



COMMENT RESPONSE DOCUMENT

EASA PAD No. 15-117

[Published on 08 September 2015 and officially closed for comments on 06 October 2015]

Commenter 1: CAA Netherlands – Dirk-Jan de Lange – 10/9/2015

Comment # 1

- A. I see that in the EASA product list “Helicopters” models are mentioned, but which are not mentioned in the PAD. For example (there are more): MBB-BK117 D-2m, AW169, Brantly B-2 models (2 seat helicopters), Brantly 305 (5 seat version), Guimbal Cabri G2 (2 seat), [and] R44 II.
- B. I think that the chance that the (also 2 seated) R22 will be used for these kind of operations is low. So therefore I mention some other small helicopters. There are also models in the PAD, but which are not mentioned in the EASA product list. As a result they should not be mentioned in the PAD: TH-55, S-58A, S-61A, S-61D, S-61E, S-61L, S-61R [and] S-61V.

EASA response:

- A. Comment not agreed. The PAD refers to ‘all models’ of the type MBB-BK117 and (by definition) that includes the recent model MBB-BK117 D-2m. The AW169 and R44 II helicopters are listed in Table 1 of the AD. Brantly B-2 and 305 helicopters, or Guimbal Cabri G2 helicopters, are not known to be operated with hoists or sling.**
- B. Comment understood, but not agreed. R22 helicopters are known to be used with an under-fuselage sling (not external hoist) for these kinds of operations. The Model TH-55 (original military) is not validated in Europe and the AD therefore does not (i.e. cannot) apply. The statement ‘all models’ for the S-61 is understood to mean ‘all models validated in Europe’.**

No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 2: ICAO – International Aviation Consulting – Hubert Arnould – 14/09/2015

Comment # 2

On page 2/8 there is an minor error in « Commission Regulation (EU) No 1321/2013 » this is 1321/2014.



EASA response:**Comment agreed.****No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.****Commenter 3: Kamov company – Alexey Burov – 21/09/2015****Comment # 3**

The Kamov company reviewed the Notification of a proposal to issue an airworthiness directive PAD No. 15-117. As you know the Ka-32A11BC helicopter was certified by the EASA for cargo transportation on the cargo sling only. No HEC operations was applied and approved for Ka-32A11BC helicopter. Keep it in the mind Kamov thinks that this PAD do not apply to Ka-32A11BC helicopter

EASA response:

Comment understood, but not agreed. It is not inconceivable that, under certain urgent (operational) circumstances and with a local national (operational) approval or (temporary) exemption, a Ka-32A11BC helicopter will be used for these kinds of operations.

No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 4: Lifesaving Systems Corp. – Mario Vittone – 28/09/2015**Comment # 4**

In response to PAD 15-117, we would like to submit the following questions:

- A. You defined a "Simple PCDS" as being a harness or rescue triangle. Can you please confirm that a "PCDS" includes items such as rescue baskets, litters, AVEDs etc.?
- B. It would appear that you intend to issue the AD as including any and all devices that attach to a hoist hook and carry (up to two) persons. Is that assumption correct?
- C. In regards to rescue strops, baskets, and litters, your Note 3 in the PAD states that a PCDS "shall meet the standards as specified in EC Directive 89/686/EEC." However, that directive lists as an exception "PPE intended for the protection or rescue of persons on vessels or aircraft, not worn all



the time." This would seem to exclude litters, strops, baskets, etc. If so, are there any specific EN Standards that might apply to specifically to PCDS of this type (made primarily from steel)? It would seem only EN 10002 and EN 10204 would be close but alone seem insufficient to the purpose of the AD.

- D. It seems clear that meeting standard EN 1497 for Rescue Harnesses (and various others - EN-361 and 364 among them) would be sufficient to have our harness considered as an "Acceptable PCDS." Would that be the case? If so, as an AS 9100 / ISO 9001 certified organization, are we able to perform and document the testing required by these standards in house?

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 5: Air-Zermatt – Samuel Summermatter – 29/09/2015

Comment # 5

Concerning your PAD No.: 15-117 you really have to take into consideration the content in the attached letter. Issued on the 13 May 2013 from the DRF "Deutsche Luftrettung". If you don't read any German we suggest you may let this letter translate into a language you understand. It is absolutely not achievable that the Helicopter company's has to be responsible for the PCDS of any rescuer not working on permanent basis for this helicopter company. Not to speak of a person in distress. Those which place this into an AD have absolutely no idea how the work and scenarios are going on into the different rescues. Therefore we recommend that you go over the explained thematic and solutions explained in this letter from the DRF "Deutsche Luftrettung", before we have to deal with another unrealistic bureaucratic barrier in our operation.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.



Commenter 6: Swiss Air-Rescue Rega – Stefan Becker – 30/09/2015**Comment # 6**

Thank you for the opportunity to provide some comments and feedback on the published PAD No. 15-117 concerning the use of personal carrying device systems (PCDS). Whereas EASA had launched several approaches in the past to regulate PCDS; Whereas EASA has issued a Certification Memorandum (CM) for PCDS; Whereas EASA has published PAD No. 15-117; Therefore, we refer to the prior statements of Swiss Air-Rescue Rega in the context of all the earlier PCDS approaches by EASA. These statements are still considered applicable. In more than 40 years with more than 330,000 rescue missions in Switzerland, not a single accident resulting from deficits in the PCDS equipment quality could have been identified.

(A) The published PAD No. 15-117 is to be rejected in full.

- (1) We are still of the opinion that all equipment beyond the hoist/cargo hook is not considered aircraft-relevant, thus not covered by CS 27129, and therefore also not to be regulated by EASA. CS 2x.865 is not supposed to be applicable.
- (2) PCDS are already regulated in several European Norms (EN) in the occupational health and safety area as well as in the mountaineering area.
- (3) EC guideline 89/686/EWO on personal protection equipment (PPE) is to be included as accepted AMC in the OM.
- (4) It is highly encouraged to include SFOCA TN 50.605-20 in the regulation.
- (5) The existing CM shall be applied also in the future.
- (6) The proposed changes of EASA's opinion have neither been justified by reliable data, nor has any additional safety benefit been demonstrated, nor has a regulatory impact assessment been presented. Thus, the different and/or additional regulation just leads to avoidable bureaucratic burdens.

(B) As for technical aspects of the PAD, Swiss Air-Rescue Rega has the following comments: The text in the field "Reason" states, that an unsafe condition may arise when using a PCDS without an airworthiness approval. This is contradictory to note (3) in the "Action" field, where it is stated that a PCDS in compliance with EC Directive No.89/686/EEC and the corresponding EN standards is considered acceptable (and therefore safe).

(C) Appendix 2 requires an inspection of the PCDS prior to each HEC operation for condition. This is not practical for the following reasons: The flight crew intending to perform a HEC operation is not properly trained enough to examine the PCDS to a satisfactory level. This inspection is currently performed by trained and experienced experts. Delegating this inspection to the flight crew might lead to a safety degradation.

- The decision to perform a HEC operation is sometimes taken during the flight to the location of the incident, when the flight crew realises that a landing is not possible. Following the requirements by the PAD, in such cases the crew would have to land after taking the hoist decision and then to perform the inspection. This might also not always be possible due to time and/or terrain constraints.



- Also providing a company-PCDS to external rescue crews is not a feasible option since a) such crew mostly confides their own personal protection equipment, certified for alpine rescue missions, and, most likely, they would probably reject any different equipment than their own, and b) there is not always a possibility to change the equipment (PCDS) for the same reason as mentioned above. After all, such procedures are likely to generate an unsafe condition. For the same reason as stated under a), an inspection of the personal protection equipment used by external crews and organisations is not a feasible option as well.

- (D) Swiss Air-Rescue Rega cooperates with various organisations providing professional alpine rescue services (e.g. ARS "Alpine Rettung Schweiz"), while engaging a large number of personnel (e.g. approx. 300 persons only for ARS). Following the requirements of the PAD implies that as soon as personnel from such organisations assist in any HEC operation (from the moment of attaching the PCDS to the hook), their equipment would have to be covered by the rotorcraft's AMP, including further continuing airworthiness matters. This is neither practical nor properly documentable, nor properly traceable with reasonable and justifiable effort when cooperating with external organisations of a larger size (like e.g. ARS). For Swiss Air-Rescue Rega, we cannot identify any overall increase in safety by regulating the issue of PCDS in the proposed way, but diametrically a huge increase in administrative burden for the industry.

Furthermore, Swiss Air-Rescue Rega warns that, given the PAD is rendered mandatory in the current form, a large number of rescue personnel might resign from their duty since they "lose control" over their own ("sacred") equipment which represents their on a professional basis personally selected "technical life insurance". It is quite difficult to imagine that such consequences are intended by and would be acceptable for EASA.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 7: ICAR - Commission for Terrestrial Rescue – Gebhard Barbisch – 04/10/2015

Comment # 7

I write this comment as President of the Commission for Terrestrial Rescue in ICAR. In this commission mountain rescuers from all our members worldwide work together. When doing their rescue operations, they have to work together with helicopter crews. We need them to transport rescue material and rescuers. Rescue operations in alpine areas requires transport of rescuers as HEC many times.

On 25th August 2015, we received information that:

“Regarding the NPA 2015-02, based on the adverse comments received, EASA recognizes that the present practice for certification of PCDS provides an adequate level of safety and that the publication of ETSO-C167 would not lead to any added value. As a consequence EASA will not publish the proposed ETSO-C167.”



Less than 3 weeks later the PAD was released, without taking into account the relevant comments that the different industry representatives had published (ICAR, EHA, SHA, etc.). Furthermore, the PAD is less than 4 weeks open for comments.

Some comments « again » :

- A. The PAD should refer to the EASA CM-CS-005 PCDS.
- B. The proposed AD cannot be applied to daily rescue work (HHO and HEC) and will not increase safety at all.
- C. How could a pilot check the PCDS when flying?
- D. How could a CAMO store and keep up to date something like 3000 PCDS?
- E. Labels indicating both the number of persons AND the weight are not feasible, since rescuers are not able to estimate persons' body weight.
- F. Appendix 2, information on PCDS labelling: it is not useful to define the "authorised load in kg" and the "authorised number of persons" on the label. No simple PCDS compliant with EC-Directive 89/686/EEC and the corresponding EN-Standards (see CM-CS-005) should be labelled with the indication of kg per person or load, since only one person is transported. The mass limit of an individual is indicated by the size of their harness (size 2 or XL). In the event of more than one person being attached to a simple PCDS, the maximum number of persons is the only relevant information. Checks, evaluation, records of inspections, as required by the PAD, cannot be established for third parties by the operator.
- G. Specific cases that arise only in rescue/HEC work, like the picking-up of a rescuer/mountain guide en route to the scene or the picking-up of a victim hanging in his own harness, are not covered by the PAD.
- H. The PAD is simply not realistic and not applicable (see all the comments we (ICAR –EHA – SHA) made for the PCDS and EASA CM-CS-005 projects). Therefore we are asking, once again, for an exception to be made with regard to all rescue and training flights relating to rescue missions.
- I. Appendix 4 should not be listed. Just a reference to CM-CS-005, Appendix 1 should be indicated.

