no comments. However, we think the operational requirements included in chapter 6 of Annex 14, Volume II, should be taken into account, as well as, the design criteria.</p>	
----------	--	---	--

response		<p>Noted</p> <p>NPA 2017-14 focuses on certification specifications (CSs) and guidance material (GM) (CS-HPT-DSN) for the design of surface-level VFR heliports located at aerodromes that fall under the scope of Regulation (EU) 2018/1139. Further development of helicopter operational requirements will be evaluated and, if justified, provided in the following updates of the aerodrome/heliport rules.</p>	
----------	--	--	--

comment	6		comment by: <i>rega</i>
---------	---	--	-------------------------

response		<p>AN14/II distinguishes between “shall” (mandatory) and “should” (recommended), however NPA 2017-14 only uses “should” throughout the whole document. All Text shall be corrected according to AN14/II regarding the use of “shall” and “should”.</p>	
----------	--	--	--

response		<p>Not accepted</p> <p>Certification specifications are non-binding technical standards issued by EASA which indicate the means to demonstrate compliance with Regulation (EU) 2018/1139 and the delegated and implementing acts adopted on the basis thereof, and which can be used by organisations for the purpose of certification.</p>	
----------	--	---	--



In accordance with the definition of the certification specifications provided above, the certification specifications are non-binding technical standards. In the EU regulatory framework, 'shall' is reserved for binding requirements; as a result, 'should' is the proper term to be used when drafting certification specifications.

comment 7 comment by: *rega*

NPA 2017-14 adheres to ICAO ANNEX 14 VOL. II but differs regarding sequence of subjects, its scope (restricted to VFR Heliports) and some technical details. We strongly recommend to either refer to ICAO ANNEX 14 VOL. II and only publish additional or more stringent requirements or operational limitations if the requirements of ICAO ANNEX 14 VOL. II could not be met, or copy paste the relevant articles of ICAO ANNEX 14 VOL. II regarding to the scope of this NPA without changing anything.

response Noted

NPA 2017-14 focuses on certification specifications (CSs) and guidance material (GM) (CS-HPT-DSN) for the design of surface-level VFR heliports located at aerodromes that fall under the scope of Regulation (EU) 2018/1139. Further development of helicopter operational requirements will be evaluated and, if justified, provided in the following updates of the aerodrome/heliport rules.

comment 8 comment by: *rega*

All recommendations of ICAO ANNEX 14 VOL. II shall not be treated as requirements.

response Noted

The contents of the CSs and GM that are proposed with NPA 2017-14 were agreed at the thematic meetings and amended accordingly, after the evaluation of the received comments and performed focused consultation meeting.

comment 9 comment by: *rega*

Figures in Book 1 are named e.g. "Figure F-1" and in Book 2 e.g. "Figure GM1 F-1". In order to prevent mistake of figures all figures in Book 1 should be named accordingly, e.g. "Figure CS F-1".

response Noted



The EASA convention regarding naming of figures has been followed. The proposed Book 1 and Book 2 are now consolidated in one book.

comment

43

comment by: *Swedish Transport Agency*

Previously, Sweden had problems with aerodromes arranging helipads on a number of different surfaces just by putting a “H” on the surface. To deal with this problem the Swedish Transport Agency created a national regulation to make it easier to establish helicopter areas to use as FATO, TLOF and helicopter air taxiways. Since then, the previous problems almost has disappeared.

NPA 2017-14 puts the whole ICAO Annex 14 Vol II “Surface-level heliports” as a regulation to follow for a “fixed wing” aerodrome. The Swedish Transport Agency consider it will be of value to create some parts that can make it easier to establish FATO, TLOF, helicopter air taxiways and helicopter stands.

response

Noted

NPA 2017-14 focuses on certification specifications (CSs) and guidance material (GM) (CS-HPT-DSN) for the design of surface-level VFR heliports located at aerodromes that fall under the scope of Regulation (EU) 2018/1139. Further development of helicopter operational requirements will be evaluated and, if justified, provided in the following updates of the aerodrome/heliport rules.

comment

95

comment by: *Avinor AS*

In addition to comments to specific CS's and GM's, Avinor has a general comment to the use of GM's to describe location and characteristics:

Visual aids described in GM:

The location and characteristics of the following visual aids are described in GM HTP-DSN:

CS HPT-DSN.F.510 Wind direction indicators

CS HPT-DSN.F.620 Flight path alignment guidance marking

CS HPT-DSN.F.630 Approach lighting system

CS HPT-DSN.F.640 Flight path alignment guidance lighting system

CS HPT-DSN.F.650 Visual alignment guidance system

Avinor comments: In the CS ADR-DSN the location or characteristics of the visual aids are described in CS even when the installation of such aids are not compulsory.

The method used in ADR-DSN underscores that visual aids, if installed, are subject to specifications concerning location, characteristics and design. Avinor suggests to use the same setup in the HTP-DSN and that these descriptions are moved from GM to CS.



	<p>Example from CS ADR-DSN:</p> <p>CS ADR-DSN.M.670 Runway threshold identification lights</p> <p>(a) Applicability:</p> <p>(1) <i>The inclusion of specifications for runway threshold identification lights is not intended to imply that the runway threshold identification lights have to be provided at an aerodrome.</i></p> <p>(2) Where provided, runway threshold identification lights should be installed:</p> <p>(i) at the threshold of a non-precision approach runway when additional threshold conspicuity is necessary or where it is not practicable to provide other approach lighting aids; and</p> <p>(ii) where a runway threshold is permanently displaced from the runway extremity or temporarily displaced from the normal position and additional threshold conspicuity is necessary.</p> <p>(b) Location: Runway threshold identification lights should be located symmetrically about the runway centre line, in line with the threshold and approximately 10 m outside each line of runway edge lights.</p> <p>(c) Characteristics:</p> <p>(1) Runway threshold identification lights should be flashing white lights with a flash frequency between 60 and 120 per minute;</p> <p>(2) The lights should be visible only in the direction of approach to the runway.</p>
response	<p>Accepted</p> <p>The relevant certification specifications (CSs) are amended to clarify the safety objective and ‘where provided’ is added to paragraphs pertaining to the location of the aids.</p>
comment	<p>102 comment by: EUROCONTROL</p> <p>The EUROCONTROL Agency welcomes the publication of EASA Notice of Proposed Amendment 2017-14. It also thanks EASA for the opportunity that has been given to submit comments. In addition, despite the fact that it has no comments to make on the NPA, the EUROCONTROL Agency would like to confirm that it will read with interest the comments on the NPA received from stakeholders and the responses given to them by EASA in its future CRD.</p>
response	<p>Noted</p>
comment	<p>107 comment by: Federal Office of Civil Aviation (FOCA), Switzerland</p> <p>The Federal Office of Civil Aviation (FOCA) would like to thank the Agency for the good work and the opportunity to comment on this draft NPA.</p>
response	<p>Noted</p>

comment

124

comment by: ACI Europe

ACI EUROPE welcomes the opportunity to submit some general comments on this NPA. While we consider this NPA from a technical point of view as a useful guidance for aerodromes with rotary wing operations, after wide ranging consultations with ACI EUROPE members (several of whom have submitted their technical comments via the CRT tool) the following observations were raised with regards to the applicability of the NPA:

The consultation with our members has revealed that many airports that do not have dedicated heliports were unclear about the applicability of the NPA to their airport. In addition, some had not been able to get any guidance from their respective Competent Authority if their aerodrome would be in the scope of this NPA. As a result, some of these aerodromes were reluctant to provide their feedback on this NPA.

There are a range of specific scenarios not explicitly explained in this NPA where it remains unclear if this NPA applies to affected aerodromes. While not an exhaustive list, below are a number of cases where the applicability of the NPA remains doubtful. In order to enhance clarity of this NPA either a clear definition of which aerodromes are affected by this regulation or a statement covering which types of aerodrome/operations are not in the scope of this regulation should be added to the draft regulation:

1) ADRs with dedicated heliports for commercial operations where the heliport is part of the land owned by the aerodrome but managed by a different operator. Many commercial helicopter operators establish themselves with their own hangar apron and/or passenger handling areas on the airport

2) ADRs with dedicated heliports on airport land but used and operated by third parties such as customs, police, emergency services, military etc.

3) ADRs with heliports operated by third parties such as customs, police, emergency services, military etc. adjacent to the aerodrome but not part of the aerodrome land itself.

If NPA 2017-14 does not include such operations as described above, would they then be regulated by ICAO Annex 14, Vol II?

As NPA 2017-14 covers VFR operations, would IFR helicopter operations be regulated by the CS ADR or ICAO Annex 14, Vol II?

response

Noted

At an aerodrome which falls under the scope of Regulation (EU) 2018/1139 (Basic Regulation) and which has more than one runway and possibly a heliport or parts thereof (for example, where a runway is used as a FATO), at least one runway meets the criteria contained in Article 2 of the Basic Regulation. This means that for other 'types' of runways or heliports or parts thereof located at an aerodrome which is within the scope of the Basic Regulation, it is not compulsory to meet the criteria of Article 2 of the Basic Regulation; they should though meet the requirements for their design,



certification and oversight. CS-HPT-DSN applies to the design of surface-level VFR heliports or parts thereof, including those that are not open for public use or for commercial air transport, when they are located at aerodromes that fall under the scope of Basic Regulation. The Basic Regulation does not apply to aerodromes or parts thereof, as well as equipment, personnel and organisations that are controlled and operated by the military. Article 34 of the Basic Regulation defines that a certificate should be issued to aerodrome within its scope, while Article 37 defines that a certificate should be issued to the organisation that operates an aerodrome. The definition of a heliport is in accordance with ICAO Annex 14, Volume II, Heliports.

comment

135

comment by: *John Hamshare*

General comment – LHR requests that EAA clarify applicability of this regulation. Since the publication of this NPA many organisations (aerodromes, regulators) have expressed uncertainty about the applicability specific aspects of the regulation. The current text regarding the definition of a ‘heliport’ is only applicable to ‘an aerodrome or a defined area on a structure’; this is not in line with the intended scope of CS-HPT-DSN. LHR requests that EASA clarify the scenarios for which specific parts of this regulation apply or do not apply to certificated aerodromes, e.g. if a helicopter aiming point positioned away from all runways is used only when runway operations are not active, which sections apply to that aiming point and which do not.

response

Noted

At an aerodrome which falls under the scope of Regulation (EU) 2018/1139 (Basic Regulation) and which has more than one runway and possibly a heliport or parts thereof (for example, where a runway is used as a FATO), at least one runway meets the criteria contained in Article 2 of the Basic Regulation. This means that for other ‘types’ of runways or heliports or parts thereof located an aerodrome which is within the scope of the Basic Regulation, it is not compulsory to meet the criteria of Article 2 of the Basic Regulation; they should though meet the requirements for their design, certification and oversight. CS-HPT-DSN provisions are applicable to the design of surface-level VFR heliports or parts thereof, including those that are not open for public use or for commercial air transport, which are located at aerodromes that fall under the scope of Regulation (EU) 2018/1139. This Regulation does not apply to aerodromes or parts thereof, as well as equipment, personnel and organisations that are controlled and operated by the military. Article 34 of Basic Regulation defines that a certificate should be issued to aerodrome in the scope, while Article 37 defines that a certificate should be issued to the organisation that operates an aerodrome.

comment

146

comment by: *Flughafen Berlin Brandenburg GmbH*

	<p>We support EASAs approach developing the new CS-HPT.DSN requiriements under the scope of Regulation (EC) 216/2008. From our point of view general explanation of how this CS has to be handled within the certification process for aerodromes in the scope of Regulation (EU) 139/2014 is still missing. There is a need to adopt the existing AMC and GM related to aerodrome operations for the new issue of heliport operations (special comments on this later) e.g. Heliport Data or Rescue and Firefighting Services.</p> <p>In comparision with ICAO Annex 14 Vol. II we support EASAs approach to try to stick nearly to the same wording within CS-HPT.DSN what is good to compare with the current situation but a lot of recommendations of this Annex have been moved by EASA to CS and not to GM without rationale. We try to comment these aspects within the further commentation.</p>
response	<p>Noted</p> <p>NPA 2017-14 contains only certification specifications and guidance material for the design of surface-level VFR heliports located at aerodromes that fall under the scope of Regulation (EU) 2018/1139. CS-HPT-DSN should be used in conjunction with Regulation (EU) 139/2014; however, further development of helicopter operational requirements will be evaluated and, if justified, provided in the following updates of the aerodrome/heliport rules. The EASA CSs and GM cannot be directly compared with ICAO SARPs. The definition of certification specifications is ‘Certification specifications are non-binding technical standards issued by EASA which indicate the means to demonstrate compliance with Regulation (EU) 2018/1139 and the delegated and implementing acts adopted on the basis thereof, and which can be used by organisations for the purpose of certification.’ The definition of guidance material is ‘Guidance material is non-binding material issued by EASA which helps to illustrate the meaning of a requirement or specification and is used to support the interpretation of Regulation (EU) 2018/1139, the delegated and implementing acts adopted on the basis thereof, certification specifications and acceptable means of compliance’.</p>
comment	<p>151 comment by: <i>Gael Le Bris</i></p> <ul style="list-style-type: none"> · - Safety objectives should be added each time a new concept is introduced. · - The case of FATO/TLOF collocated with runways and taxiways is not mentioned in the NPA.
response	<p>Noted (first part)</p> <p>Where relevant, safety objectives are added along with the applicability.</p> <p>Noted (second part)</p>

Where relevant, the certification specifications (CSs) and guidance material (GM) for aerodrome design (CS-ADR-DSN) are applicable to the helicopter operations being conducted at such aerodromes.

comment

158

comment by: *Gael Le Bris*Attachment [#1](#)

.

Additional propositions for Guidance Materials

CS ADR-DSN Issue 3 includes standards for apron markings (in particular: L.590 and L.595). Since these standards and GM are restricted to VFR heliports located at aerodromes, GM should mention as a best practice that helicopter stand markings should incorporate features visible on aircraft stands as far as they are not in contradiction with the specificities of helicopter operations.

- o Example 1: pedestrian walkways are important safety items at heliports. A standard exists in CS ADR-DSN and could be mentioned in the GM1 HPT-DSN.
- o Example 2: helicopter stands identification markings are not mentioned.
- o Example 3: see recommendation from guide “Marquages et signalisation de l’aire de trafic” (*Markings and Signage on the Apron*) by the Infrastructure Workgroup of Les Aeroports Francophones (The French-Speaking Airports): <https://sites.google.com/site/infraalfaaci/publications/guides-techniques>

response

Noted

The provisions of CS-HPT-DSN are provided for heliports located at the aerodromes within the scope of Regulation (EU) 2018-1139. Where relevant, the certification specifications (CSs) and guidance material (GM) for aerodrome design (CS-ADR-DSN) are applicable to the helicopter operations being conducted at such aerodromes. For additional proposals, the commentator is invited to provide to EASA a proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.

comment

159

comment by: *Gael Le Bris*Attachment [#2](#)

.

Additional propositions for Guidance Materials

	<p>Secondary helicopter stands are not mentioned in CS HPT-DSN, unlike in CS ADR-DSN.L.590 (d)(1) for aircraft stands:</p> <ul style="list-style-type: none"> o - Lead-in, turning, and lead-out lines should, as far as practicable, be continuous in length and have a width of not less than 15 cm. Where one or more sets of stand markings are superimposed on a stand marking, the lines should be continuous for the most demanding aircraft and broken for other aircraft. o It is proposed to introduce such mention into GM1 HPT-DSN.D300: ADD “Where one or more sets of stand markings are superimposed on a stand marking, the lines should be continuous for the most demanding helicopter and broken for other helicopter.” <p>.</p> <p>If a helicopter taxiway exists, a good practice is to equip it with the same features than aircraft taxiways at this airport e.g.:</p> <ul style="list-style-type: none"> o mandatory instruction marking displaying the name of the FATO (e.g. 01H-19H), “FATO AHEAD”, or “RWY AHEAD” depending on the practice at this airport. o Holding position marking at the edge of the safety area. o Enhanced taxiway center line markings. <p><i>See example at Paris-CDG here below:</i></p>
response	<p>Noted</p> <p>The provisions of CS-HPT-DSN are in line with the current version of ICAO Annex 14, Volume II, Heliports. For the additional proposals, that are not provided in NPA 2017-04, the commentator is invited to provide to EASA a proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.</p>

1. About this NPA	p. 3
--------------------------	------

comment	<p>131 comment by: <i>Urząd Lotnictwa Cywilnego Poland</i></p> <p><u>General note</u></p> <p>We generally welcome the submission of a document relating to the regulation of heliports (co-located at certified airports). Nevertheless, it is important to provide a sufficiently long time for the implementation of new requirements (it is necessary to provide adequate training and qualification to the inspectors who are responsible for proper actions and time for those responsible for the infrastructure of heliports needed to adapt them to the new regulations).</p>
response	<p>Noted</p> <p>NPA 2017-14 refers to certifications specifications and guidance material and not to timeframe for demonstration of compliance. The demonstration of compliance with aerodrome rules is defined by Annexes II and III to Regulation (EU) No 139/2014.</p>



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

p. 4

comment

63

comment by: Jan Loncke

§ 2.1 (pag. 4)

The text explaining the scope, might have been written a little more unequivocally. In order to clarify the scope, some examples to which it is not applicable, such as aerodromes where (VFR only) operations are conducted where no instrument approach or departure procedures are provided, elevated helidecks, ship board helidecks, offshore installations, hospital heliports, might have been added in the explanation.

response

Noted

The scope of the rulemaking task is defined by the Terms of Reference and the applicability paragraph, CS HPT-DSN.A.010.

At an aerodrome which falls under the scope of Regulation (EU) 2018/1139 (Basic Regulation) and which has more than one runway and possibly a heliport or parts thereof (for example, where a runway is used as a FATO), at least one runway meets the criteria contained in Article 2 of the Basic Regulation. This means that for other 'types' of runways or heliports or parts thereof located at an aerodrome which is within the scope of the Basic Regulation, it is not compulsory to meet the criteria of Article 2 of the Basic Regulation; they should though meet the requirements for their design, certification and oversight. CS-HPT-DSN applies to the design of surface-level VFR heliports or parts thereof, including those that are not open for public use or for commercial air transport, when they are located at aerodromes that fall under the scope of Basic Regulation. The Basic Regulation does not apply to aerodromes or parts thereof, as well as equipment, personnel and organisations that are controlled and operated by the military.

