European Aviation Safety Agency

Comment-Response Document 2014-14

Portable electronic devices II

CRD TO NPA 2014-14 — RMT.0637

Related Decisions 2014/029/R (Part-CAT), 2014/030/R (Part-NCC), 2014/031/R (Part-NCO) and 2014/032/R (Part-SPO) — 24.9.2014

EXECUTIVE SUMMARY

This Comment-Response Document (CRD) contains the comments received on NPA 2014-14 (published on 26 June 2014) and the responses provided thereto by the Agency.

In general, the commentators agreed to the proposal provided in the NPA. However, the comments received led to several changes of the proposed Acceptable Means of Compliance (AMC) and Guidance Material (GM) to amend Part-CAT, -NCC, -NCO and –SPO.

Based on the comments and responses, Decisions 2014/029/R, 2014/030/R, 2014/031/R and 2014/032/R were developed.

Applicability	
Affected Regulations and Decisions:	Decisions 2013/021/R (Part-NCC), 2014/015/R (Part-CAT), 2014/016/R (Part-NCO) and 2014/018/R (Part-SPO)
Affected stakeholders:	Operators, NAAs, passengers
Driver/origin:	European Commission
Reference:	N/A

Process map	
Concept Paper:	No
Terms of Reference:	6.4.2014
Rulemaking group:	No
RIA type:	Light
Technical consultation during NPA drafting:	No
Publication date of the NPA:	24.6.2014
Duration of NPA consultation:	6 weeks
Review group:	No
Focussed consultation:	Yes
Publication date of the Opinion:	N/A
Publication date of the Decisions:	2014/Q3

Table of contents

1. Procedural information

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') developed this Comment-Response Document (CRD) in line with Regulation (EC) No 216/2008[1] (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure[2].

This rulemaking activity is included in the Agency's 4-year Rulemaking Programme under RMT.0637. The scope and timescale of the task were defined in the related Terms of Reference (see process map on the title page).

The draft Acceptable Means of Compliance (AMC) and Guidance Material (GM) have been developed by the Agency. All interested parties were consulted through NPA 2014-14[3], which was published on 24 June 2014. 131 comments were received from interested parties, including industry and national aviation authorities.

This CRD provides a summary of comments and responses as well as the full set of individual comments (and responses thereto) received to NPA 2014-14. In addition, comments received during a focused consultation with stakeholders on 19 – 20 August 2014 (after the end of the public consultation period of NPA 2014-14) are considered in this CRD.

[1] Regulation (EC) No 216/2008 of the European Parliament and the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1), as last amended by Commission Regulation (EU) No 6/2013 of 8 January 2013 (OJ L 4, 9.1.2013, p. 34).

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

[3] http://easa.europa.eu/document-library/notices-of-proposed-amendment.

2. Summary of comments and responses

The following paragraphs provide a summary and discussion of the comments, and conclusions regarding the main topics that have been identified in the public consultation process.

Based on the comments received, the following main changes have been made compared to the AMC/GM in NPA 2014-14:

All affected Annexes (Parts)

1. **Fire caused by PEDs:** Reference material concerning 'Fire caused by PEDs' has been reduced to ICAO Doc 9481, since this document mainly contains the information contained in the UK CAA documents. In addition, this item is not a separate GM any longer, but has been incorporated as one sub-item in the GM.

Annex IV (Part-CAT) and Annex VI (Part-NCC)

2. **Revisions of referenced documents:** The references to documents have been modified, where applicable: A certain revision level is given as the 'basis' (in the text e.g. *'ED-14D'*, i.e. Revision D). However, later revisions of the document may be used (in the text: *'or later revisions'*).

3. **Table for the scenarios:** The Agency decided to establish a table containing the different scenarios (instead of 'on-going' text) to enhance clarity and readability (paragraph (c) of AMC1 CAT.GEN.MPA.140 and of AMC1 NCC.GEN.130).

4. **Split of Scenario No. 3:** Scenario No. 3 has been split into two scenarios (now Nos. 3 and 4, paragraph (c) of AMC1 CAT.GEN.MPA.140 and of AMC1 NCC.GEN.130).

5. **Additional scenario for permitting the use of PEDs:** The following Scenario No. 6 has been added: *'The EMI assessment has demonstrated … that the back door coupling has no impact on safety when using particular technologies'* (paragraph (c) of AMC1 CAT.GEN.MPA.140 and of AMC1 NCC.GEN.130).

6. **Use of PEDs before taxiing and during departure delays:** Provisions concerning the use of any kind of PEDs before taxiing and during prolonged departure delays have been incorporated in Scenario No. 8 (paragraph (c) of AMC1 CAT.GEN.MPA.140 and of AMC1 NCC.GEN.130).

7. **Demonstration of electromagnetic compatibility:** Paragraph (d) of AMC1 CAT.GEN.MPA.140 and of AMC1 NCC.GEN.130 (former paragraph entitled 'Test methods') has been rephrased and restructured to enhance clarity. Concerning the front door coupling of C-PEDs, additional reference is given to an alternative compliance method described in AMC 20-25 of EASA AMC-20 for electronic flight bags used in the flight crew compartment.

8. **Hazard identification and risk assessment:** For completeness the item *'PEDs in different aircraft zones'* has been added to the list of items to be covered by the risk assessment (paragraph (c)(1) of AMC2 CAT.GEN.MPA.140 and of AMC2 .NCC.GEN.130).

9. **Stowage, passenger information and briefing:** Paragraph (d)(3) of AMC2 CAT.GEN.MPA.140 and of AMC2 NCC.GEN.130 has been restructured and in parts rephrased to enhance clarity.

10. **PEDs in the flight crew compartment:** Paragraph (e) of AMC2 CAT.GEN.MPA.140 and of AMC2 NCC.GEN.130 has in parts been modified to enhance clarity.

11. **Definitions of PEDs:** GM1 CAT.GEN.MPA.140 and GM1 NCC.GEN.130 have in parts been restructured and rephrased to enhance clarity. PEDs now include two categories (instead of three), namely non-intentional transmitters and T-PEDs (C-PEDs are not any longer assigned as one 'category').

12. **Crew rest compartment:** The crew rest compartment is now being considered (paragraph (a) of GM2 CAT.GEN.MPA.140 and of GM2 NCC.GEN.130).

13. **VHF omni range (VOR) navigation:** Guidance has been added as precautionary measure, since front door coupling may influence the VOR navigation system (paragraph (b) of GM2 CAT.GEN.MPA.140 and of GM2 NCC.GEN.130).

14. **Guidance on entities performing tests:** The Agency added guidance concerning the qualification and experience of organisations performing the necessary tests for demonstrating the electromagnetic compatibility of the aircraft (paragraph (c) of GM2 CAT.GEN.MPA.140 and of GM2 NCC.GEN.130).

Annex IV (Part-CAT)

15. **Guidance on fire caused by PEDs for NMPA:** The Agency has incorporated guidance on 'Fire caused by PEDs' for non-motor powered aircraft (paragraph (d) of GM1 CAT.GEN.NMPA.120).

Annex VI (Part-NCC)

16. **Reference to the requirement on passenger briefing:** In Annex VI (Part-NCC), in the context of passenger briefing, reference has been given to NCC.OP.140 on this subject (see NPA 2014-14). However, NCC.OP.140 and the associated AMC are mainly limited to emergency equipment. Therefore, giving reference *'In accordance with NCC.OP.140, the use of PEDs …'* is misleading and has been deleted (paragraph (d)(3) of AMC2 NCC.GEN.130).

17. **Outdated guidance:** AMC1 NCC.GEN.130 and AMC2 NCC.GEN.130 contain specific provisions concerning the use of PEDs. The 'old' GM2 NCC.GEN.130 (see NPA 2014-14, entitled 'General') does not contain any substantial additional information needed by operators to 'handle' PEDs. Therefore, the 'old' GM2 NCC.GEN.130 has been deleted.

The following main proposals for changes to the applicable framework have not been accepted:

Annex IV (Part-CAT) and Annex VI (Part-NCC)

1. **Medical equipment:** Several commentators proposed changes concerning the provisions on medical equipment (paragraph (d)(2)(ii) of AMC2 CAT.GEN.MPA.140 and of AMC2 NCC.GEN.130), such as:

   — to be more specific which medical equipment is permitted; or

   — to remove the use of medical equipment from the operator responsibility and instead make it a certification item.

   However, the Agency decided not to modify the provision that medical equipment 'may be used at all times and does not need to be switched-off'. The major reasons are that medical

equipment is controlled in a more rigorous way than consumer electronics and that compliance with applicable standards is monitored by other regulatory processes outside aviation. In general, the emission levels permitted for medical equipment are lower than for consumer electronics. In case of wireless technology, in general, low power transmitters are utilised and the small distance between transmitter and receiver does not demand a high transmitting power.

Experience so far has shown that medical equipment used by passengers does not pose a safety risk to the on-board electronic system and equipment. Therefore, passengers should be permitted to use their medical equipment, as needed, without any restrictions. Otherwise, e.g. a passenger with a cardiac pacemaker might not be allowed on-board of the aircraft and a passenger turning off his/her hearing aid might become a danger during an emergency situation when not hearing the instructions of the crew. In addition, restricting the use of medical equipment may create an ethic problem. Based on the above reasoning, guidance on a national level (e.g. the German LuftEBV) is already in place permitting the use of medical equipment on board the aircraft.

2. **Passenger briefing:** Several commentators requested that the provisions concerning the passenger briefing should be more specific and stricter. At present, the following provisions concerning the use of PEDs are included in Annex IV (Part-CAT) and Annex VI (Part-NCC):

   — *'These procedures [to control the use of PEDs] should include provisions for passenger briefing …'* (paragraph (d)(1) of AMC2 CAT.GEN.MPA.140 and of AMC2 NCC.GEN.130);

   — *'… the use of PEDs should be part of the passenger briefings. The operator should remind passengers to pay attention and to avoid distraction during such briefings'* (paragraph (d)(3)(iii) of AMC2 CAT.GEN.MPA.140 and of AMC2 NCC.GEN.130); and

   — *'Before take-off/before landing passengers should be briefed … on … the use … of portable electronic devices'* (paragraphs (a) and (c) of AMC1 CAT.OP.MPA.170).

   The Agency is of the opinion that these provisions are sufficient. It is the responsibility of the operator to further specify the procedures, where needed and appropriate, for their individual kind of operation.

3. **Stowage of PEDs:** Several commentators requested that the provisions concerning the stowage of PEDs should be more specific and stricter. At present, the following provisions concerning the stowage are included in Annex IV (Part-CAT) and Annex VI (Part-NCC):

   — *'These procedures [to control the use of PEDs] should include provisions … for the stowage of PEDs …'* (paragraph (d)(1) of AMC2 CAT.GEN.MPA.140 and of AMC2 .NCC.GEN.130);

   — *'In accordance with CAT.OP.MPA.160/NCC.OP.135 the operator should establish procedures concerning the stowage of PEDs. The operator should:*

      (A) identify the phases of flight in which PEDs are to be stowed; and

      (B) determine suitable stowage locations, taking into account the PEDs' size and weight'

      (paragraph (d)(3)(i) of AMC2 CAT.GEN.MPA.140 and of AMC2 NCC.GEN.130);

— *'This information [on the use of PEDs] should specify … when and where PEDs are to be stowed'* (paragraph (d)(3)(ii) of AMC2 CAT.GEN.MPA.140 and of AMC2 NCC.GEN.130);

— *'The commander/pilot-in-command may, for any reason and during any phase of flight, require … stowage of PEDs'* (paragraph (d)(5)(v) of AMC2 CAT.GEN.MPA.140 and of AMC2 NCC.GEN.130); and

— *'Before take-off/before landing passengers should be briefed … on … the … stowage … of portable electronic devices'* (paragraphs (a) and (c) of AMC1 CAT.OP.MPA.170).

The Agency is of the opinion that these provisions are sufficient. It is the responsibility of the operator to further specify the procedures, where needed and appropriate, for their individual kind of operation.

3. Individual comments (and responses)

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

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

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

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

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

General comments	-

comment	*4* comment by: *Dassault Aviation* Dassault-Aviation general comment: Homogeneity proposed between part CAT and part NCC (copy paste in fact) is not reflected in the Regulatory Impact Assessment. The impact of the modification of part NCC is certainly much more constraining for non-commercial operator while the RIA does not reflect at all this category of operator. Other FAA regulations and EASA specific regulation segregate correctly these two categories of operators, a simple copy paste is not acceptable. Part NCC should be amended on a declarative way from operator comprising the limitation and process used to accept or not, use of PED on Board. This comments concerns AMC1 NCC GEN 130 and AMC2 NCC GEN 130. Example: Use of PED as EFB in cockpit is guided by AMC 20 for Commercial operator only, NCC operators have a simple declarative form and fulfilled the risk in their risk management process. Same level of guidance should be provided for PED use for consistency between regulations and authorities. This segregation is correctly reflected on FAA side through InFO13010SUP FAA document.
response	Not accepted. Firstly, the Agency does not see the need to adjust the Regulatory Impact Assessment (RIA). This 'light' RIA briefly describes the safety risk and the policy options in general terms for all kinds of operations, including NCC operations, considering passenger issues where appropriate. The main goal is to decide upon the different options. In this context, Option 1 ('amend AMC/GM to permit PEDs, when technical prerequisites are fulfilled') is the preferred option for all Parts to be amended, including Part-NCC. Secondly, the Agency does not agree that a simple declarative form and the implementation of a risk management process would be sufficient concerning the use of PEDs for NCC operations. AMC 20-25 on airworthiness and operational considerations of EFBs is only a 'subset' (and 'lower' in the hierarchy) of what is regulated with the present rulemaking task. Consequently, for regulating the use of PEDs in the different aircraft zones (including passenger compartment and in areas not accessible during the flight) stricter provisions are

	needed than for regulating the use of EFBs by crew members on the flight deck.
comment	*12* comment by: *Luftfahrt-Bundesamt* LBA Comment to EASA NPA 2014-14: This NPA requires the operator to perform technical evaluations based on several EUROCAE/RTCA, UL or IEC standards (ED-130/DO-294C, DO-307, ED-14/DO-160, DO-311, UL-1642/2054, UL60950-1, IEC-62133). Additional guidance on that should be added to the new document. That guidance would help the operator to provide technical assessments acceptable to the agency. For this purpose, the text proposed below could be integrated into the chapter *'Definitions'* or constitute an additional AMC material, entitled: *"Performing technical Evaluations":* *"Applying the methods described in the industry standards from EUROCAE, RTCA, UL, or IEC requires specific equipment, knowledge and experience. In order to ensure conformity to the mentioned standards the operator should cooperate with an appropriately experienced entity. For that entity a direct aviation background is not required, but considered to be beneficial."*
response	Partly accepted. The proposed guidance has been incorporated in Part-CAT and Part-NCC, while editorial changes to the text proposed by the commentator have been made.
comment	*13* comment by: *René Meier, Europe Air Sports* Europe Air Sports, European Powered Flying Union and Aero-Club of Switzerland again joined forces to deal with NPA 2014-14 on Portable Electronic Devices. The organisations thank the Agency for preparing the document. We focussed our work on the "NCO" and "SPO" parts of the texts proposed.
response	Noted. The Agency thanks the organisations for their comments.
comment	*16* comment by: *René Meier, Europe Air Sports* General remark Although we understand what is meant by "front door coupling" and "back door coupling" we invite the specialists of the Agency to look for more precise terms not leaving so much room for interpretations or impossible translations. Rationale: Not all the readers of your texts will easily find what is meant with "front door coupling" and with "back door coupling". Of course, specialists know the meanings, but normal persons... We made similar statements when we were confronted with "dirty finger prints" and "quick and dirty" solutions in other documents. For the sake of clarity official documents should not

	contain "slang expressions". Many thanks for considering our position.
response	Not accepted. The terms 'front door coupling' and 'back door coupling' are not 'slang expressions'. They are used in technical documents to be applied when performing interference assessments (see e.g. RTCA DO-307 and RTCA Do-294). In addition, a definition of the terms is provided in paragraph (d) of GM1 CAT.GEN.MPA.140 and of GM NCC.GEN.130. The terms are not used in Part-NCO and Part-SPO.

comment	*17* comment by: *René Meier, Europe Air Sports* Question: How does the Agency assure that flight training syllabi are adjusted to the statements made on the risks identified in the GM2 mentioned before in our general remark? Rationale: In the relevant texts for "CAT", "NCC", "NCO" and "SPO" we read about the responsibility of the operator. Within our community most operations are undertaken by individuals being owner/co-owner and operator of the aircraft. Flight training must thus cover this topic. Remark: We are aware of the fact that many devices are equipped with anti-overheat-devices and switch-off automatically. This fact asks for appropriate "human factors" training considering the distress such a situation may put on the crew in a probably already difficult situation. Rationale: One may consider these features being a "safety element". In our view this is only partly true: Such a feature is relevant to the future operation of the device, most probably not to safe conduct of the on-going flight, therefore mitigating measures must be part of flight instruction syllabi.
response	Noted. It is understood that the commentator refers to GM2 NCO.GEN.125 and GM2 SPO.GEN.130. The Agency is of the opinion that flight training syllabi do not necessarily need to be adjusted. Firstly, existing training elements can be applied to the issue of using PEDs (see e.g. AMC1 FCL.210; FCL.215 'Syllabus of theoretical knowledge for the PPL': paragraph 2 human performance, decision making, (c) risk assessment; paragraph 6 operational procedures, fire or smoke; paragraph 8.1 airframe and systems etc., static electricity, protection against interference). Secondly, the text of the GM is mainly addressing the pilot's responsibility and authority including the use of PEDs, but not explicitly the need for training. This responsibility and authority is covered in depth e.g. in NCO.GEN.105, NCO.GEN.110, NCO.GEN.125 and NCO.GEN.145.

comment	*30* comment by: *Airbus Helicopters* <u>Comment</u> The text references several standards probably not common to operators (ED-14/DO-160, ED-130, DO-294, DO-307, DO-311, ARP 4754, ARP 4761, MIL-STD-1629A …), without

providing information how to procure these standards.