It must be highlighted that:

- J. the statement given under the section „Reason“, i.e. “This condition, if not corrected, could lead to PCDS failure, possibly resulting in injury to an external PCDS occupant”, has no foundation whatsoever. On the contrary, the release of an AD would not change the situation in any way.
- K. the recovery and rescue of persons by helicopter has been performed for 50 years, without serious accident. HEC or SAR operations are exclusively carried out by specialised crews, rescuers and physicians with extensive experience, a sense of responsibility and other professional qualities. The vocational training of these professionals has always been well documented and of the highest standard, even before EASA existed. The passing of an AD containing such measures would have absolutely no impact on safety. The proposed measures are totally disproportionate.
- L. Last but not least, helicopter manufacturers have no expertise regarding PPE/PCDS. In fact, PCDS with STC usually do not fulfil but remain way below the requirements met by PPE now classified as „simple PCDS“. For the above-mentioned reasons, the opposite conclusion would seem more appropriate: Part 21 PO or ADOA organisations should process their STC based on the requirements defined in the standards referring to PPE.



Conclusions:

If the AD is released, operators will have only 2 options:

- to comply to the rule and, in this case, flying no missions as this, in practice, would be impossible.
- to function “illegally” but rescue lives. This would have huge consequences in the case of incidents / accidents; the risk of non-compliance is far outweighed by the risk of complications that the PAD in its current form brings in those specific cases.

An exception must be made for all HHO and HEC rescue missions. These missions must be dealt with separately from other CAT flights. This should be left to the National Aviation Authorities.

Since 2009, we have been trying to influence the agency, writing comments, lobbying the officers and sending a petition to the EU aviation commissioner, but nothing has as yet been achieved. There has been a huge waste of time, money and energy and the industry now requires a practical solution in order to continue their work.

Your considerations are not practical and they are not suitable to increase our safety or the safety of rescue operations. I have to tell you, that your consideration will result in a situation, that many rescue operations cannot be done on a fast and safe way for all of us - rescuers and victims. This will follow up in a higher dead rate in our mountains.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 8: Slovak Mountain Rescue Team – N/A – 05/10/2015

Comment # 8

On 25th August 2015, we received information that:

“Regarding the NPA 2015-02, based on the adverse comments received, EASA recognizes that the present practice for certification of PCDS provides an adequate level of safety and that the publication of ETSO-C167 would not lead to any added value. As a consequence EASA will not publish the proposed ETSO-C167.”

Less than 3 weeks later the PAD was released, without taking into account the relevant comments that the different industry representatives had published (ICAR, EHA, SHA, etc.). Furthermore, the PAD is less than 4 weeks open for comments.

Some comments « again » :



- PAD should refer to the EASA CM-CS-005 PCDS.
- proposed AD cannot be applied to daily rescue work (HHO and HEC) and will not increase safety at all.
- could a pilot check the PCDS when flying?
- How could a CAMO store and keep up to date something like 3000 PCDS?
- Labels indicating both the number of persons AND the weight are not feasible, since rescuers are not able to estimate persons' body weight.
- Appendix 2, information on PCDS labelling: it is not useful to define the "authorised load in kg" and the "authorised number of persons" on the label. No simple PCDS compliant with EC-Directive 89/686/EEC and the corresponding EN-Standards (see CM-CS-005) should be labelled with the indication of kg per person or load, since only one person is transported. The mass limit of an individual is indicated by the size of their harness (size 2 or XL). In the event of more than one person being attached to a simple PCDS, the maximum number of persons is the only relevant information. Checks, evaluation, records of inspections, as required by the PAD, cannot be established for third parties by the operator.
- Specific cases that arise only in rescue/HEC work, like the picking-up of a rescuer/mountain guide en route to the scene or the picking-up of a victim hanging in his own harness, are not covered by the PAD.
- The PAD is simply not realistic and not applicable (see all the comments we (ICAR –EHA – SHA) made for the PCDS and EASA CM-CS-005 projects).
- Therefore we are asking, once again, for an exception to be made with regard to all rescue and training flights relating to rescue missions.
- Appendix 4 should not be listed. Just a reference to CM-CS-005, Appendix 1 should be indicated.

It must be highlighted that

- the statement given under the section „Reason“, i.e. “This condition, if not corrected, could lead to PCDS failure, possibly resulting in injury to an external PCDS occupant”, has no foundation whatsoever. On the contrary, the release of an AD would not change the situation in any way.
- recovery and rescue of persons by helicopter has been performed for 50 years, without serious accident.
- or SAR operations are exclusively carried out by specialised crews, rescuers and physicians with extensive experience, a sense of responsibility and other professional qualities.
- vocational training of these professionals has always been well documented and of the highest standard, even before EASA existed.
- passing of an AD containing such measures would have absolutely no impact on safety.
- proposed measures are totally disproportionate.
- but not least, helicopter manufacturers have no expertise regarding PPE/PCDS. In fact, PCDS with STC usually do not fulfil but remain way below the requirements met by PPE now classified as „simple PCDS“.



- for the above-mentioned reasons, the opposite conclusion would seem more appropriate: Part 21 PO or ADOA organisations should process their STC based on the requirements defined in the standards referring to PPE.

Conclusions:

If the AD is released, operators will have only 2 options:

- to comply to the rule and, in this case, flying no missions as this, in practice, would be impossible.
- to function “illegally” but rescue lives. This would have huge consequences in the case of incidents / accidents; the risk of non-compliance is far outweighed by the risk of complications that the PAD in its current form brings in those specific cases.

An exception must be made for all HHO and HEC rescue missions. These missions must be dealt with separately from other CAT flights.

This should be left to the National Aviation Authorities.

Since 2009, we have been trying to influence the agency, writing comments, lobbying the officers and sending a petition to the EU aviation commissioner, but nothing has as yet been achieved. There has been a huge waste of time, money and energy and the industry now requires a practical solution in order to continue their work.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 9: Mountain Rescue Service of Montenegro – N/A – 05/10/2015

Comment # 9

On 25th August 2015, we received information that:

“Regarding the NPA 2015-02, based on the adverse comments received, EASA recognizes that the present practice for certification of PCDS provides an adequate level of safety and that the publication of ETSO-C167 would not lead to any added value. As a consequence EASA will not publish the proposed ETSO-C167.”

Less than 3 weeks later the PAD was released, without taking into account the relevant comments that the different industry representatives had published (ICAR, EHA, SHA, etc.).

Some comments « again » :

The PAD should refer to the EASA CM-CS-005 PCDS.



The proposed AD cannot be applied to daily rescue work (HHO and HEC) and will not increase safety at all.

How could a pilot check the PCDS when flying?

How could a CAMO store and keep up to date something like 3000 PCDS?

Labels indicating both the number of persons AND the weight are not feasible, since rescuers are not able to estimate persons' body weight.

Appendix 2, information on PCDS labelling: it is not useful to define the "authorised load in kg" and the "authorised number of persons" on the label. No simple PCDS compliant with EC-Directive 89/686/EEC and the corresponding EN-Standards (see CM-CS-005) should be labelled with the indication of kg per person or load, since only one person is transported. The mass limit of an individual is indicated by the size of their harness (size 2 or XL). In the event of more than one person being attached to a simple PCDS, the maximum number of persons is the only relevant information. Checks, evaluation, records of inspections, as required by the PAD, cannot be established for third parties by the operator.

Specific cases that arise only in rescue/HEC work, like the picking-up of a rescuer/mountain guide en route to the scene or the picking-up of a victim hanging in his own harness, are not covered by the PAD.

The PAD is simply not realistic and not applicable (see all the comments we (ICAR –EHA – SHA) made for the PCDS and EASA CM-CS-005 projects).

Therefore we are asking, once again, for an exception to be made with regard to all rescue and training flights relating to rescue missions.

Appendix 4 should not be listed. Just a reference to CM-CS-005, Appendix 1 should be indicated.

It must be highlighted that:

the statement given under the section „Reason”, i.e. “This condition, if not corrected, could lead to PCDS failure, possibly resulting in injury to an external PCDS occupant”, has no foundation whatsoever. On the contrary, the release of an AD would not change the situation in any way the recovery and rescue of persons by helicopter has been performed for 50 years, without serious accident.

HEC or SAR operations are exclusively carried out by specialised crews, rescuers and physicians with extensive experience, a sense of responsibility and other professional qualities.

the vocational training of these professionals has always been well documented and of the highest standard, even before EASA existed,

the passing of an AD containing such measures would have absolutely no impact on safety.

the proposed measures are totally disproportionate.

last but not least, helicopter manufacturers have no expertise regarding PPE/PCDS. In fact, PCDS with STC usually do not fulfil but remain way below the requirements met by PPE now classified as „simple PCDS”.

for the above-mentioned reasons, the opposite conclusion would seem more appropriate: Part 21 PO or ADOA organisations should process their STC based on the requirements defined in the standards referring to PPE.

Conclusions:



If the AD is released, operators will have only 2 options:

to comply to the rule and, in this case, flying no missions as this, in practice, would be impossible.

to function “illegally” but rescue lives. This would have huge consequences in the case of incidents / accidents; the risk of non-compliance is far outweighed by the risk of complications that the PAD in its current form brings in those specific cases.

An exception must be made for all HHO and HEC rescue missions. These missions must be dealt with separately from other CAT flights.

This should be left to the National Aviation Authorities.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 10: Mountain Rescue Association of Slovenia – Dusan Polajnar – 05/10/2015

Comment # 10

“Regarding the NPA 2015-02, based on the adverse comments received, EASA recognizes that the present practice for certification of PCDS provides an adequate level of safety and that the publication of ETSO-C167 would not lead to any added value. As a consequence EASA will not publish the proposed ETSO-C167.”

Less than 3 weeks later the PAD was released, without taking into account the relevant comments that the different industry representatives had published (ICAR, EHA, SHA, etc.). Furthermore, the PAD is less than 4 weeks open for comments.

Some comments « again » :

- The PAD should refer to the EASA CM-CS-005 PCDS.
- The proposed AD cannot be applied to daily rescue work (HHO and HEC) and will not increase safety at all.
- How could a pilot check the PCDS when flying?
- How could a CAMO store and keep up to date something like 3000 PCDS?
- Labels indicating both the number of persons AND the weight are not feasible, since rescuers are not able to estimate persons’ body weight.
- Appendix 2, information on PCDS labelling: it is not useful to define the "authorised load in kg" and the "authorised number of persons" on the label. No simple PCDS compliant with EC-Directive 89/686/EEC and the corresponding EN-Standards (see CM-CS-005) should be labelled with the indication of kg per person or load, since only one person is transported. The mass limit of an individual is indicated by the size of their harness (size 2



or XL). In the event of more than one person being attached to a simple PCDS, the maximum number of persons is the only relevant information. Checks, evaluation, records of inspections, as required by the PAD, cannot be established for third parties by the operator.

- Specific cases that arise only in rescue/HEC work, like the picking-up of a rescuer/mountain guide en route to the scene or the picking-up of a victim hanging in his own harness, are not covered by the PAD.
- The PAD is simply not realistic and not applicable (see all the comments we (ICAR –EHA – SHA) made for the PCDS and EASA CM-CS-005 projects).
- Therefore we are asking, once again, for an exception to be made with regard to all rescue and training flights relating to rescue missions.
- Appendix 4 should not be listed. Just a reference to CM-CS-005, Appendix 1 should be indicated.