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

p. 5

comment

71

comment by: DGAC

CS HPT-DSN.A.010 Applicability

(a) The certification specifications (CSs) of Book 1 and the related guidance material (GM) in Book 2 are applicable to the design of surface-level VFR heliports located at aerodromes that fall under the scope of Commission Regulation (EC) No 216/2008



(b) The CSs of Book 1 and GM of Book 2 should be used in conjunction with the CSs and GM for aerodrome design (CS-ADR-DSN).

(c) The CSs for aerodrome design (CS-ADR-DSN) are applicable to infrastructure intended to be used by both helicopters and aeroplanes.

Comment:

The previous wording was less confusing than the new proposal. The deletion of “for the exclusive use of helicopters” may imply that CS HPT-DSN are also applicable to infrastructures intended to be used by both helicopters and aeroplanes. This confusion is moreover emphasised by paragraph (b) and is inconsistent with paragraph (c).

As a consequence the DGAC proposes to amend the paragraph (a) accordingly.

Moreover, paragraph (b) could be removed since these CS HPT-DSN apply to aerodrome operators who fall under the scope of CS ADR-DSN. It comes from an ICAO note that aims to raise awareness of heliport designer/regulator about relevant items from Annex 14 Volume 1.

As a consequence, DGAC proposes to remove the paragraph (b).

New CS HPT-DSN.A.010 proposal :

CS HPT-DSN.A.010 Applicability § (a)

(a) The certification specifications (CSs) of Book 1 and the related guidance material (GM) in Book 2 are applicable to the design of infrastructure for the exclusive use of helicopters provided at surface-level VFR heliports located at aerodromes that fall under the scope of Commission Regulation (EC) No 216/2008.

(b) The CSs for aerodrome design (CS-ADR-DSN) are applicable to infrastructure intended to be used by both helicopters and aeroplanes.

response

Noted

The applicability clause in CS HPT-DSN.A.010 has been amended accordingly.

comment

147

comment by: Flughafen Berlin Brandenburg GmbH

There is a need to add specific AMC and GM related to the Heliport operations like Heliport Data or Rescue and Firefighting Services as well new content for AMC and GM ADR.OR.E.005 Aerodrome Manual.

response

Noted

NPA 2017-14 contains only certification specifications and guidance material for the design of surface-level VFR heliports located at aerodromes that fall under the scope of Regulation (EU) 2018/1139. CS-HPT-DSN should be used in conjunction with Regulation (EU) No 139/2014; however, further development of helicopter operational requirements will be evaluated and, if justified, provided in the following updates of the aerodrome/heliport rules.



3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.A.010

p. 7

comment 44 comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*

Situations exist where FATO(s) are provided on runways used by aeroplanes. Is this situation legitimate? A 'hybrid' form of a FATO or TLOF on a 'regular' runway is not (yet) recognized in CS-HPT-DSN.

response Noted

A runway can be considered as a FATO. The physical characteristics of the RWY lights and markings in CS-ADR-DSN have precedence.

comment 64 comment by: *Jan Loncke*

§ 3.1 (pag. 7 & subsequent)

Throughout the NPA, reference is being made to helicopter operations performance classes. For aerodrome professional experts, not being helicopter operations specialists, it might have been helpful to indicate where an explanation is available on the different performance classes.

(EU 965/2012 – Annex I Definitions – Annex IV Part CAT : CAT.POL.H.100 through CAT.POL.H.420 incl. related AMC & GM)

response Accepted

GM1 HPT-DSN.A.020 has been amended with a general reference to EU OPS and ICAO Annex 6.

comment 71 ❖ comment by: *DGAC*

CS HPT-DSN.A.010 Applicability

(a) The certification specifications (CSs) of Book 1 and the related guidance material (GM) in Book 2 are applicable to the design of surface-level VFR heliports located at aerodromes that fall under the scope of Commission Regulation (EC) No 216/2008

(b) The CSs of Book 1 and GM of Book 2 should be used in conjunction with the CSs and GM for aerodrome design (CS-ADR-DSN).

(c) The CSs for aerodrome design (CS-ADR-DSN) are applicable to infrastructure intended to be used by both helicopters and aeroplanes.



Comment:

The previous wording was less confusing than the new proposal. The deletion of “for the exclusive use of helicopters” may imply that CS HPT-DSN are also applicable to infrastructures intended to be used by both helicopters and aeroplanes. This confusion is moreover emphasised by paragraph (b) and is inconsistent with paragraph (c).

As a consequence the DGAC proposes to amend the paragraph (a) accordingly.

Moreover, paragraph (b) could be removed since these CS HPT-DSN apply to aerodrome operators who fall under the scope of CS ADR-DSN. It comes from an ICAO note that aims to raise awareness of heliport designer/regulator about relevant items from Annex 14 Volume 1.

As a consequence, DGAC proposes to remove the paragraph (b).

New CS HPT-DSN.A.010 proposal :

CS HPT-DSN.A.010 Applicability § (a)

(a) The certification specifications (CSs) of Book 1 and the related guidance material (GM) in Book 2 are applicable to the design of infrastructure for the exclusive use of helicopters provided at surface-level VFR heliports located at aerodromes that fall under the scope of Commission Regulation (EC) No 216/2008.

(b) The CSs for aerodrome design (CS-ADR-DSN) are applicable to infrastructure intended to be used by both helicopters and aeroplanes.

response

Noted

The applicability clause in CS HPT-DSN.A.010 has been amended accordingly.

comment

143

comment by: *Flughafen Berlin Brandenburg GmbH*

Please give more clarification on the applicability of CS-ADR.DSN and CS-HPT.DSN in the rule A.010. For example: For infrastructure for use by helicopters only, the CS-HPT.DSN are applicable, for infrastructure for use by both helicopters and aeroplanes, the CS-ADR.DSN are applicable.

response

Noted

The applicability clause in CS HPT-DSN.A.010 has been amended accordingly. The certification specifications (CSs) and the related guidance material (GM) (CS-HPT-DSN) are applicable to the design of surface-level VFR heliports or parts thereof located at aerodromes that fall under the scope of Regulation (EU) 2018/1139. Where relevant, the certification specifications (CSs) and guidance material (GM) for aerodrome design (CS-ADR-DSN) are applicable to the helicopter operations being conducted at such aerodromes.



3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN A.020

p. 7-9

comment 45 comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*

In CS-HPT-DSN references are made to (helicopter) performance classes 1,2 and 3. Additional information, normative figures and facts as well as some background information on the different performance classes are not incorporated in CS-HPT-DSN. Strange enough ICAO Annex 14 Volume II doesn't describe the performance classes either. It would be advisable to add the description of the three performance classes in the definitions or in additional GM.
In the definition of 'heliport' there should be a reference to 'a part of an aerodrome'. The current text regarding the definition of a 'heliport' is only applicable to 'an aerodrome or a defined area on a structure'; this is not in line with the intended scope of CS-HPT-DSN.

response Accepted (first part)
GM1 HPT-DSN.A.020 has been amended with a general reference to EU OPS and ICAO Annex 6, Operations of Aircraft.
Not accepted (second part)
The definition of heliport is identical to the definition of heliports provided in Annex 14, Volume II, Heliports.

comment 72 comment by: *DGAC*

CS HPT-DSN.A.020 Definitions

'Heliport reference point (HRP)' means the designated location of a heliport or a landing location.

Comment:

This definition is not used in the NPA. DGAC proposes to remove it.

response Accepted
The definition of HRP has been removed.

comment 136 comment by: *John Hamshare*



	<p>In CS-HPT-DSN references are made to (helicopter) performance classes 1,2 and 3. Additional information, normative figures and facts as well as some background information on the different performance classes are not incorporated in CS-HPT-DSN. It would be advisable to add the description of the three performance classes in the definitions or in additional GM.</p> <p>The definition of a runway type FATO should be more comprehensive, including an image if possible.</p>
response	<p>Accepted (first part)</p> <p>GM1 HPT-DSN.A.020 has been amended with a general reference to EU OPS and ICAO Annex 6, Operations of Aircraft.</p> <p>Noted (second part)</p> <p>Considering a runway-type FATO, the reference is made to ICAO Annex 14, Volume II, Heliports.</p>

comment	<p>152</p> <p>comment by: <i>Gael Le Bris</i></p> <ul style="list-style-type: none"> · Mistyping in the title: DSN.A.020 vs DSN.A 020 · The following definitions are missing: <ul style="list-style-type: none"> o Design helicopter ; o Rotor diameter.
response	<p>Noted (first part)</p> <p>Not accepted (second part)</p> <p>Both terms are not defined by ICAO. The commentator is invited to provide to EASA a proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.</p>

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.B.100

p. 9-10

comment	<p>10</p> <p>comment by: <i>rega</i></p> <p>(b)(1)</p> <p>Ref ICAO ANNEX 14 VOL. II 3.1.2 and ICAO ANNEX 14 VOL. II 3.1.25</p> <p>No objects shall be allowed on FATO. (5 cm objects are allowed under certain conditions on safety area only)</p>
---------	--



response Not accepted
 A FATO should be obstacle-free. Objects that penetrate a plane at a height of 5 cm above the FATO are not considered as an obstacle.

comment 11 comment by: *rega*
 (b)(4)(iii)
Ref ICAO ANNEX 14 VOL. II, 3.1.5 c)
 Required for performance class 1 only

response Accepted
 The relevant paragraph of CS HPT-DSN.B.100 has been amended accordingly.

comment 46 comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*
 In point (b)(2) the abbreviation AFM is used for the term Helicopter Flight Manual. The correct abbreviation for this term is HFM; this abbreviation is also used in ICAO Annex 14 Volume II. This comment also applies to GM1 HPT-DSN.E.410(b) *Approach surface*.

response Accepted
 The text has been changed to read ‘helicopter (aircraft) flight manual (HFM)’.

comment 70 comment by: *Jan Loncke*
 CS HPT-DSN.B.100 (b)(2) (pag. 9) & GM1 HPT-DSN.E.410 (pag. 46) to replace AFM by HFM.

response Accepted
 The text is changed to read ‘helicopter (aircraft) flight manual (HFM)’.

comment 73 comment by: *DGAC*
CS HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) § (a) (1):



	<p><i>(a) Location:</i> <i>(1) A heliport should be provided with at least one final approach and take-off area (FATO).</i></p> <p>Comment : An aerodrome may not have a dedicated FATO for helicopters operations, for example when departures and arrivals of helicopters take place on aeroplanes infrastructures (runway, runway strip, taxiway, taxiway strip). In this case the infrastructure is seen as the FATO during helicopter operation but the CS-ADR shall only apply, in consistency with CS-HPT-DSN.A.010.</p> <p>In order to clarify this potential case, we would find useful to add a related guidance material.</p>
response	<p>Noted</p> <p>A runway can be considered as a FATO. The physical characteristics of the runway lights and marking in CS-ADR-DSN have precedence.</p>

comment	<p>87 comment by: DGAC</p> <p>CS HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) § (a) (2): <i>(a) Location:</i> <i>[...] (2) The FATO should be located so as to minimise the influence of the surrounding environment, including turbulence.</i></p> <p>GM1 HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) § (a) (2) and table GM1-B-1 <i>(a) General:</i> <i>[...]</i> <i>(2) Where a FATO is located near a runway or taxiway, and when simultaneous helicopter and aeroplane operations are planned, the separation distance between the edge of a runway or taxiway and the edge of a FATO should not be less than the appropriate dimension in Table GM1-B-1.</i></p> <p>Comment : Agreed with the necessity of this CS.</p> <p>Regarding the FATO minimum separation table (Table GM1-B-1), from the Annex 14 Volume 2, proposed in GM: There is a consensus at the ICAO Heliport Design Working Group about its obsolescence. It should be removed from the Annex.</p> <p>A quick assessment highlights the contradiction between this table and the minimum distance separation between runways.</p>
---------	---

	<p>The separation distance between FATO edge and runway edge for light helicopters/aeroplanes is 60m. If we add a runway half-width, even the largest 30m for code F, and for example a 15m FATO half-width + 3m SA, the RWY/FATO centre lines would be separated by 108m. This is inconsistent with the minimum distance between parallel non-instrument runways (CS ADR-DSN.B.050), 120m for runway code 4.</p> <p>Using code runway 1C values, runway half-width is at the maximum 11.5m + 60m (table GM1-B-1) + 18m (FATO+SA) gives 89.5m separation distance according to CS HPT-DSN. It is still in contradiction with the 120m minimum separation distance sets by CS ADR-DSN.B.050.</p> <p>The higher values (120/180/250m) given for heavier helicopter can also be inconsistent with the CS ADR-DSN.B.050, not to mention CS ADR-DSN.B.055 for instrument runway.</p> <p>As a consequence, DGAC proposes to replace this table with a general requirement for a safety assessment at aerodrome level to allow simultaneous operations.</p>
response	<p>Not accepted (comment on GM1 HPT-DSN.B.100)</p> <p>The text and the table are identical to the relevant text and table in ICAO Annex 14, Volume II, Heliports, paragraph 3.1.63, 3.1.64 and Table 3-1, and they are provided as guidance material. The commentator is invited to provide to EASA a proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.</p>

comment

88

comment by: DGAC

CS HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) § (4) (iii)*(4) The surface of the FATO should:**[...]**(iii) have bearing strength sufficient to accommodate a rejected take-off by helicopters;***CS HPT-DSN.B.120 Touchdown and Lift-Off Areas (TLOF) § (b) (2) and (3)***(b) Characteristics:**[...]**(2) Where the TLOF is within the FATO, the TLOF should be dynamic load-bearing.**(3) Where a TLOF is collocated with a helicopter stand, the TLOF should be static load-bearing and be capable of withstanding the traffic of the helicopters that the area is intended to serve.***CS HPT-DSN.C.200 Helicopter ground taxiways and helicopter ground taxi-routes § (d) (1)***(d) Surface conditions:*

(1) A helicopter ground taxiway should be static load-bearing and capable of withstanding the traffic of the helicopters the helicopter ground taxiway is intended to serve.

CS HPT-DSN.C.210 Helicopter air taxiways and helicopter air taxi-routes § (d) (2)

(d) Surface conditions:

[...]

(2) The surface of a helicopter air taxiway should be static load-bearing.

CS HPT-DSN.D.300 Helicopter Stands § (c) (7)

(c) Surface conditions:

[...]

(7) The central zone of a helicopter stand should be capable of withstanding the traffic of helicopters it is intended to serve and have a static load-bearing area:

Comment :

These specifications raise two issues.

Firstly, there is no technical means to measure bearing strength of unpaved surfaces in order to prove compliance with these CSs. However, grass FATO, TLOF, taxiways and stands have never been an issue and shall still be allowed.

There are two options to solve this issue:

1. Option 1

The applicability of the CS is limited to paved surfaces, as follows:

(4) The surface of the FATO should:

[...]

“(iii) when paved, have bearing strength sufficient to accommodate a rejected take-off by helicopters;”

Option 2

2. Guidance materials can be added to each CSs, stating that bearing strength measurement isn't needed for unpaved surfaces to demonstrate compliance.

Secondly, coefficient should be set by EASA to prove compliance with these CSs for paved surfaces. Either static load-bearing, dynamic load-bearing or a statement such as “be capable of withstanding the traffic of the helicopters that the area is intended to serve are required.

For static load bearing, only weight must be taken into account. But for the others requirements, coefficient must be set in a related guidance materials.

For instance, a 2.5*MTOW coefficient is proposed for dynamic load bearing in the ICAO Doc 9261. This coefficient was quoted in the former french heliport guidance manual (ITAC) and I think the same coefficient is used in the UK regulation CAP1264 - Standards for helicopter landing areas at hospital.

This issue may need further assessment through a RMT to set these coefficients.

response

Not accepted (comment on CS HPT-DSN.B.100)



The text is in line with paragraph 3.1.6 (c) of Annex 14, Volume II, Heliports. Considering new proposals, the commentator is invited to provide EASA proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.

comment 105 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Comment FOCA on CS HPT-DSN.B.100 (b)(1): the sentence seems incorrect and incomplete.

Proposed new text:

A FATO should be obstacle free.

The rest of the text applies for the surrounding safety area and should be moved into that chapter.

response Noted

The requirement refers to collocated TLOF with FATO and point (b)(1) of CS HPT-DSN.B.100 has been amended accordingly.

comment 139 comment by: *John Hamshare*

Point (a)(2) describes the required separation distance for a FATO to the edge of a runway or taxiway. Such separation distances should have a status as being Specifications instead of being GM. In CS-ADR-DSN separation distances are also a separate CS (D.260); CS-HPT-DSN should have the same approach on this matter.

Why is the required separation distance between a FATO and a taxiway the same as between a FATO and a runway? If the main reason for this minimum separation distances is (wake) turbulence an jet blast, it would be logical that the minimum separation distances between a FATO and a taxiway would be less than between a FATO and a runway. Wake vortex hazard is more likely to occur near a runway than near a taxiway.

response Not accepted

The text is in accordance with paragraph 3.1.9 of Annex 14, Volume II, Heliports. The FATO minimum separation distances are provided in GM1 HPT-DSN.B.100, agreed at the thematic meeting and confirmed at the focused consultation meeting. Additional explanation is provided in GM under the Table GM1-B-1.

comment 153 comment by: *Gael Le Bris*



	<ul style="list-style-type: none"> · (b)(4)(iii) “have bearing strength sufficient to accommodate a rejected take-off by helicopters”: the term “accommodate” is vague. What does it mean in terms of damage? · (b)(4)(iii): unlike the draft CS-HPT-DSN, Annex 14 – Volume II Art. 3.1.6.c mentions that this requirement is for helicopters operated in performance class I.
response	<p>Not accepted (first part)</p> <p>The text is in accordance with paragraph 3.1.6 of Annex 14, Volume II, Heliports.</p> <p>Accepted (second part)</p> <p>The text has been amended accordingly with PC1 helicopters.</p>

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.B.110

p. 10

comment 106 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Comment FOCA on CS HPT-DSN.B.110: In our opinion, the characteristics of a Clearway (if provided) should be inserted in CS. We suggest to move para (b) of GM1 HPT-DSN.B.110 to CS.

Proposed text:

(b) Characteristics:

- (1) The width of a helicopter clearway should not be less than that of the associated safety area.
- (2) An object situated in a helicopter clearway, which may endanger helicopters in the air, should be regarded as an obstacle and should be removed.
- (3) The slope of a helicopter clearway should not project above a plane having an upward slope of 3 per cent, commencing at the periphery of the FATO.

response Accepted

The paragraph with the characteristics has been moved from GM to CS HPT-DSN.B.110 and amended accordingly. Point (a) is identical to the Note in Annex 14, Volume II, Heliports under the paragraph ‘Helicopter clearways’ and remains in GM.

