



European Aviation Safety Agency
Comment-Response Document 2016-16

Appendix
to ED Decision 2017/022/R

RELATED NPA 2016-16 — RMT.0587 — 8.12.2017

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1. Summary of the outcome of the consultation

The European Aviation Safety Agency (EASA) received a total of 164 comments during the public consultation of Notice of Proposed Amendment (NPA) 2016-16. The comments referring to amendments to the implementing rules (IRs) and the related acceptable means of compliance (AMC)/guidance material (GM) are not included in this CRD and will be responded to in CRD 2016-16, Issue 2, which will be an appendix to the related opinion.

82 comments related to the proposed amendments to AMC/GM not affecting the IRs were received from various stakeholders: 27 from competent authorities (CAs), 1 from a manufacturer, 14 from associations, 8 from individuals, 30 from approved training organisations (ATOs), and 2 from a university.

The comments received were reviewed by EASA and the text of the AMC/GM concerned has been amended accordingly. Some of the comments were not accepted due to their controversial nature as this rulemaking task (RMT) addresses only non-controversial issues.

The majority of comments were received on the newly proposed multi-crew cooperation (MCC) training course. According to the comments provided, a new concept has been created and the initially proposed GM1 and GM2 have been replaced by the amended AMC1 FCL.735.A; FCL.735.H; FCL.735.As 'Multi-crew cooperation (MCC) training course', as well as new AMC2, GM1, GM2, GM3 and GM4 FCL.735.A 'Multi-crew cooperation (MCC) training course — aeroplanes'.



2. Individual comments and responses

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

- (a) **Accepted** — EASA agrees with the comment and any proposed amendment is wholly transferred to the revised text.
- (b) **Partially accepted** — EASA either agrees partially with the comment, or agrees with it but the proposed amendment is only partially transferred to the revised text.
- (c) **Noted** — EASA acknowledges the comment but no change to the existing text is considered necessary.
- (d) **Not accepted** — The comment or proposed amendment is not shared by EASA.

3.2. Draft AMC and GM (Draft EASA Decision) — 3.2.1. AMC/GM to Part FCL — p. 21
AMC1 FCL.625(c) IR — Validity, revalidation and renewal

comment	<p>15 comment by: <i>TL Aviation GmbH</i></p> <p>The agency should include the possibility that the hole refresher training can be performed in a FSTD(A) FNPT I/II including the check to regain the IR privileges for the class- or type rating.</p>
response	<p>Not accepted</p> <p>EASA acknowledges your comment and thanks you for your feedback. As RMT.0587 addresses only non-controversial issues, all comments received that are outside the scope of this Decision will be considered separately.</p>
comment	<p>30 comment by: <i>Luftfahrt-Bundesamt</i></p> <p><u>LBA comment:</u></p> <p><u>AMC1 FCL.625 (c):</u></p> <p>In Paragraph (a) (5) shall be added that the FSTD needs to be appropriately equipped for IR Training and checking as this is not always the case (regarding GPS, PBN, etc.)</p> <p>Especially paragraph (d) makes clear that the "non-need" of a refresher training is also to be confirmed by the ATO. A similar paragraph is needed for AMC1FCL.740(b)(1).</p>
response	<p>Not accepted</p> <p>The requirements for appropriately equipped flight simulation training devices (FSTDs) are included in the draft regulation amending Regulation (EU) No 1178/2011.</p> <p>As RMT.0587 addresses only non-controversial issues, all comments received (including the proposal to add a paragraph in AMC1 FCL.740(b)(1)) that are outside the scope of this</p>

Decision, will be considered separately.

comment

44

comment by: UK CAA

Page No: 21**Paragraph No:** AMC 1 FCL.625(c) IR – Validity, revalidation and renewal

Comment: The last sentence in paragraph (a) states ‘The amount of training needed to reach the desired level of competence should increase with the time elapsed since the privileges of the rating were last used.’

We believe that this is too prescriptive, the decision is for the ATO to evaluate and develop a training programme for the applicant. It is likely that the amount of training will increase with elapsed time, but this is not a certainty.

Justification: Proportionality.

Proposed Text: Amend to read as follows:

“The amount of training needed to reach the desired level of competence may increase as required based on any of the factors identified above.”

response

Noted

EASA acknowledges your comment, thanks you for your feedback and agrees that in any case, the need for training should be determined by an ATO.

comment

52

comment by: René Meier, Europe Air Sports

page 21/103

3.2.1. AMC/GM to Part-FCL

Subpart G Instrument Rating

We are convinced that refresher training for maintaining instrument ratings should be possible outside an ATO.

Rationale

Based on our experience we are convinced that an independent FI outside an "organisation" delivers equally good training and that her/his students obtain equal results. we firmly believe in responsible individuals.

response

Not accepted

EASA acknowledges your comment and thanks you for your feedback. As RMT.0587 addresses only non-controversial issues, all comments received that are outside the scope of this Decision will be considered separately.



comment	<p>95 comment by: <i>Finnish Transport Safety Agency</i></p> <p>AMC1 FCL.625(c) point (a)</p> <p>Finland supports the change.</p> <p>Please replace term ‘skill test’ with ‘proficiency check’, as the requirement regards renewal of the IR rating.</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>108 comment by: <i>French DGAC</i></p> <p>As mentioned above in our comment on FCL.625 IR, we suggest replacing the words ‘skill test’ by ‘proficiency check’ in AMC1.FCL.625 (c) IR- (a).</p> <p>We also suggest removing (a) (c) ‘whether the applicant has a current rating on another aircraft type or class’: this phrase has no purpose in the context of an IR.</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>124 comment by: <i>Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)</i></p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Relevant Text: The objective of the refresher training at an ATO is to reach the level of proficiency needed to pass the instrument element of the skill test prescribed in Appendix 9 to Part-FCL.</p> </div> <p>Comment: There are two scenarios when renewing an IR. The first is if the IR has expired less than 7 years ago, which would require a proficiency check after completing the training. The second is if it has expired more than 7 years ago which would require a skill test. Appendix 9 only covers proficiency checks for IR, so the suggested text should be changed for it to be correct.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Proposal: Change wording to “The objective of the refresher training at an ATO is to reach the level of proficiency needed to pass the instrument rating proficiency check as described in Appendix 9, or the instrument rating skill test as described in Appendix 7, as applicable.”</p> </div>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>

comment	<p>150 comment by: <i>Romanian CAA</i></p> <p>The aim of IRs is to standardize the training, among other aspects. The new proposal is too flexible compared with the current AMC and it is against the spirit of standardization meant by the EU regulation.</p>
response	<p>Noted</p> <p>EASA acknowledges your comment and thanks you for your feedback. The performance-based approach focuses on the result that needs to be achieved and not on the means of achieving it. EASA believes that the training organisation determines the level and content of training on a case-by-case basis.</p>
comment	<p>162 comment by: <i>IAOPA(Europe)</i></p> <p>IAOPA (Europe) welcomes and strongly supports this pragmatic, flexible approach to refresher training.</p>
response	<p>Noted</p> <p>EASA thanks you for your feedback.</p>

GM1 FCL.725(e) Requirements for the issue of class and type ratings	p. 22
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comment	<p>62 comment by: <i>The Norwegian Air Sports Federation</i></p> <p>We would like to suggest four amendments of GM1 FCL.700 (list of type or class ratings), to allow for single-engine and multi-engine electric propulsion aircraft covered by the respective SEP/MEP class ratings through differences training (D) and a log book endorsement for each of the four cases.</p> <p>SEE (land) single engine electric propulsion (D) covered by license endorshment SEP (land) SEE (sea) single engine electric propulsion (D) covered by license endorshment SEP (sea) MEE (land) multi engine electric propulsion (D) covered by license endorshment MEP (land) MEE (sea) multi engine electric propulsion (D) covered by license endorshment MEP (sea)</p> <p>Without this facility, the introduction of electric aircraft in flight training and club operations could be significantly delayed.</p>
response	<p>Noted</p> <p>EASA acknowledges your comment and thanks you for your feedback. As RMT.0587 addresses only non-controversial issues, all comments received that are outside the scope of this Decision will be considered separately.</p>



comment	110 comment by: <i>French DGAC</i> We agree that instruction to test technique, when the aircraft is used as an instruction instrument, cannot be equated to development or certification flights in which the testing of the aircraft itself is the point of the flight.
response	Noted EASA thanks you for your feedback.