It must be highlighted that

- the statement given under the section „Reason”, i.e. “This condition, if not corrected, could lead to PCDS failure, possibly resulting in injury to an external PCDS occupant”, has no foundation whatsoever. On the contrary, the release of an AD would not change the situation in any way.
- the recovery and rescue of persons by helicopter has been performed for 50 years, without serious accident.
- HEC or SAR operations are exclusively carried out by specialised crews, rescuers and physicians with extensive experience, a sense of responsibility and other professional qualities.
- the vocational training of these professionals has always been well documented and of the highest standard, even before EASA existed.
- the passing of an AD containing such measures would have absolutely no impact on safety.
- the proposed measures are totally disproportionate.
- last but not least, helicopter manufacturers have no expertise regarding PPE/PCDS. In fact, PCDS with STC usually do not fulfil but remain way below the requirements met by PPE now classified as „simple PCDS”.
- for the above-mentioned reasons, the opposite conclusion would seem more appropriate: Part 21 PO or ADOA organisations should process their STC based on the requirements defined in the standards referring to PPE.

Conclusions:

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EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 11: Austrian Mountain Rescue Service – Region Vorarlberg – Martin Burger – 05/10/2015

Comment # 11

I write this comment as President of the Austrian Mountain Rescue Service – Region Vorarlberg. The Austrian Mountain Rescue Service – Region Vorarlberg is a rescue organization which has about 1.260 members to operate terrestrial rescue missions and we also operate two emergency helicopter bases for rescue missions by helicopter. Every year we pass about 600 terrestrial rescue missions and about 1,000 missions by air emergency with our high educated and specialized helicopter crews.

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- the proposed measures are totally disproportionate.
- last but not least, helicopter manufacturers have no expertise regarding PPE/PCDS. In fact, PCDS with STC usually do not fulfil but remain way below the requirements met by PPE now classified as „simple PCDS”.
- for the above-mentioned reasons, the opposite conclusion would seem more appropriate: Part 21 PO or ADOA organisations should process their STC based on the requirements defined in the standards referring to PPE.

Conclusions:

If the AD is released, operators will have only 2 options:

- to comply to the rule and, in this case, flying no missions as this, in practice, would be impossible.
- to function “illegally” but rescue lives. This would have huge consequences in the case of incidents / accidents; the risk of non-compliance is far outweighed by the risk of complications that the PAD in its current form brings in those specific cases.



An exception must be made for all HHO and HEC rescue missions. These missions must be dealt with separately from other CAT flights.

This should be left to the National Aviation Authorities.

Since 2009, we have been trying to influence the agency, writing comments, lobbying the officers and sending a petition to the EU aviation commissioner, but nothing has as yet been achieved. There has been a huge waste of time, money and energy and the industry now requires a practical solution in order to continue their work.

From our point of view the considerations written in the PAD 15-117 will increase the risk of the safety enormously of our rescue operations. They do not take the different rescue systems written down in many OMs (operation manuals) into account. It make no sense to create new systems of certification because all equipment used is already certified by die E.U. with the CE-certificate or other strict methods of certification e.g. UIAA or the EU Rule 89/686/EEC.

The PAD 15-117 seems to us not to increase the safety of our crews and victims but rather to bring new business to individual companies or persons (lobbyists). We hope that the paper is not going to be valid and obligatory because it will be a huge step in the wrong direction!!

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 12: Helikopter Air Transport GmbH – Wolfgang Burger – 05/10/2015

Comment # 12

Helikopter Air Transport (AOC A-333) has more than over 30 years of experience regarding HEC operation and never had any problems with the PCDS because an inspection program of this PCDS was set up in a proper way.

Comments: The definition of simple PCDS or simple PCDS of simple design should be as it was published in the proposed certification memorandum CM-CS-005 (see attachment). If you do a proper inspection and maintenance then you never will have any problem regardless of classification as of our experience.

Find attached an official Statement from TÜV Süd (from Bavaria) that 2006/42/EG is not applicable. We also have an expertise from Alpingutachten (see attachment) which tells very clear, that if a load factor of 14M is applied the material of the rope is too stiff and that will result in serious injury to the human body. To add additional damping elements will also not improve the effect to protect the human body from a high load shock.

ACG the competent authority of Austria has granted a load factor of 10,5 M for operational approval, which is sufficient in terms of safety and also allows to set up a PCDS System which protects the human body.



Therefore HeliAir highly demands to reduce the load factor to 10,5 M from 14M as requested in subject PAD 15-117 Appendix 4.

In general we think the interface should be the hook / hooks where the PCDS is attached. PCDS should not be part of airworthiness certification. Therefore we request to reject this PAD 15-117.

Following Helicopter Operators have the same opinion in subject topic: SchenkAir, Schider Helicopter Services, Aiut Alpin Dolomites.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 13: DRF Stiftung Luftrettung gemeinnützige AG – Andreas Griesser and Jürgen Zoller – 05/10/2015

Comment # 13

DRF-Luftrettung operates in commercial air transportation and provides Helicopter Emergency Medical Services conducted to the highest industry standards with respect to safety and reliability! Together with partners and daughter companies, today DRF Stiftung Luftrettung gemeinnützige AG is the leading Air Rescue Alliance in Europe. DRF-Luftrettung operates a fleet of almost 50 helicopters including Airbus Helicopter Models BK117 Family and EC135 Models for Helicopter Emergency Medical Service (HEMS) incl. Helicopter Hoist Operation (HHO).

These PAD/AD imposed restrictions with all their consequences will have significant impact on our obligations of air rescue and finally the survival of injured people in Europe! Thus it appears that we cannot accept the proposed actions with all the limitations in regards to current EASA PAD No.: 15-117!!

For this, please find attached the main concerns from our point of view:

- (A) The upcoming AD shall be stipulated for all HEC Operations. EASA points out very clear, that they want to address this PAD to all helicopters, as identified in Appendix 1 of this AD, equipped with a hoist and/ or cargo hook approved for human external cargo (HEC) operations. This definition is very misleading, because there are helicopter with hoists and/or cargo hook which are operating under search and rescue, mountain rescue and similar activities like rescue offshore or from vessels. In the EASA Opinion 04-2011 Number 377 you state, that these operations are out of remit of the Agency. Further on, there are operations in HEC, which can be fulfilled only in special operation's. Some operations could only be performed, if the individual operator is a CAT-Operator with a HHO Approval.

Statement 1: Please clarify, that the use of the PCDS is only mandatory for HEC Operation in the remit of the agency.

- (B) According to your proposal, this PAD is subject without restrictions and covers therefore all personal, which will be transported with a hoist and / or cargo hook.



Statement 2: Please add a comment that this PAD has only to be implemented by the operators, if they perform activities with external personal, which are not crewmember or other personal like mountain rescuers who are essential for the operation! This means, that if the activities of crewmembers do not fall under the regulation of HEC Class D / HHO, the personal safety equipment and the safety harness of the crewmembers have not to be considered as part of the PCDS.

- (C) The PAD is – in my opinion - not congruent in itself. Under the section ‘reason’ you describe that not all PCDS have an airworthiness certificate, which could lead to a unsafe condition. Later on in the statements you accept EN-Standards as acceptable for the further use of the PCDS.

Statement 3: Please clarify in the section ‘reason’ of the PAD, that you want to address only the PCDS, which do not have an Aircraft or an EN-Standard. Furthermore in the Certification Memorandum - Helicopter External Loads - Personnel Carrying Device System (EASA CM No.: CM-CS-005 Issue 01 issued 08 December 2014) you point out, that any existing PCDS previously approved by the relevant Competent Authority might be continued to be used up to its expiration date.

Statement 4: Please insert a reference to the CM-CS-005 into the PAD.

- (D) In the PAD you mention the M.A.301 as part of the Commission Regulation (EC) No. 1321/2014. Article 1 states very clear, that this regulation covers all procedures for ensuring the continuing airworthiness of aircraft, including any component for installation thereto. Common practice is that components, which can be easily removed and are not fix provision of the helicopter (like medical equipment) are either loose equipment or not subject to the continuing airworthiness. With this PAD you expand the rules of regulation Commission Regulation (EC) No. 1321/2014 to cover also components, which are not fitted to the helicopter.

Statement 5: Please exclude all references to the Regulation Commission Regulation (EC) No.1321/2014 from this PAD and also exclude all equipment, which is no fixed provision to the helicopter from the content of this PAD.

- (E) In the PAD you include rescue harnesses as simple PCDS and point out, that these have also to be approved at least according to directive EG 89-686. For the purposes of this Directive, PPE means any device or appliance designed to be worn or held by an individual for protection against one or more health and safety hazards. Therefore we do not see the point, why devices like a rescue harness or rescue triangle only used to rescue casualties out of an emergency in the water, from offshore installations or in the mountains falls under the regulations of the directive 89-686. These are not devices to protect an individual against a safety hazard and therefore are not in the remit of the directive.

Statement 6: Please express the PAD in a way to clarify, which equipment will fall under the terms of the directive (EG) 89-686.

- (F) Acc. to the PAD is it explained, that PCDS without an airworthiness approval can lead to an unsafe situation, because it is not assured, that this equipment is maintained in a safe way. We have to make a formal objection here: Every employer, especially the AOC-Holders, dealing with working conditions, where PPE has to be used, have developed HSE-Managements and have transferred the recommendations of the manufacturer safety advices, regularly inspections and maximum life time cycle to the operators safety program, risk analysis and set up trained personal for the monitoring of the applicable intervals (PSA Personal). The way, you consider unsafe situations while not maintaining the PPE, you degrade all responsible operators and allege, that we do not act according to national and European laws for the safety of our employees.



Statement 7: Please explain, how many unsafe situations with not correct maintained PPE have occurred in the last 20 years compared with the numbers of HEC-Missions in the same period. Please finalize a risk assessment according to ICAO Document 8959 and update these outcomes with the current 'reason' - section in your PAD.

Conclusion:

Under consideration of the above mentioned objections, we agree, that there must be approved PCDS for the transport of personal – not Crewmembers or personal related to the operation. We do not agree, that the safety harness of the HHO-TC and the connection to the cabin of the helicopter falls under the remit of the agency.

Furthermore we do not see the point, why the rescue harness and the rescue triangle are implemented into this PAD, because these equipment's are sometime the last resort for the rescue of people out of emergency situations and falls therefore under the exemptions of directive (EG) 89-686 and even more under the exemptions of regulation (EU) 216-2008. If there is still PCDS beyond and without these approvals, we have to trust the operators, that they fulfil their assigned responsibility and maintain their PPE according best practice and the guidelines of the manufacturers!!

Therefore we should implement the exemption from CM-CS-005 that PCDS without an approval can be used up to the end of the life time circle of the equipment.

Regulation (EU) 965/2011 Part SPA.HHO and SPO.HEC should be amended to urge the operator to lay down procedures and intervals for the maintenance of the equipment in the operational manual or by mean of a CAMO procedure!

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 14: Air Glaciers SA – Patrick Fauchère – 05/10/2015

Comment # 14

On 25th August 2015, we received information that:

“Regarding the NPA 2015-02, based on the adverse comments received, EASA recognizes that the present practice for certification of PCDS provides an adequate level of safety and that the publication of ETSO-C167 would not lead to any added value. As a consequence EASA will not publish the proposed ETSO-C167.”