Rationale for comment
Usability for operators.

Suggestion
Information on how to procure the referenced standards should be provided.
At least, the title of the standard should be added when not already provided.

response

Partly accepted.

The Agency expanded the references given by providing additional information (e.g. name of organisation, title of the document). However, in a rule text it would not be appropriate to provide detailed information on how one can procure the documents. It is assumed that today interested persons have internet access and can easily search any further information needed.

The main references addressed to operator are DO-294 and ED-130, which are addressed especially to operators. It is in line with the Agency's strategy to use more industry standards in the operational context in general.

comment

31 comment by: *Airbus Helicopters*

Comment
ED-14/DO-160 are referenced at issue E, without an associated rationale.

Rationale for comment
ED-14/DO-160 are now in issue G.

Suggestion
Reference issue G, unless there is a reason for doing otherwise.

response

Partly accepted.

The Agency decided to refer to Revision E of ED-14/DO-160, since the referenced Category H was at first introduced with Revision E and since Category H had been the highest category available at the time of the initial development of CAT.GEN.MPA.140. The requirement is in line with FAA order 8150.4 for 'Cargo Containers With Self Contained Temperature Control Systems (active uniform loading devices (ULDs))'. It is correct that meanwhile Revision G has been published introducing more demanding categories P and Q. However, the Agency decided that it is not considered adequate to further strengthen the requirements at this moment in time. Nevertheless, the comment has been taken into consideration by modifying the reference given to 'ED-14E/DO-160E (or later revisions)' and similar for other references throughout the text.

comment

60 comment by: *Swiss International Airlines / Bruno Pfister*

GENERAL COMMENT 1
SWISS Intl Air Lines support the publication of this new rulemaking about PED.
We look forward to its final publication as soon as practicable.

response | Noted.

The support of the commentator is appreciated.

comment | *64* comment by: *Swiss International Airlines / Bruno Pfister*

GENERAL COMMENT 2
Comments made to AMC1 and GM1 of CAT.GEN.MPA 140
are also applicable to and should therefore be added to:
AMC1 and GM1 of NCC.GEN.130 Portable Electronic Devices

response | Noted.

comment | *69* comment by: *Fit >Cisl PNC*

In the executive summary it is useful to add another example to test the Operator compliance to the general statement of proving the "safe operation of the aircraft": "i.e. passengers on board are able to listen to the safety briefing or in case their disability prevents them from actively listening a specific briefing with other means must be provided (PRM deaf or blind).

This specific requirement can be useful to avoid Operator's policies (like current easyJet, where passengers are allowed to have earplugs during the safety briefing and cabin crew are not anymore requested to politely invite pax to temporary remove their earplugs (the 2 minutes of the regular safety briefing).
We think that this new behaviour will endanger the flight safety, because passengers will become less and less aware of how to react to an emergency occurring on an airplane and therefore also the general safety will be impared, with relevant evacuation times and expected outcome. We never have to forget that we are in a very specific environment, when we are on an airplane.

We think it won't be enough to request passengers only to listen to the emergency briefing, because an unexpected evacuation\emergency could always occur.
The extended use of PED's could be a weapon against all the efforts to educate PASSENGERS ON THE SPECIFIC EMERGENCIES OF THE Airplane.

response | Not accepted.

The requirement of the commentator is too specific to be introduced in the executive summary.

comment | *91* comment by: *European Transport Workers Federation - ETF*

ETF would like to make the following comments on NPA RMT.0637 PED's.
· - Consistent approach by standardising the use and stowage of PED's with all operators in Europe and also internationally so passengers are not confused and conflict is mitigated
· - Mitigate confusion by making sure operators clearly state which type of PED's can be used on-board and during which phases of flight
· - Common terminology when communicating with passengers about the use of PED's

	· - Standardise across Europe and internationally content and timing of briefing to passengers on use and stowage of PED's · - Consistent implementation of the use of PED's · - Operators must demonstrate compliance in maintaining cabin safety requirements when increasing the use of PED's · - NAA and EASA should have systems in place to ensure compliance with the requirements of the use of PED's on-board aircraft · - Standardised process for reporting and evaluating data on incidents including non-compliance from passengers · - Work with industry and stakeholders to develop training for crewmembers · - Training to include PED interference effects so crew are better able to mitigate risks to flight safety. Also disruptive passenger training and how to deal with scenarios in these situations · - Training for crew members at both initial and re-current. This training to be extended to gate staff, management and customer service personnel · - Effects on safety – passengers will be distracted during critical briefings, pre-take off, pre landing and emergency situations. If passengers are using PED's they will be paying little if no attention to the cabin crew instructions during these safety critical times. · - Passengers holding PED's is a safety issue. AAM-630 research scientists state 'that it is the unexpected nature of events such as turbulence and emergency landings that makes it unlikely a passenger would be able to hold onto an object during an incident, even if it is small and light' · - With current concerns about lithium batteries and the potential fire hazard, increased and specific fire training needs to be looked at and linked to the use of PED's and extra vigilance ETF believe the NPA covers some of our areas of concern but does not go into enough detail and does not follow a consistent approach, it allows operators to make their own decisions on the use of PED's on-board. This in turn creates confusion for crew and passengers and will ultimately compromise safety.
response	Noted. The Agency is of the opinion that a European system considering the points raised by the commentator is in place. This system includes as main elements rulemaking, standardisation, oversight and day-to-day operation, and includes as main actors the Agency, the competent authorities and industry. Within this system the operator has an important role, namely to ensure safe operation of the aircraft. In this context, on purpose certain decisions concerning the use of PEDs are to be made by the operator.

comment	*96* comment by: *FNAM-French Aviation Industry Federation* FNAM (Fédération Nationale de l'Aviation Marchande) is the French National Professional Union / Trade Association for Air Transport, grouping as full-members: • CSTA: French Airlines Professional Union (incl. Air France) • SNEH: French Helicopters Operators Professional Union • CSAE: French Handling Operators Professional Union • GIPAG: French General Aviation Operators Professional Union • GPMA: French Ground Operations Operators Professional Union • EBAA France: French Business Airlines Professional Union And as associated members: • UAF: French Airports Professional Union

Introduction
The NPA 2014-14 introduces changes in comparison with:
- The Commission Regulation (EC) N° 965/2012,
- The Acceptable Means of Compliance and Guidance Material related to Commission Regulation (EC) N° 965/2012.
The comments hereafter shall be considered as an identification of some of the major issues FNAM asks EASA to discuss with third-parties before any publication of the proposed regulation.
In consequence, the comments hereafter shall not be considered:
- As a recognition of the third-parties consultation process carried out by the European Parliament and of the Council;
- As an acceptance or an acknowledgement of the proposed regulation, as a whole or of any part of it;
- As exhaustive: the fact that some articles (or any part of them) are not commented does not mean FNAM has (or may have) no comments about them, neither FNAM accepts or acknowledges them all. The following comments are thus limited to our understanding of the effectively published proposed regulation, notwithstanding their consistency with any other pieces of regulation.

FNAM General Comments
FNAM supports the initiative taken by EASA to develop new amendments on Portable electronic devices (PEDs).
The procedures on a code-share flight between an European and an American operator will be thus managed in an efficient way as the passenger will have to follow the same procedures linked with PEDs on the same base.
However, few concerns are remaining due to this proposal. They are developed and explained article by article, in the further relevant sections of the CRT associated to the NPA 2014-14.

response

Noted.

The general support of FNAM concerning the rulemaking task is appreciated.

comment

102 comment by: *Cargolux Airlines International S.A.*

(1) The responsibility to accept PED onboard the aircraft rests on the operator. Please provide guidance/AMC by listing the organizations that has the privilege to review & approve the PED carriage onboard. Example approval organizations: EASA Part M /or/ EASA Part 21 /or/ No Technical Objection (NTO) review by EASA /or/ Local NAA. This clarification will indeed help the operator.

(2) Please use the term 'passengers/supernumeraries/persons on board', in lieu of 'passengers'. This clarification will help cargo operators. As Cargo operators, we have no 'passengers', but we carry 'supernumeraries/persons' on board."

Thanks.
Marcella Bertelli, Cargolux Italia.
Kumar MYSORE, Cargolux

response

Partly accepted.

On purpose the Agency introduces no specific requirements concerning the test organisation. It is up to the operator to choose, in agreement with the competent authority, a qualified organisation. However, considering this comment in conjunction with comment 12 from the LBA Germany, the Agency has incorporated GM concerning an appropriately experienced entity.

The terminology as proposed by the commentator ('passengers/supernumeraries/ persons on board') has not yet been used in Part-CAT and Part-NCC. Instead the terms 'passengers' and 'person on board' are used, as appropriate. The Agency decided not to introduce a new (general) terminology, which would have to be used throughout Part-CAT, in the context of this very specific rulemaking task.

comment

105 comment by: *UK CAA*

Page No: General
Paragraph No: Not applicable
Comment: In reviewing the proposals for PED briefings to passengers at AMC2 NCC.GEN.130 it became clear that the rule texts at NCC.OP.135 and NCC.OP.140 compared to CAT.OP.MPA.160 and CAT.OP.MPA.170 and their associated AMCs are very different. This makes the proposals for NCC more difficult to apply. It is recommended that consideration be given to aligning the NCC rule text with the CAT rule text and associated AMCs and then the references in the proposed AMC2 NCC.GEN.130 (d)(3)(ii) and (iii) would work.
Justification: NCC.OP.135 and 140 do not currently include requirements to brief passengers on the use and stowage of PED's.

response

Partly accepted.

Within this specific rulemaking task it is not possible to align the implementing rules. Consequently, it is also not possible to align the associated AMC of Part-CAT and Part-NCC. In the context of the comment made, the following text has been deleted in paragraph (d)(3)(ii) of AMC2 NCC.GEN.130: 'In accordance with NCC.OP.140', since this reference, concerning the context covered, is not correct.

comment

106 comment by: *UK CAA*

Page No: General
Paragraph No: Not applicable
Comment: UK CAA recommends that consideration is given to a further definition, as shown below.
Justification: To assist with the establishment of procedures.
Proposed Text: '
"When establishing procedures for the use and stowage of PED's, a 'handheld PED is a device that is intended to be used whilst being held in *one* hand. Larger PEDs, such as laptops and notebooks, which are not intended to be used whilst held in one hand are not considered to be handheld devices.
PED accessories, e.g. earphones or cable connections should not obstruct access to aisles and exits during critical phases of flight and taxiing."

response	Noted. The Agency does not see the need for the definition of a handheld PED. It is not the intention to regulate within this specific rulemaking task details concerning the stowage of PEDs. Concerning PED accessories, Regulation 965/2012 requires the operator to provide passengers with 'briefings and demonstrations relating to safety'. Therefore, this important safety aspect should be addressed by the operator within such briefings (CAT.OP.MPA.170). Further, please refer to the newly introduced paragraph (d)(1) of AMC2 CAT.GEN.MPA.140 which states that '… these procedures should include provisions for passenger briefing …'. In addition, directly related to the stowage, it is the responsibility of the operator to establish appropriate procedures (see CAT.OP.MPA 160 and the associated AMC).

Process Map p. 1

comment	*70* comment by: *Fit >Cisl PNC* In the affected stakeholders we think also "consumers" should be add.
response	Partly accepted. The Agency has added the term 'passengers' in the process map.

Executive Summary p. 1

comment	*56* comment by: *Christopher Mason* ERA regrets EASA early release of the press release raising passenger expectations in advance of defined technical solutions. This has confused passengers, operating crews and operators and has itself introduced a safety risk as the expectation is that passengers can use all PEDs in all phases of flight, and on all flights. For example, passengers may be able to use PEDs on the first sector of their journey (eg. long haul), but not on subsequent flights (eg. connecting with regional flights). Regional operators are concerned as to the lack of guidance in order to obtain the definitive OEM certification/approvals to use PEDs. EASA is encouraged to obtain and publish such guidance from OEMs. The increased use of PEDs potentially introduces additional safety issues with passengers distracted from important safety critical announcements. ERA would question how operating crews are expected to ensure/enforce that passengers are selecting 'in flight mode' as they themselves have to be seated for take-off and landing.
response	Noted. The comment is appreciated. However, the Agency is of the opinion that provisions to be introduced with the present rulemaking task will ensure a safe operation, while PEDs are used on board of the aircraft.

2. Explanatory Note - 2.1. Overview of the issues to be addressed p. 4-5

comment *73* comment by: *Fit >Cisl PNC*

Now it is the Operator's responsibility to demonstrate the extended use of PED's is safe. It would help if there were a guideline on the minimum to provide in the safety case, for example:
When the Operator use of PEDs is approved it should prove effective compliance to all the relevant regulations relating to PEDs/TPEDs in line with the EASA Safety Information Bulletin 2013-21.
"The SIB (2013-21) for example describes the elements to be considered by operators and authorities if envisaging an extended use of non-transmitting PEDs during all flight phases" and says the following, when dealing with the Passenger Briefing:
"The passenger briefing is important for providing information to passengers on the safety aspects, such as egress from the aircraft in case of an evacuation, demonstrations of safety and emergency equipment and aircraft systems, etc.
It is recommended that PED distraction during the passenger safety briefing is avoided so that passengers' attention concentrates on the safety briefing and crew instructions.
... Communication to passengers should be clear and concise."
Even if the regulation does not prevent the use of PEDs at the briefing time, we are very concerned that new commercial procedures will take place soon in the biggest airlines, contributing to reduce our safety on board, by diminishing the chances in improving passenger attention and concentration on the safety briefing.
We are perfectly aware we have always had passengers who have been asleep, reading etc. during briefing time and it is a safety related issue, that, according our view should lead the operators, not to passively accept this or even to make it worse, but on the contrary continue to look for possible improvements, to eliminate or at least reduce the relevant risk.
EASA also already says: "In accordance with CAT.OP.MPA.170...The operator should encourage passengers to avoid distraction during such briefings." this is why we think that EASA should supervise NAAs who allow new procedures where this is not the case, by making supervision on the new procedures allowed by the European NAAs.

response Noted.

Please note that after the publication of the new operational provisions on the use of PEDs, SIB 2013-21 will be cancelled. However, the Agency is of the opinion that the important measures concerning passenger briefing are in place. Concerning the supervision of NAAs, please note that the Agency performs regular standardisation inspections of the competent authorities. For air operations this includes as well visits to operators to examine their procedures in place.

comment *103* comment by: *FedEx*

In paragraph 2 *in fine* of the "Explanatory Note" (page 4), cargo tracking devices are described as devices "*which may assist crew members in their duties or be used for medical purposes".* This definition appears too restrictive given the expansion of the use of PEDs in a variety of industry sectors, not only the medical industry. We would suggest the following adding: *"[…] these devices may assist crew members in their duties or be used for the tracking of information on sensitive shipments such as – but not only - medical shipments."*

response | Noted.

There might be a misunderstanding. The last sentence in the second paragraph of 2.1 ('For both categories, these devices may assist crew members in their duties or be used for medical purposes') is not referring to 'cargo tracking devices', but to both categories of PEDs, namely non-intentional transmitters and T-PEDs. Please see also the precise definitions (e.g. in GM1 CAT.GEN.MPA.140).

2. Explanatory Note - 2.2. Objectives p. 5

comment | *104* comment by: *FedEx*

In order to achieve the defined objectives, it is essential to set up a process that can be replicated and reviewed at a standard enough level so that the supplier/vendor can actually provide EASA the information that they need. A standardized approach would also allow EASA to better integrate the process into the "fee schedule" regulations.

response | Noted.

The Agency is of the opinion that a European system considering the points raised by the commentator is in place. This system includes as main elements rulemaking, standardisation, oversight and day-to-day operation, and includes as main actors the Agency, the competent authorities and industry. Within this system the operator has an important role, namely to ensure safe operation of the aircraft.