GM1 FCL.735.A Multi-crew cooperation training course — aeroplanes

p. 22-32

comment	158 comment by: <i>Danish Aviation Association</i> In the Sentence "The enhanced MCC training course should be based on a multi-pilot aeroplane type capable of carrying at least 50 passengers or equivalent mass. The FSTD used should be <u>type-specific</u> , and..." should type-specific be replaced by generic .
response	Not accepted The technical specifications explained further in the text of this GM require type-specific FSTDs; therefore, 'type specific' cannot be replaced by 'generic'. However, an FNPT II MCC may also be used, as explained in the text AMC2 FCL.735.A.

comment	166 comment by: <i>Colin Towle</i> Dear Sir or Madam, As a retired Airline Training Captain who has been instructing on large aircraft since 1987 and delivering MCC Training since its inception by the JAA in 1999, I would like to register my objections to the proposed NPA with respect to pilot training. First, several items have been included in the proposed syllabus which the more enlightened training establishments have been teaching for many years and no objection can be raised to these. I agree that as aircraft become more complex many of the additional training items need to be embraced as specified for Advanced Swept-Wing Training and Advanced Airline-Simulated Operational Training but training in these areas can be adequately given in a generic simulator. Experience has demonstrated that MCC training must not be type specific but must be generic in nature. The aim of MCC training must be to provide future pilots with a base on which they can build, in order that they can apply MCC principles to all types of aircraft that they may experience during their future careers when they will undergo training of many differing aircraft types. If too much time is spent dealing with type specific aspects of aircraft operation rather than laying down the principles that are used by all airlines during multi pilot operations and specified in their SOPs, this will have a negative impact on the industry.
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My major concern is that the NPA has proposed that 40 hours of simulator instruction/testing should be given in a type specific simulator which will make this type of training so prohibitively expensive that most aspiring pilots will not be able to afford it. I would also add that the airline industry has repeatedly failed to sponsor training to adequately provide the predicted numbers of pilots required in the future.

To this end I firmly believe that the use of high specification generic simulators offers the best training route as these devices do not focus on one specific type and expose students to higher speeds and complex aircraft with a higher operating mass than those used during their commercial/IR training. There is no evidence at present to indicate that FNPT2 training devices have not served the aviation industry well and indeed many training organisations have invested heavily in such devices on the recommendations of the authorities who are responsible for training standards.

I have mixed views on the value of issuing grades to students, since those training institutions with low standards are likely to attract business on the grounds that a student will be given a higher grade by them, whilst those organisations who are more diligent in their approach, may find themselves financially penalised by ensuring that fair grades are given to students. However I have had many students who do not have the ability to operate larger aircraft and whilst the NPA suggests that grades will be given, this is counteracted by the statement that all students will receive course completion certificates.

As a former SFI at a TRTO, I suggest that the pass or fail system currently used works well at the TRTO level, whilst those involved in MCC training can advise students on the probability of the successful completion of a type training course.

I believe that further consideration needs to be given to the concepts given in NPA 2016-16.

Yours faithfully

Colin Michael Towle

Lapsed ATPL 209439H and FAA ATP 3070096

response

Noted

EASA acknowledges your comment and thanks you for your feedback. The proposed MCC training to airline pilot standards (APS MCC) is an alternative to the conventional MCC course. In both cases, a student will receive a course completion certificate. Students that achieve the final competency standard at the end of the APS MCC course, are issued a course completion certificate that indicates the successful achievement of the course. If the standard is not achieved, a conventional MCC certificate must be issued. The proposal is supported by the majority of industry, and is believed to better prepare aspiring airline pilots for their first airline job. EASA will monitor the implementation of APS MCC through its ex post evaluation process.

comment

18

comment by: *Icelandic Flight Academy*

Icelandic Flight Academy has an ALSIM ALX generic Medium Jet Model EASA Certified for its



MCC program, including a non-regulated JOC (Jet orientation course). If an enhanced MCC training program will be implemented by EASA, following text will render the FSTD unusable for MCC;

*EASA NPA: "The FSTD used **should be type-specific**, and additionally equipped with a visual system that provides at least 180° horizontal and 40° vertical field of view. In the case of advanced swept-wing practical training, an FSTD representing a swept-wing multi-engine turbine-powered aeroplane should be used."*

Icelandic Flight Academy suggests therefor to change wording; " *The FSTD used should be type-specific...*" to "*The FSTD used should **either be generic jet or type-specific...***", thus allowing FSTD's which is also generic jet model to be used in training.

Also the following text is in Icelandic Flight Academy opinion to be restrictive for flight training in this field; " *The final progress assessment should be conducted to the satisfaction of a TRI (MPA) or SFI (MPA) appointed by the ATO.*". MCC is not an rating, though an requirement for pilots first type rating and therefor the current text is restricting ATO's to use TRI(MPA)'s and SFI(MPA)'s only.

Icelandic Flight Academy suggests therefor to change wording; "*The final progress assessment should be conducted to the satisfaction of a TRI (MPA) or SFI (MPA) appointed by the ATO.*" to "*The final progress assessment should be conducted to the satisfaction of a TRI (MPA), SFI (MPA) **or MCCI**, appointed by the ATO.*". In this case, an experienced MCCI who has also the ATO's approval for enhanced MCC training, can perform the progress assessment.

response

Accepted

The text has been amended accordingly.

comment

29

comment by: Luftfahrt-Bundesamt

LBA comment:GM1 FCL.735.A:

In the 4th paragraph it is mentioned to use a FSTD. For better clarity it is necessary to say FFS. The given requirements for a FSTD are only applicable to FFS.

It is also necessary to require a collimated visual system as this kind of visual system gives both pilots the same view which will result in better MCC training.

Also in the 4th paragraph it is written "...the same minimum standard of FSTD representing the same Aeroplane should be used..." The intention of this sentence is not clear and needs more clarification.

response

Accepted

The text has been amended accordingly.



comment	<p>53 comment by: <i>René Meier, Europe Air Sports</i></p> <p>page 23/103</p> <p>Table 1A APS Training Course...</p> <p>Question: What does "APS" mean? We did not find it in GM1 ARA.GEN.105</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>54 comment by: <i>René Meier, Europe Air Sports</i></p> <p>page 30/103</p> <p>Table 2 Core Competences</p> <p>Column 1: Is "competence" the best possible term? Is e.g. "aircraft flight path mgmt automation" or aircraft flight path mgmt manual" competencies? We would prefer "activity"...</p> <p>Rationale</p> <p>Our wording fits better. It is not easy to correctly transpose "competence" in several of the European languages as cultural differences exist. Using "activity" would make the task easier we think.</p>
response	<p>Not accepted</p> <p>Whilst EASA understands your observation, the use of the word 'competency' is the industry norm when describing a pilot's attribute or ability to be displayed in the stated subject.</p>
comment	<p>64 comment by: <i>Ryanair ATO</i></p> <div style="border: 1px solid black; padding: 10px;"> <p>Comment:</p> <p>Recommendation to change the terminology 'swept-wing' to 'swept-wing jet aircraft'</p> <p>Recommended Text Change:</p> <p>An MCC training course may be enhanced by including advanced swept-wing jet aircraft training and airline operational training to better equip a pilot with the knowledge, skills and attitudes required to commence initial type rating training to the standards required by a commercial air transport (CAT) operator certified in accordance with Regulation (EU) No 965/2012.</p> <p>The enhanced MCC APS consists of:</p> <p>The content of the Multi-crew cooperation training course as set out in FCL.735.A</p> <p>Advanced swept-wing jet aircraft training</p> </div>

Advanced airline- simulated operational training**Final Progress assessment**

An ATO may provide generic stand-alone or CAT-operator-specific MCC training, advanced swept-wing jet aircraft training and airline standard operational training.

response

Accepted

The text has been amended accordingly.

comment

65

comment by: *Ryanair ATO***Comment:**

Text change

Recommended Text Change:

The entire content of the enhanced MCC training course should be based on a multi-pilot aeroplane type capable of carrying at least 50 passengers or equivalent mass. The FSTD used should be type-specific, and additionally equipped with a visual system that provides at least 180° horizontal and 40° vertical field of view. The same minimum standard of FSTD representing the same aeroplane should be used throughout the practical exercises.