Less than 3 weeks later the PAD was released, without taking into account the relevant comments that the different industry representatives had published (ICAR, EHA, SHA, etc.). Furthermore, the PAD is less than 4 weeks open for comments.



Some comments « again » :

- The PAD should refer to the EASA CM-CS-005 PCDS.
- The proposed AD cannot be applied to daily rescue work (HHO and HEC) and will not increase safety at all.
- How could a pilot check the PCDS when flying?
- How could a CAMO store and keep up to date something like 3000 PCDS?
- Labels indicating both the number of persons AND the weight are not feasible, since rescuers are not able to estimate persons' body weight.
- Appendix 2, information on PCDS labelling: it is not useful to define the "authorised load in kg" and the "authorised number of persons" on the label. No simple PCDS compliant with EC-Directive 89/686/EEC and the corresponding EN-Standards (see CM-CS-005) should be labelled with the indication of kg per person or load, since only one person is transported. The mass limit of an individual is indicated by the size of their harness (size 2 or XL). In the event of more than one person being attached to a simple PCDS, the maximum number of persons is the only relevant information. Checks, evaluation, records of inspections, as required by the PAD, cannot be established for third parties by the operator.
- Specific cases that arise only in rescue/HEC work, like the picking-up of a rescuer/mountain guide en route to the scene or the picking-up of a victim hanging in his own harness, are not covered by the PAD.
- The PAD is simply not realistic and not applicable (see all the comments we (ICAR –EHA – SHA) made for the PCDS and EASA CM-CS-005 projects).
- Therefore we are asking, once again, for an exception to be made with regard to all rescue and training flights relating to rescue missions.
- Appendix 4 should not be listed. Just a reference to CM-CS-005, Appendix 1 should be indicated.

It must be highlighted that

- the statement given under the section „Reason“, i.e. “This condition, if not corrected, could lead to PCDS failure, possibly resulting in injury to an external PCDS occupant”, has no foundation whatsoever. On the contrary, the release of an AD would not change the situation in any way.
- the recovery and rescue of persons by helicopter has been performed for 50 years, without serious accident.
- HEC or SAR operations are exclusively carried out by specialised crews, rescuers and physicians with extensive experience, a sense of responsibility and other professional qualities.
- the vocational training of these professionals has always been well documented and of the highest standard, even before EASA existed.
- the passing of an AD containing such measures would have absolutely no impact on safety.
- the proposed measures are totally disproportionate.
- last but not least, helicopter manufacturers have no expertise regarding PPE/PCDS. In fact, PCDS with STC usually do not fulfil but remain way below the requirements met by PPE now classified as „simple PCDS“.



- for the above-mentioned reasons, the opposite conclusion would seem more appropriate: Part 21 PO or ADOA organisations should process their STC based on the requirements defined in the standards referring to PPE.

Conclusions:

If the AD is released, operators will have only 2 options:

- to comply to the rule and, in this case, flying no missions as this, in practice, would be impossible.
- to function “illegally” but rescue lives. This would have huge consequences in the case of incidents / accidents; the risk of non-compliance is far outweighed by the risk of complications that the PAD in its current form brings in those specific cases.

An exception must be made for all HHO and HEC rescue missions. These missions must be dealt with separately from other CAT flights.

This should be left to the National Aviation Authorities.

Since 2009, we have been trying to influence the agency, writing comments, lobbying the officers and sending a petition to the EU aviation commissioner, but nothing has as yet been achieved. There has been a huge waste of time, money and energy and the industry now requires a practical solution in order to continue their work.

In the mountains due to the acute danger of a sudden fall, the safest way to leave a belay station/accident site is the use of the victim’s PCDS. Therefore an inspection of the victim’s PCDS has to be at the discretion of the experienced rescuer (mountain guide). Any search for a label is totally unrealistic and in most cases impossible and increases the exposure time.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 15: Norwegian Alpine Rescue – Bengt Flygel Nilsfors – 05/10/2015

Comment # 15

Norwegian alpine rescue (NARG) is a national organization with 220 alpine rescue experts. We have a management system for all PCDS used by the members.

The harness used by the climbers in the local teams is a CE approved harness, and in each rescue team there are members educated to do an annual safety check of the equipment used. If this PAD will be accepted, it will not be possible to fly mountain rescuers with their personal harness as HEC during rescue missions.



The victim/rescue: In alpine rescue the picking up of a victim hanging in his own harness will also not be allowed, if this AD will be released. This will complicate the rescue, and make the rescue more dangerous for the people involved.

We have no information on accidents concerning harness for rescuers or mountain rescue teams in Norway. We strongly recommend that the PAD is not accepted.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 16: ECMS Aviation Systems GmbH – Andreas Fischer – 05/10/2015

Comment # 16

ECMS Aviation Systems would like to comment the aforementioned PAD. As head of the design office and vice head of airworthiness office of the DO EASA.21J.301, I am in charge of design, verification and certification of PCDS within major and minor change programmes.

The opinions expressed within this mail should be interpreted as COMPANY OPINION.

- (A) Manufacturers: The manufacturers section only includes helicopter manufacturers. As virtually no PCDS is directly supplied by the helicopter [manufacturer], it would be greatly appreciated if EASA DOs specialized in the PCDS sector (such as us) should be included in this list.
- (B) Applicability: While the applicability statement is straightforward, it should be pointed out that PCDS used in helicopter HEC operation is often not limited to helicopter operations as such. It is also typically used in non-helicopter-based mountain or industrial rescue ops (wind farms etc.).
- (C) Reason: The current technical requirements stated within airworthiness codes do not achieve the definition/test scrutiny levels of work safety standards (EN standards, which are today used instead of “airworthy” PCDS) in many respects. It is therefore not clear if an actual SAFETY risk is present caused by the absence of an aviation approval while EN approvals are applied. We DO, however, see many other good reasons why aviation approvals should be common practice for PCDS in the future.

Maintenance of simple PCDS (harness) as part of the AMP may be ONE way to ensure that PCDS are in airworthy condition. However, hardly any part 145 maintenance organization today has any accredited experience or qualification in this section. Proper training, e.g. in accordance with BGG906 standards, is a minimum requirement to perform such activities.

A very important point we wish to make is the fact that helicopter based rescue, strongly relying on simple PCDS, is very often interfacing with other rescue organisations, e.g. mountain rescue organisations. HEMS crews and HEC operators themselves only make up small percentage of the PCDS potentially used on a helicopter! The German national mountain rescue organisations operate an estimated 10.000 simple PCDS harnesses



alone. In some cases, these PCDS will never be operated on a helicopter, but should the need arise, it can hardly be expected from a rescuer trapped on a mountain wall to change his PCDS before hooking onto a helicopter hoist hook. We therefore DEMAND that a way to “dual use” harnesses (e.g. with CM-CS-005 approved PCDS) is kept open.

This includes:

- Dual use in ground based /helicopter based operation remains a legal activity for harnesses holding aviation approval
- Storage of simple PCDS away from an “aeronautically controlled environment” (i.e. with the rescuer’s equipment) must be allowed
- Inspection through a qualified person (BGG906 etc.) WITHOUT any aviation background should be possible

And it practically rules out:

- References to PCDS details within a RFMS – the pilot has neither qualification nor TIME to check the suitability and proper implementation of a simple PCDS configuration in a “hot” HEMS situation. This is the job of the rescuer on-site, who normally DOES have appropriate training. A RFMS covering ALL currently practiced aspects of helicopter based rescue will be a VERY big book.
- AMP reference to the PCDS. The harness is no inherent part of the rotorcraft and should not be considered as a direct component of the rotorcraft

(D) Required Action: As we see no immediate threat to safety whatsoever, EASA should consider a less stringent timeframe a) for compliance with this AD and b) for the issuing of the AD. This is an important subject with a high risk to render currently practiced rescue operations impossible if not formulated properly.

(E) Appendix 4: This seems basically identical to the definitions given in CM-CS-005. Again (as already stated during the comment phase of CM-CS-005 quite a while ago) we have strong objections to the reduction of the entire technical spec to a STATIC load. To our knowledge, there has never been a serious incident caused by a lack of (design) static strength of any PCDS. However, there have been MANY incidents where shock loads or dynamic instability lead to problems. The total factor of safety of 14 for textile PCDS forces operators to abandon their PA rope systems, which have been successfully used for at least two decades without fail, and move on to Dyneema or other high modulus ropes. These are much more susceptible to shock loads and require additional components such as fall dampers in the load chain, which makes the entire system more complex and less reliable, thus increasing the ACTUAL risks just to fulfil the factor 14 requirement, which were meant as a safety improvement.

We therefore urge EASA to remove the fitting factor requirement from simple and complex textile and metallic PCDS components if these are subjected to a full load test of the complete chain up to the interface (hook), including all the connecting elements (karabiners, slings).

Karabiners and connecting elements are tested to their working load and their ULmax when combined/employed in their normal mode of operation. Therefore a fitting factor is not necessary.



For example, we do not see how a passage like “Where ULmin is greater than the EC directive/EN requirements, a static test to not less than ULmin is necessary. The test load must be sustained for three minutes. In addition, there must be no detrimental or permanent deformation of metallic components at 3.5Mg.” will improve overall safety, as it is a known fact that UL is never really a concern in real life.

The strength requirements given in the EN standards are sufficient – a helicopter is not a harsher environment than industrial work conditions of harnesses. It is therefore difficult to find supporters for the exaggerated strength requirements – particularly as we all know that a rescue hoist or the underlying helicopter structure of an EC135 or BK117 will only support a FRACTION of these loads.

While making extreme strength requirements at one place, other safety aspects are completely neglected (shock load, vertical dampening behaviour, open / tilted karabiner gate emergency load carrying capability). These aspects are IMPORTANT in practical operation, and represent a safety thread much higher than the noncompliance with a ULmin factor 14 requirement!

- (F) Markings: When making the list of required markings, EASA has failed to consider that some PCDS elements simply do not offer sufficient space to have these markings. Karabiners of most OEMs are often not serialized, and retrofitting a serial number with a durable method will void their EN certificate, thus ruling out the “dual use” on the mountain rescue side. Sling tabs often have insufficient space on them, and adding bigger tabs will increase the risk of the tab being caught in a karabiner gate – thus leading to a hazardous situation. EASA should explicitly mention the possibility to have an external list-based record (that is, standard markings + approval no and/or serial) as an alternative to the “long list” on the equipment itself. We already practice it that way within our own product line, it’s the ONLY option that actually works.
- (G) Inspection: We have already addressed the problem of the WHO and WHERE, but the HOW is also important. Giving generalized inspection requirements within this AD fails to take into account that there are already established inspection methods widely and regularly taught throughout the rescue organisations actually using the equipment. Leave this subject to the experts! Maintenance and inspection of classic PCDS can hardly be achieved by an EASA-approved ICA framework, but much more likely to the OEM’s instructions, appended by a simple set of helicopter-specific tasks where necessary. The responsible DO holding the approval should not have to alter the OEM’s basic PPE manuals (their content being dictated by the EN standards already), but MAY choose to add material where needed.

We hope EASA recognizes the need for modification of the AD according to the suggestions given and problems identified.

As experienced company in PCDS work (design, approval, manufacturing) in the helicopter business, Airbus Helicopters main (if not single) supplier for approved PCDS and as EASA approved DO, PO and MO with a PCDS scope, we hope that our word might have some weight in this process.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.