2. Explanatory Note - 2.3. Summary of the RIA p. 5-6

comment | *1* comment by: *Helispot.be*

I agree that Option 1 is a safe option. Problem is the controls to have passengers to adhere to the rules. Many users doesn't not know what a "flight mode" means and keep the PED simply switched on.

I would advise to develop our aircraft avionics in such a way that they cannot be influenced by the PED's at all. Until we get there Option 1 is fine but not a guarantee at all.

response | Noted.

If the aircraft is certified as T-PED tolerant, no additional safety risk is expected.

At present the Agency does not see the possibility of demanding (retroactively) the applicability of more demanding certification requirements to increase passenger convenience.

comment | *74* comment by: *Fit >Cisl PNC*

Under the Objectives paragraph we deem necessary to better define "The responsibility of the operator". It should be noted that such changes in procedures should be first discussed with the worker's Health and safety representatives (especially cabin crew), because they

	have a big impact on operations and relevant crew tasks and crew role in the safety chain.
response	Noted. The concern of the commentator is understood. The Agency is of the opinion that the well-established Rulemaking Procedure gives every stakeholder involved the possibility to raise its concern. In the present case, the public consultation of NPA 2014-14 serves this purpose.

2. Explanatory Note - 2.4. Overview of the proposed amendments p. 6-9

comment	*20* comment by: *DGAC France* Page 9 : French DGAC notes that nothing is specified in this NPA concerning possible modifications of AMC/GM associated to CAT.GEN.NMPA and PEDs as mentioned page 9 of the NPA It may constitute an inconsistency: for instance, fire caused by PEDs is addressed in GM3 NCO.GEN.125, hence concerning e.g. balloons used non commercially; yet, no equivalent GM exists for CAT.GEN.NMPA.120 which encompasses e.g. balloons used in CAT operations. Is it logical? One may argue that this is “only” a GM… but such argument could perfectly be used to remove some GMs on PEDs for non-complex general aviation aircraft. Confirmation that possible amendments concerning PEDs have been assessed and found not relevant for NMPA used in CAT would be appreciated.
response	Accepted. This comment is appreciated. The Agency has incorporated GM for NMPA concerning ‘fire caused by PEDs’.

3. Proposed amendments - Part-CAT - AMC1 CAT.GEN.MPA.140 p. 10-16

comment	*3* comment by: *PR OnAsset Intelligence* Attachment #1 At (2), [per P6 2.3] for better harmonisation with the current FAA rules and with the expected ICAO procedures a proposal to make specific reference to and closer alignment with the FAA PED ARC Appendix E: SHOW COMPLIANCE STANDARD FOR INACCESSIBLE PEDS IN FLIGHT. This states that satisfactory test data and operational characteristics should be provided by the PED manufacturer to show PED compliance and safety without the need for operator led electromagnetic compatibility testing. Specifically: 1. Satisfactory test report from a properly accredited, independent laboratory for RTCA DO-160, Section 21 categories H radiated emissions testing. This testing must include

	the PED configured with any peripheral probes or other attachments that would be used during flight operation; [in lieu (2) (iii) and also to include RTCA DO-160 Section 21 category P] 2. PED operational characteristics with automated and prolonged radio suspension in flight must include multiple modes of redundancy ("automatic airplane mode") or verification that no radio transmitter is used;[per (B) (a) and add >2 for the number of modes of redundancy] 3. Report containing the operational description, technical specifications, product label, and images of the PED and any peripheral attachments; [per (D) (a)] 4. Failure Mode and Effects Analysis report (FMEA) of the PED and any peripheral attachments; [per (D) (b)] 5. Declaration of stringent design and production controls in place during PED manufacturing. [per (D) (d)] Also; propose to remove (C) to avoid transmissions from inaccessible PEDs in flight and harmonise with the FAA and expected ICAO guidelines.
response	Noted. The Agency is aware of the ARC report, but not on a written FAA policy on this subject, while the Agency had already certain provisions in its 'original' AMC now under revision. The Agency's text follows the existing approach, published in the past, and adds a further compliance method which is quite close to the suggestions made by the ARC. Furthermore, the Agency will ensure that the upcoming ICAO guidelines are in line with the Agency's provisions. Provision C ('transmissions of the [cargo] tracking device are limited …') is needed in the Agency's risk mitigation strategy to allow lower item design assurance levels for the deactivation function.

comment	*5* comment by: *Dassault Aviation* CAT GEN MPA 140 refers to any PED even those to be used as EFB in cockpit. Guidance present differences between the AMC 20 amendment 12 and AMC1 CAT GEN MAP 140. Technical conditions link to AMC 20 should be declared in AMC 1 CAT GEN MAP 140 in case of use of PED as EFB in the cockpit to not make operator confused to which paragraph has to be applied.
response	Noted. In AMC 20-25 it is pointed out that 'this AMC is one, but not the only, means […] to satisfactorily assess the operational aspects for the use of EFBs'. In addition, as the commentator correctly pointed out, AMC 20-25 only covers a special case of the use of PEDs, namely the use of EFBs by crew members on the flight deck. Therefore, CAT.GEN.140 and the associated AMC and GM can be seen as the more general applicable framework. However, in order to avoid confusion, the Agency will consider amending AMC 20-25 to reflect the new (and more general) provisions concerning the use of PEDs.

comment	*6* comment by: *Dassault Aviation*

	AMC1 CAT GEN MPA 140 para C : Possible scenarios (5) Technical condition without EMI assessment. What is the technical rationale to limit use of PED during LVO? This aspect should be part of the risk management of the operator and not engraved by default in this guidance.
response	Noted. Unintentional emissions of PEDs may influence the avionics of the aircraft through the front door coupling path. This may lead to misleading information not detectable in LVO conditions. It is, therefore, agreed by the community that further mitigations are needed during LVO to address the vulnerability of especially Glide Slope (GS) and Localiser (LOC) receivers. For VHF omni range (VOR) navigation interference may occur as well but is mostly detectable through other navigation means. Initiated by the comment and following an internal discussion, the Agency decided to change 'low visibility operation' to low visibility approach'.

comment	*7* comment by: *Dassault Aviation* AMC 1 CAT GEN MPA 140 para f: batteries. AMC 20 para 6.2.1.2 should be used as the reference for batteries standard to be check during process of C-PED or cargo tracking device.
response	Not accepted. For the user's comfort, when applying the provision on the use of PEDs, the Agency decided, in this specific case, not to refer to a specific paragraph of AMC 20-25. It should be noted that the content of paragraph (f) of AMC1 CAT.GEN.MPA.140 and 6.2.1.2 of AMC 20-25 is the same with one exception: ETSO C142a has been added to cover special cases of non-rechargeable lithium cells and batteries.

comment	*21* comment by: *DGAC France* Page 13 : Conclusion of AMC1 CAT.GEN.MPA.140 c) 1) stipulates that "The operator may permit the use of any kind of PEDs during all phases of flight". Yet, the scope of a T-PED tolerant certification does not cover the intentional use of T-PED. This is why French DGAC suggests to amend the conclusion as follows : "The operator may permit the use of any kind of PEDs during all phases of flight <u>except communication mobile phone (voice and data)</u>". At least add, a caution could be added: "The operator may permit the use of any kind of PEDs during all phases of flight. <u>Other regulations may require the need to install an "on board mobile communication system" to allow the use of mobile phone in transmission mode during the flight</u>. Justification: most of the European telecommunication regulation require the use of a "on board mobile communication system" to support GSM communication during the flight. As written, the conclusion may lead some operators to think that there is no other technical prerequisite, which may not be the case.

	The same comment can be made for the corresponding paragraph c)1) of AMC1 NCC.GEN.130 (page 25)
response	Not accepted. The provisions concerning the use of PEDs are embedded in the air operations Regulation. It is not the intention of the Agency to regulate within this air operations regulatory framework whether mobile phones (voice and data) may be used and if yes, which communication system has to be used. Instead it is the responsibility of the operator to decide on the use of PEDs and the technical specifics thereof, when the technical prerequisites are fulfilled. This is laid down in paragraph (d)(1)(i) as follows: 'The use of PEDs in the passenger compartment may be granted under the responsibility of the operator, i.e. the operator decides which PED may be use during which phase of flight'. The T-PED tolerant certification in accordance with DO-307 and the installation of mobile phone picocells cover the case of mobile phone operation at high transmitting power with the ground network. The power control function of the picocell has to be deactivated below 3000 meter above ground and the initial intend to use that function to control the radiation power of mobile phones cannot be used for certification credit. Intentionally, the Agency is not referring to telecommunication regulations and technical pre-requisites, since the present rulemaking task is not limited to mobile phones, but to T-PEDs in general. Certain use of frequencies is restricted by telecommunication regulations to ground operation only, such as GSM (Global System for Mobile Communications) frequency assignments, while other frequencies are allowed to be used in the airborne environment.

comment	*22* comment by: *DGAC France* Page 14 : Compared to c)1), and c)2), the conclusion of AMC1 CAT.GEN.MPA.140 c)3) is more restrictive whereas it should be the opposite. In most cases, the certification of "on board mobile communication system" (such as OMTS for Airbus) implies that the aircraft has been demonstrated T-PED tolerant. Indeed as the Aircraft manufacturer or the STC house has to demonstrate that the failure of the "on board mobile communication system" has a minor safety impact, a T-PED tolerance demonstration is carried out by the applicant. The same comment can be made for the corresponding paragraph c)3) of AMC1 NCC.GEN.130 (page 25)
response	Noted. Paragraph (c)(3) of AMC1 CAT.GEN.MPA.140 is about certifying the aircraft only for a specific technology. Therefore, the use of PEDs should be limited to this specific technology. In contrast, paragraphs (c)(1) and (c)(2) are about a 'complete' certification or evaluation concerning T-PED tolerance, including all technologies. Therefore, the use of any kind of PEDs may be permitted.

comment	*29* comment by: *Lilian LAGALY (DOA AEROCONSEIL, CVE)* Hello, I have one question about the conclusion of the scenario (1) addressed at paragraph (c): Does the wording "***any kind of PEDs***" also include transmitting PEDs ? If the answer is "yes", it would mean that, providing that technical conditions of scenario (1) are true (both front door and back door coupling assessments have been successfully performed on the aircraft), any passenger could use his transmitting PED, including cellular phone, during any phase of flight, even if the aircraft is **NOT** equipped with a system enabling the use of mobile phone in flight (MCA system). I would be very surprised about that but, discussing with some airlines technical representatives, it seems that it is their interpretation of this paragraph of the NPA 2014-14. Please, could you clarify ? Thank you in advance for your answer. Best regards, **Lilian LAGALY** **AEROCONSEIL** *Certification Manager* **Phone:** +33(0)5 67 20 88 75
response	Noted. Paragraph (c)(1) of AMC1 CAT.GEN.MPA.140 covers any kind of PEDs during all phases of flight, including T-PEDs which includes mobile phones. However, one has to observe that AMC1 CAT.GEN.MPA.140 (only) regulates the technical prerequisites for the use of PEDs. The operator has to ensure compliance with these technical prerequisites before permitting the use of any kind of PEDs (see paragraph (b) of AMC2 CAT.GEN.MPA.140). If this is the case 'the use of PEDs in the passenger compartment may be granted under the responsibility of the operator, i.e. the operator decides which PEDs may be used during which phases of the flight' (see paragraph (d)(2)(i) of AMC2 CAT.GEN.MPA.140). This means that the operator is also responsible for the technical specifics of e.g. the use of mobile phones; and could mean that the operator does not allow the use of mobile phones on board when the aircraft is not equipped with an on-board mobile communication system.

comment	*42* comment by: *Airbus Helicopters* **Major comment** **AMC1 CAT.GEN.MPA.140 § (c)(1) and (c)(3)** Comment Scenario (1) anticipates on the certification of aircrafts as T-PED tolerant, which will be the subject of subtask 2 of this RMT. Scenario (3) considers a certification for certain technologies. However, tolerance cannot be assessed without considering the characteristics of emissions of T-PEDs (power, frequencies …).

Rationale for comment
Even though characteristics of T-PEDs or some types of T-PEDs are to-day restricted by standards, these characteristics may evolve in the time frame of an aircraft life (typically 30 years).
Scenario (1), without any limitation, is unrealistic.

Suggestion
- Remove scenario (1),
- Make clear in scenario (3) that the aircraft is certified for certain technologies and standards,
- Clearly indicate in scenario (3) that the operator may need to re-evaluate, using scenario (2), T-PED tolerance of the aircraft against new technologies which may appear during the aircraft lifetime.

response

Not accepted.

The Agency understands the rationale of the argument. However, it is the responsibility of the certificate holder to perform the assessment considering on a regular basis the consequences of new technologies as part of the continued airworthiness oversight requirements. Furthermore, the method described in DO-307 allows performing an assessment which covers a lot of technologies by assessing frequency bands and radiation levels. The same applies for the HIRF certification of the aircraft which is not repeated with each new technology introduced. In case that problems are detected during the service live of an aircraft model there are means in place to introduce the necessary corrective actions, which may include the restriction concerning the use of certain PED technology.

comment *44* comment by: *Airbus Helicopters*

AMC1 CAT.GEN.MPA.140 § (d)(2)(ii)(B)
Comment
Flight test required for cargo tracking device. It is not defined who shall perform flight test and in which conditions.
Rationale for comment
Completeness.
Suggestion
Detailed means needed. Operator might not have experience to perform adequate flight tests.

response

Accepted.

It is correct that the Agency does not require an official flight test. Instead, a verification of the deactivation function in the typical aircraft environment including flight is expected. The text has been modified accordingly.

comment *46* comment by: *Airbus Helicopters*

AMC1 CAT.GEN.MPA.140 § (d)(2)(ii)(A)
Comment

"*[…] the critical systems (those having failure conditions with major, hazardous, or catastrophic severities, and those which are required by operational regulations) […]*"
This sentence has 2 inconsistencies:

- "critical" is usually restricted to "catastrophic" or, at least, "hazardous" and cannot include the "major" severity level,
- "required by operational regulations" is not of the same kind as a failure condition severity level.

Rationale for comment
Text consistency.
Suggested sentence
"*[…] systems having failure conditions with major, hazardous, or catastrophic severities, whether required by certification or by operational regulations […]*"
NOTE: This suggestion is based on the following interpretation of EASA's intent: state that criticality considerations apply without distinction of whether a system is required by certification or by operational regulation.

response

Noted.

Initiated by the comment provided and after further internal discussion, the Agency decided to delete this provision completely. It is not needed and seems to cause confusion.

comment

59 comment by: *LHT DO*

Comment to AMC1 CAT.GEN.MPA.140 (b)(2)
In most of the long range aircrafts crew rest compartments are installed in different locations. Because they do not belong to the passenger or flight crew compartment but accessible during flight this chapter should address the crew rest compartment inside a separate section (iv).

Comment to AMC1 CAT.GEN.MPA.140 (c)
In this chapter six possible scenarios to permit the use of PEDs are presented. As described in the explanatory note, the overarching principle is that PEDs can only be used when it has been demonstrated that they do not negatively interfere with the aircraft systems and equipment. Because there are several other possible scenarios in place and approved by the Agency, the overarching principle should be part of the paragraph (c). This will clarify that the current six scenarios are not the only means to demonstrate compliance with this AMC.

Example for a technical condition which is not considered in the six scenarios: The aircraft is certified for the use of WLAN in non-critical flight phases (critical flight phases as defined in Annex 1 to Commission Regulation No 965/2012 are the take-off run, the take-off flight path, the final approach, the landing incl. landing roll). The EMI assessment has demonstrated that the back door coupling has no negative safety impact. The design ensures that the system will be switched off at least when flaps are not up and crew procedure ensures to switch off all PEDs during critical flight phases. Front door coupling is not tested due to system deactivation for critical flight phases.

Comment to AMC1 CAT.GEN.MPA.140 (c)(3)
Following the technical precondition of this chapter, the conclusion does not permit the use of other T-PEDs (with the ability of other technologies) than the tested technology for back door coupling. That means if the back door coupling is tested without negative impact for

WLAN frequencies, only T-PEDs with the ability for WLAN are allowed. T-PEDs with additional technologies (e.g. smartphones with WLAN and GSM) must be switched off. On the other hand that means, when all known current technologies frequency bands were tested (current requirement of generic CRI within the STC process) without negative impact for back door coupling, the use of smartphones can be permitted, although the aircraft is permitted for the use of WLAN only. Another meaning to permit T-PEDs with additional technologies is sufficient passenger information (e.g. announcement, printed info material etc.) to prohibit the use of the additional technologies by procedure.

Therefore the conclusion should state this in a clear wording, example: The operator may permit the use of PEDs during all phases of flight, including T-PEDs with certain technologies (e.g. WLAN or mobile phones). The use of other T-PEDs should be permitted if the backdoor coupling has no negative safety impact concerning all current technologies or procedures are in place to switch off (e.g. flight mode) all technologies not approved for the aircraft.