In the case of advanced swept-wing jet aircraft practical training, an FSTD representing a swept-wing multi engine jet multi-engine turbine-powered aeroplane should be used. Otherwise, the same minimum standard of FSTD representing the same aeroplane should be used throughout the practical exercises.

response

Accepted

The text has been amended accordingly.

comment

66

comment by: *Ryanair ATO***Comment:**

Text change

Recommended Text Change:

INSTRUCTORS PROVIDING ADVANCED SWEEP-WING JET TRAINING AND AIRLINE OPERATIONAL TRAINING



The minimum qualification level of an instructor to deliver the enhanced MCC training should be an MCC instructor (aeroplane) (MCCI(A)) stand-alone APS training course provided that the ATO ensures that before an MCCI delivers the advanced swept-wing jet handling or simulated-airline-operations training elements, they have satisfactorily completed appropriate specific-handling, systems and technical-instructor training under the instruction of a synthetic flight instructor (SFI) MPA or type rating instructor (TRI) MPA

response

Accepted
The text has been amended accordingly.

comment

67

comment by: *Ryanair ATO***Comment:**

Standardised terminology must be maintained across all regulation. In this NPA the wording relating to Competencies is different to those defined in EBT framework of competencies, competency descriptions that EASA are employing elsewhere in regulation. Reword the NPA to follow EASA adopted IATA/ICAO terms.

For example, IATA standard refers to 'Competencies', 'Competency' and 'Competency description'.

The NPA refers to 'Core Competences', 'Competence' and 'Competence Description'.

Recommended Text Change:

COURSE DESIGN AND CORE COMPETENCES COMPETENCIES

response

Accepted
The text has been amended accordingly.

comment

68

comment by: *Ryanair ATO***Comment:**

Recommend text change for clarity.

Recommended Text Change:

The progress assessment should assess the student's pilot's flying and monitoring knowledge, skills and attitudes in both Pilot Flying and Pilot Monitoring roles.

response

Accepted
The text has been amended accordingly.



comment	<p>69 comment by: Ryanair ATO</p> <p>Comment:</p> <p>Minor text change</p> <p>Recommended Text Change:</p> <p>Practical-training and progress assessments should be conducted to ensure that the student pilot has demonstrated the desired required level of competence set for each core competence competency, as described in FCL.735.A Multi-Crew Cooperation Course (c) and in Tables 1B – 1D and 2 below.</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>70 comment by: Ryanair ATO</p> <p>Comment:</p> <p>Minor text change</p> <p>Recommended Text Change:</p> <p>A student pilot who has successfully reached the required competences level of competency at the final progress assessment of the practical training should be awarded an MCC course completion certificate which specifically states that the course was delivered to enhanced MCC standards in accordance with this GM.</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>71 comment by: Ryanair ATO</p> <p>Comment:</p> <p>Consider including a separate Enhanced MCC (APS) certificate in the GM that states in the ‘Training’ section that “Advanced Multi-crew co-operation training to Airline Pilot Standards in accordance with GM1& GM2 to FCL.735.A”</p> <p>Recommended Text Change:</p> <p>N/A</p>
response	<p>Partially accepted</p> <p>Thank you for your comment.</p> <p>The existing form has been slightly amended to include the option to distinguish between</p>

the two newly inserted AMC. New text has been inserted to partially meet the suggestion.

comment

72

comment by: *Ryanair ATO***Comment:**

A student not meeting the competencies standards required in the Enhanced MCC (APS) programme shall be issued with a CERTIFICATE OF COMPLETION OF MCC-TRAINING as required in AMC1 FCL.735.A

Recommended Text Change:

Regardless of the standard achieved and stated in the final progress assessment, a student who completes the course is entitled to, and should be issued with, a course completion certificate in accordance with FCL.735.A(c).

response

Accepted

The text has been amended accordingly.

comment

73

comment by: *Ryanair ATO***Comment:**

Consider whether duplication of Table 1A is required in the GM1 FCL.735.A or should be referred to in its current location AMC1 FCL.735.A.

Table 1A does not match the content of the table in AMC1 FCL.735.A. There are a number of text & content differences. Consider that the text & content within the table should be identical.

If the table remains in the new GM the Practical Exercises column in Table 1A in GM1 FCL.735.A needs to be merged to apply to each Competency included in the table.

Recommended Text Change:**TABLE 1A — APS TRAINING COURSE CONTENT AND PERFORMANCE INDICATORS****APS TRAINING COURSE CONTENT AND PERFORMANCE INDICATORS****BASIC APS CONTENT AND PERFORMANCE INDICATORS**

The basic APS content and performance indicators shall comply with FCL.735.A Multi-Crew Cooperation Course.



response

Accepted
The text has been amended accordingly.

comment

74

comment by: *Ryanair ATO***Comment:**

In column 'Performance Indicators' change references to recommended text change content below.

Recommended Text Change:

a) Display competence in the CRM-related core competencies (see FCL.735.A Multi-Crew Cooperation Course and in GM1 FCL.735.A Tables 1B – 1D and 2).

response

Accepted
The text has been amended accordingly.

comment

75

comment by: *Ryanair ATO***Comment:**

Change title of table to recommended text below.

Recommended Text Change:

ADVANCED SWEEP-WING JET FLYING TRAINING APS CONTENT AND PERFORMANCE INDICATORS

response

Not accepted
The title of the table cannot be changed as its text has been amended.

comment

76

comment by: *Ryanair ATO***Comment:**

In the column titled Practical Exercises the following text change is suggested

Recommended Text Change:

(i) Recovery techniques from developed upsets, including stall events (appropriate to FSTD limitations and capabilities).



response

Accepted
The text has been amended accordingly.

comment

77

comment by: *Ryanair ATO***Comment:**

Standardised terminology must be maintained across all regulation. In this NPA the wording relating to Competencies is different to those defined in EBT framework of competencies, competency descriptions that EASA are employing elsewhere in regulation. Reword the NPA to follow EASA adopted IATA/ICAO terms.

For example, IATA standard refers to '**Competencies**', '**Competency**' and '**Competency description**'.

Recommended Text Change:

Competence Competency

Competence Description Competency Description

response

Accepted
The text has been amended accordingly.

comment

78

comment by: *Ryanair ATO***Comment:**

Include in all appropriate sections the term "Swept-wing jet"

Recommended Text Change:

MCC ADVANCED SWEPT-WING JET, AIRLINE STANDARD THEORETICAL AND SIMULATED OPERATIONAL TRAINING

In table: ADVANCED SWEPT-WING JET TRAINING ---- 12 hours

response

Accepted
The text has been amended accordingly.

comment

112

comment by: *French DGAC*

On page 24, in Table 1A column "Practical exercises" we suggest :

- In (d) (3), (d) (4) and (d) (5) replacing 'precision approach' by '**3D operations**';
- In (7) replacing 'non-precision and circling approaches' by '**2D operations and circling**' ,
- and removing (11) LVOs.