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.B.120

p. 10

comment 47 comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*



To the requirement 'One TLOF should be located within the FATO or one or more TLOFs should be collocated with helicopter stands.' in point (a)(2) the word 'and' should be added between the words 'FATO' and 'or'. The requirement currently formulated implicates that only one TLOF should be present within a FATO though a runway-type FATO may contain more TLOF's. Besides that, if a TLOF is provided within a FATO, there can be TLOF's provided at helicopter stands simultaneously.

response Not accepted

Point (a) (2) of CS HPT-DSN.B.120 is in accordance with paragraph 3.1.15 of ICAO Annex 14, Volume II, Heliports. There are developments at this area at ICAO level, which will be considered, when adopted, in the forthcoming rulemaking tasks in future.

comment 48 comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*

The TLOF may be of any shape; this is however not described in point (b) of this CS (*characteristics*) but in GM1 in Book 2. In order to clarify this matter in an earlier stage it would be better to put this sentence in CS HPT-DSN.B.120 and delete the GM1 text in total.

response Noted

The note under paragraph 3.1.6 of Annex 14, Volume II, Heliports is not transposed since it does not add anything substantive.

comment 75 comment by: *DGAC*

CS HPT-DSN.B.120 Touchdown and Lift-Off Areas (TLOF) § (b) (5)

(b) Characteristics:

[...]

(5) The surface friction characteristics of a TLOF should be suitable for the helicopter it is intended to serve.

CS HPT-DSN.C.200 Helicopter ground taxiways and helicopter ground taxi-routes § (d) (3)

(d) Surface conditions:

[...]



(3) *The surface friction characteristics of a helicopter ground taxi-route should be suitable for the helicopter it is intended to serve.*

CS HPT-DSN.D.300 Helicopter Stands § (c) (6)

(c) *Surface conditions:*

[...]

(6) *The surface friction characteristics of a helicopter stand should be suitable for the helicopter it is intended to serve.*

Comment :

Compliance with these CSs cannot be demonstrated by measurements given the actual industry method. Indeed friction-measuring systems need to accelerate, stabilize and then break to obtain representative data. As a consequence, the first and last 300 meters of a runway cannot be assessed. Obviously, this method will not be applicable to heliport infrastructures.

Moreover, there is no technical method to assess friction characteristics for unpaved surface.

Given the absence of method to prove compliance with these specifications for both paved and unpaved surfaces, DGAC proposes to remove these requirements until the means of compliance are better defined.

response Accepted (comment on CS HPT-DSN.B.120)

The text has been amended accordingly.

comment

88 ❖

comment by: DGAC

CS HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) § (4) (iii)

(4) *The surface of the FATO should:*

[...]

(iii) *have bearing strength sufficient to accommodate a rejected take-off by helicopters;*

CS HPT-DSN.B.120 Touchdown and Lift-Off Areas (TLOF) § (b) (2) and (3)

(b) *Characteristics:*

[...]

(2) *Where the TLOF is within the FATO, the TLOF should be dynamic load-bearing.*

(3) *Where a TLOF is collocated with a helicopter stand, the TLOF should be static load-bearing and be capable of withstanding the traffic of the helicopters that the area is intended to serve.*

CS HPT-DSN.C.200 Helicopter ground taxiways and helicopter ground taxi-routes § (d) (1)

(d) *Surface conditions:*



(1) A helicopter ground taxiway should be static load-bearing and capable of withstanding the traffic of the helicopters the helicopter ground taxiway is intended to serve.

CS HPT-DSN.C.210 Helicopter air taxiways and helicopter air taxi-routes § (d) (2)

(d) Surface conditions:

[...]

(2) The surface of a helicopter air taxiway should be static load-bearing.

CS HPT-DSN.D.300 Helicopter Stands § (c) (7)

(c) Surface conditions:

[...]

(7) The central zone of a helicopter stand should be capable of withstanding the traffic of helicopters it is intended to serve and have a static load-bearing area:

Comment :

These specifications raise two issues.

Firstly, there is no technical means to measure bearing strength of unpaved surfaces in order to prove compliance with these CSs. However, grass FATO, TLOF, taxiways and stands have never been an issue and shall still be allowed.

There are two options to solve this issue:

1. Option 1

The applicability of the CS is limited to paved surfaces, as follows:

(4) The surface of the FATO should:

[...]

“(iii) when paved, have bearing strength sufficient to accommodate a rejected take-off by helicopters;”

Option 2

2. Guidance materials can be added to each CSs, stating that bearing strength measurement isn't needed for unpaved surfaces to demonstrate compliance.

Secondly, coefficient should be set by EASA to prove compliance with these CSs for paved surfaces. Either static load-bearing, dynamic load-bearing or a statement such as “be capable of withstanding the traffic of the helicopters that the area is intended to serve are required.

For static load bearing, only weight must be taken into account. But for the others requirements, coefficient must be set in a related guidance materials.

For instance, a 2.5*MTOW coefficient is proposed for dynamic load bearing in the ICAO Doc 9261. This coefficient was quoted in the former french heliport guidance manual (ITAC) and I think the same coefficient is used in the UK regulation CAP1264 - Standards for helicopter landing areas at hospital.

This issue may need further assessment through a RMT to set these coefficients.

response

Not accepted (comments on CS HPT-DSN.B.120)



The text is in accordance with Annex 14, Volume II, Heliports paragraphs 3.1.18 and 3.1.19 (Standards). Considering the proposal for defining the bearing strength coefficient, the commentator is invited to provide to EASA a proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.

comment

109

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

Comment FOCA on CS HPT-DSN.B.120: FOCA suggests to add the following text to the CS.

Proposed new text:

For runway-type FATOs, additional TLOFs located in the FATO are acceptable.

response

Accepted

The text has been amended accordingly.

comment

140

comment by: *John Hamshare*

If a TLOF may be of any shape, it may be circular. If a TLOF is circular it cannot comply with CS HPT-DSN.F.690(b)(4). If a TLOF is triangular, its markings have the same shape as an Aiming point and could therefore be misleading. An aiming point has a different function than a TLOF; see GM1 HPT-DSN.F.550(a). The 'free shape' of a TLOF should be reconsidered.

response

Accepted

Point (b) in GM1 HPT-DSN.B.120 is removed. Point (b) (4) of CS HPT-DSN.F.690 has been amended accordingly to exclude circular TLOF, while point (b) (5) of CS HPT-DSN.F.690 refers to a circular TLOF.

comment

144

comment by: *Flughafen Berlin Brandenburg GmbH***CS HPT-DSN.B.120****(a) General**

(2): *One TLOF should be located within the FATO....*

Where does this rule comes from? In Annex 14 Vol II Nr. 3.1.13 it is said as a note:

Note 1. - The TLOF may or may not be located within the FATO.

Note 2. - Additional TLOFs may be collocated with helicopter stands.



	<p>Please delete this rule in the cs and stick to Annex 14 Vol II. It is possible to have a FATO without a TLOF because of local characteristics e.g. at Zurich airport.</p> <p>(b) Characteristics <i>(4) Slopes on a TLOF should be ...</i></p> <p>In CS HPT-DSN.C.200 and 210 you are introducing a new category "Slopes". Please use consistent categories in all CSs and GMs.</p> <p><i>(5) The surface friction characteristics of a TLOF should be suitable for the helicopter it is intended to serve.</i></p> <p>There is no equivalent CS in the CS-ADR.DSN for Aprons. Why is there such a CS here? How should the heliport or aerodrome operator show compliance with this CS? In Annex 14 Vol. II is no equivalent standard, recommendation or note to this topic as well. Please delete in general.</p>
response	<p>Not accepted (first part)</p> <p>Point (a) (2) of CS HPT-DSN.B.120 is in accordance with Annex 14, Volume II, Heliports paragraph 3.1.15. Paragraph 3.1.13 in the current version of Annex 14, Volume II, Heliports is without a Note. Point (a)(1) of CS HPT-DSN.B.120 is in accordance with 3.1.14 while point (a)(2) is in accordance with paragraph 3.1.15. FATO without TLOF is not prohibited with CS; the requirement is that one TLOF should be provided within a FATO or a stand.</p> <p>Noted (second part)</p> <p>Point (b)(4) of CS HPT-DSN.B.120 is in accordance with Annex 14, Volume II, Heliports paragraph 3.1.17.</p> <p>Noted (third part)</p> <p>Point (b)(2) of CS HPT-DSN.C.200 is in accordance with Annex 14, Volume II, Heliports paragraph 3.1.30. Point (b) (9) of CS HPT-DSN.C.200 is in accordance with Annex 14, Volume II, Heliports paragraph 3.1.36. Points (b) (3), (4) and (5) of CS HPT-DSN.C.210 are in accordance with Annex 14, Volume II, Heliports paragraph 3.1.41.</p> <p>Accepted (fourth part)</p> <p>Point (b)(5) of CS HPT-DSN.C.120, as proposed in the NPA, has been deleted.</p>

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.B.130	p. 10-11
--	----------

comment 12

comment by: *rega*

response	<p>(b)(6)</p> <p><i>Ref ICAO ANNEX 14 VOL. II, 3.1.23</i> No safety assessment required</p> <hr/> <p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>13 comment by: <i>rega</i></p> <p>(b)(8)</p> <p><i>Ref ICAO ANNEX 14 VOL. II, 3.1.24</i> Frangible objects only</p>
response	<p>Accepted</p> <p>The frangibility requirement is in line with the current version of Annex 14, Volume II, Heliports, paragraph 3.1.24. The ICAO developments, proposed in the ICAO State Letter No. 18/097, foresee removal of the frangibility requirement, since the ICAO Frangible Aids Study Group concluded that frangibility is not relevant for the tail rotor. The frangibility requirement might be removed from CS-HPT-DSN following the adoption of the ICAO amendment in regular updates of heliport rules.</p>
comment	<p>14 comment by: <i>rega</i></p> <p>(b)(9)</p> <p><i>Ref ICAO ANNEX 14 VOL. II, 3.1.25 a), ICAO ANNEX 14 VOL. II 3.1.25 b)</i> The Height of the object is not restricted, however objects shall not penetrate a plane at a height of 5 cm above the plane of the FATO. Add: or 25 cm above the plane of the FATO and sloping upwards and outwards at a gradient of 5 per cent if located at a distance of 0.75 D or more from the center of the FATO.</p>
response	<p>Accepted</p> <p>The paragraph has been amended accordingly.</p>
comment	<p>49 comment by: <i>Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)</i></p>

The *protected side slope*, required under points (b)(5) and (b)(6) are in fact obstacle limitation surfaces and should therefore be mentioned in Chapter E of CS HPT-DSN.

response Not accepted

Points (b) (5) and (6) of CS HPT-DSN.C.130 are in accordance with Annex 14, Volume II, Heliports, paragraph 3.1.23.

comment 50 comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*

The location of the protected side slopes should be further clarified. Based on the current text in point (b)(5) the reader can only assume that these slopes are required in the directions perpendicular to the direction of the approach and departure of the FATO.

response Accepted

The text has been amended accordingly.

comment 108 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Comment FOCA on CS HPT-DSN.B.130: As safety areas are in direct relation to FATO's (CS HPT-DSN.B.100) and located between a FATO and a clearway (if provided), we suggest to arrange the chapters in the following logical sequence:

CS HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO);
 CS HPT-DSN.B.110 Safety Areas;
 CS HPT-DSN.B.120 Helicopter Clearways;
 CS HPT-DSN.B.130 Touchdown and Lift-Off Areas (TLOF)

response Not accepted

The order is in line with Annex 14, Volume II, Heliports.

comment 110 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*



	<p><i>Comment FOCA on CS HPT-DSN.B.130 (b)(8):</i> we believe the word "frangible" is missing in the sentence below.</p> <p>Proposed new text: (8) No fixed object should be permitted above the plane of the FATO on a safety area, except for frangible objects which, because of their function, must be located on the area.</p>
response	<p>Accepted</p> <p>The frangibility requirement is in line with the current version of Annex 14, Volume II, Heliports, paragraph 3.1.24. The ICAO developments, proposed in the ICAO State Letter No. 18/097, foresee removal of frangibility requirement, since the ICAO Frangible Aids Study Group concluded that frangibility is not relevant for the tail rotor. The frangibility requirement might be removed from CS-HPT-DSN following the adoption of the ICAO amendment in regular updates of heliport rules.</p>

comment	<p>113 <i>comment by: Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA on CS HPT-DSN.B.130 (b)(9) and GM1 HPT-DSN.B.130:</i> we suggest to bring those two articles in the same book 1. It makes no sense to separate them.</p> <p>Proposed new text: (9) Objects whose function requires them to be located on the safety area at a distance of less than 0.75 D from the center of the FATO, should not exceed 5 cm in height. (10) Objects whose function requires them to be located on the safety area at a distance of more than 0.75 D from the center of the FATO, should not penetrate a plane originating at a height of 25 cm above the plane of the FATO and sloping upwards and outwards at a gradient of 5 per cent.</p>
response	<p>Accepted</p> <p>The paragraph has been amended accordingly.</p>

comment	<p>114 <i>comment by: Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA on CS HPT-DSN.B.130 (b) (1):</i> we suggest to add a new requirement (see (iii) below), that a FATO should be centered in the middle of the safety area.</p> <p>Proposed new text: (iii) the FATO should be centered in the middle of the safety area.</p>
response	<p>Not accepted</p>



There are cases where a FATO is not necessarily centred within the safety area. There are possibilities to extend the safety area in different directions.

comment

154

comment by: *Gael Le Bris*

- “Which need not be solid” to be rephrased in “which does not need to be solid”?
- (d)(3) Replace taxi-route by taxiway. Taxi-routes do not necessarily need to have friction specifications.

response

Not accepted (first part)

The text is in accordance with Annex 14, Volume II, Heliports paragraph 3.1.21.

Noted (second part)

Point (d) (3) of CS HPT-DSN.C.200 has been removed.

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.C.200

p. 11-13

comment

51

comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*

The term ‘*overall width*’ used in point (b)(3) could be confusing. It may refer to the width of the helicopter fuselage or the rotor diameter. Based on figure C-1 it can be concluded that the latter is meant. It would be better to use the term (*main*) rotor diameter instead. This comment also applies to point (b)(3) of CS HPT-DSN.C.210 *Helicopter air taxiways and helicopter air taxi-routes*.

response

Not accepted

The text is in accordance with Annex 14, Volume II, Heliports paragraph 3.1.33.

comment

75 ❖

comment by: *DGAC*

CS HPT-DSN.B.120 Touchdown and Lift-Off Areas (TLOF) § (b) (5)

(b) Characteristics:

[...]

(5) The surface friction characteristics of a TLOF should be suitable for the helicopter it is intended to serve.



CS HPT-DSN.C.200 Helicopter ground taxiways and helicopter ground taxi-routes § (d) (3)*(d) Surface conditions:*

[...]

*(3) The surface friction characteristics of a helicopter ground taxi-route should be suitable for the helicopter it is intended to serve.***CS HPT-DSN.D.300 Helicopter Stands § (c) (6)***(c) Surface conditions:*

[...]

*(6) The surface friction characteristics of a helicopter stand should be suitable for the helicopter it is intended to serve.***Comment :**

Compliance with these CSs cannot be demonstrated by measurements given the actual industry method. Indeed friction-measuring systems need to accelerate, stabilize and then break to obtain representative data. As a consequence, the first and last 300 meters of a runway cannot be assessed. Obviously, this method will not be applicable to heliport infrastructures.

Moreover, there is no technical method to assess friction characteristics for unpaved surface.

Given the absence of method to prove compliance with these specifications for both paved and unpaved surfaces, DGAC proposes to remove these requirements until the means of compliance are better defined.

response Accepted (comment on CS HPT-DSN.C.200

The text has been amended accordingly.

comment 88 ❖

comment by: DGAC

CS HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) § (4) (iii)*(4) The surface of the FATO should:*

[...]

*(iii) have bearing strength sufficient to accommodate a rejected take-off by helicopters;***CS HPT-DSN.B.120 Touchdown and Lift-Off Areas (TLOF) § (b) (2) and (3)***(b) Characteristics:*

[...]

*(2) Where the TLOF is within the FATO, the TLOF should be dynamic load-bearing.**(3) Where a TLOF is collocated with a helicopter stand, the TLOF should be static load-bearing and be capable of withstanding the traffic of the helicopters that the area is intended to serve.*

CS HPT-DSN.C.200 Helicopter ground taxiways and helicopter ground taxi-routes § (d) (1)*(d) Surface conditions:**(1) A helicopter ground taxiway should be static load-bearing and capable of withstanding the traffic of the helicopters the helicopter ground taxiway is intended to serve.***CS HPT-DSN.C.210 Helicopter air taxiways and helicopter air taxi-routes § (d) (2)***(d) Surface conditions:*

[...]

*(2) The surface of a helicopter air taxiway should be static load-bearing.***CS HPT-DSN.D.300 Helicopter Stands § (c) (7)***(c) Surface conditions:*

[...]

*(7) The central zone of a helicopter stand should be capable of withstanding the traffic of helicopters it is intended to serve and have a static load-bearing area:***Comment :**

These specifications raise two issues.

Firstly, there is no technical means to measure bearing strength of unpaved surfaces in order to prove compliance with these CSs. However, grass FATO, TLOF, taxiways and stands have never been an issue and shall still be allowed.

There are two options to solve this issue:

1. Option 1

The applicability of the CS is limited to paved surfaces, as follows:

(4) The surface of the FATO should:

[...]

“(iii) when paved, have bearing strength sufficient to accommodate a rejected take-off by helicopters;”

Option 2

2. Guidance materials can be added to each CSs, stating that bearing strength measurement isn't needed for unpaved surfaces to demonstrate compliance.

Secondly, coefficient should be set by EASA to prove compliance with these CSs for paved surfaces. Either static load-bearing, dynamic load-bearing or a statement such as “be capable of withstanding the traffic of the helicopters that the area is intended to serve are required.

For static load bearing, only weight must be taken into account. But for the others requirements, coefficient must be set in a related guidance materials.

For instance, a 2.5*MTOW coefficient is proposed for dynamic load bearing in the ICAO Doc 9261. This coefficient was quoted in the former french heliport guidance manual (ITAC) and I think the same coefficient is used in the UK regulation CAP1264 - Standards for helicopter landing areas at hospital.