Comment to AMC1 CAT.GEN.MPA.140 (d)(1)(i)(B)
This chapter requires for back door coupling assessment EUROCAE ED-130, Annex 6; RTCA DO-294C, Appendix 6D and RTCA DO-307, Section 3. Each mentioned document above describes the back door coupling susceptibility by its own, therefore an 'or' should be placed between the three documents such as in (d)(1)(i)(A).

Comment to AMC1 CAT.GEN.MPA.140 (d)(1)(ii)
Regarding the RF emission of C-PEDs (e.g. EFB) no guidance is proposed for the use in the flight crew compartment. In AMC 20-25 Annex II Section 6.2. a reference to CAT.GEN.MPA.140 for further consideration is given. Therefore it would be helpful to add to chapter (d)(1)(ii) of NPA 2014-14 the following:
(C) EUROCAE ED-14E/RTCA DO 160E, Section 21, Category M, for operation in the flight crew compartment

response

Partly accepted.

Response to comment to AMC1 CAT.GEN.MPA.140 (b)(2): Partly accepted. The 'Crew rest compartment' has been considered in the GM.

Response to comment to AMC1 CAT.GEN.MPA.140 (c): Not accepted. The Agency is of the opinion that this scenario is covered in Scenario (3).

Response to comment to AMC1 CAT.GEN.MPA.140 (c)(3): Not accepted. The Agency is of the opinion that the wording as proposed in NPA 2014-14 is clear.

Response to comment to AMC1 CAT.GEN.MPA.140 (d)(1)(i)(B): Accepted. Text has been modified.

Response to comment to AMC1 CAT.GEN.MPA.140 (d)(1)(ii): Partly accepted. The text has been modified, but no separate paragraph has been introduced for the flight crew compartment.

comment

62 comment by: *Swiss International Airlines / Bruno Pfister*

AMC1 CAT.GEN.MPA 140 (**Technical prerequisites for the use of PEDs**)
(a) T-PED should be explicitly mentioned
(c) (2) Any kind of PED should be clearly defined. Are T-PED and C-PED included?

(c) (4) Second sentence: "....impact for PEDs" should read ".... impact by PEDs"
(c) (6) Any kind of PED should be clearly defined. Is it allowed to use T-PED (mobile phone in voice mode) during TAXI-IN?
(d) Test methods: The structure of this paragraph is not adequate:
Under (1) EMI assessment is listed and under (2) Cargo Tracking Devices
(e) Operational conditions of C-PEDs and cargo tracking devices: this article should be moved to
AMC1 CAT.GEN.MPA 140 (*procedures* for the use of PED)

response

Partly accepted.

Responses to the specific comments related to the sub-paragraphs of AMC1 CAT.GEN.MPA.140 are as follows:

Sub-paragraph (a): The Agency does not see a specific reason why T-PEDs should be explicitly mentioned here.

Sub-paragraph (c)(2): 'Any kind of PEDs' means all PEDs, including T-PEDs and C-PEDs. It is not clear why this term should be defined.

Sub-paragraph (c)(4): Following the proposal the text has been modified.

Sub-paragraph (c)(6): Concerning the request for a definition see above. Yes, this includes T-PEDs.

Sub-paragraph (d): Not accepted: The EMI assessment is only practicable for dedicated devices, but not for all types of PEDs. This makes specific devices C-PEDs.

Sub-paragraph (e): Disagreement. Although the term 'Operational conditions' is used, the content is about the technical state of the equipment. Therefore, the text has to remain in AMC1.

comment

66 comment by: *Tim Glasspool*

It is of tremendous benefit to operators if this certification work has already been carried out by the OEM. Could this certification be part of the general CS-27 and CS-29 certification standards for helicopters, given the prevalence of PEDS?

response

Noted.

It is confirmed that as of today no such explicit requirement exists in the certification specifications. However, the Agency has planned an additional rulemaking task (RMT.0061 (25.063)) considering this issue. For further details see 'Task 2' in the EASA Terms of Reference (ToR) on RMT.0637 & RMT.0061.

comment

67 comment by: *Airbus Operations GmbH*

This Airbus comment is related to:
NPA 2014-14, Section 3 "Proposed amendments", Page 14 of 43, Paragraph:
AMC1 CAT.GEN.MPA.140 Portable Electronic Devices
TECHNICAL PREREQUISITES FOR THE USE OF PEDS
...
d) test methods", page 14 of 43
Airbus Comment/Proposal:

	The term "*d) test methods*" implies that analysis is excluded. Airbus suggests replacing it by "*d) demonstration of electromagnetic compatibility*" **Justification/Rationale:** Airbus considers analysis, e.g. of existing equipment qualification or chosen design of an equipment a valid method to demonstrate immunity. Example: (d)(1)(i)(B) refers to ED-130 which explicitly identifies equipment qualification values against which equipment may be analysed to determine equipment-wise the immunity of an aircraft configuration.
response	Accepted. The header has been changed following the proposal made.

comment	*71* comment by: *Airbus Operations GmbH* **This Airbus comment is related to:** NPA 2014-14, Section 3 "Proposed amendments", Page 14 of 43, **AMC1 CAT.GEN.MPA.140 Portable Electronic Devices** TECHNICAL PREREQUISITES FOR THE USE OF PEDS ... Subpara d) Test methods, (d)(1)(ii), (A) and (B): ... "(d)(1)(ii)(ii) The RF emissions of C-PEDs should meet the levels as defined by: (A) EUROCAE ED-14E/RTCA DO 160E, Section 21, Category M, for operation in the passenger compartment; and (B) EUROCAE ED-14E/RTCA DO 160E, Section 21, Category H, for operation in the cargo bay. Later revisions of the documents listed in (A) and (B) may be used for testing. The assessment of intentional transmissions of T-PEDs are not covered by those test standards and should be addressed separately (e.g. by deactivating the transmitting function in flight (flight mode))." **Airbus Comment/Proposal:** Airbus suggests either requiring CAT M or CAT H but not separate values per zone. **Justification/Rationale:** Even between aircraft there will be variations of the path loss. The path loss from Cargo is not necessarily worse than that from cabin or flight deck. Typically inside the aircraft CAT M is satisfactory.
response	Not Accepted. The provision is separated to maintain consistency with current praxis for active cargo containers. See FAA order 8150.4 for 'Cargo containers with self-contained temperature control systems (active uniform loading devices (ULDs))'.

comment	*75* comment by: *Airbus Operations GmbH* **This Airbus comment is related to:** NPA 2014-14, Section 3 "Proposed amendments", Page 14 of 43, Paragraph**:** **AMC1 CAT.GEN.MPA.140 Portable Electronic Devices** TECHNICAL PREREQUISITES FOR THE USE OF PEDS ... (d)(1) EMI assessment

	... **Comment/Proposal:** Airbus proposes to add a new paragraph to read: "(iii) The T-PED interference levels during transmission are below those considered acceptable for the specific aircraft environment." **Justification/Rationale:** Low power T-PEDs (like Bluetooth) are missing in the technical analysis.
response	Not accepted. The method described in paragraph (d)(1)(i)(B) of NPA 2014-14 covers the case described.

comment	*80* comment by: *Bartosz Fibingier* I consider general concept as appropriate, but some issues should be reconsidered. Due to limited (practical) possibility to enforce or check if cargo/mail includes T-PEDs and Cargo Tracking Devices (CTDs) which may transmit in flight, Operator should not to be held responsible for enforcing AMC guidelines referring to PEDs not accessible during the flight and CTDs. Those devices are most often not declared (so hidden from sight of the operator). From practical point of view Operator should be legally responsible only for reminding passengers and senders about restrictions. If EASA see practical way how the Operator should enforce restrictions on PEDs not accessible during the flight and CTDs, EASA should publish it in GM as well. EASA should be consider if legal responsibility for safety related to PEDs not accessible during the flight and CTDs should be put on passengers and cargo/mail senders instead. The NPA reference materials which are not publicly available. Having in mind NPA should be reviewed and commented by wide range of professionals, such method limits possibility to fully review proposed amendment. It should be considered if not to make reference materials available to the professional reviewing NPA. Due to lack of access to the reference materials (RTCA and EUROCAE standards) full assessment is not possible and economic impact may not be evaluated. Operator is not able to ensure that CTDs are maintained iaw. letter (e). CTDs should be not mentioned in letter (e) or it should be mentioned that "sender should ensure CTDs are maintained" iaw. letter (e). Operator is not able to enforce that batteries of CTDs will meet letter (f) standards. CTDs should be not mentioned in letter (f) or it should be mentioned that "sender should not use CTDs which not meet requirements" listed in (f). If Operator will be held responsible for enforcing restricted use of CTDs – AMC may have negative economic impact. It needs to be taken in to account that ensuring that CTDs will be used iaw. AMC will require Operator personnel to be equipped with relevant detection devices. If EASA see other method how Operator should ensure restricted use of CTDs, that should be mentioned in AMC or GM.
response	Not accepted. *'Operator should not be responsible for enforcing the AMC':* Disagreement. Finally, it is the

	responsibility of the operator to ensure a safe operation. For this purpose the operator has to take the necessary measures, i.e. to establish a safety management system (see ORO.GEN.200 of Regulation 965/2012) to be coordinated with its customers. *'Reference material not available':* Disagreement. The documents are available from the organisations listed (e.g. check via an internet search), although not free of charge. *'Operator should not be responsible for the safe conditions of cargo tracking devices':* Disagreement. See above. *'Operator should not be responsible that batteries of cargo tracking devices meet the AMC':* Disagreement. See above.
comment	*87* comment by: *EAD Aerospace Airworthiness* (b)(1) States "...it should ensure that PEDs have no negative impact on the safe operation of the aircraft". EAD understand that this applies to all A/C critical systems and is not limited to NAV & COM equipment. Furthermore, related to TGL 17 experience, EAD also understand that "negative impact on safe operation" can be understood as "interference do not degrade performance of the installed systems to an unacceptable level".
response	Accepted. The understanding of the commentator is correct. However, while drafting the text, the Agency came to the conclusion not to expand this general text any further in this sub-paragraph. This decision still holds.
comment	*88* comment by: *EAD Aerospace Airworthiness* (c)(1) & (c)(2): TPED immunity is usually demonstrated using DO-294C or EUROCAE ED-130, Annex 6, RTCA DO-294C, Appendix 6D, and RTCA DO-307 as reference in (d)(1). Those references do not introduce 4G LTE technology. This potentially leads to a restriction for not allowing 4G TPED that are currently being the majority of mobile phone. Would EASA recommend a reference to be used for a common identification of this standard in addition to DO & ED documents? Furthermore, conclusion of both paragraph state "all kind of PED can be used". For EAD aerospace, this shall be accounting for potential restrictions coming from EMI assessment in case of interference identified and when mitigating instructions are found acceptable. These potential restrictions should be mentioned /reminded in the conclusion.
response	Noted. First issue: As correctly pointed out by the commentator, the 4G LTE technology was developed after the publication of the referenced standards. In principle, however, the 4G LTE technology uses a certain frequency band included in the current assessments. The foreseen update of the standards may address the 4G LTE technology, but the overall principles (test methods) will remain unchanged. Second issue: Under normal circumstances it is assumed that the investigation will be

	performed successfully. If not, and neither(c)(1) nor (c)(2) can be fulfilled, potential restrictions concerning the use of PEDs are to be applied. The applicant may then try to fulfil a different scenario (e.g. (c)(3)). The Agency does not see a need to mention in the conclusion that the applicant has to face potential restrictions, when the investigation does not lead to the wanted result.
comment	*89* comment by: *EAD Aerospace Airworthiness* (c) Scenarios do not cover cases where only back door demonstration is done, limiting the use of TPED in cruise phases per ED-130. Is there any reason?
response	Accepted. An additional scenario has been added in paragraph (c) of AMC1 CAT.GEN.MPA.140.
comment	*90* comment by: *Qantas Airways Avionics Engineering* Qantas agrees in general with the proposed amendments and welcomes the NPA. Qantas has had some experience with evaluating use of cargo tracking devices and recommends that the following sub-paragraphs be added to the proposed new AMC1 CAT.GEN.MPA.140 (e): (3) the operation of the automated radio suspension function of cargo tracking devices should be periodically verified using a method such as, but not limited to, one of the following: (i) ground based tracking system monitoring of device transmissions to detect failure (ii) self-contained monitoring and reporting (iii) periodic device testing (iv) imposition of a cargo tracking device life limit based on predicted reliability (MTBF) of the automated radio suspension function
response	Not accepted. At least for the time being, the proposed text has not been incorporated. The proposal of the commentator is a new requirement not mentioned in the ARC and, in the Agency's opinion, difficult to handle. Further information e.g. on the experience and further discussion is needed. With the information provided at the present stage, the Agency questions the technical need for implementing this requirement. This is since the mean time between failure (MTBF) is typically 60.000 hours; and with about 3000 flight hours per year this would mean approximately 20 years MTBF. Furthermore, the Agency proposed to limit the transmissions of the tracking devices to short periods of time (see paragraph (d)(2)(ii)(c)).
comment	*97* comment by: *IATA* 1. AMC1 CAT.GEN.MPA.140 – while it understood that the AMC refers to Operators, it appears to be impractical to require every operator to separately test PEDs for what will be a very limited number of different aircraft types. For cargo tracking it would appear to be more practical to require the manufacturers of devices such as temperature data loggers to test the devices against the standards referenced in (d)(1) and the requirements of (d)(2) with the support and cooperation of the aircraft manufacturers. It should then be incumbent on the manufacturers of these devices to provide certification of compliance to the users of

	these devices. The users in turn should be required to provide a statement of compliance to the operator.
response	Partly accepted. As laid down in this AMC, and being in line with the general approach within the air operations Regulation, the operator has to ensure the safe operation. The Agency agrees that it would be impractical for every operator to separately test PEDs. However, it is the decision of the operator to ensure that the provisions are met and to coordinate the necessary measures in accordance with its management system. One approach could be to coordinate with the manufacturer of the aircraft, or in case of cargo tracking devices, to coordinate with the manufacturers thereof. In order to support this approach the Agency offers to perform evaluations concerning this AMC on a voluntary basis. However, the Agency's regulatory structure does not allow posing requirements on cargo tracking device manufacturers, which do not per se belong to the aviation industry.

comment	*98* comment by: *IATA* 1. AMC1 CAT.GEN.MPA.140 (f). The indication here is that the lithium batteries may be acceptable if they meet any one of the standards referenced in (f) (1) to (7). However, for transport all lithium batteries must be of a type that has successfully passed the tests specified in subsection 38.3 of the UN Manual of Tests and Criteria. This is a requirement set out in the ICAO Technical Instructions, Part 2;9.3.1 a) and applies to all lithium batteries shipped as cargo. This needs to be made clear in the document. The other standards may be applied in addition.
response	Partly accepted. One has to distinguish between batteries 'transported/shipped as cargo' and batteries 'used in equipment on board the aircraft'. Concerning batteries 'transported/shipped' the explanation given by the commentator is correct. Concerning batteries 'used in equipment', as laid down in this AMC, one of the seven standards referenced have to be applied. This includes the UN Manual of Tests and Criteria.

comment	*107* comment by: *UK CAA* **Page No:** 13 of 43 **Paragraph No:** AMC1 CAT.GEN.MPA.140 (a) Scope **Comment:** It is recommended that the text be amended to imply the operators responsibility for controlled PEDs. **Justification:** Clarity. **Proposed Text:** "This AMC describes the technical prerequisites under which portable electronic devices (PEDs) may be used on board the aircraft without adversely affecting the performance of the aircraft's systems and equipment. This AMC addresses any kind of PED, including **operator** controlled PEDs (C-PEDs)."
response	Partly accepted. Taking into account the proposal of the commentator and the fact that the 'status' of C-PEDs has been 'changed' (C-PEDs are not one of the three categories of PEDs any longer), the Agency decided to delete the statement completely.

comment *108* comment by: *UK CAA*

Page No: 13 of 43
Paragraph No: AMC1 CAT.GEN.MPA.140 (c) (3)
Comment: It is recommended that the text be amended to clarify the technologies for which aircraft may be certified.
Justification: Clarity.
Proposed Text:
"Technical condition. The aircraft is certified for **the use of T-PEDs in conjunction with** certain technologies (e.g. WLAN or ~~mobile phones~~ **picocell system for controlled mobile phone use**) or the electromagnetic interference (EMI) assessment has demonstrated that:
(i) the front door coupling has no negative safety impact; and
(ii) the back door coupling has no negative safety impact concerning certain technologies (e.g. WLAN or ~~mobile phones~~ **picocell system for controlled mobile phone use**).
*Conclusion: The operator may permit the use of PEDs during all phases of flight, including T-PEDs **in conjunction** with certain technologies* (e.g. WLAN or ~~mobile phones~~ **picocell system for controlled mobile phone use**)*. The use of other T-PEDs should not be permitted."*

response Partly accepted.