response	<p>We also suggest that this GM (along with GM2 FCL.735.A) should be classified as an AMC, so that it can be directly enforced by operators and authorities.</p> <p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>128 comment by: <i>Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)</i></p> <p>Relevant Text: New GMs related to enhanced MCC</p> <p>Comment: We do not see the purpose or need to include these GMs in FCL. The completion of an enhanced MCC course is not required anywhere else in the rules in question, nor is such a course referred to in any other way.</p> <p>If an ATO would like to offer this type of course we have no possibility to perform oversight as it is solely based on a GM and we cannot raise a finding against a GM.</p> <p>If it really is needed to enhance the MCC course to better equip students for an airline career, the MCC itself should be changed and written as an AMC.</p> <p>Proposal: Remove the text.</p>
response	<p>Partially accepted.</p> <p>Thank you for your comment.</p> <p>The GM has been upgraded to AMC level to better facilitate oversight.</p>
comment	<p>130 comment by: <i>ALSIM Simulateurs</i></p> <p>As a FSTD manufacturer Alsim may not be the most competent organisation to comment on the content of this APS program, however our 22 year experience in the field of FSTD and ab-initio training worldwide gives us a quite good overview of the industry of pilot training, specifically in the field of small to medium sized ATOs.</p> <p>Firstly Alsim agrees on the need to design a more advanced initial training for airline pilots in order to better prepare pilots to enter a type rating course. For many years now, we have seen the increase of the Jet Orientation Courses (JOC) provided by ATOs. These JOCs, as non approved programs, are not subject to control nor supervision by the aviation authority. It means content of these courses are not subject to approval and the FSTD is not required to be certified. Such situation obviously leads to various and non standardised quality in the training and in some circumstances could potentially lead to negative training. Detailed content of the APS syllabus will not be commented by Alsim, however we would like to draw</p>

your attention to one of our biggest concern on this NPA, i.e, **the requirement for type specific simulator.**

Alsim view the type specific requirement should be avoided for the following reasons:

1) Economical reasons:

From an ATO perspective:

Most of ATP training and MCC/JOC courses are today provided by small ATOs. Most of these small ATOs are equipped with generic FNPT II MCC devices representing either turboprop or turbojet aircraft. Although presented as a Guidance Material at this stage, we believe this APS could become the next requirement for pilots to get an airline job. Thus,requiring specific FSTD for this APS (shall we we understand FNPT II MCC + FTD2 i.e the upcoming FTD3?) would require these ATOs to upgrade their equipment, without which they risk to be pushed out of the market.

Today, the offer for MPA CS25 type specific FSTD that can meet FNTP II MCC + FTD 2 requirement is very low (3 to 4 providers) plus the obligation to use datapackage that lead very high price compared to generic FNPT II MCC. We estimate that the average price of such a device on the market is approximately two or three times more than a generic product. This investment is way above the capacity of many ATOs which provides MCC today and requires huge amount of MCC students to consider possible return on investement.

In addition, the choice of the aircraft type (most likely between A320 or B737) might reduce the potential market of the ATOs and their connection with airlines. Generic FSTD allows the ATO (end their trainees) easier access to connect with various airlines independently of their aircraft fleet. We need to keep in mind that many ATOs are feeding airlines using various type of aircraft (regional jet and turboprop for example).

From manufacturer perspective:

As an FSTD manufacturer, we do not believe it will be possible to offer a product (let say A320 or B737 replica) below the current average price of the market for the following reasons.

Compared to actual generic MCC devices:

- additional cost due to use of aircraft genuine parts to be satisfactory (throttles, controls)
- additional complexity due to aircraft system to be 100% functional even if not used to acheive the MCC learning objectives.

- aircraft manufacturer data package and licence fees.Amongst these additional costs, the most concerning one is the data package and replica fees required to be both qualified and in good standing with aircraft manufacturer intellectual property policies. Some specific FSTD manufacturers, to reduce the cost of their device, do not provide the data package to the end user, living the responsibility to the operator. This is clearly a grey area that needs to be addressed. At this stage, for example, some manufactruer are not offering any replica fees for FSTD manufacturer that would like to replicate their aircraft, the only solution is using comprehensive but expensive data package.



2) Technical reasons:

In addition to what is mentioned in the point above, the FTD 2 will require to simulate much more complex systems where it could be simplified in the FNPT II level such as FMC, Flight Controls Computer, Flight envelop protection etc.. On general point, the FTD2 level is much more complex to obtain and so will in turn increase development cost and consequently the final price of the FSTD.

3) Training reasons:

We believe that the training objectives listed in the APS can be achieved through the use of generic devices. This opinion is shared by many operators Alsim is working with. Alsim is gathering testimonials from well known, established ATOs who are feeding airlines with pilots. According to these ATOs, the use of type specific FSTD is not a requirement to achieve the training objectives of the APS and more generally to provide competent first officer to airlines.

Here are the list of ATOs and company involved with flight training supporting Alsim's comment:

- Billund Air Center: "We here at Billund Air Center strongly support Alsim comment to NPA 2016-16." Jakob Bjerre Jorgensen, CM, FSTD & Safety Manager
- Malta School of Flying : "We fully support Alsim's comment"
- Skies Aviation Academy : "We strongly agree with your comment", Christos Samaras, Accountable Manager
- European Pilot Academy: "We fully support your letter", Sarah Zarb, Falcon Alliance Group CEO
- Cognitive Technologies and Services : "I Rosario Cannavo', Cognitive Technologies and Services' General Manager, state that the Company that I represent agrees with the letter that Alsim is publishing regarding NPA 20-2016", Rosario Cannavo, General Manager
- Cannes Aviation Academy, "We strongly support your comment to NPA 2016-16 as stated in your letter", Mathieu Di Costanzo, CEO
- Air Kufra, "Air Kufra finds itself in complete agreement with your letter and grants it its full support", Cptn. Suleiman Essakak, Quality and Safety Manager
- Stapleford, "I am happy for you to register our total opposition within your response", Colin Dobney, Head of Training Stapleford Flight Center,
- Smart Aviation, Mateusz Działyński, CEO, HT
- JetEXE Aviation: "We support your comments and letter.", Augustine Joseph, CEO
- Aviator Flight Center : "We do accept to mention our company in your letter", Nicos Kountouris, Accountable Manager
- GAir Training Center, Ricardo Freitas, Executive Director, Head of Training, Board of Directors



- OMNI Aviation Group, "I support ALSIM's position on NPA 2016-16.", Joaquim Oneto, HOT
- Aviomar, Cpt. Michele Marano, Safety and Compliance Manager
- Montair Aviation: "Montair Aviation agrees with your position", Ian Kennedy, Chief Operating Officer
- Airpull Aviation: "Of course you can use our name", Javier S. Garcia Sanz
- Airways College: "We fully support Alsim's comment", Philippe Borghini, CEO
- Atlantic Aviation Academy: "we totally agree with your comment", Oytun Bilgen, Deputy General Manager, Compliance Monitoring Flight Training & Operation
- QuAero: "We fully support your comment", Capt. Alan Muscat, Company Director
- Skies Airline Training: "I agree with your statement.", Jan Redmo
- Inter American University of PR: "I completely support ALSIM position", Jorge E. Calaf, CFI Dean of School University
- AEROTEC : "Your economic concerns are fully supported from our perspective", Tomas Marqués, Director
- Aviation Training School: "we support Alsim's position with regard to this NPA", Vialin Jean Bernard Mourad, General Division
- Airlink Flight Training: "I fully support your comments and ALSIMs position on the use of type specific simulators", Stefan Kubinski, Accountable Manager
- Italian Air Force: "I support the attached letter", L.Col Andrea RADICCHI Italian Air Force
- SMATSA Aviation Academy: "we agree with you and we support your comment", Ivan Edelinski, Chief Flying Instructor
- Pelican Flight Training and Riga Aeronautical Institute, Anna Stepanova
- Tromsø School of Aviation: "University of Tromsø School of Aviation support Alsim's view on this issue", Terje F. Olsen, Accountable Manager
- Ayjet Anatolian Stars: "Hereby, AYJET agree with Alsim and support their comment on NPA", T. Orkun Ozdelice, FSTD responsible
- Malta School of Flying: "Malta School of Flying we are in full agreement with Alsim and QuAero on this issue", Patrick Fenech, Accountable Manager

response

Accepted

The text has been amended accordingly.

comment

135

comment by: AFA-Atlantic Flight Academy

Dear Sirs,

As AFA-Atlantic Flight Academy, we are providing MCC and Airbus Industrie A320 Type



Rating Course for more than 4 years. Our MCC course is being conducted on an FNPT-II/MCC Device and we are supporting the MCC phase with an in-house developed Standard Operation Procedure document which prepares the candidates from A320 Type Rating Training.