This issue may need further assessment through a RMT to set these coefficients.



response Not accepted (comments on CS HPT-DSN.B.200)

The text is in accordance with Annex 14, Volume II, Heliports paragraphs 3.1.31 (Standard). Considering the proposal for defining the bearing strength coefficient, the commentator is invited to provide to EASA a proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.

comment 145 comment by: *Flughafen Berlin Brandenburg GmbH*

CS HPT-DSN.C.200
(d) Surface conditions
(3) *The surface friction characteristics of a helicopter ground taxi-route should be suitable for helicopter it is intended to serve.*

We understand that there is a equivalent rule in the CS-ADR.DSN for aircraft taxways at aerodromes but within the certification process there is no explanation how the heliport or aerodrome operator could show compliance with this CS. In Annex 14 Vol. II this topic isn't mentioned completely. Please use as GM, not as CS.

(5) *Objects whose function requires...*

Annex 14 vol II has the same text, as a recommendation. FBB requests the rationale for this change and suggests moving the applicability to GM.

response Noted (first part)

Point (d)(3) has been removed.

Not accepted (second part)

The text in CS was agreed at the thematic meeting and the focused consultation meeting and provides consistency with the provisions.

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.C.210

p. 13-14

comment 15 comment by: *rega*

(d)(5)

Ref ICAO ANNEX 14 VOL. II 3.1.44
 Frangible objects only



response

Accepted

The frangibility requirement is in line with the current version of Annex 14, Volume II, Heliports, paragraph No. 3.1.44. The ICAO developments, proposed in the ICAO State Letter No. 18/097, foresee removal of frangibility requirement, since the ICAO Frangible Aids Study Group concluded that frangibility is not relevant for the tail rotor. The frangibility requirement might be removed from CS-HPT-DSN following the adoption of the ICAO amendment in regular updates of heliport rules.

comment

88 ❖

comment by: DGAC

CS HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) § (4) (iii)*(4) The surface of the FATO should:**[...]**(iii) have bearing strength sufficient to accommodate a rejected take-off by helicopters;***CS HPT-DSN.B.120 Touchdown and Lift-Off Areas (TLOF) § (b) (2) and (3)***(b) Characteristics:**[...]**(2) Where the TLOF is within the FATO, the TLOF should be dynamic load-bearing.**(3) Where a TLOF is collocated with a helicopter stand, the TLOF should be static load-bearing and be capable of withstanding the traffic of the helicopters that the area is intended to serve.***CS HPT-DSN.C.200 Helicopter ground taxiways and helicopter ground taxi-routes § (d) (1)***(d) Surface conditions:**(1) A helicopter ground taxiway should be static load-bearing and capable of withstanding the traffic of the helicopters the helicopter ground taxiway is intended to serve.***CS HPT-DSN.C.210 Helicopter air taxiways and helicopter air taxi-routes § (d) (2)***(d) Surface conditions:**[...]**(2) The surface of a helicopter air taxiway should be static load-bearing.***CS HPT-DSN.D.300 Helicopter Stands § (c) (7)***(c) Surface conditions:**[...]**(7) The central zone of a helicopter stand should be capable of withstanding the traffic of helicopters it is intended to serve and have a static load-bearing area:***Comment :**

	<p>These specifications raise two issues.</p> <p>Firstly, there is no technical means to measure bearing strength of unpaved surfaces in order to prove compliance with these CSs. However, grass FATO, TLOF, taxiways and stands have never been an issue and shall still be allowed.</p> <p>There are two options to solve this issue:</p> <p>1. <u>Option 1</u></p> <p>The applicability of the CS is limited to paved surfaces, as follows:</p> <p>(4) The surface of the FATO should: [...] “(iii) when paved, have bearing strength sufficient to accommodate a rejected take-off by helicopters;”</p> <p><u>Option 2</u></p> <p>2. Guidance materials can be added to each CSs, stating that bearing strength measurement isn't needed for unpaved surfaces to demonstrate compliance.</p> <p>Secondly, coefficient should be set by EASA to prove compliance with these CSs for paved surfaces. Either static load-bearing, dynamic load-bearing or a statement such as “be capable of withstanding the traffic of the helicopters that the area is intended to serve are required.</p> <p>For static load bearing, only weight must be taken into account. But for the others requirements, coefficient must be set in a related guidance materials.</p> <p>For instance, a 2.5*MTOW coefficient is proposed for dynamic load bearing in the ICAO Doc 9261. This coefficient was quoted in the former french heliport guidance manual (ITAC) and I think the same coefficient is used in the UK regulation CAP1264 - Standards for helicopter landing areas at hospital.</p> <p>This issue may need further assessment throught a RMT to set these coefficients.</p>
response	<p>Not accepted (comments to CS HPT-DSN.B.210)</p> <p>The text is in accordance with Annex 14, Volume II, Heliports paragraphs 3.1.40 (Recommendation). Considering the proposal for defining the bearing strength coefficient, the commentator is invited to provide to EASA a proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.</p>
comment	<p>115 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA on CS HPT-DSN.C.210 (d): We believe the word "frangible" is missing in the sentence below.</i></p> <p>Proposed new text:</p> <p>(5) No fixed object should be permitted above the surface on an air taxi-route, except for frangible objects which, because of their function, must be located there.</p>

response

Accepted

The frangibility requirement is in line with the current version of Annex 14, Volume II, Heliports, paragraph 3.1.24. The ICAO developments, proposed in the ICAO State Letter No. 18/097, foresee removal of frangibility requirement, since the ICAO Frangible Aids Study Group concluded that frangibility is not relevant for the tail rotor. The frangibility requirement might be removed from CS-HPT-DSN following the adoption of the ICAO amendment in regular updates of heliport rules.

comment

149

comment by: Flughafen Berlin Brandenburg GmbH

CS HPT-DSN.C.210

(c) Slopes:

(1) *The slopes of the surface...*

Annex 14 vol II has the same text, as a recommendation. FBB requests the rationale for this change and suggests moving the applicability to GM.

(d) Surface Conditions:

(6) *Objects above ground level whose*

Annex 14 vol II has the same text, as a recommendation. FBB requests the rationale for this change and suggests moving the applicability to GM.

response

Not accepted

The proposed text was agreed as CS at the thematic meeting and confirmed as CS at the focused consultation meeting and provides consistency with the provisions.

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.D.300

p. 14-17

comment

16

comment by: *rega*

(c)(3)

Ref ICAO ANNEX 14 VOL. II, 3.1.59

Frangible objects only

response

Accepted

The frangibility requirement is in line with the current version of Annex 14, Volume II, Heliports, paragraph 3.1.59. The ICAO developments, proposed in the ICAO State



Letter No. 18/097, foresee removal of frangibility requirement, since the ICAO Frangible Aids Study Group concluded that frangibility is not relevant for the tail rotor. The frangibility requirement might be removed from CS-HPT-DSN following the adoption of the ICAO amendment in regular updates of heliport rules.

comment 17 comment by: *rega*

(c)(4)

Ref ICAO ANNEX 14 VOL. II, 3.1.61

The Height of the object is not restricted, however objects shall not penetrate a plane at a height of 5 cm above the plane of the central zone

response Accepted

The text has been amended in accordance with ICAO Annex 14, Volume II, Heliports, paragraph 3.1.61.

comment 75 ❖ comment by: *DGAC*

CS HPT-DSN.B.120 Touchdown and Lift-Off Areas (TLOF) § (b) (5)

(b) Characteristics:

[...]

(5) The surface friction characteristics of a TLOF should be suitable for the helicopter it is intended to serve.

CS HPT-DSN.C.200 Helicopter ground taxiways and helicopter ground taxi-routes § (d) (3)

(d) Surface conditions:

[...]

(3) The surface friction characteristics of a helicopter ground taxi-route should be suitable for the helicopter it is intended to serve.

CS HPT-DSN.D.300 Helicopter Stands § (c) (6)

(c) Surface conditions:

[...]

(6) The surface friction characteristics of a helicopter stand should be suitable for the helicopter it is intended to serve.

Comment :

Compliance with these CSs cannot be demonstrated by measurements given the actual industry method. Indeed friction-measuring systems need to accelerate, stabilize and then break to obtain representative data. As a consequence, the first



response

and last 300 meters of a runway cannot be assessed. Obviously, this method will not be applicable to heliport infrastructures.

Moreover, there is no technical method to assess friction characteristics for unpaved surface.

Given the absence of method to prove compliance with these specifications for both paved and unpaved surfaces, DGAC proposes to remove these requirements until the means of compliance are better defined.

Accepted (comment on CS HPT-DSN.D.300)

The text has been amended accordingly.

comment

88 ❖

comment by: DGAC

CS HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) § (4) (iii)

(4) The surface of the FATO should:

[...]

(iii) have bearing strength sufficient to accommodate a rejected take-off by helicopters;

CS HPT-DSN.B.120 Touchdown and Lift-Off Areas (TLOF) § (b) (2) and (3)

(b) Characteristics:

[...]

(2) Where the TLOF is within the FATO, the TLOF should be dynamic load-bearing.

(3) Where a TLOF is collocated with a helicopter stand, the TLOF should be static load-bearing and be capable of withstanding the traffic of the helicopters that the area is intended to serve.

CS HPT-DSN.C.200 Helicopter ground taxiways and helicopter ground taxi-routes § (d) (1)

(d) Surface conditions:

(1) A helicopter ground taxiway should be static load-bearing and capable of withstanding the traffic of the helicopters the helicopter ground taxiway is intended to serve.

CS HPT-DSN.C.210 Helicopter air taxiways and helicopter air taxi-routes § (d) (2)

(d) Surface conditions:

[...]

(2) The surface of a helicopter air taxiway should be static load-bearing.

CS HPT-DSN.D.300 Helicopter Stands § (c) (7)

(c) Surface conditions:

[...]



(7) The central zone of a helicopter stand should be capable of withstanding the traffic of helicopters it is intended to serve and have a static load-bearing area:

Comment :

These specifications raise two issues.

Firstly, there is no technical means to measure bearing strength of unpaved surfaces in order to prove compliance with these CSs. However, grass FATO, TLOF, taxiways and stands have never been an issue and shall still be allowed.

There are two options to solve this issue:

1. Option 1

The applicability of the CS is limited to paved surfaces, as follows:

(4) The surface of the FATO should:

[...]

“(iii) when paved, have bearing strength sufficient to accommodate a rejected take-off by helicopters;”

Option 2

2. Guidance materials can be added to each CSs, stating that bearing strength measurement isn't needed for unpaved surfaces to demonstrate compliance.

Secondly, coefficient should be set by EASA to prove compliance with these CSs for paved surfaces. Either static load-bearing, dynamic load-bearing or a statement such as “be capable of withstanding the traffic of the helicopters that the area is intended to serve are required.

For static load bearing, only weight must be taken into account. But for the others requirements, coefficient must be set in a related guidance materials.

For instance, a 2.5*MTOW coefficient is proposed for dynamic load bearing in the ICAO Doc 9261. This coefficient was quoted in the former french heliport guidance manual (ITAC) and I think the same coefficient is used in the UK regulation CAP1264 - Standards for helicopter landing areas at hospital.

This issue may need further assessment through a RMT to set these coefficients.

response

Not accepted (comments on CS HPT-DSN.D.300)

The text is in accordance with Annex 14, Volume II, Heliports paragraphs 3.1.62 (Standard). Considering the proposal for defining the bearing strength coefficient, the commentator is invited to provide to EASA a proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.

comment

116

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

Comment FOCA on CS HPT-DSN.C.300 (c): We believe the word "frangible" is missing in the sentence below.



	<p>Proposed new text: (3) No fixed object should be permitted above the surface of the ground in the protection area around a helicopter stand except for frangible objects which, because of their function, must be located there.</p>
response	<p>Accepted</p> <p>The frangibility requirement is in line with the current version of Annex 14, Volume II, Heliports, paragraph 3.1.59. The ICAO developments, proposed in the ICAO State Letter No. 18/097, foresee removal of frangibility requirement, since the ICAO Frangible Aids Study Group concluded that frangibility is not relevant for the tail rotor. The frangibility requirement might be removed from CS-HPT-DSN following the adoption of the ICAO amendment in regular updates of heliport rules.</p>

comment	150	comment by: <i>Flughafen Berlin Brandenburg GmbH</i>
	<p>CS HPT-DS.D.300 (c) Surface Conditions: (6) <i>The surface friction characteristics of a helicopter stand should be suitable...</i></p> <p>There is no equivalent CS in the CS-ADR.DSN for Aprons. Why is there such a CS here? How should the heliport or aerodrome operator show compliance with this CS? In Annex 14 Vol. II is no equivalent standard, recommendation or note to this topic as well. Please delete in general.</p>	
response	<p>Accepted</p> <p>The text of point (c)(6) has been removed.</p>	

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.E.430

p. 23-24

comment	18	comment by: <i>rega</i>
	<p>(b)(3)</p> <p><i>Ref ICAO ANNEX 14 VOL. II 4.2.4</i></p> <p>For heliports that have an approach/take-off climb surface with a 4.5 per cent slope design, objects shall be permitted to penetrate the obstacle limitation surface, if the</p>	



	results of an aeronautical study approved by an appropriate authority have reviewed the associated risks and mitigation measures.
response	Not accepted Point (b)(3) is in line with paragraph 4.2.4 of ICAO Annex 14, Volume II, Heliports, which is Standard. The CS refers to the safety assessment and not to the approval by an appropriate authority. The heliport operator should show compliance with the relevant CS by the certification basis and during the certification process.

comment	19	comment by: <i>rega</i>
	(b)(4) <i>Ref ICAO ANNEX 14 VOL. II 4.2.6</i> aeronautical study approved by an appropriate authority	
response	Not accepted Point (b)(3) is in line with paragraph 4.2.4 of ICAO Annex 14, Volume II, Heliports, which is Standard. The CS refers to the safety assessment and not to the approval by an appropriate authority. The heliport operator should show compliance with the relevant CS by the certification basis and during the certification process.	

comment	20	comment by: <i>rega</i>
	(b)(6) <i>Ref ICAO ANNEX 14 VOL. II 4.2.7</i> A surface-level heliport shall have at least one approach and take-off climb surface. An aeronautical study shall be undertaken by an appropriate authority when only a single approach and take-off climb surface is provided considering as a minimum, the following factors:	
response	Not accepted Point (b) (3) is in line with paragraph 4.2.4 of ICAO Annex 14, Volume II, Heliports, which is Standard. The CS refers to the safety assessment and not to the approval by an appropriate authority. The heliport operator should show compliance with the relevant CS by the certification basis and during the certification process.	



comment	117	comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i>
	<p><i>Comment FOCA on CS HPT-DSN.E.430:</i> FOCA believes a complement should be added under (a) as the transitional surface (req. for PinS proceed visually) is not addressed in the NPA.</p> <p>Proposed new text: (a) General: The following obstacle limitation surfaces should be established for a FATO, including those with a PinS approach procedure where a visual segment surface is not provided.</p>	
response	<p>Not accepted</p> <p>The proposal is not within the scope of this NPA.</p>	

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.520

p. 24-27

comment	126	comment by: <i>ACI Europe</i>
	<p>Formatting: The spacing between paragraphs should be consistent throughout the document. For example:</p> <p>p. 25CS HPT-DSN.F.520 Helicopter identification marking</p> <p>(b) Location:</p> <p>Spacing between subparagraph (1) and (2) missing - similar formatting errors are to be found throughout the text and should be corrected for consistency.</p>	
response	<p>Accepted</p>	

comment	127	comment by: <i>UK CAA</i>
	<p>Page No: 25</p> <p>Paragraph No: (c) (1) and (c) (4)</p> <p>Comment: We believe paragraph (c) (4) referring to Figure F-4 is incorrect since in the context of the paragraph it is addressing the characteristics of the Helicopter Identification Marking for a runway-type FATO which is illustrated in Figure F-2, not F-4.</p>	



	<p>It is recommended that paragraph (c) (4) be deleted and additional text incorporated in (c) (1) as shown below. Figure F-4 should be removed to Book 2.</p> <p>Justification: Accuracy and clarity.</p> <p>Proposed Text: Add additional text to paragraph (c) (1) as follows:</p> <p>“... For a runway-type FATO, the dimensions of the letter H should be in accordance with Figure F-2, in a colour contrasting with the background.”</p>
response	<p>Accepted</p> <p>The reference is changed from Figure F-4 to Figure F-2.</p> <p>Accepted</p> <p>Figure F-4 has been changed to Figure GM1-F-2 and moved to GM1 HPT-DSN.F.540.</p>

comment	<p>134 comment by: <i>Urząd Lotnictwa Cywilnego Poland</i></p> <p>Figure F-3. Heliport identification marking refers to hospital heliport is that planned, there is no more info in scope of hospital heliports. In addition, there are no references in the document to the currently updating document ICAO Doc 9261 - it will be worth to include such references in future annex to the decision on heliports.</p>
response	<p>Noted</p> <p>Figure F-3 is on standard marking for heliports. Hospital heliports are outside the scope of NPA 2017-14. ICAO Doc 9261 is withdrawn.</p>

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.530
--

p. 28

comment	<p>81 comment by: <i>DGAC</i></p> <p>CS HPT-DSN.F.530 Final approach and take-off area perimeter marking or markers § (c) (1) (iv) <i>(c) Characteristics:</i> <i>(1) For runway-type FATOs:</i> <i>[...]</i> <i>(iv) FATO perimeter markers should be of colour(s) that contrast effectively against the operating background.</i></p>
---------	---



CS HPT-DSN F.600 Helicopter air taxiway markings and markers § (d) (6)*(d) Characteristics*

[...]

(6) A helicopter air taxiway edge marker should be of colour(s) that contrast effectively against the operating background. The red colour should not be used for markers.

Comment:

These specifications come from ICAO standards 5.2.6.7 and 5.2.16.13. The Annex 14 Volume 2 doesn't require a specific colour, but States are supposed to standardize marker colour at their level.

For example in France, FATO perimeter markers are required to be white and air taxiway markers are of three horizontal bands of equal height and alternate colours yellow, blue and yellow.