The comment provided initiated an internal discussion. As a result the wording was modified, but not as proposed by the commentator.

comment *109* comment by: *UK CAA*

Page No: 15 of 43
Paragraph No: AMC1 CAT.GEN.MPA.140 (d)(2)(iii)
Comment: The referenced paragraph is read to refer to low power transmitters and states, "The tracking device interference levels during transmission are below those considered acceptable for the specific aircraft environment." The paragraph does not define what levels would be considered acceptable. A definition or example of acceptable levels would provide for a consistent compliance.
Justification: With no defined acceptable level each operator could be left to decide what could be acceptable for each aircraft, leading to an inconsistent assessment across the fleet.
Because it is stated in (d)(1)(ii) that acceptable RF emissions for C-PEDs can be those defined in (d)(1)(ii) paragraph (B), a similar position could be adopted for the transmission of tracking devices when carried in the cargo bay:
Proposed Text:
*"The tracking device interference levels during transmission are below those considered acceptable for the specific aircraft environment, **e.g. EUROCAE ED-14E/RTCA DO 160E, Section 21, Category H."***

response Partly accepted.

Following this comment and subsequent internal discussions, the paragraph has been rephrased taking into account the commentator's proposal.

comment *121* comment by: *FedEx*

In (c) "Possible scenarios for permitting the use of PEDs", it is called out for interference

understanding at the certification level, which implies working with the aircraft manufacturer/vendor.

We have attempted this approach as a supplier, in conjunction with the device manufacturer to involve the vendor, but without success. Based on our experience, we believe that airline manufacturers may not be prepared to integrate at that level. This is probably tied to multiple risk factors:
· Expense of process change/addition which has high cost impact for them at the review/approval level. It can take months to integrate a new piece of equipment to their process so we have to assume their review or possible testing with each device manufacturer is not realistic.
· Legal implications if an incident occurs that may not be caused by the device, but doubt of safety may be immediately cast on all devices with lithium batteries in air transport.

Therefore, we make the following suggestion:
- If the aircraft vendor work qualify the aircraft on the line to the spectrums (do a frequency sweep on the completed craft for all bandwidths to understand where there is interference / frequencies from 0 MHz – 3000 MHz), this would allow a vendor to present the bands that their device operates in. Then EASA could determine the zones identified as safe by this "line level" (at the production point) test and control where the craft demonstrates interference risk.

This would only need to be done against the craft at production time against a sampling that would fall under the current production certification requirements. This would allow to determine with a high percentage of accuracy that the device would be safe for use and where (cargo compartment, passenger compartment, upper stowage etc.) This would make it much easier for all vendors and EASA experts reviewing the device outputs and specification to determine if additional testing is needed or if the device falls into the approved "safe operational zone" for aircraft.

There is also a need to clearly call out "equivalency" capabilities in the review for approval or "no technical objection" for use. Many vendors will have collected data against a specific airframe and it should be considered allowing this for data against another airlines fleet that includes the same airframe type. We understand that variant radios and other victim receiver technology (navigation systems) will need to be considered in the equivalency review, but with the background of the existing testing it could avoid additional testing.

Additional comments:

- For the avoidance of doubt, in b(1) and b(2), we suggest the following modifications highlighted in yellow:

(*b) Prerequisites concerning the aircraft configuration*
(1) Before an operator may permit the use of any kind of PED on-board, it should ensure that PEDs have no negative impact on the safe operation of the aircraft. For this purpose, the operator should demonstrate that PEDs do not interfere with on-board electronic systems and equipment, especially with the aircraft's navigation and communication system (hereinafter "PED tolerance").
(2) The assessment concerning PED tolerance may be tailored to the different aircraft zones for which the use of PEDs is considered, i.e. may address separately […].
The same modifications should be made in the amended versions of **: "AMC1 NCC.GEN.130 Portable electronic devices (b)" page 25.**

	• (c) (1) Technical condition (page 13): in the second sentence, we propose the following modification for the avoidance of doubt: *"In this case, it has been demonstrated during the aircraft certification process that […]".*
response	Partly accepted. The comment made concerning coordination with the aircraft manufacturer or vendor has been noted. The proposal of including 'For this purpose' would reduce the responsibility of the operator in an unwanted way. Strictly speaking, to ensure that PEDs have no impact on the safe operation of the aircraft, the provisions are to be applied to all aircraft critical systems, and not to be limited. In the same context, the proposal to add the addition '(hereinafter "PED tolerance")' could induce a reduction of the necessary measures. Therefore, this proposal has not been accepted. The word 'aircraft' has been included as proposed.

3. Proposed amendments - Part-CAT - AMC2 CAT.GEN.MPA.140 p. 16-19

comment	*8* comment by: *Dassault Aviation* AMC 2 CAT GEN MPA 140 para e : Use of PEDs in the flight crew compartment. Reference to AMC 20 should be addressed instead of sub para 1, 2 and 3.
response	Not accepted. AMC 20-25 only covers the use of EFB on the flight deck, while the provisions in paragraph (e) cover the use of any PED on the flight deck. Therefore, paragraph (e) provides the more general information and these provisions need to be listed in the sub-paragraphs. Following this approach, in the present case the Agency does not see the need to refer to AMC 20-25.

comment	*11* comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)* We think that the rules are not clear regarding use of T-PEDs before and after taxing. It is very important to state what is allowed or not during for example the pre-flight phase. During the pre-flight phase the EFB (i.e. iPAD) is used in T-PED mode to retrieve the operational flight plan, weather data, send loadsheet etc., etc. If a T-PED cannot be used during this phase then many of the EFB-systems in use today will be almost unusable. If it means that the device has to be emission tested in T-PED mode to be allowed to be used in the pre-flight phase then that is something very different from what is practiced today.
response	Accepted. Provisions concerning the use of any kind of PEDs before taxiing have been incorporated in paragraph (c) of AMC1 CAT.GEN.MPA.140 and of AMC1 NCC.GEN.130. With the phrase 'During taxi-in after the end of landing roll' it is generally is understood that the use of PEDs is also permitted after the taxiing.

comment	*23* comment by: *DGAC France* Page 18 : In AMC2 CAT.GEN.MPA.140 d)5)iv), it may be appropriate to add a recommendation concerning the carriage of fire resisting gloves and fire containment bag. Such elements could otherwise be integrated in a GM. The same comment can be made for the corresponding paragraph AMC2 NCC.GEN.130 d)5)iv) (page 30)
response	Partly accepted. The phrase 'Thermal runaways […] and potential resulting fire, should be handled properly' in paragraph (d)(5)(iv) implies that the needed equipment, such as fire resisting gloves and fire containment bag, is on board. However, this is a more general issue, not limited to this specific rulemaking task on the use of PEDs. Therefore, the Agency decided not to consider the proposal at present, but may consider requiring additional firefighting equipment (in addition to fire extinguishers), when amending the relevant parts of the Regulation 965/2012.

comment	*24* comment by: *DGAC France* Page 19 : In AMC2 CAT.GEN.MPA.140 f), as it may be difficult to make an operator check in every passenger's baggage that there is no active PED, what kind of procedure would be acceptable to comply with this AMC? The same comment can be made for the corresponding paragraph AMC2 NCC.GEN.130 f) (page 31)
response	Noted. This is an already existing item, not introduced with the present rulemaking task. On purpose the Agency does not prescribe any specific measures concerning possible active PEDs not accessible during the flight. Following paragraph (f) of AMC2 CAT.GEN.MPA.140 it is within the responsibility of the operator to decide on appropriate procedures.

comment	*48* comment by: *Airbus Helicopters* **Major comment** **AMC2 CAT.GEN.MPA.140 § (d)(2)(ii)** Comment The sentence concerning medical equipment is unclear in terms of requirement implication, in particular when considered in association with § (b). Rationale for comment It should be an obligation to ensure that medical equipment can remain in operation as needed. In practice, it would be more efficient to have it included in the aircraft certification. Suggestion Remove use of medical equipment from operator responsibility perimeter and make it a

certification item.
For that purpose the medical item RF emission shall be regulated on a worldwide basis.

response

Partly accepted.

Passengers should be permitted to use their medical equipment, as needed, without any restrictions. Otherwise e.g. a passenger with a cardiac pacemaker might not be allowed on board of the aircraft and a passenger turning off his/her hearing aid might become a danger during an emergency situation when not hearing the instructions of the crew. Considering the kind of medical equipment used by passengers in daily life, the Agency does not see the need to include medical equipment in the aircraft certification. In order to avoid an unclear situation associated with paragraph (b) of AMC2 CAT.GEN.MPA.140, paragraph (d)(2)(ii) will be modified as follows: 'Notwithstanding (b), medical equipment necessary…'.

comment *50* comment by: *Airbus Helicopters*

Major comment
AMC2 CAT.GEN.MPA.140 § (e)
Comment
This section indicates that PED (including T-PED) may be allowed in the flight crew compartment by the operator.
This implies that the technical prerequisites have been fulfilled (AMC2 CAT.GEN.MPA.140 § (e), referring to AMC1 CAT.GEN.MPA.140 § (c)).
Rationale for comment
Subparagraph (e)(2) fails to highlight electromagnetic interference as a possible risk.
Suggestion for § (e)(2)
"*The PEDs do not pose a loose-item risk or other hazard (electromagnetic interference, …)*"

response

Not accepted.

The Agency is of the opinion that the additional text proposed by the commentator is not needed. In paragraph (b) of AMC2 CAT.GEN.MPA.140 it is clearly stated that the operator should ensure compliance with the technical prerequisites laid down in AMC1 CAT.GEN.MPA.140. This compliance needed includes electromagnetic interference. Since paragraph (b) of AMC2 CAT.GEN.MPA.140 applies to the use of PEDs in the flight crew compartment, any additional text referring to electromagnetic interference would cause confusion.

comment *52* comment by: *Airbus Helicopters*

Major comment
AMC2 CAT.GEN.MPA.140 § (f)
Comment
There is ambiguity about this case.
Rationale for comment
The operator cannot manage such cases when passengers forget to shut down PEDs. So who is then in charge of guaranteeing the safety of the aircraft?
Suggestion
A requirement to demonstrate tolerance of the aircraft against activated stored T-PEDs should be part of the certification basis. Realistic worst cases to be considered for the

certification may have to be defined.

response

Not accepted.

This is an already existing item, not introduced with the present rulemaking task. On purpose the Agency does not prescribe any specific measures concerning possible active PEDs not accessible during the flight. Following paragraph (f) of AMC2 CAT.GEN.MPA.140 it is within the responsibility of the operator to decide on appropriate procedures, e.g. risk assessment, when the aircraft has not been certified accordingly.

However, the Agency has planned an additional rulemaking task (RMT.0061 (25.063)) considering this issue. For further details see 'Task 2' in the EASA Terms of Reference (ToR) on RMT.0637 & RMT.0061.

comment

61 comment by: *LHT DO*

Comment to AMC2 CAT.GEN.MPA.140 (a)
Crew rest compartments should be added as mentioned in Comment to AMC1 CAT.GEN.MPA.140 (b)(2)

response

Partly accepted.

A statement has been added in the GM.

comment

77 comment by: *Fit >Cisl PNC*

The SCOPE of "Safe operation of the aircraft", according to us should be defined in a broader sense: Not only in terms of equipment, but also in term of emergency procedures and Standard procedures. (SEP and SOP).

"The SIB (2013-21) describes the elements to be considered by operators and authorities if envisaging an extended use of non-transmitting PEDs during all flight phases" and says the following, when dealing with the Passenger Briefing:
"The passenger briefing is important for providing information to passengers on the safety aspects, such as egress from the aircraft in case of an evacuation, demonstrations of safety and emergency equipment and aircraft systems, etc. It is recommended that PED distraction during the passenger safety briefing is avoided so that passengers' attention concentrates on the safety briefing and crew instructions.... Communication to passengers should be clear and concise."

It is essential that EASA never allows Operator's to underestimate the specific risk linked to the confined and enclosed place of the airplane, to perform safety related operations.

Permitting the use of PEDs in ANY phase of the flight, including the safety demo time is too risky, without appropriate measures, such as:
passengers are asked to remove headphones for the safety briefing;
- this info to passengers provided via the Operator's website;
- this info to passengers provided via the boarding cards;
- this info to passengers provided via passenger safety cards;
- this info to passengers provided via traveller magazine.

response

Noted.

AMC2 CAT.GEN.MPA.140 contains detailed provisions concerning procedures, passenger information and briefing, safety measures and reporting in the paragraphs (d)(1), (d)(3), (d)(5) and (d)(6). Based on these provisions the operator has to decide how to ensure a safe operation of the aircraft, while permitting the use of PEDs by passengers. Furthermore, CAT.OP.MPA.170 and the associated AMC contain provisions related to the passenger briefing.

comment

82 comment by: *FAA*

Recommendation: Page 17 (d)(2)(ii) Further definition of medical equipment may assist passengers with Portable Oxygen Concentrators that have been RTCA tested. Identify the difference between medically prescribed and passenger provided electronic devices; (Portable oxygen concentrator/nebulizer/CPAP/BiPAP and APAPs) versus cans of recreational/flavored oxygen or air purification machines.

Sample language from Federal Aviation Administration's Advisory Circular 91.21B Medical-Portable Electronic Devices (M-PED), such as automated external defibrillators (AED), airborne patient medical telemonitoring (APMT) equipment, POCs approved by the Food and Drug Administration should be designed and tested in accordance with section 21, Category M, of RTCA/DO-160, current edition. M-PEDs that test within the emission levels contained in this document, in all modes of operation (i.e., standby, monitor, and/or transient operating conditions, as appropriate), may be used onboard the aircraft without any further testing by the operator. Passengers carrying extra batteries for their M-PED should be familiar with the handling instructions described at http://safetravel.dot.gov/. Consider information from InFO SUP:
http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info/all_infos/media/2013/InFO13010SUP.pdf

response

Partly accepted.

The Agency decided to keep the text in the AMC 'simple' in terms of medical equipment, as stated in paragraph (d)(2)(ii) of AMC2 CAT.GEN.MPA.140. However, the Agency will consider providing more detailed information on this issue on its website.

comment

94 comment by: *FNAM-French Aviation Industry Federation*

Regarding mobile phone devices Telecom, international standards are already applied to them. They have to follow specific certification process.

However, in Part "AMC2 CAT.GEN.MPA.140 Portable electronic devices" paragraph (c) of "Procedures for the use of PEDs", it is mentioned that "The operator should identify the safety hazards and manage the associated risks following the management system implemented in accordance with ORO.GEN.200".

FNAM is suggesting that no risk assessment should be required individually for each and every mobile phone device as they already comply with Telecom international standards. However FNAM insists on the fact that only mobile telecommunications technologies, such as wifi, bluetooth, 3G and 4G, should be assessed to follow the electromagnetic emission standards in order to avoid interference effects to aircraft systems.