In case, the use of Type Specific simulators for MCC Training will be compulsory, this will affect the Training Organizations, and their commercial agreements negatively. Considering the small organizations running this business with an FNPT-II/MCC device, we do believe that, the FNPT-II /MCC devices are well fit when the training includes a type oriented approach which can be easily done using a documented SOP.

As AFA, we have positive commercial agreements with major airlines in Turkey, including Turkish Airlines and Atlasglobal Airlines and the agreed programs include MCC well. From the investment point of view and considering the world economy, the Training Organizations will not be managing to utilize a type specific device. This will also require a large amount of MCC students for a possible return on investment.

We thank you for your time and considerations.

Kindest regards,

AFA-Atlantic Flight Academy

response

Accepted

The text has been amended accordingly.

comment

136

comment by: *TOMAS MARQUES, AEFA/AEROTEC*

Actual Wording:

"The enhanced MCC training course should be based on a multi-pilot aeroplane type capable of carrying at least 50 passengers or equivalent mass. The FSTD used should be type-specific, and additionally equipped with a visual system that provides at least 180° horizontal and 40° vertical field of view. In the case of advanced swept-wing practical training, an FSTD representing a swept-wing multi-engine turbine-powered aeroplane should be used. Otherwise, the same minimum standard of FSTD representing the same aeroplane should be used throughout the practical exercises."

Considerations:

Including the word "type" in the phraseThe FSTD used should be **type-specific**..... might lead to confusion when Certifying MCC devices.

The same applies for the acronym "TRI" that leads for a specific TYPE (of Aircraft) Rating Instructor, thus, forcing devices previously designed for MCC courses out of the scope, even if designed to be "similar" to commercial jets with similar mass, operational speeds and cockpit layouts specifications.

Requiring Type Rated devices for MCC courses, will render the full definition of specific MCC



regulation totally useless, since market demand and prices will be skyrocketed to Full Flight simulators, and its prices.

Actual regulation already implies the previous or current knowledge of actual MCC-Instructors, (even if not on a certain "type") and already includes specific FNPT-II-MCC device training previous to their MCC-I certificate. We see no need for this upgrade in the requirements to "Type"

Same applies to the requirements of MCC-I and the need for a TRI/SFI to validate their knowledge. It might be the case they are MCC-I and TRI in other "Type". Nonsense.

Proposal:

1.- Stablish a more detailed set of requirements, but AVOIDING to include the word TYPE (or acronyms containing it) along any of the text of the related paragraphs.

and/or

2.- Specify the performances and other requirements of the devices, stating "SIMILARITY to" the desired type of aircrafts. Same applies to the requirements of MCC-I and the need for a TRI/SFI to validate their knowledge.

response

Accepted

The text has been amended accordingly.

comment

137

comment by: *smartaviation*

Pilots apply for a job at different airlines companies with one goal - to fly turboprop or jet. Choosing MCC on specific type of airplane like B737 or A320 discriminates other types of airplanes. Student pilot must learn SOP and use of basic systems which are common for all swept-back wings jets. Generic simulators like Alsim ALX are perfect devices because help student pilots to become familiar with all the systems and do not limit them to specific type like B737 or A320. Students who complete such enhanced MCC training with generic device will have basic SOP and AGK knowlegde which is perfectly enough to apply for a job at airline company. Type-specific simulator is used during type rating. EASA should not treat MCC like a part of TR because it is a completely different training. Type-specific simulators are are very expensive and most ATO cannot afford to buy such device. Besides most pilots who complete their MCC/JOC training on generic simulator, apply succesfully for a job at airlines companies. Worth to mention that LOT Polish airline company provides MCC traning on Alsim ALX FSTD. The reason is that company has different types of airplanes in its fleet like boeing, embraer and dash so providing MCC/JOC on specific type would be totally pointless in that case.

response

Accepted

The text has been amended accordingly.



comment

138

comment by: Luis Entrol

Attachment #2, (see **Attachments**)

Type Specific FSTD clarification

A FNPT II MCC certified FSTD based on a multi pilot aeroplane, twin turbofan with over 50 passengers (i.e. A320, B737, CRJ, etc) that:

- * The cockpit configuration is same as the reference aircraft
 - * Tests flights have been performed on the reference aircraft to obtain validation data for FNPT II MCC certification
 - * Allows to follow the aircraft manuals in normal and emergency procedures
- Can be considered a type specific FNPT II MCC? as per page 138 of CS-FSTD-A

[extract from regulation] AMC3 FSTD (A).300

(b) Design Standards

Two sets of design standard are specified within CS-FSTD(A): FNPT I and FNPT II, the more demanding of which is FNPT II.

(1) Simulated aeroplane configuration

Unlike FFS devices, FNPT I and FNPT II devices are intended to be representative of a class of aeroplane (although they may in fact be type specific).

If it cannot be considered type specific, what would be the requirements for a FSTD/FNPT II MCC to be Type Specific?

response

Accepted

The text has been amended accordingly.

comment

141

comment by: IATA

Comments on NPA 2016-16, GM1 & 2 FCL.735.A

ENHANCED MCC TRAINING TO AIRLINE PILOT STANDARDS (APS), page 22-35 (RMT.0587)

The APS is basically a good idea for filling the gap between the requirements of the traditional, stand-alone, integrated (frozen) ATPL and the challenges to successfully act as civil aviation transport pilot in a multi-crew transport category airplane as long as ab-initio training for future CAT pilots can be conducted without the active involvement of CAT operators.

Nevertheless, the material contains inconsistencies which should be rectified to avoid confusion.

Core Competencies

The entire new GM to FCL.735.A (proposal) should be aligned with the outcome of RMT.0599



Evidence Based Training and Competency Based Training, which develops EBT-rules including AMCs and GM based on the state-of-the-art definitions of the 9 pilot competencies and associated observable behaviors (OBs). The publication of the respective NPA is planned for the 2.Q 2017, expecting the availability of an opinion in the 4.Q 2017.

Furthermore, the proposal should be in line with the principles of the *Adapted Competency Model* published by ICAO SL 12/48 – 16/35 on 9 September 2016.

response

Accepted

The text has been amended accordingly.

comment

142

comment by: IATA

A) new GM1 FCL.735.A

The instructor qualification requirements should be SFI or TRI for the training modules Advanced Swept-Wing Training and Advanced Airline-Simulated Operational Training because the training content of these phases is similar to the objectives of type rating training and operator conversion training (OCC).

It should be assured that instructors delivering the enhanced MCC have received training on the application of the core competencies and competency based training.

The “contractual agreement” mentioned in the third paragraph of GM1 should be consistent with the “specific arrangement” between operator and ATO already described for MPL training programs (see new GM1 to Appendix 5 Integrated MPL training course (d), which is also part of NPA 2016-16)

The COURSE DESIGN AND CORE COMPETENCES paragraph which mostly deals with progress assessment is confusing.

Example: “Progress assessment should assess the student pilot’s flying and monitoring knowledge, skills and attitudes.... progress assessments should be conducted to ensure that the student pilot has demonstrated the desired level of competence set for each core competence, as described in Tables 1A–1D and 2 below.”

1) This is not in line with the language of neither RMT 0599 nor with ICAOs *Adapted Competency Model*

2) The reference to Tables 1A – 1D and 2 (the EBT Competencies) is confusing because Table 1B, 1C and 1D do not contain core competencies, they contain training tasks.

All Tables

Should be in line with future ICAO nomenclature;

The tables should be rearranged, brought in line with the outcome RMT.0599 nomenclature and the mentioned State Letter and harmonized between each other.

For instance the designator for the second column should read “Observable Behavior” instead of “Performance Indicator”. Performance indicators need to include a standard



statement and a condition statement.