Marker colours could be standardized at EASA level.

response

Not accepted

CS HPT-DSN.F.530 (c) (1) (iv) and CS HPT-DSN.F.600 (d) (6) are in accordance with Annex 14, Volume II, Heliports, paragraphs 5.2.6.7 and 5.2.16.13, which are standards. The commentator is invited to provide to EASA a proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.540

p. 28

comment

52

comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*

Point (b) states that 'A FATO designation marking should be located at the beginning of the FATO'. The requirement for FATO designation markings only exists for a runway-type FATO. It would be better to add the words 'runway-type' to the sentence under point (b).

response

Accepted

Point (b) of CS HPT-DSN.F.540 has been amended accordingly.



comment	<p>89 comment by: Avinor AS</p> <p>CS HPT-DSN.F.540 Final approach and take-off area designation marking (a) Applicability: A FATO designation marking should be provided on a runway-type FATO.</p> <p>GM1 HPT-DSN.F.540 Final approach and take-off area designation marking (a) Runway-type FATO: A FATO designation marking should be provided at a heliport where it is necessary to designate the FATO to the pilot. Avinor comments: Contradictory text in CS and GM, the FATO designation marking is a recommendation in Annex 14 vol II (5.2.7.1). Avinor recommends:</p> <p>CS HPT-DSN.F.540 Final approach and take-off area designation marking (b) Applicability: A FATO designation marking should be provided on a runway-type FATO where it is necessary to designate the FATO to the pilot.</p>
response	<p>Accepted</p> <p>The CS and GM have been amended accordingly.</p>
comment	<p>128 comment by: UK CAA</p> <p>Page No: 28</p> <p>Paragraph No: CS HPT-DSN.F.540 new sub paragraph (d)</p> <p>Comment: The dimensions of the FATO designation markings are not given.</p> <p>There needs to be a reference to the height dimension and colour of the FATO designation markings in new sub paragraph (d) as shown below</p> <p>Justification: Accuracy and clarity</p> <p>Proposed Text: Add new sub paragraph (d) as follows:</p> <p>“The dimension of the FATO designation marking should be in accordance with Figure F-2 in a colour contrasting with the background.”</p>
response	<p>Noted</p> <p>Point (a) of CS HPT-DSN.F.540 has been amended with the text: ‘at a heliport where it is necessary to designate the FATO to the pilot’ in line with paragraph 5.2.7.2 of ICAO Annex 14, Volume II, Heliports. Paragraph 5.2.7 of ICAO Annex 14, Volume II, Heliports does not refer to the colour of the marking. The reference to the dimension of the FATO designation marking is provided in Figure F-2.</p>
comment	<p>137 comment by: John Hamshare</p>



	Point (b) states that ‘A FATO designation marking should be located at the beginning of the FATO’. The requirement for FATO designation markings only exists for a runway-type FATO. It would be better to add the words ‘runway-type’ to the sentence under point (b).
response	Accepted The text has been amended accordingly

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.550
--

p. 29

comment	21	comment by: <i>rega</i>
	(a) <i>Ref ICAO ANNEX 14 VOL. II 5.2.8.1</i> An aiming point marking should be provided at a heliport where it is necessary for a pilot to make an approach to a particular point above a FATO before proceeding to a TLOF.	
response	Accepted The text has been amended accordingly.	

comment	22	comment by: <i>rega</i>
	(b)(ii) <i>Ref ICAO ANNEX 14 VOL. II 5.2.8.4</i> Wrong reference. Change reference to figure F9 (1m line width is not prescribed in figure F1)	
response	Accepted The reference to the figure has been amended accordingly.	

comment	53	comment by: <i>Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)</i>
---------	----	--



	<p>Point (a) states that ‘the aiming point marking should be located within the runway-type FATO’ – the corresponding GM1 HPT-DSN.F.550 however states in point (b) that ‘For all FATOs except runway-type FATOs the aiming point marking should be located at the centre of the FATO, as shown in Figure F-1.’ – point (b) of the GM contradicts point (a) of the CS.</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>

comment	65	comment by: <i>Jan Loncke</i>
	<p>(pag. 29) CS HPT-DSN.F.550 & (pag. 49) GM1 HPT-DSN.F.550</p> <p>I’m not satisfied with the way the ICAO Annex 14 V.II SARPs about the aiming point marking have been transposed in CS HPT-DSN.F.550 & GM1 HPT-DSN.F.550. According to Annex 14 V.II it is not a requirement to have an aiming point marking. The text in the CS and GM doesn’t reflect that without any ambiguity. The currently proposed text (especially in GM) may give the incorrect impression that an aiming point marking is (or will be mandated) for all FATOs (except runway-type FATOs), which is not at all the case. Therefore I would suggest to change the text in GM1 HPT-DSN.F.550 as follows :</p> <p>(a) General: An aiming point marking should be provided at a heliport where it is necessary to make an approach to a particular point above a FATO before proceeding to a TLOF.</p> <p>(b) Location: For all FATOs except runway-type FATOs, where an aiming point marking is provided it the aiming point marking should be located at the centre of the FATO, as shown in Figure F-1.</p>	
response	<p>Noted</p> <p>Point (a) of CS HPT-DSN.F.550 has been amended to clarify the safety objective, and ‘where provided’ is added in point (b).</p>	

comment	90	comment by: <i>Avinor AS</i>
	<p>CS HPT-DSN.F.550 Aiming point marking.</p> <p>(a) Applicability: The aiming point marking should be located within the runway-type FATO.</p> <p>GM1 HPT-DSN.F.550 Aiming point marking.</p> <p>(a) General: An aiming point marking should be provided at a heliport where it is necessary to make an approach to a particular point above a FATO before proceeding to a TLOF.</p>	

	<p>(b) Location: For all FATOs except runway-type FATOs the aiming point marking should be located at the centre of the FATO, as shown in Figure F-1.</p> <p><i>Avinor comments:</i> In Annex 14 vol II, 5.2.8, the first paragraph is the recommendation, equal to the GM1 HPT-DSN.F.550 (a). Avinor recommends that the text in GM1 HPT-DSN.F.550 (a) is moved to the CS HPT-DSN.F.550 (a), applicability, and that the description of location is moved to a new (b):</p> <p>CS HPT-DSN.F.550 Aiming point marking.</p> <p>(a) (a) Applicability: An aiming point marking should be provided at a heliport where it is necessary to make an approach to a particular point above a FATO before proceeding to a TLOF.</p> <p>(b) (b) Location: The aiming point marking should be located within the runway-type FATO. For all FATOs except runway-type FATOs the aiming point marking should be located at the centre of the FATO, as shown in Figure F-1.</p>
response	<p>Noted</p> <p>The text has been amended accordingly.</p>
comment	<p>118 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA on CS HPT-DSN.F.550:</i> We suggest to put everything into GM, except (a) and to change the text of (a) as proposed below:</p> <p>Proposed new text:</p> <p>(a) Applicability: An aiming point marking should be provided where it is necessary for a pilot to make an approach to a particular point above a FATO before proceeding to a TLOF.</p>
response	<p>Noted</p> <p>The text has been amended accordingly.</p>
comment	<p>138 comment by: <i>John Hamshare</i></p> <p>Point (a) states that ‘the aiming point marking should be located within the runway-type FATO’ – the corresponding GM1 HPT-DSN.F.550 however states in point (b) that ‘For all FATOs except runway-type FATOs the aiming point marking should be located at the centre of the FATO, as shown in Figure F-1.’ – point (b) of the GM contradicts point (a) of the CS.</p>
response	<p>Noted</p> <p>The text has been amended accordingly.</p>

comment

141

comment by: John Hamshare

In this GM the objective of an aiming point is clarified. In CS-ADR-DSN the (design) objectives are incorporated in the CS itself under 'general' or 'applicability'. Point (a) should therefore be moved to CS HPT-DSN.F.550.

This comment is also applicable to other CS's; for FATO and TLOF there is also no 'applicability' paragraph within the respective CS's where the aim or objective of these elements is clarified.

response

Noted

The text has been amended accordingly.

comment

142

comment by: John Hamshare

CS HPT-DSN.F.550 Aiming point marking.

(a) Applicability: The aiming point marking should be located within the runway-type FATO.

GM1 HPT-DSN.F.550 Aiming point marking.

(a) General: An aiming point marking should be provided at a heliport where it is necessary to make an approach to a particular point above a FATO before proceeding to a TLOF.

(b) Location: For all FATOs except runway-type FATOs the aiming point marking should be located at the centre of the FATO, as shown in Figure F-1.

[LHR comments: In Annex 14 vol II, 5.2.8, the first paragraph is the recommendation, equal to the GM1 HPT-DSN.F.550 \(a\). LHR suggests that the text in GM1 HPT-DSN.F.550 \(a\) is moved to the CS HPT-DSN.F.550 \(a\), applicability, and that the description of location is moved to a new \(b\):](#)

AMENDED TEXT:

CS HPT-DSN.F.550 Aiming point marking.

(a) Applicability: An aiming point marking should be provided at a heliport where it is necessary to make an approach to a particular point above a FATO before proceeding to a TLOF.

(b) Location: The aiming point marking should be located within the runway-type FATO. For all FATOs except runway-type FATOs the aiming point marking should be located at the centre of the FATO, as shown in Figure F-1.

(a)

(b)

response

Noted

The text has been amended accordingly.

comment	23	comment by: <i>rega</i>
	(b)(2)	
	Ref ICAO ANNEX 14 VOL. II 5.2.10.3 Wrong reference. Change reference to figure D1	
response	Accepted	
	The reference has been amended accordingly.	

comment	24	comment by: <i>rega</i>
	(b)(2) and (b)(3)	
	Ref ICAO ANNEX 14 VOL. II 5.2.10.3 Change in Meaning due to split into 2 paragraphs.	
	According ICAO ANNEX 14 VOL. II a touchdown/position marking may be offset away from the center of the TLOF under circumstances but it must be in the center if helicopter stand is designed for hover turning.	
	If divided up into two paragraphs the meaning changes to “should be in the center of the stand designed for hover turning but could be offset away from the center of the TLOF according to referred safety assessment.”	
response	Noted	
	Point (b) of CS HPT-DSN.F.570 is composed of paragraphs 5.2.10.2 and 5.2.10.3 of ICAO Annex 14, Volume II, Heliports. Point (b)(2) refers to the helicopter stand, while point (b)(3) refers to the heliport and the TLOF.	

comment	119	comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i>
	Comment FOCA on CS HPT-DSN F.570 (b): the reference to the Figure is wrong.	
	Proposed text: (2) For a helicopter stand designed for hover turning, the touchdown/positioning marking should be located in the center of the central zone (see Figure F-4 D-1).	
response	Accepted	
	The reference has been amended accordingly.	



3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.590

p. 30

comment	<p>25</p> <p>(c)(4)</p> <p><i>Ref ICAO ANNEX 14 VOL. II 5.2.15.7</i></p> <p>Edge markers shall be frangible.</p>	comment by: <i>rega</i>
response	<p>Accepted</p> <p>The frangibility requirement is in line with the current version of Annex 14, Volume II, Heliports, paragraph 5.2.15.7. The ICAO developments, proposed in the ICAO State Letter No. 18/097, foresee removal of frangibility requirement, since the ICAO Frangible Aids Study Group concluded that frangibility is not relevant for the tail rotor. The frangibility requirement remains for the wheeled undercarriage of helicopters; others might be removed from CS-HPT-DSN following the adoption of the ICAO amendment in regular updates of heliport rules.</p>	

comment	<p>79</p> <p>CS HPT-DSN.F.590 Helicopter ground taxiway markings and markers § (a) (2) and (3)</p> <p><i>(a) General:</i></p> <p>[...]</p> <p><i>(2) The centre line of a helicopter ground taxiway should be identified with a marking.</i></p> <p><i>(3) The edges of a helicopter ground taxiway, if not self-evident, should be identified with markers or markings.</i></p> <p>Comment:</p> <p>Firstly, for consistency with CS F.600 Helicopter air taxiway markings and markers § (b), the DGAC proposes to add an applicability section to this specification.</p> <p>Secondly, this specification comes from ICAO recommendation 5.2.15.1. It cannot be set as a standard since marking on grass surface can be an issue.</p> <p>The DGAC proposes two options to amend this specification :</p> <p>(b) Applicability:</p> <p>(1) The centre line of a paved helicopter ground taxiway should be identified with a marking.</p> <p>(2) The edges of a paved helicopter ground taxiway, if not self-evident, should be identified with markers or markings.</p>	comment by: <i>DGAC</i>
---------	--	-------------------------



response	<p>Or</p> <p>(b) Applicability:</p> <p>(1) Where practicable, the centre line of a helicopter ground taxiway should be identified with a marking.</p> <p>(2) Where practicable, the edges of a helicopter ground taxiway, if not self-evident, should be identified with markers or markings.</p>
response	<p>Not accepted</p> <p>The text is in line with paragraphs 5.2.15.1, 5.2.15.3 and 5.2.15.4 of ICAO Annex 14, Volume II, Heliports. There are some amendment proposals for markings and markers on paved or unpaved helicopter ground taxiways, proposed in the ICAO State Letter No. 18/097, which will be evaluated further in regular updates of heliport rules, CS-HPT-DSN, following the adoption of the ICAO amendment.</p>
comment	<p>121 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA on CS HPT-DSN F.590: We suggest to add the following requirement (see below).</i></p> <p>Proposed new text: A helicopter ground taxiway edge marker should be frangible.</p>
response	<p>Accepted</p> <p>The frangibility requirement is in line with the current version of Annex 14, Volume II, Heliports, paragraph 5.2.15.7. The ICAO developments, proposed in the ICAO State Letter 18/097, foresee removal of frangibility requirement, since the ICAO Frangible Aids Study Group concluded that frangibility is not relevant for the tail rotor. The frangibility requirement remains for the wheeled undercarriage of helicopters; others might be removed from CS-HPT-DSN following the adoption of the ICAO amendment in regular updates of heliport rules.</p>
comment	<p>155 comment by: <i>Gael Le Bris</i></p> <p>· Drawings would be very helpful for illustrating the concepts.</p>
response	<p>Noted</p> <p>The paragraph is created with the transposition of paragraph 5.2.15 of Helicopter ground taxiway markings and markers. The proposal will be considered during regular updates of aerodrome (heliport) rules.</p>

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.600

p. 31

comment 80

comment by: DGAC

CS HPT-DSN F.600 Helicopter air taxiway markings and markers § (b)

(b) Applicability: The centre line of a helicopter air taxiway or, if not self-evident, the edges of a helicopter air taxiway, should be identified with markers or markings.

Comment :

This specification comes from ICAO recommendation 5.2.16.1. It cannot be set as a standard since marking on grass surface can be an issue. Moreover a centre line marking to be followed by the pilot would be safer for air-taxiing than an edge marking.

The DGAC proposes two options to amend this specification :

(b) Applicability:

(1) The centre line of a **paved** helicopter air taxiway should be identified with a marking.

(2) The edges of a **paved** helicopter air taxiway, if not self-evident, should be identified with markers or markings.

Or

(b) Applicability:

(1) **Where practicable**, the centre line of a helicopter air taxiway should be identified with a marking.

(2) **Where practicable**, the edges of a helicopter air taxiway, if not self-evident, should be identified with markers or markings.

response

Not accepted

The text is in line with paragraphs 5.2.16.1 of ICAO Annex 14, Volume II, Heliports. There are some amendment proposals for markings and markers on helicopter air taxiways, proposed in the ICAO State Letter No. 18/097, which will be evaluated further in regular updates of heliport rules, CS-HPT-DSN, following the adoption of the ICAO amendment.

comment 81 ❖

comment by: DGAC

CS HPT-DSN.F.530 Final approach and take-off area perimeter marking or markers § (c) (1) (iv)

(c) Characteristics:



(1) For runway-type FATOs:

[...]

(iv) FATO perimeter markers should be of colour(s) that contrast effectively against the operating background.

CS HPT-DSN F.600 Helicopter air taxiway markings and markers § (d) (6)

(d) Characteristics

[...]

(6) A helicopter air taxiway edge marker should be of colour(s) that contrast effectively against the operating background. The red colour should not be used for markers.

Comment:

These specifications come from ICAO standards 5.2.6.7 and 5.2.16.13. The Annex 14 Volume 2 doesn't require a specific colour, but States are supposed to standardize marker colour at their level.

For example in France, FATO perimeter markers are required to be white and air taxiway markers are of three horizontal bands of equal height and alternate colours yellow, blue and yellow.

Marker colours could be standardized at EASA level.

response

Not accepted

Points CS HPT-DSN.F.530(c)(1)(iv) and CS HPT-DSN.F.600 (d) (6) are in accordance with Annex 14, Volume II, Heliports, paragraphs 5.2.6.7 and 5.2.16.13, which are standards. The commentator is invited to provide to EASA a proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.

comment

122

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

Comment FOCA on CS HPT-DSN F600: We suggest to add the following requirement (see below).

Proposed new text:

A helicopter air taxiway edge marker should be frangible.

response

Accepted

The frangibility requirement is in line with the current version of Annex 14, Volume II, Heliports, paragraph 5.2.16.10. The ICAO developments, proposed in the ICAO State Letter No. 18/097, foresee removal of frangibility requirement, since the ICAO Frangible Aids Study Group concluded that frangibility is not relevant for the tail rotor. The frangibility requirement remains for the wheeled undercarriage of



helicopters; others might be removed from CS-HPT-DSN following the adoption of the ICAO amendment in regular updates of heliport rules.

comment

132

comment by: *Urząd Lotnictwa Cywilnego Poland*

CS HPT-DSN.F.600 Helicopter air taxiway markings and markers - and relative GM. Please specify where exactly these markings and markers should be installed, whether on FATO or other parts of the infrastructure, should there be some specific distances given from runway/FATO to helicopter ground/air taxiway. Please consider adding detailed figure showing some of the most important requirements in this scope.

response

Noted

The text is in line with ICAO Annex 14, Volume II, Heliports.

comment

156

comment by: *Gael Le Bris*

· Drawings would be very helpful for illustrating the concepts.

response

Noted

The paragraph is created with the transposition of paragraph 5.2.16 of Helicopter air taxiway markings and markers. The proposal will be considered during regular updates of aerodrome (heliport) rules.

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.610

p. 31-33

comment

26

comment by: *rega*

(a)(3)

Ref ICAO ANNEX 14 VOL. II 5.2.17.2.
Recommendation only!

response

Noted



comment

27

comment by: *rega*

(c)(6)

Ref ICAO ANNEX 14 VOL. II 5.2.17.2. Note 2

Delete. Stand identification markings are subject of GM1 HEL-DSN.F.610

response

Noted

Point (b) of GM1 HEL-DSN.F.610 has been deleted.

comment

129

comment by: *UK CAA***Page No:** 32**Paragraph No:** Figure F-5**Comment:** With the migration of Figure F-5a from Book 2 to Book 1 we believe it is prudent to expand the title of Figure F-5 to avoid confusion of application.

In addition, a reference to Figure F-5a could be added to paragraph (a) (2).