	In other word, the radiotelecom standard should be assessed and the compliance of the PED with this standard shall imply its conformity.
response	Noted. The Agency is of the opinion that the operator itself should decide how to perform the required hazard identification and risk assessment, following the provisions of paragraph (c) of AMC2 CAT.GEN.MPA.140 and in accordance with ORO.GEN.200 of Regulation 965/2012. Furthermore, the Agency decided to provide a generic text on purpose in order to not exclude the use of any transmitting device.

comment	*99* comment by: *IATA* 1. AMC2 CAT.GEN.MPA.140 (f). PEDs such as temperature data loggers are very widely used in cargo shipments, particularly those of pharmaceuticals. For shippers of pharmaceutical products they are required in accordance with the requirements Good Manufacturing Practice (GMP) and Good Distribution Practice (GDP) to be able to demonstrate to regulatory authorities such as the US Federal Drug Administration and the UK Medicines and Healthcare Products Regulatory Agency that when required the products must be maintained within the specified temperature range. To achieve this, the shippers must have an active data logger in each package. To recommend that these be disabled during flight or shielded in metal boxes is unrealistic.
response	Partly accepted. Please note that paragraph (f) of AMC2 CAT.GEN.MPA.140 contains the provision 'The operator may permit deviation [from being switched off] for PEDs for which the safe operation has been demonstrated …'.

comment	*110* comment by: *UK CAA* **Page No:** 17 of 43 **Paragraph No:** AMC2 CAT.GEN.MPA.140 (d) (3) (i) (B) **Comment:** It is recommended that the text be amended as shown below.. **Justification:** To enhance clarity and consistency. **Proposed Text:** "when, ~~which~~ and where PEDs are to be ~~stored~~ **stowed**; and"
response	Accepted. The text has been modified accordingly.

comment	*111* comment by: *UK CAA* **Page No:** 17 of 43 **Paragraph No:** AMC2 CAT.GEN.MPA.140 (d) (3) (ii) **Comment:** It is recommended that the text be amended to specify when avoidance of distraction is most desirable and provide an example. **Justification:** Clarity. **Proposed Text:**

	In accordance with CAT.OP.MPA.170, the use of PEDs should be part of ~~the~~ passenger briefing**s**. The operator should encourage passengers to avoid distraction during **the before take-off** ~~such~~ briefing~~s~~, **e.g. request removal of headphones.**
response	Not accepted. The Agency is of the opinion that such specific measures ('request removal of headphones') should not be regulated within the present rulemaking task. If needed, the operator may introduce such specifics based on the more general provisions provided in CAT.OP.MPA.170 and the associated AMC.

comment	*112* comment by: *UK CAA* **Page No:** 17 of 43 **Paragraph No:** AMC2 CAT.GEN.MPA.140 (d) (3) (iii) **Comment:** UK CAA recommends a correction to the reference to the rule and some revised text to enhance clarity **Justification:** CAT.OP.MPA.160 does not include reference to briefing passengers. **Proposed Text:** "In accordance with CAT.OP.MPA.**170**~~160~~ passengers should be briefed on the operator's procedures concerning the stowage of PEDs. The operator should: (A) Identify ~~the phases of flight in which PEDs~~ **limitations on the use of certain PEDs and the phases of flight during which such devices** are to be stowed; and"
response	Partly accepted. The Agency is taking into account the comment made. However, while paragraph (d)(3)(ii) in NPA 2014-14 should be focussed on passenger briefing, this paragraph (d)(3)(iii) should focus on the stowage. The Agency has modified the text as follows: 'In accordance with CAT.OP.MPA.160 the operator should establish procedures concerning the stowage of PEDs. The operator should: ...'. In addition, to ensure that a logical order is in place (the operator first has to establish procedures concerning the stowage and only then passengers can be briefed), the order of the sub-paragraphs within paragraph (d)(3) has been changed.

comment	*113* comment by: *UK CAA* **Page No:** 18 of 43 **Paragraph No:** AMC2 CAT.GEN.MPA.140 (d) (4) (i) **Comment:** UK CAA recommends that the reference to 'cards' be deleted. **Justification:** In order to permit more flexible means of providing safety instructions, e.g. placarded information or inclusion in passenger briefing. **Proposed Text:** (i) information ~~cards~~ giving safety instructions should be provided to the passengers;
response	Accepted. The text has been modified accordingly.

comment	*114* comment by: *UK CAA* **Page No:** 18 of 43 **Paragraph No:** AMC2 CAT.GEN.MPA.140 (d) (5) (iv)

Comment: UK CAA recommends a revision to the text as shown below.
Justification: To enhance clarity
Proposed Text:
"**Procedures should be developed for the handling of potential fire and** ~~T~~**t**hermal runaway~~s~~ of batteries, in particular lithium batteries, ~~and potential~~ resulting from a malfunctioning device. ~~fire, should be handled properly."~~

response

Not accepted.

Procedures for preventing and handling of fire are laid down in Part-ORO of Regulation 965/2012. These procedures include the handling of a potential fire of PEDs and therefore, do not need to be repeated here. However, the Agency is of the opinion that the special aspect of thermal runaways of batteries in the passenger compartment should highlighted in the context of the present rulemaking task, and therefore included the text as proposed.

comment *115* comment by: *UK CAA*

Page No: 18 of 43
Paragraph No: AMC2 CAT.GEN.MPA.140 (d) (5) (vi)
Comment: The text should be corrected as shown below.
Justification: To improve grammar.
Proposed Text:
"When the operator restricts the use of PEDs, **consideration** ~~it~~ should be ~~prepared~~ **given to** handling special requests to operate a T-PED during any phase of the flight for specific reasons (e.g. for security measures)."

response

Accepted.

The text has been modified accordingly.

comment *116* comment by: *UK CAA*

Page No: 18 of 43
Paragraph No: AMC2 CAT.GEN.MPA.140 (e)
Comment: It is recommended that the text be amended to improve readability with regard to the securing of PEDs and introduce the need for procedures for the handling of a potential fire resulting from a malfunctioning device in the flight crew compartment.
Justification: AMC2 CAT.GEN.NPA.140 does not currently include reference to procedures for the handling of a fire caused by a malfunctioning device in the flight crew compartment.
Proposed Text:
"(1) The conditions for the use of PEDs in-flight are specified in the operations manual.~~, otherwise they should be switched off and stowed during all phases of flight.~~
(2) ~~The PEDs do not pose a loose item risk or other hazard.~~ **There are appropriate means for securing PEDs for all phases of flight.**
(3) These provisions should not preclude use of a T-PED (specifically a mobile phone) by the flight crew to deal with an emergency. However, reliance should not be predicated on a T-PED for this purpose.
(4) Procedures for the handling of a potential fire resulting from a malfunctioning device are specified in the operations manual."

response	Partly accepted. Concerning (1): The text has been modified accordingly. Concerning (2): The Agency decided to stay with the original text. Concerning (4): Procedures for preventing and handling of fire are laid down in Part-ORO of Regulation 965/2012. These procedures include the handling of a potential fire of PEDs and therefore, do not need to be repeated here.

comment	*133* comment by: *IATA* Attachment #2 IATA has developed the attached Guidance on the Expanded Use of Passenger Portable Electronic Devices (PEDs) as a result of the work of the Cabin Safety Task Force. It contains practices agreed by the airlines in order to mitigate the potential risks associated with expanded use of PEDs.
response	Noted. The Agency appreciates that the commentator provides the information.

comment	*134* comment by: *IATA* AMC 2 CAT.GEN.MPA.140 (d)(2)(ii) MED PED: Each operator must also determine that its aircraft are PED tolerant. This is to avoid the evaluation of each specific PED make and model. A determination of aircraft PED tolerance with respect to passenger PEDs does include MPEDs. Item (ii) should not be interpreted that the use of all MPEDs are not subject to (i) – “the operator decides which PEDs may be used during which phases of flight”. We suggest the reformulation of this paragraph.
response	Not accepted. Passengers should be permitted to use their medical equipment, as needed, without any restrictions. Otherwise e.g. a passenger with a cardiac pacemaker might not be allowed on board of the aircraft and a passenger turning off his/her hearing aid might become a danger during an emergency situation when not hearing the instructions of the crew. Considering the kind of medical equipment used by passengers in daily life, the Agency does not see the need to include medical equipment in the aircraft certification. In order to avoid an unclear situation associated with paragraph (b) of AMC2 CAT.GEN.MPA.140, paragraph (d)(2)(ii) will be modified as follows: ‘Notwithstanding (b), medical equipment necessary…’.

comment	*135* comment by: *IATA* AMC 2 CAT.GEN.MPA.140 (d)(3)(i)(B) Stored: Stored is not a term associated with cabin baggage policies or with expanded use of "passenger" PEDS. Suggest editing to "stowed or secured". We suggest the elimination of the term “Stored” and the use of the terms “stowed” and “secured” throughout the document.
response	Accepted.

	Instead of ‘stored’ the term ‘stowed’ is now been used.

comment	*136* comment by: *IATA* AMC 2 CAT.GEN.MPA.140 (d)(3)(ii) We suggest to replace the second sentence of (ii) “The operator should encourage….” with the text "There should be adequate emphasis that the pre-departure briefing is important to safe operations and to minimize PED distractions during the safety briefing"
response	Partly accepted. Initiated by the comment provided and following further discussions, the Agency modified the text.

comment	*137* comment by: *IATA* AMC 2 CAT.GEN.MPA.140 (d)(3)(iii) Passengers need to be briefed on which PEDs need to be "stowed" such as larger PEDs e.g. a laptop versus those that need to be secured: such as small/handheld PEDs e.g. a tablet, smartphone, e-reader etc. We suggest that a differentiation be made between larger PEDs which need to be stowed during take-off and landing and handheld devices which can be secured during take-off and landing (on the passenger’s person or placing them in the seat pocket).
response	Not accepted. The Agency is of the opinion that such specific measures should not be regulated within the present rulemaking task. Instead, it is the responsibility of the operator to further specify provisions concerning the stowage following the requirements of CAT.OP.MPA.160.

comment	*138* comment by: *IATA* AMC 2 CAT.GEN.MPA.140 (d)(4)(i) The use of the in seat power supply is self-explanatory – we recommend to remove the need for information cards provided to the passengers for this. However if this provision remains, it would be best to draft this with more performance based guidance which would allow each individual operator to communicate this via their chosen means. Examples could include paperless means, electronic means, oral or visual (electronic or paper) such as IFE, Inflight Magazine, announcements etc.
response	Partly accepted. By deleting the word ‘card’ more flexibility is provided.

comment	*139* comment by: *IATA* AMC 2 CAT.GEN.MPA.140 (d) (5) We suggest the reformulation of this whole paragraph:

	Appropriate coordination between flight crew, cabin crew and technical crew should be established to deal with: interference of aircraft systems events including interference incidents and smoke/fire incidents in which suspect equipment should be switched off Thermal runaways of batteries and potential resulting fire Passenger misuse of equipment The commander may, for any reason and during any phase of flight, require deactivation and stowage of PEDs We suggest the elimination of (vi). The commander may deviate from rules and requirements if he considers in the interest of safety.
response	Not accepted. The Agency is of the opinion that the original wording, in parts copied and pasted from the 'old' AMC, is better reflecting the needs to be expressed.

comment	*140* comment by: *IATA* AMC 2 CAT.GEN.MPA.140 (d) (6)(i) We suggest to remove the words "that have potential safety implications". All suspected or confirmed interference should be reported. Also we suggest to Replace "offending" ("the offending device") with "suspected".
response	Accepted. The text has been modified accordingly.

comment	*141* comment by: *IATA* AMC 2 CAT.GEN.MPA.140 (d) (6)(ii) We suggest to eliminate (ii) and place "Device owner/Passenger contact details" to (d)(6)(i) in the various elements to be reported.
response	Accepted. The text has been modified accordingly.

3. Proposed amendments - Part-CAT - GM1 CAT.GEN.MPA.140 p. 19-20

comment	*9* comment by: *Dassault Aviation* GM1 CAT GEN MPA 140 Portable Electronic Devices Definition: this document refers to three categories while AMC 20 refers to only to two categories. AMC 20 does not consider C PED as a category: "***4.16 Portable Electronic Device (PED) of AMC 20-25*** *PEDs are typically consumer electronic devices, which have functional capability for communications, entertainment, data processing, and/or utility. There are two basic*

	categories of PEDs – those with and those without intentional transmitting capability; please refer to ED-130/RTCA DO-294().” Homogeneity required.
response	Accepted. GM1 CAT.GEN.MPA.140 has been modified stating now that PEDs include two categories, namely non-intentional transmitters and T-PEDs. In addition, C-PEDs are introduced to highlight the specific status of these devices which can be both, non-intentional transmitters or T-PEDs. It has to be noted that C-PEDs are also introduced in AMC 20-25 (see paragraph 4.4) and that portable EFBs on the flight deck are assigned as C-PEDs (see paragraph 5.1.1). Therefore, the provisions concerning PEDs in Regulation 965/2012 and in AMC 20-25 are now aligned.

comment	*58* comment by: *LHT DO* **Comment to GM CAT.GEN.MPA.140** This guidance material defines the different meaning of PED(s). To make the meaning of PED more comprehensible the wording should follow the definition in GM1 CAT.GEN.MPA.140 through at least AMC1 CAT.GEN.MPA.140 while in AMC2 CAT.GEN.MPA.140 the wording PED(s) is to be read as ‘any kind of PED(s)’. In several sections of AMC1 CAT.GEN.MPA.140 the wording PED(s) is used, does this mean ‘any kind of PED(s)’ or ‘non-transmitting PED(s)? At least there are 4 meanings in place: A. Any kind of PED – means B. & C. & D. B. PED – means non-transmitting PED C. T-PED – means transmitting PED D. C-PED – means controlled PED (may be transmitting or non-transmitting), cargo tracking devices should be added. Therefore several sections should be amended as proposed below. AMC1 CAT.GEN.MPA.140 (b) Prerequisites concerning the aircraft configuration (1) Before an operator may permit the use of any kind of PED on-board, it should ensure that <u>any kind of</u> PEDs have no negative impact on the safe operation of the aircraft. The operator should demonstrate that <u>any kind of</u> PEDs do not interfere with on-board electronic systems and equipment, especially with the aircraft’s navigation and communication systems. (2) The assessment concerning <u>T-</u>PED tolerance may be tailored to the different aircraft zones for which the use of <u>any kind of</u> PEDs is considered….. (c) Possible scenarios for permitting the use of <u>any kind of</u> PEDs should…… (d)(1)(ii) … The assessment of intentional transmissions of T-PEDs <u>and C-PEDs</u> are not covered…
response	Partly accepted. Taking into consideration the issue raised by the commentator the Agency decided to delete the (misleading) statement in paragraph (a)(1) of GM1 CAT.GEN.MPA.140 ‘The category [of non-intentional transmitters] is identified as PED’. Associated adjustments have been made throughout the text. The different terms now mean the following: — ‘any kind of PED’ = including all PEDs; — ‘PED’ = used as general term for ‘any kind of PED’; — ‘non-intentional transmitter’ = non-intentional transmitting PEDs; — ‘T-PED’ = intentional transmitting PEDs;

	— 'C-PED' = controlled PED.

comment	*63* comment by: *Swiss International Airlines / Bruno Pfister* AM2 CAT.GEN.MPA 140 (procedures for the use of PED) GM1 CAT.GEN.MPA 140 Portable electronic devices (definitions) (c)"If the device is equipped with a wireless data transmitter (add: **(T-PED)**), it utilizes...."
response	Partly accepted. The Agency modified the text taking into consideration the request of the commentator.

comment	*126* comment by: *FedEx* Page 19, a distinction is made between a T-PED (intentional transmitter) and a C-PED (administratively controlled by the operator). About the C-PED qualification, we wish to raise that we (or our partner airlines) do not control the device per se (we provide a server, a web-application and the device) but the control is in the hands of our customers using the device to track their shipment. Who has the administrative control? What is EASA' interpretation of "administrative control"?
response	Noted. 'Typical' C-PEDs are electronic flight bags (EFBs) used by flight crew to perform their duties. As clearly said in the GM, the operator has the administrative control as described in the GM ('tracking the location of the devices to specific aircraft or persons and ensuring that no unauthorised changes are made'). The operator ensures that the use of C-PEDs has no impact on the safe operation.

3. Proposed amendments - Part-CAT - GM2 CAT.GEN.MPA.140 p. 20-21

comment	*142* comment by: *IATA* **GM2 CAT.GEN.MPA.140** We suggest the following References – released July 2014: CAA/FAA videos on the Hazards to Flight Safety from the Improper Carriage of Lithium Batteries : http://www.caa.co.uk/application.aspx?catid=33&pagetype=65&appid=11&mode=detail&id=6328 The FAA and UK CAA have published already the revised ICAO guidance on dealing with a lithium battery fire in the cabin (ICAO release 2015 in ICAO Doc 9481): http://www.caa.co.uk/application.aspx?catid=33&pagetype=65&appid=11&mode=detail&id=6329
response	Noted. The information provided is appreciated. However, in the present case the Agency does not envisage to give reference to a video in the GM.

3. Proposed amendments - Part-CAT - AMC1 CAT.OP.MPA.170 p. 21-22

comment	*78* comment by: *Fit >Cisl PNC* In relation to the use of headphones/PED's during the safety demonstration, Operator's safety cases should be accepted ONLY on the basis that their procedures included that 'customers will be asked to remove headphones for the safety briefing, after which personal headphones can be used during all stages of flight .....'. Operators should also commit to providing this information to passengers via the easyJet website, boarding cards, passenger safety card and possibly traveller magazine.
response	Noted. The Agency decided to leave it to the operator to introduce specific measures on 'the use […] of portable electronic devices', following the provisions laid down in AMC2 CAT.GEN.MPA.140, and in CAT.OP.MPA.170 and the associated AMC.

comment	*117* comment by: *UK CAA* **Page No:** 21 of 43 **Paragraph No:** AMC1 CAT.OP.MPA.170 **Comment:** UK CAA fully supports.
response	Noted. The support of UK CAA is appreciated.

comment	*143* comment by: *IATA* **AMC1 CAT.OP.MPA.170 (a)(1)** We suggest to edit: (vi) the use, stowage and securing of portable electronic devices
response	Not accepted. In Part-CAT of Regulation 965/2012 both terms are used. However, in most cases 'stowage' is used for baggage, while 'securing' is used for persons. In some cases the phrase 'securely stowed' is used. The difference between both terms is not yet well established. Therefore, introducing both terms in the course of the present, specific rulemaking task may raise more confusion than it would be of benefit.

comment	*144* comment by: *IATA* **AMC1 CAT.OP.MPA.170 (c)(1)(v)** We suggest to edit the (v) item as: "The use, stowage and securing..." Stowage is a for a larger item and must be stowed in approved stowage location as per the operator's approved cabin baggage programme. Securing is applicable to small/handheld devices and means secured in the hand, in a shirt pocket (i.e. Ipod), not left loose on a seat.

response	Not accepted. See the response to comment 143 above.