Table 1A is obsolete because:

1) it is contained in current AMC1.FCL.735.A (c)

2) all items are covered in Table 2:

core competencies and respective observable behaviors (a) – (e) are repeated in Table 2 and the “core competencies” (f) – (n), which are no competencies but more or less complex tasks, are covered by the observable behaviors of the 9 core competencies in Table 2 as shown in the following table:

Competency/Task	EBT Competencies and respective Observable Behavior
(f) Active pilot monitoring	<p>WLM</p> <p>Reviews, monitors and cross-checks actions conscientiously</p> <p>AFM-Manual</p> <p>Effectively monitors flight guidance systems, including engagement and automatic mode transitions</p> <p>AFM-Auto</p> <p>Effectively monitors automation, including engagement and automatic mode transitions</p> <p>COM</p> <p>Asks relevant and effective questions and offers suggestions</p>
(g) Task sharing	<p>LTW</p> <p>Understands and agrees with the crew’s role and objectives</p> <p>Involves others in planning and allocates activities fairly and appropriately to abilities</p> <p>WLM</p> <p>The entire set of OBs</p>
(h) Use of checklist	<p>AOP</p> <p>Identifies and applies all operating instructions in a timely manner</p> <p>COM</p> <p>Ensures the recipient is ready and able to receive information</p> <p>Conveys messages and information clearly, accurately, timely and adequately</p>

(i) Briefing	<p>AOP</p> <p>Follows SOP's unless a higher degree of safety dictates otherwise</p> <p>COM</p> <p>Ensures the recipient is ready and able to receive information</p> <p>Conveys messages and information clearly, accurately, timely and adequately</p> <p>Confirms that the recipient correctly understands important information</p> <p>Listens actively, patiently and demonstrates understanding when receiving information</p>
(j) Flight management	<p>SAW</p> <p>All observable behaviors (OB)</p> <p>WLM</p> <p>All OB</p> <p>AFM-Auto</p> <p>All OB</p> <p>AFM-Manual control</p> <p>All OB</p>
(k) FMS use	<p>AOP</p> <p>Correctly uses aircraft systems, controls and instruments</p> <p>Safely manages the aircraft to achieve best value for the operation, including fuel, the environment, passenger comfort and punctuality</p> <p>SAW</p> <p>All OBs</p>
(l) System normal operation	<p>AOP</p> <p>Follows SOPs unless a higher degree of safety dictates otherwise</p> <p>KNO</p> <p>Demonstrates practical and applicable knowledge of limitations and systems and their interaction</p> <p>SAW</p>

	Is aware of the state of the aircraft and its systems
(m) Systems abnormal and emergency operation	<p>AOP</p> <p>Follows SOPs unless a higher degree of safety dictates otherwise</p> <p>PSD</p> <p>All OBs</p> <p>SAW</p> <p>Is aware of the state of the aircraft and its systems</p> <p>Identifies threats to the safety of the aircraft and people and takes appropriate action</p>
(n) Environment, weather and ATC	<p>KNO</p> <p>Demonstrates knowledge of the physical environment, the air traffic environment including routings, weather, airports and the operational infrastructure</p> <p>Knows where to source required information</p> <p>COM</p> <p>Ensures that the recipient is ready and able to receive information</p> <p>Conveys messages and information clearly, accurately and concisely</p> <p>Confirms that the recipient correctly understands important information</p> <p>Adheres to standard radiotelephone phraseology and procedures</p> <p>SAW</p> <p>Identifies and assesses accurately the general environment as it may affect the operation</p>

The right column of Table 1A “Practical Exercises” should be aligned with the terminal training objectives, -elements and –sub elements listed in the existing FCL GM1 to Appendix 5 (g) to (n). This list derives from ICAO Doc. 9868 PANS TRG, which contains a valid set of training objectives.

Table 1B

In the column “Performance Indicators” (a) *Display competence in the CRM-related core competencies (see Tables 1A-1D and 2)* is confusing because only Table 1A and Table 2

contain Core competencies.

tables 1C and 1D stipulate training tasks in the first column

the term CRM-related core competencies needs further explanation

Table 1C

“Advanced swept wing flying training”: Table not necessary and should be omitted because Performance Indicators and Practical Exercises are covered by existing FCL GM1 to Appendix 5 (g) to (n) and should be referred to (please refer to the comment to Table 1A, above).

Table 1D

“Airline oriented and operational training”: Is meaningful, but could be shortened because substantial parts of it are covered by existing FCL GM1 to Appendix 5 (g) to (n) and should be referred to (please refer to the comment to Table 1A and Table 1C above).

response

Partially accepted

The text has been largely amended to address the majority of the comments. With regard to the alignment of the MCC-related practical exercises with the multi-pilot licence (MPL) practical exercises, EASA decided to keep the exercises unchanged for the time being to avoid an adverse impact on the already approved conventional MCC courses. However, EASA will consider aligning both courses under a future RMT. As the content of the comment is outside the scope of this Decision, it will be considered separately.

comment

144 comment by: IATA

Recommendation

To design a consistent enhanced MCC training course it is recommended to only use the core competencies stipulated in Table 2 along with the proposed set of training objectives from GM1 to Appendix 5 (g) to (n).

response

Partially accepted

The text has been amended accordingly.

comment

145 comment by: IATA

Further deliberations

Based on the reasoning that:

1. an OCC can be combined with a type rating and
2. MCC training can be combined with a type rating,



it should be considered to conduct enhanced operator-specific MCC training under the responsibility of the operator, who may sub-contract the entire course or parts of it to an ATO, governed by a specific arrangement.

This would offer the opportunity for operators in cooperation with the ATO do design their specific OCCs taking into account MCC enhancements.

This would allow crediting of the enhanced MCC course for the OCC.

To facilitate this ORO.FC.220 needs to be amended accordingly.

response

Noted

This suggestion is catered for in the existing text that describes the relationship between an operator and an ATO. Operator conversion course (OCC)-related training is not required if an enhanced APS MCC is combined with a type rating in an ATO without a relationship with an operator.

comment

163

comment by: *IAOPA(Europe)*

IAOPA (Europe) notes that the Agency considers that the scope of NPA 2016-16 is limited to the correction of editorial errors and the addressing of non-controversial issues raised by EASA itself or stakeholders. Accordingly, no Impact Assessment has been included in the NPA.

We consider that the Agency should clarify the intention of GM1 FCL.735.A and GM2 FCL to make it abundantly and unambiguously clear that this is an optional alternative for enhancing an MCC course to standards and levels appropriate for CAT operation and is not to be taken as a mandatory requirement for existing MCC course providers who elect not to choose this option.

response

Noted

EASA acknowledges your comment and thanks you for your feedback.

The new APS MCC course serves as an alternative to the conventional MCC course.

comment

165

comment by: *CTC Airline Training*

NPA Page 22 Section 3 para 1

GM1 FCL.735.A Multi-crew cooperation training course — aeroplanes

ENHANCED MCC TRAINING TO AIRLINE PILOT STANDARDS (APS)

CTC Airline Training strongly supports the proposal as experience from our own Airline Qualification course (AQC), containing similar enhanced components, has proved to effectively equip our graduates with the competencies required to succeed in modern type and line training.



Specifically we are in favour of regulating what, up until now, has been regarded as additional training, in an effort to broaden and improve the overall standard of MCC training delivery and assessment across all training organisations.

NPA Page 22 Section 3 para 2

CTC Airline Training supports the concept of two proposed routes;

1. Generic
2. CAT operator specific.

To continue effective internal oversight we request that for a generic course the reporting and management systems are that used by the ATO.

NPA Page 22 Section 3 para 4

CTC Aviation Training support that the Enhanced MCC training course to Airline Pilot Standards should be conducted on a type specific FSTD to ensure that the practical exercises detailed in Table 1A Basic APS content and Table 1C Advanced Swept Wing Training are accurately replicated.

NPA Page 22 Section 3 para 5

INSTRUCTORS PROVIDING ADVANCED SWEEP-WING TRAINING AND AIRLINE OPERATIONAL TRAINING

CTC Airline Training supports the concept of improving instructor competence, especially in specific handling techniques, systems and technical training.