Justification: Clarity.**Proposed Text:** Amend Figure F-5 title to read:

“Figure F-5 Helicopter Stand Markings at a stand designated for turning.”

response

Accepted

The number of Figure F-5 is changed to F-4 and the title of the figure is amended to read ‘Helicopter stand markings at a stand designated for hover turning’.

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.620

p. 33

comment

29

comment by: *rega**Ref ICAO ANNEX 14 VOL. II 5.2.18.1.*

Recommendation only!

According AN 14 [...] should be provided if desirable and practicable.

Shall not be a requirement.



response Accepted

The text remains in CS and the applicability point (a) has been amended with ‘where provided at a heliport’.

comment 54 comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*

This CS only contains one sentence on the applicability of flight path alignment guidance marking. Characteristics and dimensions are mentioned in the related GM, in my opinion it would be better to incorporate these details in the CS itself under the precondition 'where provided...'. It should be avoided that characteristics and dimensions be put in GM.

response Accepted

The text has been amended to read ‘where provided’ and the text has been moved from GM to CS accordingly.

comment 84 comment by: *DGAC*

CS HPT-DSN.F.620 Flight path alignment guidance marking

(a) Where practicable, a flight path alignment guidance marking(s) should be provided at a heliport to indicate available approach and/or departure path direction(s).

Comment:

This specification comes initially from ICAO recommendation 5.2.18.1, but the word “desirable” has been removed. Most of heliports don’t have a flight path alignment guidance marking because they do not operationally need it. This specification will apply to VFR heliport, used only in conditions of good visibility. The other guidance markings have been considered sufficient for the safe operation of aircraft in most cases.

As a consequence, the flight path alignment guidance marking should remain optionnal for the aerodrome operator. The DGAC proposes two options to amend this specification:

CS HPT-DSN.F.620 Flight path alignment guidance marking

(a) Where practicable and desirable, a flight path alignment guidance marking(s) should be provided at a heliport to indicate available approach and/or departure path direction(s).



Or

CS HPT-DSN.F.620 Flight path alignment guidance marking

(a) Where practicable, a flight path alignment guidance marking(s) should be provided at a heliport to indicate available approach and/or departure path direction(s), **except when sufficient guidance is provided by other visual aids.**

response Accepted

The text has been amended to read 'where provided' and the text has been moved from GM to CS accordingly.

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.630

p. 33

comment 30

comment by: *rega*

Ref ICAO ANNEX 14 VOL. II 5.3.3.1

Recommendation only!

According AN 14 [...] should be provided if desirable and practicable.

Shall not be a requirement.

response Accepted

The text has been moved from GM to CS and the applicability point (a) has been amended with 'where provided at a heliport'.

comment 55

comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*

This CS only contains one sentence on the applicability of an approach lighting system. Characteristics and dimensions are mentioned in the related GM, in my opinion it would be better to incorporate these details in the CS itself under the precondition 'where provided...'. It should be avoided that characteristics and dimensions be put in GM. This also applies to CS HPT-DSN.F.640 *Flight path alignment guidance lighting system*

response Accepted



The applicability point (a) of CS HPT-DSN.F.630 is amended to read ‘where provided at heliport’ and the text has been moved from GM to CS accordingly.

comment

85

comment by: DGAC

CS HPT-DSN.F.630 Approach lighting system

(a) Where practicable, an approach lighting system should be provided at a heliport to indicate a preferred approach direction.

CS HPT-DSN.F.640 Flight path alignment guidance lighting system

(a) Where practicable, a flight path alignment guidance lighting system(s) should be provided at a heliport to indicate available approach and/or departure path direction(s).

Comment:

These specifications come initially from ICAO recommendations 5.3.3.1 and 5.3.4.1, but the word “desirable” has been removed. Most of heliports don’t have an approach lighting system or a flight path alignment guidance lighting system because they do not operationally need it. These specifications will apply to VFR heliport, used only in conditions of good visibility. The other visual aids have been considered sufficient for the safe operation of aircraft in most cases. In addition, these CSs would be inconsistent with CS ADR-DSN.M.625 Approach lighting systems.

Finally, in their current wordings, these specifications have an economic impact for aerodrome operators since most aerodromes would have to implement these systems. It has not been taken into account in the impact assessment §4.4.4.

As a consequence, both systems should remain optional for the aerodrome operator. DGAC proposes two options to solve this issue:

CS HPT-DSN.F.630 Approach lighting system

(a) Where practicable and desirable, an approach lighting system should be provided at a heliport to indicate a preferred approach direction

CS HPT-DSN.F.640 Flight path alignment guidance lighting system

(a) Where practicable and desirable, a flight path alignment guidance lighting system(s) should be provided at a heliport to indicate available approach and/or departure path direction(s).

Or

CS HPT-DSN.F.630 Approach lighting system

(a) Where practicable, an approach lighting system should be provided at a heliport to indicate a preferred approach direction, **except when sufficient guidance is provided by other visual aids**

CS HPT-DSN.F.640 Flight path alignment guidance lighting system

(a) Where practicable, a flight path alignment guidance lighting system(s) should be provided at a heliport to indicate available approach and/or departure path direction(s), **except when sufficient guidance is provided by other visual aids.**

response Accepted

The applicability point (a) of CS HPT-DSN.F.630 is amended to read 'where provided at heliport' and the text has been moved from GM to CS accordingly.

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.640

p. 34

comment 31

comment by: *rega*

Ref ICAO ANNEX 14 VOL. II 5.2.18.1. Note

Recommendation only!

According AN 14 [...] should be provided if desirable and practicable.

Shall not be a requirement.

Not applicable to heliports used for VFR day only.

response Accepted

The applicability point (a) of CS HPT-DSN.F.640 is amended to read 'where provided at heliport' and the text has been moved from GM to CS accordingly.

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.650

p. 34-36

comment 32

comment by: *rega*

Ref ICAO ANNEX 14 VOL. II 5.3.5.1

Recommendation only!

Shall not be a requirement.



response

Accepted

The applicability point (a) of CS HPT-DSN.F.650 has been amended to read ‘where provided at heliport’ and the text has been moved from GM to CS accordingly.

comment

91

comment by: Avinor AS

CS HPT-DSN.F.650 Visual alignment guidance system

(a) Safety objective of a visual alignment guidance system is to provide guidance to the pilot during the approach to a heliport.

(b) Applicability: A visual alignment guidance system should be provided where one or more of the following conditions exist:

(1) obstacle clearance, noise abatement or traffic control procedures require a particular direction to be flown;

(2) the environment of the heliport provides few visual surface cues; and

(3) it is physically impracticable to install an approach lighting system.

Avinor comments: Visual alignment guidance system should be installed if it is physically impracticable to install an approach lightning system (ref (3) above). CS HPT-DSN.F.630 Approach lighting system has the following text: “Where practicable, an approach lighting system should be provided at a heliport to indicate a preferred approach direction.” Avinor perceive this to mean that a heliport should have either an approach lightning system or a visual alignment guidance system installed. Annex 14 vol II 5.3.5 has a similar text, as a recommendation, with the underscored attachment: “A visual alignment guidance system should be provided where one or more of the following conditions exist especially at night”. Avinor requests the rationale for this change and suggests moving the applicability to GM:

CS HPT-DSN.F.650 Visual alignment guidance system

(a) Safety objective of a visual alignment guidance system is to provide guidance to the pilot during the approach to a heliport.

(b) Applicability: The inclusion of specifications for visual alignment guidance system is not intended to imply that the visual alignment guidance system has to be provided at a heliport.

GM HPT-DSN.F.650 Visual alignment guidance system

A visual alignment guidance system should be provided where one or more of the following conditions exist especially at night:

(1) obstacle clearance, noise abatement or traffic control procedures require a particular direction to be flown;

(2) the environment of the heliport provides few visual surface cues; and

(3) it is physically impracticable to install an approach lighting system.

response

Accepted

The provisions of CS-HPT-DSN are provided for heliports located at the aerodromes within the scope of Regulation (EU) 2018-1139. The installation of one of the systems (approach lighting system or visual alignment guidance system) might be confusing for fixed-wing operations at the same aerodrome. The requirements for the visual alignment guidance system have been provided optionally.



comment 97

comment by: DGAC

CS HPT-DSN.F.650 Visual alignment guidance system § (b)

(b) Applicability: A visual alignment guidance system should be provided where one or more of the following conditions exist:

- (1) obstacle clearance, noise abatement or traffic control procedures require a particular direction to be flown;*
- (2) the environment of the heliport provides few visual surface cues; and*
- (3) it is physically impracticable to install an approach lighting system.*

Comment:

This specification comes from ICAO recommendation 5.3.5.1. The next amendment proposal of Annex 14 Volume 2 will propose to remove the entire related section 5.3.5.

With the same justification given in CS HPT-DSN.F.660 comments apply, this specification would have an adverse effect on safety (interference for pilots in approach). Visual alignment guidance systems should be implemented after a safety assessment, and it will have a significant economic impact for aerodrome operators.

DGAC proposes to remove the entire CS F.650 with its related guidance materials.

response Accepted

The provisions of CS-HPT-DSN are provided for heliports located at the aerodromes within the scope of Regulation (EU) 2018-1139. The installation of one of the systems (approach lighting system or visual alignment guidance system) might be confusing for fixed-wing operations at the same aerodrome. The requirements for visual alignment guidance system have been provided optionally.

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.660

p. 36-39

comment 56

comment by: Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)

The abbreviation for *Heliport visual approach slope indicator*, HAPI, is frequently used in this CS without further explanation. In point (a) it should therefore be introduced

response Accepted



The helicopter approach path indicator has been provided in the part with abbreviations and along with the HAPI in point (b)(2) of CS HPT-DSN.F.660.

comment

92

comment by: *Avinor AS***CS HPT-DSN.F.660 Heliport visual approach slope indicator (a)**

(a) Applicability: A heliport visual approach slope indicator should be provided for a heliport where one or more of the following conditions exist:

- (1) obstacle clearance, noise abatement or traffic control procedures require a particular slope to be flown;
- (2) the environment of the heliport provides few visual surface cues; and
- (3) the characteristics of the helicopter require a stabilised approach.

Avinor comments: Annex 14 vol II 5.3.6.1 has the same text, as a recommendation. Avinor requests the rationale for this change and suggests moving the applicability to GM:

CS HPT-DSN.F.660 Heliport visual approach slope indicator

Applicability: The inclusion of specifications for visual alignment guidance system is not intended to imply that the visual alignment guidance system has to be provided at a heliport.

GM HPT-DSN.F.660 Heliport visual approach slope indicator

(a) Applicability: A heliport visual approach slope indicator should be provided for a heliport where one or more of the following conditions exist:

- (1) obstacle clearance, noise abatement or traffic control procedures require a particular slope to be flown;
- (2) the environment of the heliport provides few visual surface cues; and
- (3) the characteristics of the helicopter require a stabilised approach.

CS HPT-DSN.F.660 Heliport visual approach slope indicator (h)

(h) (5) Where a safety assessment indicates that an existing object extending above an obstacle protection surface could adversely affect the safety of operations of helicopters, one or more of the following measures should be taken:

- (i) suitably raise the approach slope of the system;
- (ii) reduce the azimuth spread of the system so that the object is outside the confines of the beam;
- (iii) displace the axis of the system and its associated obstacle protection surface by no more than 5 degrees;
- (iv) suitably displace the FATO; and
- (v) install a visual alignment guidance system.

Avinor comments: "Remove the object" is missing in this list, ref CS ADR-DSN.M.655 (Issue 4)

response

Accepted (first part)

The text has been amended to read 'where provided' and the texts in CS and GM have been amended accordingly.



Not accepted (second part)

The provisions of CS-HPT-DSN are provided for heliports located at the aerodromes within the scope of Regulation (EU) 2018/1139 and the proposal to 'remove the object' is not appropriate.

comment 96

comment by: DGAC

CS HPT-DSN.F.660 Heliport visual approach slope indicator § (a)

(a) Applicability: A heliport visual approach slope indicator should be provided for a heliport where one or more of the following conditions exist:

- (1) obstacle clearance, noise abatement or traffic control procedures require a particular slope to be flown;*
- (2) the environment of the heliport provides few visual surface cues; and*
- (3) the characteristics of the helicopter require a stabilised approach.*

Comment:

This specification comes from ICAO recommendation 5.3.6.1. The next amendment proposal of Annex 14 Volume 2 will propose to remove the entire section 5.3.6.

Transposing this recommendation into a CS appears too prescriptive because most heliports don't need an approach slope indicator to be operated safely. There may be an obstacle clearance requiring a particular slope to be flown but on the other hand the environment around aerodrome is likely to be uncongested, compared to heliports located in town, and there are already enough visual aids.

In addition, even if HAPI signal format is different from PAPI signal, it can have a perturbative effect if seen by aeroplane pilots approaching the adjacent runway. Systematic implementation of HAPI at heliports located at aerodromes without further assessment would clearly have a negative impact on safety.

Finally, this specification will have a significant economic impact for aerodrome operators. There is only a few HAPI/PAPI implemented at heliports but most of them will meet at least on the applicability criteria. This impact has not been taken into account in the impact assessment §4.4.4.

As a consequence, DGAC proposes to remove the entire CS F.660, or at least remove the applicability paragraph (a).

response Accepted

The applicability point (a) of CS HPT-DSN.F.660 has been amended to read 'where provided at heliports' and the texts in CS and GM have been amended accordingly.



3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.670

p. 39-40

comment	33	comment by: <i>rega</i>
	<p><i>Ref ICAO ANNEX 14 VOL. II 5.3.6.1</i></p> <p>Recommendation only! Shall not be a requirement.</p>	
response	<p>Not accepted</p> <p>The applicability point (a) of CS HPT-DSN.F.670 is in line with paragraph 5.3.7.1 (Standard) of ICAO Annex 14, Volume II, Heliports.</p>	

3.1. Draft certification specifications (BOOK 1) - CS HPT-DSN.F.690

p. 40-42

comment	57	comment by: <i>Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)</i>
	<p>A TLOF may be of any shape (GM1 HPT-DSN.B.120) - when a TLOF is circular it is impossible to provide light units at each corner and to have a minimum of four lights located at each side.</p>	
response	<p>Accepted</p> <p>The CS and GM on B.120 have been amended accordingly.</p>	
comment	133	comment by: <i>Urząd Lotnictwa Cywilnego Poland</i>
	<p>CS HPT-DSN.F.690 Touchdown and lift-off area lighting system - Due to the complexity of the system, it is required to provide a detailed GM or a figures of the regulatory framework.</p>	
response	<p>Noted</p> <p>The text is in line with ICAO Annex 14, Volume II, Heliports. The proposal could be further evaluated; the commentator is invited to provide to EASA a proposal for the</p>	



amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.A.010

p. 43

comment 34

comment by: *rega*

Ref (EC) No 216/2008 Article 4, 3a

The title of this NPA and CS HPT-DSN.A.010 refers to heliports on aerodromes under the scope of (EC) No. 216/2008.

It is not possible to expand the applicability of this NPA beyond the applicability of the basic regulation by means of GM to include nonpublic or non CAT aerodromes since they are explicitly excluded from the basic regulation.

response

Noted

NPA 2017-14 focuses on certification specifications (CSs) and guidance material (GM) (CS-HPT-DSN) for the design of surface-level VFR heliports located at aerodromes that fall under the scope of Regulation (EU) 2018/1139. Further development of helicopter operational requirements will be evaluated and, if justified, provided in the following updates of the aerodrome/heliport rules.

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.B.100

p. 43

comment 58

comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*

Point (a)(1) prohibits the presence of more than one helicopter in the FATO. Does this also apply to the use of a runway-type FATO?

response

Accepted

Point (a)(1) has been removed and the text amended accordingly. NPA 2017-14 focuses on certification specifications (CSs) and guidance material (GM) (CS-HPT-DSN) for the design of surface-level VFR heliports located at aerodromes that fall under the scope of Regulation (EU) 2018/1139. Further development of helicopter



operational requirements will be evaluated and, if justified, provided in the following updates of the aerodrome/heliport rules.

comment 59 comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*

Point (a)(2) describes the required separation distance for a FATO to the edge of a runway or taxiway. Such separation distances should have a status as being Specifications instead of being GM. In CS-ADR-DSN separation distances are also a separate CS (D.260); CS-HPT-DSN should have the same approach on this matter. Why is the required separation distance between a FATO and a taxiway the same as between a FATO and a runway? If the main reason for this minimum separation distances is (wake) turbulence and jet blast, it would be logical that the minimum separation distances between a FATO and a taxiway would be less than between a FATO and a runway. Wake vortex hazard is more likely to occur near a runway than near a taxiway.

response Not accepted

The text and the table are identical to the relevant text and the table in ICAO Annex 14, Volume II, Heliports and they are provided as guidance material. Additional explanation is provided under the table. The commentator is invited to provide to EASA a proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.

comment 73 ❖ comment by: *DGAC*

CS HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) § (a) (1):

(a) Location:

(1) A heliport should be provided with at least one final approach and take-off area (FATO).

Comment :

An aerodrome may not have a dedicated FATO for helicopters operations, for example when departures and arrivals of helicopters take place on aeroplanes infrastructures (runway, runway strip, taxiway, taxiway strip). In this case the infrastructure is seen as the FATO during helicopter operation but the CS-ADR shall only apply, in consistency with CS-HPT-DSN.A.010.



	In order to clarify this potential case, we would find useful to add a related guidance material.
response	Noted The applicability points CS/GM1 HPT-DSN.A.010 have been amended accordingly.

comment

87 ❖

comment by: DGAC

CS HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) § (a) (2):*(a) Location:**[...] (2) The FATO should be located so as to minimise the influence of the surrounding environment, including turbulence.***GM1 HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) § (a) (2) and table GM1-B-1***(a) General:**[...]**(2) Where a FATO is located near a runway or taxiway, and when simultaneous helicopter and aeroplane operations are planned, the separation distance between the edge of a runway or taxiway and the edge of a FATO should not be less than the appropriate dimension in Table GM1-B-1.***Comment :**

Agreed with the necessity of this CS.

Regarding the FATO minimum separation table (Table GM1-B-1), from the Annex 14 Volume 2, proposed in GM:

There is a consensus at the ICAO Heliport Design Working Group about its obsolescence. It should be removed from the Annex.

A quick assessment highlights the contradiction between this table and the minimum distance separation between runways.