Commenter 17: Helibernina – Thomas Bärffuss – 05/10/2015**Comment # 17**

In the mountains due to the acute danger of a sudden fall, the safest way to leave a belay station/accident site is the use of the victim's PCDS. Therefore an inspection of the victim's PCDS has to be at the discretion of the experienced rescuer (mountain guide). Any search for a label is totally unrealistic and in most cases impossible and increases the exposure time.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 18: Air Ambulance Services of Norway – Dan Halvorsen – 05/10/2015**Comment # 18**

Air Ambulance Services of Norway are a governmental agency responsible for all Air Ambulance and HEMS in Norway. The harnesses used by the HEMS Technical Crew Members/rescue men by the operators flying HEMS in Norway are maintained by safety checks performed by the operators. The other rescue experts (i.e. mountain rescue specialists) cooperating with the HEMS helicopters use CE approved harnesses and are part of a system subject to annual safety checks.

If this PAD is accepted, it will not be possible to fly mountain rescuers with their personal harness as HEC during rescue missions. We have no information on accidents or reports concerning harness for rescue men or mountain rescue teams in Norway. We strongly recommend that the PAD No.: 15-117 is not accepted.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.



Commenter 19: European Helicopter Association (EHA) – Jaime Arqué – 06/10/2015
Comment # 19

On 25th August 2015, we received an information mentioning that: « Regarding the NPA 2015-02, based on the adverse comments received, EASA recognizes that the present practice for certification of PCDS provides an adequate level of safety and that the publication of ETSO-C167 would not lead to any added value. As a consequence EASA will not publish proposed ETSO-C167 ».

Less than 3 weeks later, we were surprised to read the content of PAD 15-117 which is not taking into account the relevant comments that the different Industry representatives published (ICAR, EHA, SHA, etc.).

Please note that:

- The PAD shall refer to the CM-CS-005 PCDS.
- The proposed AD cannot be applied to daily rescue work (HHO and HEC) and it will not increase safety at all.
- How can we expect a pilot to check the PCDS when he is flying?
- How can we expect a CAMO to store and keep up to date something like 3000 PCDS?
- Labels indicating both the number of persons AND the weight are not feasible, since rescuers are not able to estimate persons' body weight.
- Appendix 2, information on PCDS labelling: it is not useful to define the "authorised load in kg" and the "authorised number of persons" on the label. No simple PCDS compliant with EC-Directive 89/686/EEC and the corresponding EN-Standards (see CM-CS-005) should be labelled with the indication of kg per person or load, since only one person is transported. • The mass limit of an individual is indicated by the size of their harness (size 2 or XL). In the event of more than one person being attached to a simple PCDS, the maximum number of persons is the only relevant information. Checks, evaluation, records of inspections, as required by the PAD, cannot be established for third parties by the operator.
- Specific cases that arise only in rescue/HEC work, like the picking-up of a rescuer/mountain guide en route to the scene or the picking-up of a victim hanging in his own harness, are not covered by the PAD.
- The PAD is simply not realistic and not transferable (see all the comments we (ICAR –EHA – SHA) made for the PCDS and CM-CS_005 projects).

We would like to highlight that:

- the statement given under the section „Reason”, i.e. “This condition, if not corrected, could lead to PCDS failure, possibly resulting in injury to an external PCDS occupant”, has no foundation.
- the recovery and rescue of persons by helicopter has been performed for 50 years, without serious accident.



- HEC or SAR operations are exclusively carried out by specialised crews, rescuers and physicians with extensive experience, a sense of responsibility and other professional qualities.
- the vocational training of these professionals has always been well documented and of the highest standard, even before EASA existed.
- the proposed measures are totally disproportionate.
- helicopter manufacturers have no expertise concerning PPE/PCDS. In fact, PCDS with STC usually do not fulfil but remain way below the requirements met by PPE now classified as „simple PCDS“.
- for the above-mentioned reasons, the opposite conclusion would seem more appropriate: Part 21 PO or ADOA organisations should process their STC based on the requirements defined in the standards referring to PPE.

Since 2009, we have been trying to explain to the Agency how their approach to this matter was not feasible/applicable in the daily work. We sent comments, discussed the matter at length during several meetings, sent petitions to the EU aviation commissioner but with this new PAD the industry is still facing the same problem.

There is a need to separate all rescue HHO and HEC missions from other CAT flights and ask, once again, for an exception for all rescue and exercise (trainings flight) in relation with rescue missions. Appendix 4 should not be listed. Just a reference to CM-CS-005, Appendix 1 should be indicated.

We strongly believe that this PAD is unnecessary and potentially dangerous and recommend to leave the matter to the National Authorities, whom, in all these years, have been regulating the use of these devices without any safety threat.

We are confident that your will take into consideration what stated above while we are prepared to further discuss the matter.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 20: TOPR Poland – Andrzej Górka – 06/10/2015

Comment # 20

We write this comment as Tatra Mountain Rescue Service (TOPR), a rescue service dedicated to bring rescue to the people in need in Polish Tatras and neighbouring mountainous territories. We rely frequently in our rescue missions on helicopter in order to provide fast on site help and evacuation. We received the information that:



“Regarding the NPA 2015-02, based on the adverse comments received, EASA recognizes that the present practice for certification of PCDS provides an adequate level of safety and that the publication of ETSO-C167 would not lead to any added value. As a consequence EASA will not publish the proposed ETSO-C167.”

Less than 3 weeks later the PAD was released, without taking into account the relevant comments that the different industry representatives had published (ICAR, EHA, SHA, etc.). Furthermore, the PAD is less than 4 weeks open for comments.

Some comments « again » :

- The PAD should refer to the EASA CM-CS-005 PCDS.
- The proposed AD cannot be applied to daily rescue work (HHO and HEC) and will not increase safety at all.
- How could a pilot check the PCDS when flying?
- How could a CAMO store and keep up to date something like 3000 PCDS?
- Labels indicating both the number of persons AND the weight are not feasible, since rescuers are not able to estimate persons' body weight.
- Appendix 2, information on PCDS labelling: it is not useful to define the "authorised load in kg" and the "authorised number of persons" on the label. No simple PCDS compliant with EC-Directive 89/686/EEC and the corresponding EN-Standards (see CM-CS-005) should be labelled with the indication of kg per person or load, since only one person is transported. The mass limit of an individual is indicated by the size of their harness (size 2 or XL). In the event of more than one person being attached to a simple PCDS, the maximum number of persons is the only relevant information. Checks, evaluation, records of inspections, as required by the PAD, cannot be established for third parties by the operator.
- Specific cases that arise only in rescue/HEC work, like the picking-up of a rescuer/mountain guide en route to the scene or the picking-up of a victim hanging in his own harness, are not covered by the PAD.
- The PAD is simply not realistic and not applicable (see all the comments we (ICAR –EHA – SHA) made for the PCDS and EASA CM-CS-005 projects).
- Therefore we are asking, once again, for an exception to be made with regard to all rescue and training flights relating to rescue missions.
- Appendix 4 should not be listed. Just a reference to CM-CS-005, Appendix 1 should be indicated.

It must be highlighted that

- the statement given under the section „Reason”, i.e. “This condition, if not corrected, could lead to PCDS failure, possibly resulting in injury to an external PCDS occupant”, has no foundation whatsoever. On the contrary, the release of an AD would not change the situation in any way.
- the recovery and rescue of persons by helicopter has been performed for 50 years, without serious accident.
- HEC or SAR operations are exclusively carried out by specialised crews, rescuers and physicians with extensive experience, a sense of responsibility and other professional qualities.
- the vocational training of these professionals has always been well documented and of the highest standard, even before EASA existed.



- the passing of an AD containing such measures would have absolutely no impact on safety.
- the proposed measures are totally disproportionate.
- last but not least, helicopter manufacturers have no expertise regarding PPE/PCDS. In fact, PCDS with STC usually do not fulfil but remain way below the requirements met by PPE now classified as „simple PCDS“.
- for the above-mentioned reasons, the opposite conclusion would seem more appropriate: Part 21 PO or ADOA organisations should process their STC based on the requirements defined in the standards referring to PPE.

Conclusions:

If the AD is released, operators will have only 2 options:

- to comply to the rule and, in this case, flying no missions as this, in practice, would be impossible.
- to function “illegally” but rescue lives. This would have huge consequences in the case of incidents / accidents; the risk of non-compliance is far outweighed by the risk of complications that the PAD in its current form brings in those specific cases.

An exception must be made for all HHO and HEC rescue missions. These missions must be dealt with separately from other CAT flights.

This should be left to the National Aviation Authorities.

Since 2009, we have been trying to influence the agency, writing comments, lobbying the officers and sending a petition to the EU aviation commissioner, but nothing has as yet been achieved. There has been a huge waste of time, money and energy and the industry now requires a practical solution in order to continue their work.

The problematic issues described above do not appear practical. Any impractical and enforced changes in rescue routines are likely to distort the performance of rescue missions to a degree when obedience to enforced solutions might equal harm and inadequate help delivered by the rescuers. The outcomes of such situations can be dire or disastrous.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 21: Austrian Mountain Rescue Service – Albrecht Ebner – 06/10/2015

Comment # 21

On 25th August 2015, we received information that:



“Regarding the NPA 2015-02, based on the adverse comments received, EASA recognizes that the present practice for certification of PCDS provides an adequate level of safety and that the publication of ETSO-C167 would not lead to any added value. As a consequence EASA will not publish the proposed ETSO-C167.”

Less than 3 weeks later the PAD was released, without taking into account the relevant comments that the different industry representatives had published (ICAR, EHA, SHA, etc.). Furthermore, the PAD is less than 4 weeks open for comments.

Some comments « again » :

- The PAD should refer to the EASA CM-CS-005 PCDS.
- The proposed AD cannot be applied to daily rescue work (HHO and HEC) and will not increase safety at all.
- How could a pilot check the PCDS when flying?
- How could a CAMO store and keep up to date something like 3000 PCDS?
- Labels indicating both the number of persons AND the weight are not feasible, since rescuers are not able to estimate persons' body weight.
- Appendix 2, information on PCDS labelling: it is not useful to define the "authorised load in kg" and the "authorised number of persons" on the label. No simple PCDS compliant with EC-Directive 89/686/EEC and the corresponding EN-Standards (see CM-CS-005) should be labelled with the indication of kg per person or load, since only one person is transported. The mass limit of an individual is indicated by the size of their harness (size 2 or XL). In the event of more than one person being attached to a simple PCDS, the maximum number of persons is the only relevant information. Checks, evaluation, records of inspections, as required by the PAD, cannot be established for third parties by the operator.
- Specific cases that arise only in rescue/HEC work, like the picking-up of a rescuer/mountain guide en route to the scene or the picking-up of a victim hanging in his own harness, are not covered by the PAD.
- The PAD is simply not realistic and not applicable (see all the comments we (ICAR –EHA – SHA) made for the PCDS and EASA CM-CS-005 projects).
- Therefore we are asking, once again, for an exception to be made with regard to all rescue and training flights relating to rescue missions.
- Appendix 4 should not be listed. Just a reference to CM-CS-005, Appendix 1 should be indicated.