We suggest an amendment to para 5 to enable improved standards with reduced qualification restriction.

In the case of a generic stand-alone and CAT operator specific MCC Enhanced course;

The minimum qualification level of an instructor to deliver the enhanced MCC training should be an MCC instructor (aeroplane) (MCCI(A)) **for** a stand-alone Basic APS training course provided that the ATO ensures that before an MCCI delivers the advanced swept-wing handling or simulated-airline-operations training elements, they have satisfactorily completed appropriate **training**.

For systems and technical-instructor training the MCCI(A) should complete an appropriate course devised under the supervision of an SFI/TRI using ISD principles.

For specific handling training the ATO should ensure that the MCCI(A) receives periodic refresher training by an MCC(A), SFI or TRI deemed competent by the ATO to deliver such training.

NPA Page 22 Section 3 para 6

COURSE DESIGN AND CORE COMPETENCES

For an ATO delivering the generic stand-alone MCC course, CTC Airline Training considers the final progress assessment to the satisfaction of an ATO approved SFI/TRI to be operational impractical and financially burdensome for the trainee. We suggest that an experienced ATO

approved MCCI is equally qualified to assess the standards achieved during a generic stand-alone course prior to progression towards type rating training.

Suggested text

The enhanced MCC training course should be designed using instructional systems design (ISD) methodology. Progress should be monitored throughout the course in accordance with the course design. A final progress assessment should take place at the end of the practical training. The progress assessment should assess the student pilot's flying and monitoring knowledge, skills and attitudes.

For a CAT operator specific MCC course;

The final progress assessment should be conducted to the satisfaction of a TRI (MPA) or SFI (MPA) appointed by the ATO.

For a generic stand-alone MCC course;

The final progress assessment should be conducted to the satisfaction of a TRI (MPA), SFI (MPA) or suitably experienced MCCI appointed by the ATO.

NPA Page 23 - Table 1C – Advanced APS Content and Performance Indicators

Provides performance indicators, knowledge and practical exercises and includes manual handling techniques and introduction to upset prevention and recovery (UPRT).

CTC Airline Training suggest that UPRT should be removed from Table 1C and remain as part of type rating training where manufacturers guidance and best practice should be followed.

response

Accepted

Page 22, Section 3, paragraph 2:

EASA has already taken into consideration in the APS MCC material the concept of the 'specific arrangement' between operator and ATO already described for MPL training programmes (see new GM1 to Appendix 5 — Integrated MPL training course (d), also included in NPA 2016-16). This will enable operators and ATOs to perform appropriate management of a course.

Page 22, Section 3, paragraph 4:

Your comment has been noted; however, new text has been inserted to meet many other requests for a recognition of non-type-specific FSTDs as appropriate training devices for APS MCC.

Page 22, Section 3, paragraph 5:

The text has been amended, however, the qualification of the person delivering the required training to the MCC instructor (MCCI) remains at a synthetic-flight instructor (SFI) or type rating instructor (TRI) standard.

Page 22, Section 3, paragraph 6:

Your comment has been noted and new text has been inserted to meet your suggestion.



Page 23, Table 1C:

Your comment has been noted and new text has been inserted to meet your suggestion.

comment

167

comment by: *Colin Towle*

Dear Sir or Madam,

I have placed my comments on both pages 22 and 32 in order to ensure that they are considered in the correct section of the document.

As a retired Airline Training Captain who has been instructing on large aircraft since 1987 and delivering MCC Training since its inception by the JAA in 1999, I would like to register my objections to the proposed NPA with respect to pilot training.

First, several items have been included in the proposed syllabus which the more enlightened training establishments have been teaching for many years and no objection can be raised to these. I agree that as aircraft become more complex many of the additional training items need to be embraced as specified for Advanced Swept-Wing Training and Advanced Airline-Simulated Operational Training but training in these areas can be adequately given in a generic simulator.

Experience has demonstrated that MCC training must not be type specific but must be generic in nature. The aim of MCC training must be to provide future pilots with a base on which they can build, in order that they can apply MCC principles to all types of aircraft that they may experience during their future careers when they will undergo training of many differing aircraft types. If too much time is spent dealing with type specific aspects of aircraft operation rather than laying down the principles that are used by all airlines during multi pilot operations and specified in their SOPs, this will have a negative impact on the industry.

My major concern is that the NPA has proposed that 40 hours of simulator instruction/testing should be given in a type specific simulator which will make this type of training so prohibitively expensive that most aspiring pilots will not be able to afford it. I would also add that the airline industry has repeatedly failed to sponsor training to adequately provide the predicted numbers of pilots required in the future.

To this end I firmly believe that the use of high specification generic simulators offers the best training route as these devices do not focus on one specific type and expose students to higher speeds and complex aircraft with a higher operating mass than those used during their commercial/IR training. There is no evidence at present to indicate that FNPT2 training devices have not served the aviation industry well and indeed many training organisations have invested heavily in such devices on the recommendations of the authorities who are responsible for training standards.

I have mixed views on the value of issuing grades to students, since those training institutions with low standards are likely to attract business on the grounds that a student will be given a higher grade by them, whilst those organisations who are more diligent in their approach, may find themselves financially penalised by ensuring that fair grades are



given to students. However I have had many students who do not have the ability to operate larger aircraft and whilst the NPA suggests that grades will be given, this is counteracted by the statement that all students will receive course completion certificates.

As a former SFI at a TRTO, I suggest that the pass or fail system currently used works well at the TRTO level, whilst those involved in MCC training can advise students on the probability of the successful completion of a type training course.

I believe that further consideration needs to be given to the concepts given in NPA 2016-16.

response

Noted

Your comment has been taken into account in relation to the type-specific maturity of the FSTD, and new text has been inserted to meet your suggestion.

The current AMC1 735.A sets no standards for the successful completion of an MCC. This will remain the case. The proposed grading will only apply to the APS MCC. Please refer also to the response to comment No 166.

comment

169

comment by: *Czech Technical University*

We support the Enhanced MCC Training to Airline Pilot Standards. We believe this training will make the transition from training environment to airline environment much smoother. Both new-hire pilots and airlines will benefit from this course.

response

Noted

EASA thanks you for your feedback.

GM2 FCL.735.A Multi-crew cooperation training course — aeroplanes

p. 32-35

comment

31

comment by: *Luftfahrt-Bundesamt*LBA comment:GM2 FCL.735.A:

In Paragraph (c) it is stated that „...it is essential that the minimum FSTD standards is met...”. What standards are meant here? A clarification is needed.

In Paragraph (d) please replace “simulating” by “representing”.

response

Accepted

The text has been amended accordingly.



comment

79

comment by: Ryanair ATO

Comment:

Terminology - The use of 'situational awareness' is now 'Situation Awareness'

Recommended Text Change:

ATOs providing APS training should provide systems training sufficient to ensure that student pilots are capable of effective systems situational awareness (SA) when completing normal and non-normal procedures and related checklists.

response

Accepted

The text has been amended accordingly.

comment

80

comment by: Ryanair ATO

Comment:

The term CRMT should not be used in the context of CRM Training. This conflicts with the CRMT qualification i.e. CRM Trainer.

Recommended Text Change:

(b) Crew resource management training (CRMT) to APS

The student pilot should understand how multi-crew coordination and CRM are applied in an airline context. To impart maximum learning to the student, the standard of the CRMT content and instructor should be at airline level. CRM should be integrated into all practical exercises. Threat and error management (TEM) should be central to CRM education, with the concepts of threat anticipation, recognition and recovery to safe flight emphasised at all times. A student pilot should display competence in the CRM-related core competences set out in Table 2 of GM1 FCL.735.A. Ongoing progress assessments and the final progress assessment should confirm that the student pilot understands the CRM concepts set out in AMC1 ORO.FC.115.

(1) ATOs that are contracted by an airline to provide the APS training course should use the airline's content and utilise CRMTs standardised by the airline.