3. Proposed amendments - Part-NCC - AMC1 NCC.GEN.130 p. 22-28

comment	*25* comment by: *DGAC France* Page 25: AMC1 NCC.GEN.130c)1): see comment #21 concerning AMC1 CAT.GEN.MPA.140c)1).
response	Not accepted. See the response to comment 21.

comment	*26* comment by: *DGAC France* Page 25 : AMC1 NCC.GEN.130c)3): see comment #22 concerning AMC1 CAT.GEN.MPA.140c)3).
response	Noted. See the response to comment 22.

comment	*43* comment by: *Airbus Helicopters* **Major comment** **AMC1 NCC.GEN.130 § (c)(1) and (c)(3)** Same comment as for Part-CAT (comment No 42)
response	Not accepted. See the response to comment 42.

comment	*45* comment by: *Airbus Helicopters* **AMC1 NCC.GEN.130 § (d)(2)(ii)(B)** Same comment as for Part-CAT (comment No 44)
response	Accepted. See the response to comment 44.

comment	*47* comment by: *Airbus Helicopters* **AMC1 NCC.GEN.130 § (d)(2)(ii)(A)** Same comment as for Part-CAT (comment No 46)

response | Partly accepted.

See the response to comment 46.

comment | *68* comment by: *Airbus Operations GmbH*

This Airbus comment is related to:
NPA 2014-14, Section 3 "Proposed amendments", Page 26 of 43, Paragraph:
AMC1 NCC.GEN.130 Portable Electronic Devices
TECHNICAL PREREQUISITES FOR THE USE OF PEDS
...
d) test methods", Page 26 of 43
...
Note: This comment is a parallel comment to the one on AMC1.CAT.GEN. MPA.140, NPA Page 14 of 43
Airbus Comment/Proposal:
The term "*d) test methods*" implies that analysis is excluded.
Airbus suggests replacing it by
"*d) demonstration of electromagnetic compatibility*"
Justification/Rationale:
Airbus considers analysis, e.g. of existing equipment qualification or chosen design of an equipment a valid method to demonstrate immunity. Example: (d)(1)(i)(B) refers to ED-130 which explicitly identifies equipment qualification values against which equipment may be analyzed to determine equipment-wise the immunity of an aircraft configuration.

response | Accepted.

The header has been changed following the proposal made.

comment | *72* comment by: *Airbus Operations GmbH*

This Airbus comment is related to:
NPA 2014-14, Section 3 "Proposed amendments", Page 26 of 43,
AMC1 NCC.GEN.130 Portable Electronic Devices
TECHNICAL PREREQUISITES FOR THE USE OF PEDS
...
Subpara d) Test methods, (d)(1)(ii), (A) and (B):
...
"(d)(1)(ii)(ii) The RF emissions of C-PEDs should meet the levels as defined by:
(A) EUROCAE ED-14E/RTCA DO 160E, Section 21, Category M, for operation in the passenger compartment; and
(B) EUROCAE ED-14E/RTCA DO 160E, Section 21, Category H, for operation in the cargo bay.
Later revisions of the documents listed in (A) and (B) may be used for testing. The assessment of intentional transmissions of T-PEDs are not covered by those test standards and should be addressed separately (e.g. by deactivating the transmitting function in flight (flight mode))."
Note: This comment is a parallel comment to the one on AMC1.CAT.GEN.MPA.140, NPA Page 14 of 43
Airbus Comment/Proposal:
Airbus suggests either requiring CAT M or CAT H but not separate values per zone.

Justification/Rationale:
Even between aircraft there will be variations of the path loss. The path loss from Cargo is not necessarily worse than that from cabin or flight deck. Typically inside the aircraft CAT M is satisfactory.

response

Not Accepted.

The provision is separated to maintain consistency with current praxis for active cargo containers. See FAA order 8150.4 for 'Cargo containers with self-contained temperature control systems (active uniform loading devices (ULDs))'.

comment

76 comment by: *Airbus Operations GmbH*

This Airbus comment is related to:
NPA 2014-14, Section 3 "Proposed amendments", Page 26 of 43, Paragraph**:**
AMC1 NCC.GEN.130 Portable Electronic Devices
TECHNICAL PREREQUISITES FOR THE USE OF PEDS
...
(d)(1) EMI assessment
...
Note: This comment is a parallel comment to the one on AMC1 CAT.GEN.MPA.140, NPA Page 14 of 43
Comment/Proposal:
Airbus proposes to add a new paragraph to read:
"(iii) The T-PED interference levels during transmission are below those considered acceptable for the specific aircraft environment."
Justification/Rationale:
Low power T-PEDs (like Bluetooth) are missing in the technical analysis.

response

Not accepted.

The method described in paragraph (d)(1)(i)(B) of NPA 2014-14 covers the case described.

comment

83 comment by: *FAA*

Recommendation: Pages 22-23 (a)(1) EASA document does not address items secured/small hand held items.
EASA document does not address seat pocket stowage. Is this an acceptable place to secure or stow a small hand held item (less than 2 lbs)? Consider information from InFO SUP:
http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info/all_infos/media/2013/InFO13010SUP.pdf

response

Noted.

The information provided is appreciated. In the course of the present rulemaking task, the Agency decided not to regulate specific measures concerning small hand held items and their stowage in a seat pocket. Instead the operator should establish specific procedures, as needed, in accordance with NCC.OP.135.

comment

100 comment by: *IATA*

	AMC1 NCC.GEN.130 (f). As per AMC1 CAT.GEN.MPA.140 (f) the indication here is that the lithium batteries may be acceptable if they meet any one of the standards referenced in (f) (1) to (7). However, for transport all lithium batteries must be of a type that has successfully passed the tests specified in subsection 38.3 of the UN Manual of Tests and Criteria. This is a requirement set out in the ICAO Technical Instructions, Part 2;9.3.1 a) and applies to all lithium batteries shipped as cargo. This needs to be made clear in the document. The other standards may be applied in addition.
response	Partly accepted. One has to distinguish between batteries 'transported/shipped as cargo' and batteries 'used in equipment on board the aircraft'. Concerning batteries 'transported/shipped' the explanation given by the commentator is correct. Concerning batteries 'used in equipment', as laid down in this AMC, one of the seven standards referenced have to be applied. This includes UN Manual of Tests and Criteria.

comment	*118* comment by: *UK CAA* **Page No:** 25 of 43 **Paragraph No:** AMC1 NCC.GEN.130 (a) Scope **Comment:** It is recommended that the text be amended to imply the operators responsibility for controlled PEDs. **Justification:** Clarity. **Proposed Text:** This AMC describes the technical prerequisites under which portable electronic devices (PEDs) may be used on board the aircraft without adversely affecting the performance of the aircraft's systems and equipment. This AMC addresses any kind of PED, including **operator** controlled PEDs (C-PEDs).
response	Partly accepted. Taking into account the proposal of the commentator and the fact that the 'status' of C-PEDs has been 'changed' (C-PEDs are not one of the three categories of PEDs any longer), the Agency decided to delete the statement completely.

comment	*119* comment by: *UK CAA* **Page No:** 25 of 43 **Paragraph No:** AMC1 NCC.GEN.130 (c) (3) **Comment:** UK CAA recommends that the text be amended to clarify the technologies for which aircraft may be certified. **Justification:** Clarity. **Proposed Text:** "Technical condition. The aircraft is certified for **the use of T-PED's in conjunction with** certain technologies (e.g. WLAN or ~~mobile phones~~ **picocell system for controlled mobile phone use**) or the electromagnetic interference (EMI) assessment has demonstrated that: (i) the front door coupling has no negative safety impact; and (ii) the back door coupling has no negative safety impact concerning certain technologies (e.g. WLAN or ~~mobile phones~~ **picocell system for controlled mobile phone use**). *Conclusion: The operator may permit the use of PEDs during all phases of flight, including T-PEDs **in conjunction** with certain technologies* (e.g. WLAN or ~~mobile phones~~ **picocell system**

	for controlled mobile phone use). *The use of other T-PEDs should not be permitted."*
response	Partly accepted. The comment provided initiated an internal discussion. As a result the wording was modified, but not as proposed by the commentator.

comment	*120* comment by: *UK CAA* **Page No:** 27 of 43 **Paragraph No:** AMC1 NCC.GEN.130 (d)(2)(iii) **Comment:** The referenced paragraph is read to refer to low power transmitters and states, "The tracking device interference levels during transmission are below those considered acceptable for the specific aircraft environment." The paragraph does not define what levels would be considered acceptable. A definition or example of acceptable levels would provide for a consistent compliance. **Justification:** With no defined acceptable level each operator could be left to decide what could be acceptable for each aircraft, leading to an inconsistent assessment across the fleet. Because it is stated in (d)(1)(ii) that acceptable RF emissions for C-PEDs can be those defined in (d)(1)(ii) paragraph (B), a similar position could be adopted for the transmission of tracking devices when carried in the cargo bay: **Proposed Text:** *"The tracking device interference levels during transmission are below those considered acceptable for the specific aircraft environment,* ***e.g. EUROCAE ED-14E/RTCA DO 160E, Section 21, Category H."***
response	Partly accepted. Following this comment and subsequent internal discussions, the paragraph has been rephrased taking into account the commentator's proposal.

comment	*130* comment by: *FedEx* . For the avoidance of doubt, in (b) Prerequisites concerning the aircraft configuration (page 25), we propose the following modifications highlighted in yellow: [...] *For this purpose, the operator should demonstrate that PEDs do not interfere with on-board electronic systems and equipment, especially with the aircraft's navigation and communication system (hereinafter "PED tolerance").* *(2) The assessment concerning PED tolerance may be tailored to the different aircraft zones for which the use of PEDs is considered, i.e. may address separately […].*
response	Partly accepted. The comment made concerning coordination with the aircraft manufacturer or vendor has been noted. The proposal to include 'For this purpose' would reduce the responsibility of the operator in an unwanted way. Strictly speaking, to ensure that PEDs have no negative impact on the safe operation of the aircraft, the provisions are to be applied to all aircraft critical systems, and not to be limited. In the same context, the proposal to add addition '(hereinafter "PED tolerance")' could induce a reduction of the necessary measures. Therefore, this proposal

	has not been accepted. The word 'aircraft' has been included as proposed.

3. Proposed amendments - Part-NCC - AMC2 NCC.GEN.130 p. 28-31

comment	*19* comment by: *DGAC France* Page 29 : In AMC2 NCC.GEN.130, one can note the following provision in paragraph (d) concerning the use of PEDs in the passenger compartment: *"(3)(ii) In accordance with NCC.OP.140, the use of PEDs should be part of the passenger briefing. The operator should encourage passengers to avoid distraction during such briefings."* Yet, NCC.OP.140 only mandates a briefing concerning the listed safety equipment and a briefing in case of emergency. The use of PEDs is out of scope of NCC.OP.140. Reference to NCC.OP.140 should be deleted as not being relevant.
response	Accepted. This comment is appreciated. Reference to NCO.OP.140 has been deleted.

comment	*27* comment by: *DGAC France* Page 30 : AMC2 NCC.GEN.130d)5)iv): see comment #23 concerning AMC2 CAT.GEN.MPA.140 d)5)iv).
response	Partly accepted. See the response to comment 23.

comment	*28* comment by: *DGAC France* Page 31 : AMC2 NCC.GEN.130f): see comment #24 concerning AMC2 CAT.GEN.MPA.140 f).
response	Noted. See the response to comment 24.

comment	*49* comment by: *Airbus Helicopters* **Major comment** **AMC2 NCC.GEN.130 § (d)(2)(ii)** Same comment as for Part-CAT (comment No 48)
response	Partly accepted.

	See the response to comment 48.

comment	*51* comment by: *Airbus Helicopters* **Major comment** **AMC2 NCC.GEN.130 § (e)(3)** Same comment as for Part-CAT (comment No 50)
response	Not accepted. See the response to comment 50.

comment	*53* comment by: *Airbus Helicopters* **Major comment** **AMC2 NCC.GEN.130 § (f)** Same comment as for Part-CAT (comment No 52)
response	Not accepted. See the response to comment 52.

comment	*84* comment by: *FAA* Comment: Page 29 (d)(2)(ii) Comments from passengers with respiratory disease and sleep apnea have revealed a need for sensitivity training for airport security/air carrier and airport personnel while traveling with M-PEDs. The medical equipment that is acceptable for member EASA carriers varies widely. Reference: Enabling Air Travel with Oxygen in Europe http://www.efanet.org/wp-content/uploads/2013/09/Enabling-Air-Travel-with-Oxygen-in-Europe-An-EFA-Booklet-for-Patients-with-Chronic-Respiratory-Disease.pdf Recommendation: Sample language from the FAA AC: Medical-Portable Electronic Devices (M-PED), such as automated external defibrillators (AED), airborne patient medical telemonitoring (APMT) equipment, POCs approved by the Food and Drug Administration should be designed and tested in accordance with section 21, Category M, of RTCA/DO-160, current edition. M-PEDs that test within the emission levels contained in this document, in all modes of operation (i.e., standby, monitor, and/or transient operating conditions, as appropriate), may be used onboard the aircraft without any further testing by the operator. Passengers carrying extra batteries for their M-PED should be familiar with the handling instructions described at http://safetravel.dot.gov/. Consider information from InFO SUP: http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info/all_infos/media/2013/InFO13010SUP.pdf
response	Partly accepted. The Agency decided to keep the text in the AMC 'simple' in terms of medical equipment, as stated in paragraph (d)(2)(ii) of AMC2 NCC.GEN.130. However, the Agency will consider providing more detailed information on this issue on its website.

comment	*93* comment by: *FNAM-French Aviation Industry Federation* Regarding the Part "AMC2 NCC.GEN.130", it is noted the following provision in paragraph (d) concerning the use of PEDs in the passenger compartment : *"(3)(ii) In accordance with NCC.OP.140, the use of PEDs should be part of the passenger briefing. The operator should encourage passengers to avoid distraction during such briefings."* Yet, "NCC.OP.140" only mandates a briefing concerning the listed safety equipment and a briefing in case of emergency. However, it is important to brief passenger on their right linked with the use of PEDs but it has to be differentiated from safety procedures. Thus, FNAM is proposing the following change: *"(3)(ii) In accordance with NCC.OP.140, the use of PEDs should be complementary with the passenger safety briefing. The operator should encourage passengers to avoid distraction during such briefings."*
response	Partly accepted. The Agency appreciates this comment. As correctly pointed out by the commentator, the passenger briefing in NCC.OP.140 is limited to safety equipment and to the case of emergency. The Agency, therefore, is of the opinion that giving reference to NCO.GEN.140 related to the use of PEDs would cause confusion. Consequently, the reference to NCO.GEN.140 has been deleted.

comment	*95* comment by: *FNAM-French Aviation Industry Federation* Regarding mobile phone devices Telecom, international standards are already applied to them. They have to follow specific certification process. However, in Part "AMC2 NCC.GEN.130 Portable electronic devices" paragraph (c) of "Procedures for the use of PEDs", it is mentioned that "The operator should identify the safety hazards and manage the associated risks following the management system implemented in accordance with ORO.GEN.200". FNAM is suggesting that no risk assessment should be required individually for each and every mobile phone device as they already comply with Telecom international standards. However FNAM insists on the fact that only mobile telecommunications technologies, such as wifi, bluetooth, 3G and 4G, should be assessed to follow the electromagnetic emission standards in order to avoid interference effects to aircraft systems. In other word, the radiotelecom standard should be assessed and the compliance of the PED with this standard shall imply its conformity.
response	Noted. The Agency is of the opinion that the operator itself should decide how to perform the required hazard identification and risk assessment, following the provisions of paragraph (c) of AMC2 NCC.GEN.130 and in accordance with ORO.GEN.200 of Regulation 965/2012.

comment	*101* comment by: *IATA* AMC2 NCC.GEN.130 (f). As per AMC2 CAT.GEN.MPA.140 (f) PEDs such as temperature data

	loggers are very widely used in cargo shipments, particularly those of pharmaceuticals. For shippers of pharmaceutical products they are required in accordance with the requirements Good Manufacturing Practice (GMP) and Good Distribution Practice (GDP) to be able to demonstrate to regulatory authorities such as the US Federal Drug Administration and the UK Medicines and Healthcare Products Regulatory Agency that when required the products must be maintained within the specified temperature range. To achieve this, the shippers must have an active data logger in each package. To recommend that these be disabled during flight or shielded in metal boxes is unrealistic.
response	Partly accepted. Please note that paragraph (f) of AMC2 NCC.GEN.130 contains the provision 'The operator may permit deviation [from being switched off] for PEDs for which the safe operation has been demonstrated …'.

comment	*122* comment by: *UK CAA* **Page No:** 29 of 43 **Paragraph No:** AMC2 NCC.GEN.130 (d) (3) (i) (B) **Comment:** UK CAA recommends revision of the text as shown below. . **Justification:** To enhance clarity and consistency. **Proposed Text:** "when, ~~which~~ and where PEDs are to be ~~stored~~ **stowed**; and"
response	Accepted. The text has been modified accordingly.

comment	*123* comment by: *UK CAA* **Page No:** 29 of 43 **Paragraph No:** AMC2 NCC.GEN.130 (d) (3) (ii) **Comment:** UK CAA suggests reference to 'NCC.OP.140' should be deleted. We also suggest the text should be expanded to specify when avoidance of distraction is most desirable and provide an example, as shown below. **Justification:** NCC.OP.140 does not include the requirement to brief passengers on the use and stowage of PED's **Proposed Text:** "~~In accordance with NCC.OP.140~~, ~~t~~The use of PEDs should be part of ~~the~~ passenger briefings. The operator should encourage passengers to avoid distraction during **the before take-off ~~such~~ briefing~~s~~, e.g. request removal of headphones."**
response	Not accepted. The Agency is of the opinion that such specific measures ('request removal of headphones') should not be regulated within the present rulemaking task. If needed, the operator may introduce such specifics based on the provisions laid down in AMC2 CAT.GEN.MPA.140, and in CAT.OP.MPA.170 and the associated AMC.

comment	*124* comment by: *UK CAA* **Page No:** 29 of 43

Paragraph No: AMC2 NCC.GEN.130 (d) (3) (iii)
Comment: UK CAA recommends that the reference to 'NCC.OP.135' be deleted and some revised text be added to enhance clarity, as shown below.
Justification: NCC.OP.135 refers to the stowage of baggage and does not contain reference to briefing passengers
Proposed Text:
"~~In accordance with NCC.OP.135 p~~Passengers should be briefed on the operator's procedures concerning the stowage of PEDs. The operator should:
(A) Identify **limitations on the use of certain PED's and the phases of flight during which such devices** are to be stowed; and ~~the phases of flight in which PEDs "~~

response

Partly accepted.