It must be highlighted that

- the statement given under the section „Reason”, i.e. “This condition, if not corrected, could lead to PCDS failure, possibly resulting in injury to an external PCDS occupant”, has no foundation whatsoever. On the contrary, the release of an AD would not change the situation in any way.
- the recovery and rescue of persons by helicopter has been performed for 50 years, without serious accident.
- HEC or SAR operations are exclusively carried out by specialised crews, rescuers and physicians with extensive experience, a sense of responsibility and other professional qualities.
- the vocational training of these professionals has always been well documented and of the highest standard, even before EASA existed.



- the passing of an AD containing such measures would have absolutely no impact on safety.
- the proposed measures are totally disproportionate.
- last but not least, helicopter manufacturers have no expertise regarding PPE/PCDS. In fact, PCDS with STC usually do not fulfil but remain way below the requirements met by PPE now classified as „simple PCDS“.
- for the above-mentioned reasons, the opposite conclusion would seem more appropriate: Part 21 PO or ADOA organisations should process their STC based on the requirements defined in the standards referring to PPE.

Conclusions:

If the AD is released, operators will have only 2 options:

- to comply to the rule and, in this case, flying no missions as this, in practice, would be impossible.
- to function “illegally” but rescue lives. This would have huge consequences in the case of incidents / accidents; the risk of non-compliance is far outweighed by the risk of complications that the PAD in its current form brings in those specific cases.

An exception must be made for all HHO and HEC rescue missions. These missions must be dealt with separately from other CAT flights.

This should be left to the National Aviation Authorities.

Since 2009, we have been trying to influence the agency, writing comments, lobbying the officers and sending a petition to the EU aviation commissioner, but nothing has as yet been achieved. There has been a huge waste of time, money and energy and the industry now requires a practical solution in order to continue their work.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 22: Airbus Helicopters / Airbus Helicopters Deutschland – Thierry Marquet & Martin Lawall – 06/10/2015

Comment # 22

- A. General Feedback on PAD 15-117: After detailed review of the Proposed Airworthiness Directive 15-117 on Airbus Helicopters side, the basic intention expressed in the PAD is understood, but the overall scope of activities and its helicopter effectivity plus the assignment of those activities to publication means (e.g. RFM, AMP) seems to need further enhancement. As the AD shall only address all helicopters with a hoist and/or cargo hook approved for human external cargo (HEC) operations, the helicopters referred in Appendix 1 as “affected helicopters” creates questions and an



unclear situation on entities which have to comply with the AD. Requiring before each HEC operation a compatibility check of the attachment means plus the verification of the visible PCDS labelling is a task not linked to the RFM and the requested interval. Details and explanations on the above mentioned points are given in the second chapter of this PAD comment.

Comments on the individual sections of PAD 15-117:

- B. Applicability (page 1/8): The section applicability refers to “All helicopters, as identified in Appendix 1 of this AD, equipped with a hoist and/or cargo hook approved for human external cargo (HEC) operations....” whereas Appendix 1 lists a huge number of helicopters from various TC holders and defines them in the title as “Affected helicopters”. Only a minority of the listed helicopter types feature a hoist and/or cargo hook with an approval for human external cargo (HEC) operations. AH understands that the PAD affects only helicopters with a hoist and/or cargo hook approved for human external cargo (HEC) operations. In consequence the section “Applicability” clearly defines the scope of the PAD, whereas the Appendix 1 allows misinterpretation due to the wording “Affected helicopters”. AH helicopter types like the BO105 or several other types are not approved for human external cargo (HEC). Other helicopters like the EC120 do not even feature a hoist installation, but are mentioned in Appendix 1 as “Affected helicopters”. Therefore the PAD does not affect those helicopters.
- C. Reason (page 1/8): Comment on section “reason” also supports a possible misinterpretation that in general all PCDS in service are affected by this PAD, whereas the scope of the AD can only be on helicopters with an approval for HEC operations.
- D. Required Action(s) and Compliance Time(s):
- Note 1: The referenced EASA Certification Specification (CS) does not apply due to its issuing date to all helicopters mentioned in Appendix 1. In consequence the comment for “Appendix 1” and “Applicability” is linked to this point.
- Note 2: No dedicated comment on this Note 2.
- Note 3: The note is understood in a way that two possibilities are given to comply with the task to check if an “acceptable PCDS” is given:
- (1) An airworthiness approval
 - (2) Meet standard EC Directive 89/686/EEC + EN standard for PCDS components + criteria in Appendix 4
- It appears that some of the requirements are contradictory (refer to comments on appendix 2 and 4).
- E. Paragraph (1): In general, the task of paragraph (1) cannot be assigned to one single entity as in certain cases, TC or STC holders are involved. In other cases approvals might have been granted by e.g. national authorities, and TC or STC Holders were not directly involved.
- F. Paragraph (2): The compliance time of 36 months (according to Paragraph (1)) for checking if an acceptable PCDS is used seems feasible, whereas the requirements in Paragraph (2) to insert and comply with the instructions specified in Appendix 2 are considered to have drastic consequences on currently used PCDS when respecting them in the way they are written and/or interpreted. For further information see [AH comments on] section “Appendix 2”.
- G. Paragraph (3): No dedicated comment on paragraph (3), but comment on content of Appendix 3 at a later stage of this comment document.



H. Paragraph (4): No dedicated comment on paragraph (4)

- I. Remarks: Paragraph 3 of the section “Remarks” states: “For any question concerning the technical content of the requirements in this PAD, please contact (as applicable)” and lists the contact data of various TC Holders. As the section “Ref. Publications” does not refer to any TC Holder documentation and as the origin and background of the PAD publication is unknown at AH it was not possible to provide further support on customer request.
- J. Appendix 1 – Affected helicopters – See also section “Applicability”. It is proposed to reduce the list to helicopters which feature an approved hoist and/or cargo hook for human external cargo (HEC) operations. Otherwise Appendix 1 is misleading in its scope (by stating “Affected helicopters”) compared to the requirement in section “Applicability”.
- K. Appendix 2 – Operational Instructions – Basically, a general condition check of the PCDS before usage in operation is supported. Appendix 2 however mandates a check “before each HEC operation”. A condition check of the “PCDS for the effects of ageing” respectively wear & tear would however be more appropriately served by a check with a longer periodicity than “before each HEC operation”). This check includes beside a condition check of the PCDS also an action for “compatibility of the attachment means.” Once the compatibility of a specific equipment is checked, there is no need to repeat this check “before each HEC operation”. Therefore, this should be noted as a separate task in the AD, which is to be performed prior to first use.

The same logic also applies to the listing of information which is required on the PCDS labelling. The wording of the PAD can be interpreted in a way that the complete set of the list has to be fulfilled and in addition has to be checked “before each HEC operation”. It is not distinguished which points of the PCDS labelling are considered as absolutely necessary. For example a PCDS with a labelling which includes “authorized number of persons” is unknown to AH; the life limit date defined by the supplier for the showing of compliance to the EC Directive 89/686/EEC is surely different to the 5 years proposed in Appendix 4 and to be introduced in the H/C ALS documentation. In consequence it is recommended to reduce the list of information on the labelling and also remove it from the Appendix 2, as this is not considered as a repetitive task. In addition there is no compliance period mentioned when the criteria in the listing are not met. As a consequence the complete point of the PCDS labelling verification shall be moved to the action (1.1) of the PAD (to review if an acceptable PCDS is given) within the therein given timeframe.

A further important operational aspect is, that by mandating to amend the RFM with the information in Appendix 2, makes the check / inspection an AD related action which needs an inspector to sign off the performed task. This is from an operational point of view not feasible.

The detailed condition check of the PCDS shall be a maintenance task rather than a task within the RFM, as for example also STCs for PCDS are existing which do not have a dedicated RFM section.

- L. Appendix 3 – Maintenance Instructions – The task mentioned in the line “24 months” asks for verification “that the maximum load applied to each component between the carried person(s) and the hook is conservatively estimated.” It is not understood why this task should be performed under maintenance and in a repetitive manner. Furthermore with the assignment of this verification to the maintenance instructions, it seems that the operator has now to obligation to check the load capability of the PCDS. According to Appendix 3, the operator is now also requested to “Record



HEC operations ... for each individual PCDS [...]” for which the effort on operator side seems to be significant, whereas the added safety benefit is not understood.

M. Appendix 4: Refer to Appendix 2 comment for consistency between the life time limit from EC Directive 89/686/EEC and the 5 years proposed in this appendix.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 23: Air Transport Europe Ltd. – Viliam Krivák – 06/10/2015

Comment # 23

On 25th August 2015, we received information that:

“Regarding the NPA 2015-02, based on the adverse comments received, EASA recognizes that the present practice for certification of PCDS provides an adequate level of safety and that the publication of ETSO-C167 would not lead to any added value. As a consequence EASA will not publish the proposed ETSO-C167.”

Less than 3 weeks later the PAD was released, without taking into account the relevant comments that the different industry representatives had published (ICAR, EHA, SHA, etc.). Furthermore, the PAD is less than 4 weeks open for comments.

Some comments « again » :

- The PAD should refer to the EASA CM-CS-005 PCDS.
- The proposed AD cannot be applied to daily rescue work (HHO and HEC) and will not increase safety at all.
- How could a pilot check the PCDS when flying?
- How could a CAMO store and keep up to date something like 3000 PCDS?
- Labels indicating both the number of persons AND the weight are not feasible, since rescuers are not able to estimate persons’ body weight.
- Appendix 2, information on PCDS labelling: it is not useful to define the "authorised load in kg" and the "authorised number of persons" on the label. No simple PCDS compliant with EC-Directive 89/686/EEC and the corresponding EN-Standards (see CM-CS-005) should be labelled with the indication of kg per person or load, since only one person is transported. The mass limit of an individual is indicated by the size of their harness (size 2



or XL). In the event of more than one person being attached to a simple PCDS, the maximum number of persons is the only relevant information. Checks, evaluation, records of inspections, as required by the PAD, cannot be established for third parties by the operator.

- Specific cases that arise only in rescue/HEC work, like the picking-up of a rescuer/mountain guide en route to the scene or the picking-up of a victim hanging in his own harness, are not covered by the PAD.
- The PAD is simply not realistic and not applicable (see all the comments we (ICAR –EHA – SHA) made for the PCDS and EASA CM-CS-005 projects).
- Therefore we are asking, once again, for an exception to be made with regard to all rescue and training flights relating to rescue missions.
- Appendix 4 should not be listed. Just a reference to CM-CS-005, Appendix 1 should be indicated.

It must be highlighted that

- the statement given under the section „Reason”, i.e. “This condition, if not corrected, could lead to PCDS failure, possibly resulting in injury to an external PCDS occupant”, has no foundation whatsoever. On the contrary, the release of an AD would not change the situation in any way.
- the recovery and rescue of persons by helicopter has been performed for 50 years, without serious accident.
- HEC or SAR operations are exclusively carried out by specialised crews, rescuers and physicians with extensive experience, a sense of responsibility and other professional qualities.
- the vocational training of these professionals has always been well documented and of the highest standard, even before EASA existed.
- the passing of an AD containing such measures would have absolutely no impact on safety.
- the proposed measures are totally disproportionate.
- last but not least, helicopter manufacturers have no expertise regarding PPE/PCDS. In fact, PCDS with STC usually do not fulfil but remain way below the requirements met by PPE now classified as „simple PCDS”.
- for the above-mentioned reasons, the opposite conclusion would seem more appropriate: Part 21 PO or ADOA organisations should process their STC based on the requirements defined in the standards referring to PPE.