The separation distance between FATO edge and runway edge for light helicopters/aeroplanes is 60m. If we add a runway half-width, even the largest 30m for code F, and for example a 15m FATO half-width + 3m SA, the RWY/FATO centre lines would be separated by 108m. This is inconsistent with the minimum distance between parallel non-instrument runways (CS ADR-DSN.B.050), 120m for runway code 4.

Using code runway 1C values, runway half-width is at the maximum 11.5m + 60m (table GM1-B-1) + 18m (FATO+SA) gives 89.5m separation distance according to CS HPT-DSN. It is still in contradiction with the 120m minimum separation distance sets by CS ADR-DSN.B.050.



	<p>The higher values (120/180/250m) given for heavier helicopter can also be inconsistent with the CS ADR-DSN.B.050, not to mention CS ADR-DSN.B.055 for instrument runway.</p> <p>As a consequence, DGAC proposes to replace this table with a general requirement for a safety assessment at aerodrome level to allow simultaneous operations.</p>
response	<p>Not accepted</p> <p>The text and the table are identical to the relevant text and table in ICAO Annex 14, Volume II, Heliports and they provided as guidance material. Additional explanation is provided under the table. The commentator is invited to provide to EASA a proposal for the amendment of CS-HPT-DSN with the explanation and justification to be considered in one of the forthcoming NPAs.</p>

comment	<p>93 comment by: <i>Avinor AS</i></p> <p>GM1 HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) (a) (2) Where a FATO is located near a runway or taxiway, and when simultaneous helicopter and aeroplane operations are planned, the separation distance between the edge of a runway or taxiway and the edge of a FATO should not be less than the appropriate dimension in Table GM1-B-1. Avinor comments: The standard in Annex 14 vol II 3.1.63 is in the NPA given GM-status. Avinor requests the rationale for this change and suggests moving the text to CS HPT-DSN.B.100</p>
response	<p>Not accepted</p> <p>The text was agreed at the thematic meeting and the focused consultation meeting. Additional explanation is provided under the Table in GM1-B-1.</p>

comment	<p>103 comment by: <i>Airport Zurich</i></p> <p>(1) On the runway-type FATO with appropriate length, more than one helicopter at the same time should be allowed</p>
response	<p>Accepted</p> <p>Point (a)(1) has been removed and the text amended accordingly. NPA 2017-14 focuses on certification specifications (CSs) and guidance material (GM) (CS-HPT-DSN) for the design of surface-level VFR heliports located at aerodromes that fall under the scope of Regulation (EU) 2018/1139. Further development of helicopter operational requirements will be evaluated and, if justified, provided in the following updates of the aerodrome/heliport rules.</p>

comment	104	comment by: <i>Airport Zurich</i>
	(c) This paragraph (c) as a physical characteristic of FATO should be transferred to CS HPT-DSN.B.100 Final Approach and Take-Off Areas (FATO) under paragraph (4).	
response	Accepted Point (c) has been moved to CS and amended accordingly.	

comment	157	comment by: <i>Gael Le Bris</i>
	<ul style="list-style-type: none"> · (d)(1) Replace “jet engine efflux” by “jet blast” which is a more common expression within the airport community. · (d)(2) The wording is too restrictive. Some FATO are closely spaced with active runway, and sometimes collocated with runways. <ul style="list-style-type: none"> o Proposition: ADD “unless the FATO is not considered as independent for air navigation.” 	
response	<p>Not accepted (first part)</p> <p>The text is identical to paragraph 3.1.64 (a) of Annex 14, Volume II, Heliports.</p> <p>Not accepted (second part)</p> <p>The text is identical to paragraph 3.1.64 (b) of Annex 14, Volume II, Heliports.</p> <p>Noted (third part)</p> <p>The proposal is of operational nature. NPA 2017-14 focuses on certification specifications (CSs) and guidance material (GM) (CS-HPT-DSN) for the design of surface-level VFR heliports located at aerodromes that fall under the scope of Regulation (EU) 2018/1139. Further development of helicopter operational requirements will be evaluated and, if justified, provided in the following updates of the aerodrome/heliport rules.</p>	

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.B.120

p. 44

comment	60	comment by: <i>Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)</i>
	<p>If a TLOF may be of any shape, it may be circular. If a TLOF is circular it cannot comply with CS HPT-DSN.F.690(b)(4). If a TLOF is triangular, its markings have the same shape as an Aiming point and could therefore be misleading. An aiming</p>	



point has a different function than a TLOF; see GM1 HPT-DSN.F.550(a). The 'free shape' of a TLOF should be reconsidered.

response Accepted

Point (b) of GM1 HPT-DSN.B.120 is removed. Point (b)(4) of CS HPT-DSN.F.690 has been amended accordingly to exclude circular TLOF, while point (b)(5) of CS HPT-DSN.F.690 refers to a circular TLOF.

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.B.130

p. 44

comment

35

comment by: *rega*

(a)

Ref ICAO ANNEX 14 VOL. II, 4.2.7

response

Noted

The reference in point (a) of GM1 HPT.DSN.B.130 is made to the Note to paragraph 3.1.23 of Annex 14, Volume II, Heliports, while the reference to paragraph 4.2.7 of Annex 14, Volume II, Heliports is provided in CS HPT-DSN.E.430.

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.C.200

p. 44

comment

100

comment by: *DGAC*

GM1 HPT-DSN.C.200 Helicopter ground taxiways and helicopter ground taxi-routes
(a) General: When a taxiway is intended for use by aeroplanes and helicopters, the provisions for aeroplane and helicopter ground taxiways should be taken into consideration and the more stringent requirements should be applied.

Comment:

This guidance is inconsistent with the applicability of the CS HPT-DSN.A.010. If a taxiway is intended to be used by both helicopters and aeroplanes, the CS-ADR-DSN should be applied.



response

As a consequence, DGAC proposes to remove this GM.

Noted

The provisions of CS HPT-DSN.A.010 are amended.

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.D.300

p. 44-45

comment

67

comment by: *Jan Loncke*

(pag. 44) GM1 HPT-DSN.D.300 might contain an editorial or text formatting error.

...

(b) Characteristics:

(c) For a helicopter stand intended to be used by wheeled helicopters for turning on the ground, the dimension of the helicopter stand and the protection area, including the dimension of the central zone, would need to be significantly increased.

Maybe it was meant as (?) :

...

(b) Characteristics :

(1) For a helicopter stand intended to be used by wheeled ...

response

Accepted

The text has been amended accordingly.

comment

94

comment by: *Avinor AS*

GM1 HPT-DSN.D.300 Helicopter stands (b)

(b) Characteristics:

Avinor comments: It seems to be some text missing.

GM1 HPT-DSN.D.300 Helicopter stands (c)(2)(iii)

(c) (2) The separation distance between helicopter stands may be reduced by adopting a supplementary overlap of the protection area until a safety margin of 0.4 D is reached (see Figure GM D-1). For such a configuration, all the following conditions should be fulfilled:

(iii) Helicopters need to be parked according to the orientation of the yellow 'H';

Avinor comments: The yellow H is not described anywhere else in the CS HTP-DSN, and is not described in Annex 14 vol II. Avinor suggests the following:

(iii) Helicopters need to be parked according to the **alignment line**



	<p>GM1 HPT-DSN.D.300 Helicopter stands (c)(2)(iv) (c) (2) (iv) Stands should be located on the same axis and marked accordingly (touchdown and positioning; yellow ‘H’; stand number) Avinor comments: The yellow H is not described anywhere else in the CS HTP-DSN and is not described in Annex 14 vol II. Avinor suggests the following: (c) (2) (iv) Stands should be located on the same axis and marked accordingly (touchdown and positioning; alignment line; stand number)</p> <p>Figure GM D-1 Avinor comments: Avinor suggests the alignment line to be shown also on HEL Stand 2.</p>
response	<p>Noted</p> <p>The proposed text of GM1 HPT-DSN.D.300(c)(2) has been deleted as it is not in line with ICAO Annex 14, Volume II, Heliports.</p>

comment

98

comment by: DGAC

GM1 HPT-DSN.D.300 Helicopter stands § (c) (2)

(2) The separation distance between helicopter stands may be reduced by adopting a supplementary overlap of the protection area until a safety margin of 0.4 D is reached (see Figure GM D-1). For such a configuration, all the following conditions should be fulfilled:

- (i) This reduction in separation distance is valid for adjacent stands used by helicopter operators approved by the aerodrome operator;*
- (ii) A specific instruction to pilots is required;*
- (iii) Helicopters need to be parked according to the orientation of the yellow ‘H’;*
- (iv) Stands should be located on the same axis and marked accordingly (touchdown and positioning; yellow ‘H’; stand number);*
- (v) No simultaneous hover operations are allowed.*

The reduced separation distance may be used, where a safety assessment indicates that the safety of operations will not be endangered.

Comment:

Guidance materials aim to explain its related certification specifications, or provide further details than cannot fit into the CS. However, this GM1 HPT-DSN.D.300 §(c) (2) is inconsistent with its related certification specification. It allows a lesser separation distance between stands than the one required. A GM should not open a possibility to reduce the level of safety with less stringent requirements than the related CS.

It seems to be a special condition, depending on local constraints and shall be managed in consequence at local level.

	<p>In addition the “H” marking is restricted to the heliport identification marking, and shall be located in the FATO. The guidance material quotes a “yellow ‘H’” located in the stand which shall not be allowed.</p> <p>To conclude, this guidance is non-compliant with Annex 14 Volume 2 and reduces the level of safety. As a consequence it shall be removed.</p>
response	<p>Accepted</p> <p>The proposed text of GM1 HPT-DSN.D.300 (c) (2) has been deleted as it is not in line with ICAO Annex 14, Volume II, Heliports.</p>

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.E.410

p. 46-47

comment	<p>37 comment by: <i>rega</i></p> <p>(f)</p> <p><i>Ref ICAO ANNEX 14 VOL. II 4.1.6, 4.1.7, Figure 4.5</i></p> <p>This is an alleviation to the requirements of ICAO ANNEX 14 VOL. II and should be declared accordingly. Safety Assessment should be specified (what and by whom).</p>
response	<p>Accepted</p> <p>The proposed point (f) has been removed.</p>

comment	<p>38 comment by: <i>rega</i></p> <p>(f)(2)</p> <p>Since we talk about approach surface formulate: “the last straight section, ending at the safety area...”</p>
response	<p>Accepted</p> <p>The proposed point (f) has been removed.</p>

comment	<p>39 comment by: <i>rega</i></p> <p>(g)</p>
---------	---



	<p><i>Ref Figure 4.1</i></p> <p>The current version of ICAO ANNEX 14 VOL. II does not specify the minimum angle between approach and take-off surfaces. Figure 4.1 is for illustration purpose only but does not specify a certain angle.</p>
response	<p>Noted</p> <p>Point (g) has been amended to read 'ideally'.</p>
comment	<p>69 comment by: Jan Loncke</p> <p>CS HPT-DSN.B.100 (pag. 9) & GM1 HPT-DSN.E.410 (b) (pag. 46) to replace AFM by HFM.</p>
response	<p>Accepted</p> <p>The text has been changed to read 'helicopter (aircraft) flight manual (HFM)'.</p>
comment	<p>99 comment by: DGAC</p> <p>GM1 HPT-DSN.E.410 Approach surface § (f) <i>(f) The following supplementary parameters may be considered when designing the approach surfaces, if a safety assessment indicates that they would not affect the safe operation of helicopters and/or aeroplanes:</i></p> <p><i>(1) More than one turn is possible, if an appropriate straight section is provided between two turns;</i></p> <p><i>(2) The first straight section, starting from the safety area, can be reduced to a minimum of 150 m in length;</i></p> <p><i>(3) Every turn should have a minimum radius of 270 m;</i></p> <p>GM1 HPT-DSN.E.420 Take-off climb surface § (c) <i>(c) The following supplementary aspects may be considered when designing the take-off surfaces, if a safety assessment indicates that they would not affect the safe operation of helicopters and/or aeroplanes:</i></p> <p><i>(1) More than one turn is possible, if an appropriate straight section is provided between two turns;</i></p> <p><i>(2) The first straight section, starting from the safety area, can be reduced to a minimum of 150 m in length;</i></p> <p><i>(3) Every turn should have a minimum radius of 270 m;</i></p> <p>Comment:</p> <p>Guidance materials aim to explain its related certification specifications, or provide further details than cannot fit into the CS. However, these GM1 HPT-DSN.E.410 §(f)</p>

	<p>and GM1 HPT-DSN.E.420 §(c) are inconsistent with their related certification specifications.</p> <p>Indeed CS HPT-DSN.E.410 § (7) and CS HPT-DSN.E.420 § (8) specify that in case of a departure or approach surface involving a turn, only one curved portion can be used. Allowing more than one turn will lead to pilotability issues, a safety assessment will need to be performed to demonstrate that this trajectory is allowed by the Helicopter Flight Manual.</p> <p>It seems to be a special condition, depending on local constraints and shall be managed in consequence at local level.</p> <p>Contradicting the CS with this guidance will lead to a safety issue. Indeed it will legitimate non-compliant obstacle protection surfaces elsewhere.</p> <p>To conclude, this guidance is non-compliant with Annex 14 Volume 2 and reduces the level of safety. As a consequence it shall be removed.</p>
response	<p>Accepted</p> <p>The proposed point (f) of GM1 HPT-DSN.E.410 and point (c) of GM1 HPT-DSN.E.420 in NPA 2017-14 have been removed.</p>

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.E.420	p. 47
--	-------

comment	<p>40 comment by: <i>rega</i></p> <p>(b)</p> <p><i>Ref ICAO ANNEX 14 VOL. II 4.1.6 Note</i> This is referred to as “good practice” and not considered a requirement.</p>
response	<p>Noted</p> <p>The text is provided as guidance material and refers to Note 2 to paragraph 4.1.21 of ICAO Annex 14, Volume II, Heliports.</p>

comment	<p>41 comment by: <i>rega</i></p> <p>(c)</p> <p><i>Ref ICAO ANNEX 14 VOL. II 4.1.6, 4.1.7, Figure 4.5</i></p>
---------	--



response	<p>This is an alleviation to the requirements of ANNEX 14 VOL. II and should be declared accordingly. Safety Assessment should be specified (what and by whom).</p> <p>Accepted</p> <p>The proposed point (c) of GM1 HPT-DSN.E.420 in NPA 2017-14 has been removed.</p>
comment	<p>42 comment by: <i>rega</i></p> <p>(d)</p> <p><i>Ref Figure 4.1</i></p> <p>The current version of ICAO ANNEX 14 VOL. II does not specify the minimum angle between approach and take-off surfaces. Figure 4.1 is for illustration purpose only but does not specify a certain angle.</p>
response	<p>Noted</p> <p>Point (d) of GM1 HPT-DSN.E.420 in NPA 2017-14, which becomes point (c) has been amended to read 'ideally'.</p>
comment	<p>99 ❖ comment by: <i>DGAC</i></p> <p>GM1 HPT-DSN.E.410 Approach surface § (f)</p> <p><i>(f) The following supplementary parameters may be considered when designing the approach surfaces, if a safety assessment indicates that they would not affect the safe operation of helicopters and/or aeroplanes:</i></p> <p><i>(1) More than one turn is possible, if an appropriate straight section is provided between two turns;</i></p> <p><i>(2) The first straight section, starting from the safety area, can be reduced to a minimum of 150 m in length;</i></p> <p><i>(3) Every turn should have a minimum radius of 270 m;</i></p> <p>GM1 HPT-DSN.E.420 Take-off climb surface § (c)</p> <p><i>(c) The following supplementary aspects may be considered when designing the take-off surfaces, if a safety assessment indicates that they would not affect the safe operation of helicopters and/or aeroplanes:</i></p> <p><i>(1) More than one turn is possible, if an appropriate straight section is provided between two turns;</i></p> <p><i>(2) The first straight section, starting from the safety area, can be reduced to a minimum of 150 m in length;</i></p> <p><i>(3) Every turn should have a minimum radius of 270 m;</i></p> <p>Comment:</p>

Guidance materials aim to explain its related certification specifications, or provide further details than cannot fit into the CS. However, these GM1 HPT-DSN.E.410 §(f) and GM1 HPT-DSN.E.420 §(c) are inconsistent with their related certification specifications.

Indeed CS HPT-DSN.E.410 § (7) and CS HPT-DSN.E.420 § (8) specify that in case of a departure or approach surface involving a turn, only one curved portion can be used. Allowing more than one turn will lead to pilotability issues, a safety assessment will need to be performed to demonstrate that this trajectory is allowed by the Helicopter Flight Manual.

It seems to be a special condition, depending on local constraints and shall be managed in consequence at local level.

Contradicting the CS with this guidance will lead to a safety issue. Indeed it will legitimate non-compliant obstacle protection surfaces elsewhere.

To conclude, this guidance is non-compliant with Annex 14 Volume 2 and reduces the level of safety. As a consequence it shall be removed.

response Accepted

The proposed point (f) of GM1 HPT-DSN.E.410 and point (c) of GM1 HPT-DSN.E.420 in NPA 2017-14 have been removed.

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.F.500

p. 47

comment 120

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

Comment FOCA on Chapter F: Markings and Lighting should not be in the same chapter (according to ADR rules). FOCA suggests to use chapter G for Lighting requirements.

Proposed new text:

CHAPTER F – VISUAL AIDS MARKINGS

CHAPTER G – LIGHTING

response Noted

This will be proposed with the following regular update of aerodrome rules and evaluated based on the received comments. The current Chapter F is consistent with Chapter 5 Visual Aids of Annex 14, Volume II, Heliports.



comment 123 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Comment FOCA on GM1 HPT-DSN F.500: Under certain cases, an aiming point might be necessary.

Proposed new text:

When a runway is marked in accordance with the provisions of CS-ADR-DSN, and is utilized as a FATO, no additional runway markings or lighting are normally required for helicopter use, except an aiming point.

response Not accepted

The provisions of CS-ADR-DSN for runway markings have precedence.

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.F.550

p. 49

comment 61 comment by: *Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)*

In this GM the objective of an aiming point is clarified. In CS-ADR-DSN the (design) objectives are incorporated in the CS itself under 'general' or 'applicability'. Point (a) should therefore be moved to CS HPT-DSN.F.550.

This comment is also applicable to other CS's; for FATO and TLOF there is also no 'applicability' paragraph within the respective CS's where the aim or objective of these elements is clarified.

response Accepted

Point (a) of GM1 HPT-DSN.F.550 has been moved to CS and amended accordingly as the safety objective.

comment 66 comment by: *Jan Loncke*

(pag. 29) CS HPT-DSN.F.550 & (pag. 49) GM1 HPT-DSN.F.550

I'm not satisfied with the way the ICAO Annex 14 V.II SARPs about the aiming point marking have been transposed in CS HPT-DSN.F.550 & GM1 HPT-DSN.F.550.