The Agency is taking into account the comment made. However, while paragraph (d)(3)(ii) should be focussed on passenger briefing, this paragraph (d)(3)(iii) should focus on the stowage. The Agency has modified the text as follows: 'In accordance with NCC.OP.135 the operator should establish procedures concerning the stowage of PEDs. The operator should: …'. In addition, to ensure that a logical order is in place (the operator first has to establish procedures concerning the stowage and only then passengers can be briefed), the order of the sub-paragraphs within paragraph (d)(3) has been changed.

comment *125* comment by: *UK CAA*

Page No: 30 of 43
Paragraph No: AMC2 NCC.GEN.130 (d) (4) (i)
Comment: UK CAA recommends that the reference to 'cards' be deleted.
Justification: In order to permit more flexible means of providing safety instructions, e.g. placarded information or inclusion in passenger briefing.
Proposed Text:
"(i) information ~~cards~~ giving safety instructions should be provided to the passengers;"

response

Accepted.

The text has been modified accordingly.

comment *127* comment by: *UK CAA*

Page No: 30 of 43
Paragraph No: AMC2 NCC.GEN.130 (d) (5) (iv)
Comment: UK CAA recommends that the text be revised as shown below.
Justification: To enhance clarity
Proposed Text:
Procedures should be developed for the handing of potential fire and ~~T~~**t**hermal runaway~~s~~ of batteries, in particular lithium batteries, ~~and potential~~ resulting from a malfunctioning device. ~~fire, should be handled properly.~~

response

Not accepted.

Procedures for preventing and handling of fire are laid down in Part-ORO of Regulation 965/2012. These procedures include the handling of a potential fire of PEDs and therefore, do not need to be repeated here. However, the Agency is of the opinion that the special aspect of thermal runaways of batteries in the passenger compartment should

	highlighted in the context of the present rulemaking task, and therefore included the text as proposed.

comment	*128* comment by: *UK CAA* **Page No:** 30 of 43 **Paragraph No:** AMC2 NCC.GEN.130 (d) (5) (vi) **Comment:** UK CAA recommends that the text be amended as shown below. **Justification:** To improve grammar. **Proposed Text:** "When the operator restricts the use of PEDs, **consideration** ~~it~~ should be ~~prepared~~ **given to** handling special requests to operate a T-PED during any phase of the flight for specific reasons (e.g. for security measures)."
response	Accepted. The text has been modified accordingly.

comment	*129* comment by: *UK CAA* **Page No:** 30 of 43 **Paragraph No:** AMC2 NCC.GEN.130 (e) **Comment:** It is recommended that the text be amended to improve readability with regard to the securing of PEDs and introduce the need for procedures for the handling of a potential fire resulting from a malfunctioning device in the flight crew compartment. **Justification:** AMC2 NCC.GEN.130 does not currently include reference to procedures for the handling of a fire caused by a malfunctioning device in the flight crew compartment. **Proposed Text:** "(1) The conditions for the use of PEDs in-flight are specified in the operations manual.~~, otherwise they should be switched off and stowed during all phases of flight.~~ (2) ~~The PEDs do not pose a loose-item risk or other hazard.~~ **There are appropriate means for securing PEDs for all phases of flight.** (3) These provisions should not preclude use of a T-PED (specifically a mobile phone) by the flight crew to deal with an emergency. However, reliance should not be predicated on a T-PED for this purpose. **(4) Procedures for the handling of a potential fire resulting from a malfunctioning device are specified in the operations manual."**
response	Partly accepted. Concerning (1): The text has been modified accordingly. Concerning (2): The Agency decided not to change the text. Concerning (4): Procedures for preventing and handling of fire are laid down in Part-ORO of Regulation 965/2012. These procedures include the handling of a potential fire of PEDs and therefore, do not need to be repeated here.

3. Proposed amendments - Part-NCC - GM1 NCC.GEN.130	p. 31-32

comment	*2* comment by: *PR OnAsset Intelligence*

	(c) typo "pallets"
response	Accepted. The comment is appreciated.

comment	*132* comment by: *FedEx* In GM1 NCC. GEN.130 (c), page 32, the definition of a cargo tracking device does not distinguish when the cargo device is carried for monitoring purposes and when it is carried as a mere "non-monitoring" commodity (switched off - sent back to the customer after a tracking operation). Would such distinction be relevant? Does the fact that a PED is on "monitoring mode" or "non-monitoring mode" make any difference from a regulatory perspective?
response	Noted. Concerning the present rulemaking task on the use of PEDs, the fact that a PED is in the 'monitoring mode' or 'non-monitoring mode' does not make any difference from a regulatory perspective. Please note that GM1 NCC.GEN.130 contains a 'Definition of the switched-off status'. Following the comment, the non-monitoring mode is understood to fall under the switched-off (deactivated) status. However, this may depend on the function of the unit.

3. Proposed amendments - Part-NCC - GM2 NCC.GEN.130 p. 32-33

comment	*10* comment by: *Dassault Aviation* GM2 NCC GEN 130 Portable electronic devices: This Guidance material can be considered out of date regarding all the information contained in AMC2 NCC GEN 130. In order to be consistent with the content , the AMC2 NCC GEN 130 should be renamed "new" GM2 NCC GEN 130 and "old" GM2 NCC GEN 130 deleted.
response	Partly accepted. GM2 NCC.GEN.130 has been deleted. AMC2 NCC.GEN.130 will remain as AMC.

comment	*54* comment by: *Airbus Helicopters* **Major comment** **GM2 NCC.GEN.130** Comment This GM insists on the risks of allowing operation of PEDs on board. It is based on the risks of more limited protection of "*small aircrafts*" against electromagnetic interferences and on possible adverse certification assumptions. Even, not operating PEDs is proposed to be identified as "*the safe option*", whereas it was previously identified as the "*the safest option*". This includes at least 2 inconsistencies:

- NCC does not apply to "*small aircrafts*",
- The proposed policy is not consistent with the introduction of AMC1 NCC.GEN.130, which is identical to AMC1 CAT.GEN.MPA.140 and which proposes 6 scenarios to the operator to qualify PED tolerance.

Rationale for comment
Provided adequate means are available to the operator for assessing the immunity of large aircrafts to PEDs, there is no technical reason for largely allowing the operation of PEDs in a commercial transportation context and not in a non-commercial context.
Suggestion
Remove GM2 NCC.GEN.130.

response

Accepted.

GM2 NCC.GEN.130 has been deleted.

3. Proposed amendments - Part-NCO - GM2 NCO.GEN.125 p. 34-35

comment

14 comment by: *René Meier, Europe Air Sports*

GM2 NCO.GEN.125 (d)
Having read the last sentence we should advise our pilots not to use PED's onboard light aircraft, however this is not reasonable looking at the pure facts of today's light aircraft flight operations.

Rationale:
The use of PED's onboard the kind of aircraft we operate may apparently create unsafe conditions in very rare cases. Considering probability and third-party-risk, risk mitigations measures are the solution: Adequate training, standby instruments, good airmanship are the key-words.

response

Noted.

GM2 NCO.GEN.125 is guidance to make pilots aware of possible safety risks related to the use of PEDs. It is the pilot to decide, based on a risk assessment, to decide whether or not to use PEDs. The Agency agrees with the commentator that the use of PEDs may create unsafe situations only in rare cases. In this context, the message of the last sentence in paragraph (d) is meant being a final statement concerning (one of) the safe option(s).

3. Proposed amendments - Part-SPO - GM2 SPO.GEN.130 p. 36-37

comment

15 comment by: *René Meier, Europe Air Sports*

GM2 SPO.GEN.130 (d)
Having read the last sentence we should advise our pilots not to use PED's onboard light aircraft, however this is not reasonable looking at the pure facts of today's light aircraft flight operations.

Rationale:
The use of PED's onboard the kind of aircraft we operate may apparently create unsafe

	conditions in very rare cases. Considering probability and third-party-risk, risk mitigations measures are the solution: Adequate training, standby instruments, good airmanship are the key-words.
response	Noted. See the response to comment 14.

4. Regulatory Impact Assessment (RIA) p. 38-41

comment	*55* comment by: *Airbus Helicopters* **Major comment** **§ 4.1.1 Safety risk assessment** Comment The analysis first highlights that "*comprehensive electromagnetic testing may not be feasible by an aircraft operator*". Nevertheless, it quickly comes to the conclusion that "*operators need to demonstrate that PEDs do not interfere with on-board electronic systems and equipment*", which is largely implemented in AMC1 CAT.GEN.MPA.140 and other equivalent AMC. This is a complete contradiction. Moreover, among the reasons invoked for the difficulty of assessing the immunity to PEDs by operators, some would equally apply if assessment was done by aircraft manufacturers (e.g. "*dynamic changes in cellular frequency spectrums*", "*huge number of PEDs on the commercial market*" or "*practical impossibility of replicating all possible electromagnetic configurations in a reasonable time*"). Rationale for comment The analysis and conclusions are contradictory. Suggestion A safety risk assessment should be conducted and should refine option 1, especially in terms of technical prerequisites. This would probably lead to eliminate scenario (1) (T-PED tolerance certification) as defined in AMC1 CAT.GEN.MPA.140 and other equivalent AMC, unless standards are identified for PED radio-frequency emission.
response	Not accepted. Indeed, 'comprehensive electromagnetic testing may not be feasible by an aircraft operator'. In such a case the operator has at least two choices: Firstly, it can contact the aircraft manufacturer to clarify the aircraft compliance concerning the use of PEDs. Secondly, it can contact and cooperate with an appropriately experienced entity (this may be the manufacturer or an independent test organisation), capable to perform the necessary tests following the provisions of AMC1 CAT.GEN.MPA.140 and AMC1 NCC.GEN.130. When the tests have been carried out successfully, the operator does not need to consider any further the items raised in the third bullet point of paragraph 4.1.1 in the regulatory impact assessment of NPA 2014-14. Insofar, the Agency does not see a contradiction. However, in the context of a safety risk assessment, it should be noted that the operator has to perform a hazard identification and risk assessment (see paragraph (c) of AMC2 CAT.GEN.MPA.140 and of AMC2 NCC.GEN.130).

comment	*57* comment by: *Christopher Mason* ERA would support Option 1 subject to adequate clarification and guidance as to obtaining the appropriate approvals from OEMs and EASA.
response	Noted.

comment	*65* comment by: *Tim Glasspool* Agree that Option 1 is the most sensible option.
response	Noted. The support of the commentator is appreciated.

comment	*79* comment by: *Fit >Cisl PNC* SOCIAL IMPACT: in the NPA EASA says that "No social impacts, such as impacts on employment, on labour market, on working hours and working conditions are expected for any of the options. However, with permitting the use of T-PEDs (Options 1 and 2) the overall passenger comfort and satisfaction during flight is expected to increase. This holds, although due to the use of T-PEDs, neighbouring passengers may be annoyed. In this latter context, it might be advisable for operators to implement an appropriate procedure concerning voice calls with mobile phones". We think it would be useful instead to consider the safety role perceived by cabin crew members, from the safety briefing time throughout the flight. Focusing on the importance of how to perform a safety briefing, in order that announcements are clear and understood by passengers should remain a priority for cabin crew on board as well as for pilots and their capacity in deliver this mandatory safety education on every standard operation as well as on the emergency occasions, should not be negatively impacted. By feedback received by cabin crew of our union, after the implementation of a new procedure allowing the use of earplugs also during the safety briefing, it is clear the frustration of cabin crew and the not understanding of this new procedure. It is not possible to just consider the extra comfort ?) but it should be mandatory to put forward as a basis and as a priority the reason for providing a safety briefing and it effectiveness. This is also for the psychological benefit of the cabin crew who is on board primarily for safety reasons. The evacuation times could also be negatively impacted, therefore, in addition to the above mentioned, our union envisages also an impact on crew Health and Safety. This should be considered as well.
response	Noted. The safety aspect is covered in paragraph 4.4.1 of the regulatory impact assessment. However, the Agency understands that the use of PEDs as proposed with the present rulemaking task may increase the workload, stress and frustration of the cabin crew. This has

	not been mentioned in the regulatory impact assessment. It is the responsibility of the operator to implement appropriate countermeasures to reduce such possible negative social impact.
comment	*81* comment by: *Bartosz Fibingier* Having in mind that the different European operators will perform the same set of tests on the same devices and the same types of A/C, agency should consider in NPA method allowing one operator to use test results received by the other operators. Additional considerations should be put in place how to group PEDs. The current NPA may be interpreted that exact model of T-PED may be allowed for use only if tested. In effect Operators may be obliged by NAAs to perform test for each single model of device. For example if only iPhone 3 was tested by the operator, NAA may conclude that only iPhone 3 will be allowed to be used in flight in passenger compartment as T-PEDs and other iPhones may not be used. Of course if that is the intention of EASA, it also should be explicitly stated for standardisation reasons.
response	Noted. Indeed, it makes no sense that every operator does a comprehensive electromagnetic testing for each type of PED. However, the operator has three choices: Firstly, it can contact the aircraft manufacturer to clarify the aircraft compliance concerning the use of PEDs. Secondly, it can contact, coordinate and cooperate with other operators which are operating the same aircraft type Thirdly, it can contact an appropriately experienced entity (this may be the manufacturer or an independent test organisation), capable to give the necessary advice and to perform the necessary tests following the provisions of AMC1 CAT.GEN.MPA.140 and AMC1 NCC.GEN.130. The Agency does not see the need to provide additional specific information on this subject, aside from the ones provided, in the envisaged AMC and GM.
comment	*85* comment by: *FAA* Comment: Para. 4.4.3 Under 4.4.3 Social Impact, EASA states that the overall passenger comfort and satisfaction during flight is expected to increase. Recommendation: Amend this paragraph to specifically note that the expanded use of PEDs on aircraft (which includes certain respiratory assistive devices (Medical –Portable Electronic Devices), such as respirators, ventilators and continuous positive airway pressure machines) has a positive social impact in that it increases the accessibility of air travel for passengers with disabilities.
response	Noted. The comment is appreciated. However, the detailed regulatory impact assessment will be provided in the NPA and, under normal circumstances, will not be 'repeated' in detail in a

	follow-up document. It should also be emphasised that the present AMC1 (to be deleted when the present provisions are in place) already contained the following: 'Medical equipment necessary to support physiological functions does not need to be switched off' (see e.g. the present paragraph (b)(2)(i) of AMC1 CAT.GEN.MPA.140).
comment	*86* comment by: *FAA* Comment: Page 41, Para 4.5. Comparison and Conclusion, EASA states that Option 1 will lead to a positive social impact due to an increased passenger comfort and satisfaction, when the permission to use PEDs is handled in an appropriate manner by the operator. Recommendation: Amend this paragraph to specifically note that the expanded use of PEDs on aircraft (which includes certain respiratory assistive devices (Medical–Portable Electronic Devices), such as respirators, ventilators and continuous positive airway pressure machines) has a positive social impact in that it increases the accessibility of air travel for passengers with disabilities.
response	Noted. See the response to comment 85 above.

4. Appendix A - Attachments

FAA PED ARC Appendix E SHOW COMPLIANCE STANDARD FOR INACCESSIBLE PEDS.pdf
Attachment #1 to comment #3

Revised_ Version 2_ Guidance on the Expansion of Use of PEDs On board.pdf
Attachment #2 to comment #133