Conclusions:

If the AD is released, operators will have only 2 options:

- to comply to the rule and, in this case, flying no missions as this, in practice, would be impossible.
- to function “illegally” but rescue lives. This would have huge consequences in the case of incidents / accidents; the risk of non-compliance is far outweighed by the risk of complications that the PAD in its current form brings in those specific cases.

An exception must be made for all HHO and HEC rescue missions. These missions must be dealt with separately from other CAT flights.

This should be left to the National Aviation Authorities.



Since 2009, we have been trying to influence the agency, writing comments, lobbying the officers and sending a petition to the EU aviation commissioner, but nothing has as yet been achieved. There has been a huge waste of time, money and energy and the industry now requires a practical solution in order to continue their work.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 24: Lite Flite ApS – Thomas Knudstrup – 06/10/2015

Comment # 24

Please find below our comments to the EASA PAD 15-117, with some references to Certification Memo CM-CS-005, issue 01:

Any “open door” helicopter operation involves the risk of “falling from a height”. The EC Directive 89/686 with later amendments, and the associated European Norms are covering this subject pretty good. This so-called “fall protection directive” is ratified by all EU member states and, additionally, seems to be widely accepted as a base for certification in third party countries. Even though the directive and the norms never have been written with helicopter operations in mind, they could just as well have been. The scope can easily be adapted to the open door helicopter operations in question. As a general comment, we would love to see this directive/norm ruleset implemented, with as few EASA specific rules added as possible.

We would, however, like to see a general rule stating, that this kind of equipment should be made, and must be suitable, for this specific purpose. A typical fall arrest harness found in e.g. the building and construction industry may be type certified and so on, but in general, it is neither built for the purpose nor suitable.

Another important issue is, that open door operations require the use of so-called gunner belts, referred to in the norms as “body positioning belts”. As a logical consequence, the PAD (and the certification memo / coming EASA rules) should not only focus on PCDS and other equipment used outside the helicopter, but also on the fall protection equipment used inside the helicopter, by the rear crew.

In addition to these general comments, we would like to emphasize some bullet points:

- A. It is important to differentiate between the equipment used for various positions of the crew: For the winch man, a EN813/EN1497 sit harness may be the best solution. A harness designed for this specific purpose does not need the shoulder straps. In our humble opinion, a EN361 full body harness is a bad and dangerous solution for the winch man, as the shoulder straps tends to form great loops that can catch and snag on almost every obstacle. The implications of catching and snagging should be obvious. The rear crew, including the winch operator, should be secured in one of two ways. During open door operations, a EN358 gunner belt with a properly configured lanyard should be utilized. This will then act as a fall prevention device. Everybody not working near the open door should be secured by ordinary seat belts. In the rare case where the winch operator choose to



stand outside the helicopter, e.g. on the skid, he should wear a fall arrest harness. The only harness type that is approved for fall arrest, is a EN361 full body harness. Again, a properly configured lanyard should be utilized. In general, maintaining a standing position outside the helicopter should be avoided. Even secured by a fall arrest harness, there is a risk of serious injury.

- B. Currently, there is no requirement for a quick release device for the winch man. In the name of safety, such a requirement should be included, as this in many cases can avoid the old school cable cutting procedure. The quick release device should be made for the purpose, and not be based on older surplus hardware from e.g. parachute equipment. The quick release device should be tested with (or even be type approved as part of) the winch [operator] harness. Alternatively, the quick release device should have its own approval, e.g. as a EN362 connector device. However, the Notified Body performing the type approval may tend to reject this, as no quick release device has the slightest resemblance with the “normal” connectors referenced in the norm. These are all of karabiner or speed link types, and definitively not suitable for this kind of operation.
- C. The PAD has references to EN354 which is about stand-alone lanyards. This should really be changed to EN358 which covers lanyards and belts. Naturally, the EN354 is a fully valid norm, but the EN358 may be more realistic as a reference. In most cases, gunner belts and lanyards will be delivered by the same manufacturer, as the equipment will then have been tested as a hole, hence assuring compatibility and flawless function.
- D. Any lanyard must be connected to a “hard point” in the helicopter. In principle, the type approval for a EN358/EN354 lanyard is only valid if the lanyard is connected to a EN795 approved anchor point. This kind of anchor point has two basic requirements: It must be located above the user and the static strength must be no less than 12 kN. Ideally, all helicopters used for open door operations should have at least two such anchor points, one for the winch operator and one for the winch man, and they should be positioned in the ceiling, in the opposite side of the open door. In the not so ideal world, it seems unrealistic to require a static strength of 12 kN for each hard point. In general, 1500 lbf or 7.5 kN seems to be an acceptable strength by helicopter manufactures and operators. From our point of view, the position and the accessibility is much more important. But if everybody else is satisfied with hard points having a strength of 7.5 kN, then there is no need to require a safety factor of 14 for the (textile-) materials used. The European norms requirement for a safety factor of 10 is then more than adequate, and it will be easier to adapt new equipment made to the current rules and norms. Same goes for the equipment connected to the hoist hook, as most hoists are certified to a load in the area of 600-1000 lbf.
- E. It is an advantage for the crew, if dual equipment use can be avoided. A EN813 sit harness can easily include one or more attachments for a EN358 lanyard. Hence, use of a separate gunner belt can be avoided.
- F. On page 3 in PAD 15-117, the sentence "Verify that the following information is visible on the PCDS labelling:" should be changed to "Verify that the following information is available to the user:". In general, the labelling and the marking should follow the requirements laid out in EN365.
- G. On page 8, there seems to be too much math and engineering stuff. This cannot be anticipated to be understood by an ordinary end user, and needs to be simplified. As it is now, it is of relevance only to the designers of the equipment.
- H. The "helicopter manoeuvring limit load factor" seems to be unnecessary for hoist operations. This kind of operation is done with a (more or less) hovering helicopter, and this factor can easily be reduced from the current 3.5. Only if the PCDS/HEC operation is performed using “under sling”



(short haul technique), the helicopter manoeuvring limit load factor may be relevant as it is. To make things simple and understandable, why not skip all the math and just stick to the total safety factor (10) given in the EN norms, just as mentioned above ?

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 25: Slovenia Police Air Support Unit – Miha Avbelj & Robert Kralj – 06/10/2015

Comment # 25

Slovenia Police Air Support Unit performs hoist operations since 1980, including difficult rescues in the Alpine region. In accordance with national regulations, we generally follow EASA regulations, in particular Airworthiness Directives, issued by EASA. We carefully examined proposed AD 15-117.

We support the proposal to make clear the certification and maintenance requirements also for Personal Carrying Device Systems, including connecting elements and harnesses, used in Helicopter Hoist Operations. However, we have serious reservations on mentioned proposal.

We believe, that simple PCDS used for lifesaving missions like HEMS and SAR or similar, and training for such missions shall be fully exempt from the requirements of proposed AD.

Namely, for hoist operations in missions, that are entirely under control of the operator, like sea pilot transfers or windfarm support missions might not have much difficulties complying with proposed AD. Hoist operations, that are part of SAR or HEMS missions have different working model and different risk assessment, that is well explained in AMC and GM to Part SPA of EC Regulation 965/2012, particularly Subpart J HEMS operations, (c) risk management.

Comparative risk of saving lives vs. risk of PCDS failure, that shall be mitigated by provisions of mentioned PAD shows that PAD will bring unnecessary burden to operators, and that some requirements actually cannot be complied within our current working model, thus forcing us to severely limit our lifesaving operations. Please consider the following:

- A. Rescue missions with HHO are often conducted in a way, that helicopter takes off from the base, and picks-up nearest available rescuer, that will then become »hoist passenger«. As they are not professional rescuers, waiting on-duty at the base, but are on standby at home or other location, or even are called on duty in their leisure time, equipped with their personal climbing gear – PCDS, that is not and cannot be under control of the operator, as required by proposed AD. The only way to comply with PAD in such cases would be to lower the »controlled« PCDS by hoist to the rescuer, bringing additional risks, complications and delays, that are unacceptable in lifesaving missions and obviously far outweigh the risks, addressed by mentioned PAD.



- B. In certain cases of mountain rescues, injured climbers are hanging on their safety (belay) lines, sitting in their climbing harness. Normally, their personal climbing harness – PCDS, is used to lift them to safety by means of HHO, subject to assessment of the situation of rescuer, lowered by hoist to the patient. It is impossible that operator has any control of such PCDS. The only way to comply with PAD would be to put such patient into an approved, PCDS, under control of the operator, before connecting him/her to the helicopter hoist. Such procedure would bring severe risks, complications and delays, that are unacceptable in lifesaving missions and obviously far outweigh the risks, addressed by mentioned PAD and we believe that is not possible to perform it in many cases.
- C. Appendix 2 requires checking of PCDS, including verification of contents of PCDS label, that shall contain authorised load in kilograms. Such information does not exist on most PCDS, we are aware of, that might otherwise be eligible for the PAD requirements (CE compliance marking, appropriate load bearing properties...) Normally, manufacturers state load limit FORCE on PCDS labels and/or adjoining instructions, not max. mass of the person, intending its use. Such requirement is way over comparative aviation design & certification standards, such as CS 27, where upper limit of passenger weight on the seat is not limited.

Please consider our remarks on the proposed AD 15-117.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 26: Uni-Fly A/S – Per Leth Andersen – 06/10/2015

Comment # 26

Our company have considerable concerns over the way this AD is going to be controlled. As we see it, this is a safety issue and not an airworthiness issue. In our view, to keep a helicopter airworthy, the helicopter operator and related CAMO, need to comply with every airworthiness task / requirement concerning the helicopter and components fitted into the helicopter. Not requirements concerning personnel equipment. We have nothing to object to the overall objective to ensure that equipment used HEC operations are fit for use and are of an approved quality and design. But the Operational Instructions in Appendix 2 will de facto be impossible for us to comply with. In order to give the right perspective, it is appropriate first to provide a short briefing on our operations.

We conduct an EASA-OPS CAT passenger operation where we hoist our passengers onto offshore wind turbines.

It would not be uncommon for us to hoist eight passengers onto a number of wind turbines in the morning, leaving both passengers and hoist equipment on the turbines for the duration on the day. They are picked up again in the evening and flown back to shore. However, this is only one variant of the scenario. The passengers may also have been transported to an offshore wind turbine or offshore platform by boat, but requiring our



services for the transport back to shore. At any given day each aircraft may perform between 30 and 50 hoist operations. All our hoist passengers have been through extensive training prior to taking part of the operation, as per EASA-OPS and industry requirements. For this each passenger is equipped with one hoist body harness and one custom designed lanyard, the latter specifically designed to eliminate the risk of roll out, and the combination as such is classified as a PCDS of simple design. These are certified according to EC Directive 89/686/EEC (EN 361 & EN 354, respectively), and used in the hoist operations as in accordance with EASA CM No.: CM-CS-005 Issue 1. The body harness and lanyard are duly inspected and labelled at fixed intervals, as per applicable requirements, and by approved test facilities. Further to this, the equipment is inspected and assessed by the passenger prior to use, before donning. This is a very common scenario in the wind farm industry that the technicians are responsible for the day to day assessment of their personal PPE – which includes everything from helmets to fall arrest harnesses and immersion suits etc.