According to Annex 14 V.II it is not a requirement to have an aiming point marking. The text in the CS and GM doesn't reflect that without any ambiguity.

The currently proposed text (especially in GM) may give the incorrect impression that an aiming point marking is (or will be mandated) for all FATOs (except runway-type FATOs), which is not at all the case.



	<p>Therefore I would suggest to change the text in GM1 HPT-DSN.F.550 as follows :</p> <p>(a) General: An aiming point marking should be provided at a heliport where it is necessary to make an approach to a particular point above a FATO before proceeding to a TLOF.</p> <p>(b) Location: For all FATOs except runway-type FATOs, where an aiming point marking is provided it the aiming point marking should be located at the centre of the FATO, as shown in Figure F-1.</p>
response	<p>Noted</p> <p>Point (a) of CS HPT-DSN.F.550 has been amended to clarify the safety objective and 'where provided' is added in point (b).</p>

comment

82

comment by: DGAC

CS HPT-DSN.F.550 Aiming point marking § (a)

(a) Applicability: The aiming point marking should be located within the runway-type FATO.

GM1 HPT-DSN.F.550 Aiming point marking

[...]

Comment:

An aiming point marking may not be required at all runway-type FATO. The DGAC proposes to remove this specification and upgrade the related guidance into this CS. If agreed GM1 HPT-DSN.F.550 shall be removed and Figure F-1 moved into Book 1.

New CS proposal :

CS HPT-DSN.F.550 Aiming point marking § (a)

(a) General: An aiming point marking should be provided at a heliport where it is necessary to make an approach to a particular point above a FATO before proceeding to a TLOF.

(b) Location: For all FATOs except runway-type FATOs the aiming point marking should be located at the centre of the FATO, as shown in Figure F-1.

(c) The characteristics of the aiming point marking for a runway-type FATO should be as follows:

(i) The aiming point marking should be an equilateral triangle with a minimum side length of 9.0 metres, with the bisector of one of the angles aligned with the preferred approach direction.

(ii) The marking should consist of continuous white lines, 1.0 m in width (see Figures F-1).



response	<p>Noted</p> <p>Point (a) of CS HPT-DSN.F.550 has been amended to clarify the safety objective and 'where provided' is added in point (b).</p>
----------	--

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.F.610	p. 50
--	-------

comment	28	comment by: <i>rega</i>
	Wrong title, Change to GM1 HPT-DSN.F.610	

response	<p>Accepted</p> <p>The title of the GM has been changed.</p>
----------	--

comment	36	comment by: <i>rega</i>
	(b)	
	Insert into CS HPT-DSN.B.130	

response	<p>Noted</p> <p>Point (b) of GM1 HPT-DSN.F.610 has been deleted from GM; the same provision exists in point (c)(6) of CS HPT-DSN.F.610.</p>
----------	---

comment	62	comment by: <i>Amsterdam Airport Schiphol - AMS/EHAM (and D.A.A)</i>
	The title number of this GM is GM1 HEL-DSN.F.610. This should be GM1 HPT-DSN.F.610.	

response	<p>Accepted</p> <p>The title of the GM has been changed.</p>
----------	--

comment	68	comment by: <i>Jan Loncke</i>
---------	----	-------------------------------



response	(pag. 50) GM1 HEL HPT -DSN.F.610 typo in the titling/numbering : replace HEL by HPT
	Accepted The title of the GM has been changed.

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.F.650

p. 53-54

comment 97 ❖

comment by: DGAC

CS HPT-DSN.F.650 Visual alignment guidance system § (b)

(b) Applicability: A visual alignment guidance system should be provided where one or more of the following conditions exist:

- (1) obstacle clearance, noise abatement or traffic control procedures require a particular direction to be flown;*
- (2) the environment of the heliport provides few visual surface cues; and*
- (3) it is physically impracticable to install an approach lighting system.*

Comment:

This specification comes from ICAO recommendation 5.3.5.1. The next amendment proposal of Annex 14 Volume 2 will propose to remove the entire related section 5.3.5.

With the same justification given in CS HPT-DSN.F.660 comments apply, this specification would have an adverse effect on safety (interference for pilote in approach). Visual alignment guidance systems should be implemented after a safety assessment, and it will have a significant economic impact for aerodrome operators.

DGAC proposes to remove the entire CS F.650 with its related guidance materials.

response Accepted

The applicability point (a) of CS HPT-DSN.F.650 is amended to read 'where provided at heliport' and the text has been moved from GM to CS accordingly.

3.1. Draft guidance material (BOOK 2) - GM1 HPT-DSN.F.660

p. 54-55

comment 96 ❖

comment by: DGAC



CS HPT-DSN.F.660 Heliport visual approach slope indicator § (a)

(a) Applicability: A heliport visual approach slope indicator should be provided for a heliport where one or more of the following conditions exist:

(1) obstacle clearance, noise abatement or traffic control procedures require a particular slope to be flown;

(2) the environment of the heliport provides few visual surface cues; and

(3) the characteristics of the helicopter require a stabilised approach.

Comment:

This specification comes from ICAO recommendation 5.3.6.1. The next amendment proposal of Annex 14 Volume 2 will propose to remove the entire section 5.3.6.

Transposing this recommendation into a CS appears too prescriptive because most heliports don't need an approach slope indicator to be operated safely. There may be an obstacle clearance requiring a particular slope to be flown but on the other hand the environment around aerodrome is likely to be uncongested, compared to heliports located in town, and there are already enough visual aids.

In addition, even if HAPI signal format is different from PAPI signal, it can have a perturbative effect if seen by aeroplane pilots approaching the adjacent runway. Systematic implementation of HAPI at heliports located at aerodromes without further assessment would clearly have a negative impact on safety.

Finally, this specification will have a significant economic impact for aerodrome operators. There is only a few HAPI/PAPI implemented at heliports but most of them will meet at least on the applicability criteria. This impact has not been taken into account in the impact assessment §4.4.4.

As a consequence, DGAC proposes to remove the entire CS F.660, or at least remove the applicability paragraph (a).

response

Accepted

The applicability point (a) of CS HPT-DSN.F.660 has been amended to read 'where provided at heliport' and the text has been amended accordingly.

comment

130

comment by: UK CAA

Page No: 54-55**Paragraph No:** GM1 HPT-DSN.F.660 paragraph (d) and (e)

Comment: This is an AMC for the HAPI (Helicopter Approach Path Indicator) system described at CS HPT-DSN.F.660. However, there is no formal specification provided in (d) even though the tri-colour approach indicator is specified (red/green/amber) and a visible (useful) range specified (0.5 to 1 mile by day and 5 miles at night). This infers there is a formal specification available, and this being the case we propose a



specification for Tri-Colour VASI (Visual Approach Slope Indicator) should be published in Book 2. In the UK we have adopted the standard ICAO/EASA HAPI system.

Paragraph (e) places a recommendation to minimize spurious signals, but this is a safety critical visual aid and therefore spurious signals should not be tolerated at all.

Justification: Safety/Clarity

response

Noted

Point (d) of GM1 HPT-DSN.F.660 has been removed from the text. Point (e) is identical to the Note under paragraph 5.3.6.7 of Annex 14, Volume II, Heliports.

4. Impact assessment (IA) - 4.1. What is the issue

p. 56-58

comment

148

comment by: Flughafen Berlin Brandenburg GmbH

In General every aerodrome falling under the scope of regulation 139/2014 has to check in accordance with the provision of ADR.OR.B.050 Continuing compliance with the Agency's certification specifications of Regulation (EU) 139/ 2014. This "work" has to be done even if the aerodrome has a VFR heliport or not.

response

Noted

4. Impact assessment (IA) - 4.4. What are the impacts

p. 58-59

comment

85 ❖

comment by: DGAC

CS HPT-DSN.F.630 Approach lighting system

(a) Where practicable, an approach lighting system should be provided at a heliport to indicate a preferred approach direction.

CS HPT-DSN.F.640 Flight path alignment guidance lighting system

(a) Where practicable, a flight path alignment guidance lighting system(s) should be provided at a heliport to indicate available approach and/or departure path direction(s).



Comment:

These specifications come initially from ICAO recommendations 5.3.3.1 and 5.3.4.1, but the word “desirable” has been removed. Most of heliports don’t have an approach lighting system or a flight path alignment guidance lighting system because they do not operationally need it. These specifications will apply to VFR heliport, used only in conditions of good visibility. The other visual aids have been considered sufficient for the safe operation of aircraft in most cases. In addition, these CSs would be inconsistent with CS ADR-DSN.M.625 Approach lighting systems.

Finally, in their current wordings, these specifications have an economic impact for aerodrome operators since most aerodromes would have to implement these systems. It has not been taken into account in the impact assessment §4.4.4.

As a consequence, both systems should remain optional for the aerodrome operator. DGAC proposes two options to solve this issue:

CS HPT-DSN.F.630 Approach lighting system

(a) Where practicable and desirable, an approach lighting system should be provided at a heliport to indicate a preferred approach direction

CS HPT-DSN.F.640 Flight path alignment guidance lighting system

(a) Where practicable and desirable, a flight path alignment guidance lighting system(s) should be provided at a heliport to indicate available approach and/or departure path direction(s).

Or

CS HPT-DSN.F.630 Approach lighting system

(a) Where practicable, an approach lighting system should be provided at a heliport to indicate a preferred approach direction, except when sufficient guidance is provided by other visual aids

CS HPT-DSN.F.640 Flight path alignment guidance lighting system

(a) Where practicable, a flight path alignment guidance lighting system(s) should be provided at a heliport to indicate available approach and/or departure path direction(s), except when sufficient guidance is provided by other visual aids.

response

Accepted

The applicability point (a) of CS HPT-DSN.F.630 has been amended to read ‘where provided at heliport’ and the text has been amended accordingly.

Accepted

The applicability point (a) of CS HPT-DSN.F.640 has been amended to read ‘where provided at heliport’ and the text has been amended accordingly.

comment 86

comment by: DGAC



CS HPT-DSN.F.640 Flight path alignment guidance lighting system

(a) Where practicable, a flight path alignment guidance lighting system(s) should be provided at a heliport to indicate available approach and/or departure path direction(s).

Comment:

This specification comes initially from ICAO recommendation 5.3.4.1., but the word “desirable” has been removed. Most of heliports don’t have a flight path alignment guidance lighting system because they do not operationally need it. This specification will apply to VFR heliport, used only in conditions of good visibility. The other visual aids have been considered sufficient for the safe operation of aircraft in most cases. In addition, this CS would be inconsistent with CS ADR-DSN.M.625 Approach lighting systems.

Finally, in its current writing, this specification has an economic impact for aerodrome operators since most aerodromes would have to implement this system. It has not been taken into account in the impact assessment §4.4.4.

As a consequence, the flight path alignment guidance lighting system shall stay at the discretion of the aerodrome operator. The DGAC proposes two options to amend this specification:

CS HPT-DSN.F.640 Flight path alignment guidance lighting system

(a) Where practicable and desirable, a flight path alignment guidance lighting system(s) should be provided at a heliport to indicate available approach and/or departure path direction(s).

Or

CS HPT-DSN.F.640 Flight path alignment guidance lighting system

(a) Where practicable, a flight path alignment guidance lighting system(s) should be provided at a heliport to indicate available approach and/or departure path direction(s), except when sufficient guidance is provided by other visual aids.

response

Accepted

The text of CS HPT-DSN.F.640 has been amended to read ‘where provided’ and the text has been moved from GM to CS accordingly.

comment

96 ❖

comment by: DGAC

CS HPT-DSN.F.660 Heliport visual approach slope indicator § (a)

(a) Applicability: A heliport visual approach slope indicator should be provided for a heliport where one or more of the following conditions exist:

- (1) obstacle clearance, noise abatement or traffic control procedures require a particular slope to be flown;*
- (2) the environment of the heliport provides few visual surface cues; and*
- (3) the characteristics of the helicopter require a stabilised approach.*



Comment:

This specification comes from ICAO recommendation 5.3.6.1. The next amendment proposal of Annex 14 Volume 2 will propose to remove the entire section 5.3.6.

Transposing this recommendation into a CS appears too prescriptive because most heliports don't need an approach slope indicator to be operated safely. There may be an obstacle clearance requiring a particular slope to be flown but on the other hand the environment around aerodrome is likely to be uncongested, compared to heliports located in town, and there are already enough visual aids.

In addition, even if HAPI signal format is different from PAPI signal, it can have a perturbative effect if seen by aeroplane pilots approaching the adjacent runway. Systematic implementation of HAPI at heliports located at aerodromes without further assessment would clearly have a negative impact on safety.

Finally, this specification will have a significant economic impact for aerodrome operators. There is only a few HAPI/PAPI implemented at heliports but most of them will meet at least on the applicability criteria. This impact has not been taken into account in the impact assessment §4.4.4.

As a consequence, DGAC proposes to remove the entire CS F.660, or at least remove the applicability paragraph (a).

response

Accepted

The applicability point (a) of CS HPT-DSN.F.660 has been amended to read 'where provided at heliport' and the text has been amended accordingly.

comment

97 ❖

comment by: DGAC

CS HPT-DSN.F.650 Visual alignment guidance system § (b)

(b) Applicability: A visual alignment guidance system should be provided where one or more of the following conditions exist:

- (1) obstacle clearance, noise abatement or traffic control procedures require a particular direction to be flown;*
- (2) the environment of the heliport provides few visual surface cues; and*
- (3) it is physically impracticable to install an approach lighting system.*

Comment:

This specification comes from ICAO recommendation 5.3.5.1. The next amendment proposal of Annex 14 Volume 2 will propose to remove the entire related section 5.3.5.

With the same justification given in CS HPT-DSN.F.660 comments apply, this specification would have an adverse effect on safety (interference for pilote in



	<p>approach). Visual alignment guidance systems should be implemented after a safety assessment, and it will have a significant economic impact for aerodrome operators.</p> <p>DGAC proposes to remove the entire CS F.650 with its related guidance materials.</p>
response	<p>Accepted</p> <p>The applicability point (a) of CS HPT-DSN.F.650 has been amended to read ‘where provided at heliport’ and the text has been amended accordingly.</p>

comment	<p>98 ❖ comment by: DGAC</p> <p>GM1 HPT-DSN.D.300 Helicopter stands § (c) (2) <i>(2) The separation distance between helicopter stands may be reduced by adopting a supplementary overlap of the protection area until a safety margin of 0.4 D is reached (see Figure GM D-1). For such a configuration, all the following conditions should be fulfilled:</i></p> <ul style="list-style-type: none"> <i>(i) This reduction in separation distance is valid for adjacent stands used by helicopter operators approved by the aerodrome operator;</i> <i>(ii) A specific instruction to pilots is required;</i> <i>(iii) Helicopters need to be parked according to the orientation of the yellow ‘H’;</i> <i>(iv) Stands should be located on the same axis and marked accordingly (touchdown and positioning; yellow ‘H’; stand number);</i> <i>(v) No simultaneous hover operations are allowed.</i> <p><i>The reduced separation distance may be used, where a safety assessment indicates that the safety of operations will not be endangered.</i></p> <p>Comment:</p> <p>Guidance materials aim to explain its related certification specifications, or provide further details than cannot fit into the CS. However, this GM1 HPT-DSN.D.300 §(c) (2) is inconsistent with its related certification specification. It allows a lesser separation distance between stands than the one required. A GM should not open a possibility to reduce the level of safety with less stringent requirements than the related CS.</p> <p>It seems to be a special condition, depending on local constraints and shall be managed in consequence at local level.</p> <p>In addition the “H” marking is restricted to the heliport identification marking, and shall be located in the FATO. The guidance material quotes a “yellow ‘H’” located in the stand which shall not be allowed.</p> <p>To conclude, this guidance is non-compliant with Annex 14 Volume 2 and reduces the level of safety. As a consequence it shall be removed.</p>
response	<p>Accepted</p>



The proposed text of point (c)(2) of GM1 HPT-DSN.D.300 has been deleted as it is not in line with ICAO Annex 14, Volume II, Heliports.

comment 99 ❖

comment by: DGAC

GM1 HPT-DSN.E.410 Approach surface § (f)

(f) The following supplementary parameters may be considered when designing the approach surfaces, if a safety assessment indicates that they would not affect the safe operation of helicopters and/or aeroplanes:

- (1) More than one turn is possible, if an appropriate straight section is provided between two turns;*
- (2) The first straight section, starting from the safety area, can be reduced to a minimum of 150 m in length;*
- (3) Every turn should have a minimum radius of 270 m;*

GM1 HPT-DSN.E.420 Take-off climb surface § (c)

(c) The following supplementary aspects may be considered when designing the take-off surfaces, if a safety assessment indicates that they would not affect the safe operation of helicopters and/or aeroplanes:

- (1) More than one turn is possible, if an appropriate straight section is provided between two turns;*
- (2) The first straight section, starting from the safety area, can be reduced to a minimum of 150 m in length;*
- (3) Every turn should have a minimum radius of 270 m;*

Comment:

Guidance materials aim to explain its related certification specifications, or provide further details than cannot fit into the CS. However, these GM1 HPT-DSN.E.410 §(f) and GM1 HPT-DSN.E.420 §(c) are inconsistent with their related certification specifications.

Indeed CS HPT-DSN.E.410 § (7) and CS HPT-DSN.E.420 § (8) specify that in case of a departure or approach surface involving a turn, only one curved portion can be used. Allowing more than one turn will lead to pilotability issues, a safety assessment will need to be performed to demonstrate that this trajectory is allowed by the Helicopter Flight Manual.

It seems to be a special condition, depending on local constraints and shall be managed in consequence at local level.

Contradicting the CS with this guidance will lead to a safety issue. Indeed it will legitimate non-compliant obstacle protection surfaces elsewhere.

To conclude, this guidance is non-compliant with Annex 14 Volume 2 and reduces the level of safety. As a consequence it shall be removed.



response

Accepted

The proposed point (f) of GM1 HPT-DSN.E.410 and point (c) of GM1 HPT-DSN.E.420 in NPA 2017-14 have been removed.

7. Appendix

p. 62

comment

125

comment by: *ACI Europe*

Add Glossary of Terms for reference and easier use of the document

response

Accepted



3. Attachments

 [Attachment to comment 158.pdf](#)

Attachment #1 to comment [#158](#)

 [Attachment to comment 159.pdf](#)

Attachment #2 to comment [#159](#)