We have in effect no way of neither inspecting the PCDS prior to each HEC operation, nor to record the number of HEC operations for each individual piece of equipment. We appreciate that our operation in this way is quite different from many rescue hoist scenarios, where the equipment is in the hands of the operator prior to flight, and where the persons who are to be hoisted may not have any knowledge or insight as to the equipment involved. Further to that, we, as operator, do not necessarily own the equipment being used in the operation as it is personal equipment owned by the employer of our passengers. Placing the responsibility for oversight at the operator will in this case create some intricate legal dilemmas. Setting up further test schemes will undermine the otherwise fine frame work of EASA CM No.: CM-CS-005 Issue 1, adding further requirements for testing and labelling equipment already living up to the respective EN-approvals etc.

From our point of view, the objective requirements of this PAD ought to be directed to the users, not the helicopter operators. Due to the fact that the PCDS is user-equipment, it will be non-cost effective and almost impossible to control these requirements in the helicopter Maintenance Programme.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 27: Österreichischer Bergrettungsdienst / Land Vorarlberg – Artur Köb – 06/10/2015

Comment # 27

I am writing this comment as the head of the air emergency of the Austrian Mountain Rescue Service – Region Vorarlberg. The air emergency Vorarlberg implements every year around 1,000-1,100 rescue missions by helicopter. Thereof around 140-150 people have to be salvaged with rope from sheer rock walls or rough terrain.

On 25th August 2015, we received information that:



“Regarding the NPA 2015-02, based on the adverse comments received, EASA recognizes that the present practice for certification of PCDS provides an adequate level of safety and that the publication of ETSO-C167 would not lead to any added value. As a consequence EASA will not publish the proposed ETSO-C167.”

Less than 3 weeks later the PAD was released, without taking into account the relevant comments that the different industry representatives had published (ICAR, EHA, SHA, etc.). Furthermore, the PAD is less than 4 weeks open for comments.

Some comments « again » :

- The PAD should refer to the EASA CM-CS-005 PCDS.
- The proposed AD cannot be applied to daily rescue work (HHO and HEC) and will not increase safety at all.
- How could a pilot check the PCDS when flying?
- How could a CAMO store and keep up to date something like 3000 PCDS?
- Labels indicating both the number of persons AND the weight are not feasible, since rescuers are not able to estimate persons' body weight.
- Appendix 2, information on PCDS labelling: it is not useful to define the "authorised load in kg" and the "authorised number of persons" on the label. No simple PCDS compliant with EC-Directive 89/686/EEC and the corresponding EN-Standards (see CM-CS-005) should be labelled with the indication of kg per person or load, since only one person is transported. The mass limit of an individual is indicated by the size of their harness (size 2 or XL). In the event of more than one person being attached to a simple PCDS, the maximum number of persons is the only relevant information. Checks, evaluation, records of inspections, as required by the PAD, cannot be established for third parties by the operator.
- Specific cases that arise only in rescue/HEC work, like the picking-up of a rescuer/mountain guide en route to the scene or the picking-up of a victim hanging in his own harness, are not covered by the PAD.
- The PAD is simply not realistic and not applicable (see all the comments we (ICAR –EHA – SHA) made for the PCDS and EASA CM-CS-005 projects).
- Therefore we are asking, once again, for an exception to be made with regard to all rescue and training flights relating to rescue missions.
- Appendix 4 should not be listed. Just a reference to CM-CS-005, Appendix 1 should be indicated.

It must be highlighted that

- the statement given under the section „Reason”, i.e. “This condition, if not corrected, could lead to PCDS failure, possibly resulting in injury to an external PCDS occupant”, has no foundation whatsoever. On the contrary, the release of an AD would not change the situation in any way.
- the recovery and rescue of persons by helicopter has been performed for 50 years, without serious accident.
- HEC or SAR operations are exclusively carried out by specialised crews, rescuers and physicians with extensive experience, a sense of responsibility and other professional qualities.
- the vocational training of these professionals has always been well documented and of the highest standard, even before EASA existed.



- the passing of an AD containing such measures would have absolutely no impact on safety.
- the proposed measures are totally disproportionate.
- last but not least, helicopter manufacturers have no expertise regarding PPE/PCDS. In fact, PCDS with STC usually do not fulfil but remain way below the requirements met by PPE now classified as „simple PCDS“.
- for the above-mentioned reasons, the opposite conclusion would seem more appropriate: Part 21 PO or ADOA organisations should process their STC based on the requirements defined in the standards referring to PPE.

Conclusions:

If the AD is released, operators will have only 2 options:

- to comply to the rule and, in this case, flying no missions as this, in practice, would be impossible.
- to function “illegally” but rescue lives. This would have huge consequences in the case of incidents / accidents; the risk of non-compliance is far outweighed by the risk of complications that the PAD in its current form brings in those specific cases.

An exception must be made for all HHO and HEC rescue missions. These missions must be dealt with separately from other CAT flights.

This should be left to the National Aviation Authorities.

Since 2009, we have been trying to influence the agency, writing comments, lobbying the officers and sending a petition to the EU aviation commissioner, but nothing has as yet been achieved. There has been a huge waste of time, money and energy and the industry now requires a practical solution in order to continue their work.

With the certification, how it is explained in the PAD 15-117, evacuations from sheer rock- & ice walls will not get easier but rather more complicated and therefor more dangerous. Likewise the transport for further rescuer gets harder and considerably time-consuming. Furthermore, in my 25-year activity in the alpine air rescue, I am not aware of an incident, which was caused by a “non especially aircraft certificated” harness. In accordance of all responsible people of the air rescue I entreat you not to implement the PAD 15-117.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.



Commenter 28: Swiss Helicopter Association – Rudolf Joder & Philip Kristensen – 06/10/2015**Comment # 28**

Thank you for the opportunity to provide some comments and feedback on the published PAD No. 15-117 concerning the use of personal carrying device systems (PCDS). Whereas EASA had launched several approaches in the past to regulate PCDS; whereas EASA has issued a Certification Memorandum (CM) for PCDS; [and] whereas EASA has published PAD No. 15-117; therefore, we refer to the prior statements of Swiss Air-Ambulance Rega in the context of all the earlier PCDS approaches by EASA. These statements are still considered applicable. In more than 40 years with more than 330,000 rescue missions in Switzerland, not a single accident resulting from deficits in the PCDS equipment quality could have been identified.

The published PAD No. 15-117 is to be rejected in full.

- (1) We are still of the opinion that all equipment beyond the hoist/cargo hook is not considered aircraft-relevant, thus not covered by CS 27/29, and therefore also not to be regulated by EASA. CS 2x.865 is not supposed to be applicable.
- (2) PCDS are regulated in several European Norms (EN) in the occupational health and safety area as well as in the mountaineering area.
- (3) EC guideline 89/686/EWG on personal protection equipment (PPE) is to be included as accepted AMC in the GM.
- (4) It is highly encouraged to include SFOCA TN 50.605-20 in the regulation.
- (5) The existing CM shall be applied also in the future.
- (6) The proposed changes of EASA's opinion have neither been justified by reliable data, nor has any additional safety benefit been demonstrated, nor has a regulatory impact assessment been presented. Thus, the different and/or additional regulation just leads to avoidable bureaucratic burdens.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

Commenter 29: European HEMS & Air Ambulance Committee (EHAC) – Stefan Becker – 06/10/2015**Comment # 29**

Thank you for the opportunity to provide some comments and feedback on the published PAD No. 15-117 concerning the use of personal carrying device systems (PCDS).



Whereas EASA had launched several approaches in the past to regulate PCDS;

Whereas EASA has issued a Certification Memorandum (CM) for PCDS;

Whereas EASA has published PAD No. 15-117;

Therefore, we refer to the prior statements of Swiss Air-Ambulance Rega in the context of all the earlier PCDS approaches by EASA. These statements are still considered applicable. In more than 40 years with more than 330,000 rescue missions in Switzerland, not a single accident resulting from deficits in the PCDS equipment quality could have been identified.

(A) The published PAD No. 15-117 is to be rejected in full

(1) We are still of the opinion that all equipment beyond the hoist/cargo hook is not considered aircraft-relevant, thus not covered by CS 27/29, and therefore also not to be regulated by EASA. CS 2x.865 is not supposed to be applicable.

(2) PCDS are regulated in several European Norms (EN) in the occupational health and safety area as well as in the mountaineering area.

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(6) The proposed changes of EASA's opinion have neither been justified by reliable data, nor has any additional safety benefit been demonstrated, nor has a regulatory impact assessment been presented. Thus, the different and/or additional regulation just leads to avoidable bureaucratic burdens.

(B) As for pure technical aspects of the PAD, EHAC submits the following comments: The text in the field "Reason" states, that an unsafe condition may arise when using a PCDS without an airworthiness approval. This is contradictory to note (3) in the "Action" field, where it is stated that a PCDS in compliance with EC Directive No. 89/686/EEC and the corresponding EN standards is considered acceptable (and therefore safe).

(C) Appendix 2 requires an inspection of the PCDS prior to each HEC operation for condition. This is not practical for the following reasons:

- The flight crew intending to perform a HEC operation is not properly trained enough to examine the PCDS to a satisfactory level. This inspection is currently performed by trained and experienced experts. Delegating this inspection to the flight crew might lead to safety degradation.
- The decision to perform a HEC operation is sometimes taken during the flight to the location of the incident, when the flight crew realises that a landing is not possible. Following the requirements by the PAD, in such cases the crew would have to land after taking the hoist decision and then to perform the inspection. This might also not always be possible due to time and/or terrain constraints.
- Also providing a company-PCDS to external rescue crews is not a feasible option since on one hand side such crew mostly confides their own personal protection equipment, certified for alpine rescue missions, and, most likely, they would probably reject any different equipment than their own, and, on the other side, there is not always a possibility to change the equipment (PCDS) for the same reason as mentioned above. After all, such procedures are likely to generate an unsafe condition. For the same reason as stated under a), an inspection of the personal protection equipment used by external crews and organisations is not a feasible option as well.



(D) HEMS operators in an alpine environment mostly cooperate with various organisations providing professional alpine rescue services (e.g. “Bergwacht” in Germany, “Bergrettung” in Austria or “Alpine Rettung Schweiz” in Switzerland), while engaging a large number of personnel (e.g. approx. 300 persons only for ARS). Following the requirements of the PAD implies that as soon as personnel from such organisations assist in any HEC operation (from the moment of attaching the PCDS to the hook), their equipment would have to be covered by the rotorcraft’s AMP, including further continuing airworthiness matters. This is neither practical nor properly documentable, nor properly traceable with reasonable and justifiable effort for HEMS operators when cooperating with external organisations of a larger size. EHAC cannot identify any overall increase in safety by regulating the issue of PCDS in the proposed way, but diametrically a huge increase in administrative burden for the industry. Furthermore, EHAC warns that, given the PAD is rendered mandatory in the current form, a large number of rescue personnel might resign from their duty since they “lose control” over their own (“sacred”) equipment which represents their on a professional basis personally selected “technical life insurance”. It is quite difficult to imagine that such consequences are intended by and would be acceptable for EASA.

EASA response:

Comments understood. No Final AD is published – see EASA Withdrawal Statement for PAD 15-117.