(2) APS-approved ATOs who are not contracted by an airline should provide advanced CRMT, the aim of which is that the student pilot understands the content and intent of AMC1 ORO.FC.115.

response

Accepted

The text has been amended accordingly.



comment

81

comment by: *Ryanair ATO***Comment:**

Text error

Recommended Text Change:

The content of this training is detailed in AMC1 FCL.735.A Table 1A, Sections 1 through 14 of GM2 FCL.735.A. AMC2 FCL.735.A. The student pilot should demonstrate the ability to operate as an airline flight crew member by achieving the applying the basic APS core competences competencies set out in AMC1 FCL.735.A Table 1A, Sections 1 through 14.

It is essential that the minimum FSTD standard is met and that the MCC instructor is standardised to deliver the specific APS training course.

response

Accepted

The text has been amended accordingly.

comment

82

comment by: *Ryanair ATO***Comment:**

Text change

Recommended Text Change (d) Advanced swept-wing jet flying training

The student should develop flight path and energy management skills as PF and active monitoring skills as PM on a FSTD simulating a multi-engine turbine-powered swept-wing jet aeroplane. Aeroplane and airline procedures used during this training should develop the student pilot's understanding of the aeroplane flight envelope and inertia, as well as the relationship between thrust and attitude. This phase should include an introduction into upset prevention and recovery training which should build up confidence and skill. The content of this training is detailed in Table 1C of GM1 FCL.735.A above.

response

Accepted

The text has been amended accordingly.

comment

83

comment by: *Ryanair ATO***Comment:**

Text changes

Recommended Text Change:

An APS training course provided by an ATO contracted by an airline may include one or more visits to the relevant airline departments. An APS-approved ATO not contracted by an airline may have a relationship with an airline and may provide its student pilots with such visit(s).



The content of this training is detailed in Table 1D of AMC2 GM1 FCL.735.A above.

response

Accepted
The text has been amended accordingly.

comment

84

comment by: *Ryanair ATO*

Comment:

Text error

Recommended Text Change:

The student pilot should be trained to apply the combined core competencies competences to conduct a safe and efficient operation. They should understand what it is like to operate as a crew member in several realistic simulated airline operations. These airline-representative scenarios should include normal and non-normal situations. Operations should run in real time according to a typical schedule.

(4) interaction with internal and external parties in the resolution of scenarios. The content of this training is detailed in Table 1D of AMC2 GM1 FCL.735.A above.

response

Accepted
The text has been amended accordingly.

comment

85

comment by: *Ryanair ATO*

Comment:

Standards are not defined in these tables - standard is defined as a level of quality or attainment. The levels are not defined anywhere.

Recommended Text Change:

(g) Progress assessments

All progress assessments should be integrated into training sessions. The final progress assessment is a training session conducted by a TRI (MPA) or synthetic flight instructor (SFI) (MPA) nominated by the ATO, during which the competences competencies and performance indicators and standards specified in FCL.735.A Multi-Crew Cooperation Course and in GM1 FCL.735.A Tables 1B – 1D and 2) of AMC2 GM1 FCL.735.A are evaluated to a minimum standard relative to the ATO's determined desired required level of competence. This training session is not a test, check or assessment of competence.



response

Accepted
The text has been amended accordingly.

comment

111 comment by: French DGAC
We suggest that this GM (along with GM1 FCL.735.A) should be classified as an AMC, so that it can be directly enforced by operators and authorities.

response

Accepted
The text has been amended accordingly.

comment

143 comment by: IATA
New GM2 FCL.735.A
Refers several times to AMC2 FCL.735.A, which does not exist!
Repeats content of GM1; needs a complete revision of content and language after GM1 is aligned with RMT.0599.
In detail:
(a) Aircraft systems technical training
- not in line with current nomenclature, should read “Technical Knowledge Instruction”
(b) Crew resource management training:
- the description of the TEM concept is incomplete,
- other than in the Table 1B Performance Indicator column (a) *Display competency in the CRM-related core competencies (see Tables 1A-1D and 2)* the text here says “A student pilot should display competence in the CRM-related core competencies set out in Table 2 of GM1 FCL.735.A”.
This is confusing, because:
1) the term “CRM-related core competencies” needs to be explained
2) it uses different references.
(c) Basic APS training
is confusing because
- instead of referring to Section (a) through (n) of Table 1A it refers Section 1 through 14 of Table 1A
- it requires the student pilot to ...apply “the basic APS core competencies set out in Table 1A



Sections 1 through 14” whereby only Sections (a) to (e) describe core competencies (refer to comments to Table 1A above)

- repeats content of GM1 concerning FSTD- and instructor qualification

(d) Advanced swept-wing flying training

- see comment to Table 1C above

(e) Airline regulations, airline structures, relationships and process training

- the requirement to introduce the applicants to the internal and external regulatory framework is good
- title should be harmonized with the language used in Table 1D, first column , which is named “Airline-oriented training”

(f) Advanced airline-simulated operational training

- text is meaningful
- Practical exercises are covered by FCL GM1 to Appendix 5 (f) to (n) and should be referred to

(g) Progress assessment

- partially repeats deliberations on the assessment issue which are content of the COURSE DESIGN AND CORE COMPETENCIES paragraph of GM1 and should therefore be moved to GM1 as a separate paragraph called PROGRESS ASSESSMENT AND CORSE COMPLETION CERTIFICATE.

response

Accepted

The text has been amended accordingly. Please refer also to the response to comment No 165.

GM2 FCL.900(c)(1) Instructor certificates

p. 35

comment

45

comment by: UK CAA

Page No: 35**Paragraph No:** GM2 FCL.900(c)(1) – Instructor Certificates

Comment: The addition of wording “The competent authority **should**”, is inappropriate as it is a decision for the competent authority to decide if the Instructor is competent, based on the information provided by the ATO.

Justification: Clarity.

Proposed Text: Amend to read as follows:

“The competent authority can issue an unrestricted flight instructor (FI)(A) or FI(H) certificate to an applicant that has 100 hours of experience in flight instruction and 25 hours in solo-



	flight supervision and is deemed competent by the ATO, and the FIE who conducted the AoC states that the instructor is competent.”
response	Partially accepted The text has been amended accordingly.
comment	96 comment by: <i>Finnish Transport Safety Agency</i> GM2 FCL.900(c)(1) The intention of the GM is unclear. According to EN the GM should give possibility to issue instructor certificates with <i>unlimited duration</i> . However, the GM itself uses wording ‘issue an <i>unrestricted</i> .. certificate’. These are two different things, as unrestricted can be understood as referring to FCL.910.FI ‘restricted privileges’. Please clarify the text.
response	Noted NPA 2016-16 contained an erroneous reference to ‘instructor certificates with unlimited duration’, which could be misunderstood. The text has been corrected and an explanation included in the explanatory note (EN) to this Decision.

GM1 to Appendix 5 Integrated MPL training course

p. 35-36

comment	24 comment by: <i>CAE Oxford Aviation Academy</i> (d) replace "intend to join in with" with "intend to offer" or "intend to undertake". (d) (5) What does "training effectiveness" mean? This should either be reworded, or deleted.
response	First comment — partially accepted The text has been amended in point (d). Second comment — accepted The text has been amended accordingly.
comment	89 comment by: <i>Finnish Transport Safety Agency</i> GM1 to Appendix 5 Please reconsider the wording. We understand that ‘specific arrangement’ means an agreement or contract between ATO and AOC holder, whereas items mentioned in GM1 refer to the content of the training program.



	Proposed text: (d) The specific arrangement between operator and ATO which intend to join in with An MPL training programme should at least govern the following points:
response	Accepted The text has been amended accordingly.
comment	156 comment by: CAE 6(d) the main sentence is poorly worded in English. We suggest "The specific arrangement between an Operator and an ATO for the MPL training programme should cover:" 6(d)(4) the content and delivery of the operator conversion course is managed through the AOC holder and not the ATO. We cannot see the relevance of including this as guidance to be included in the arrangement between both parties. Please delete the point.
response	Partially accepted The text has been amended accordingly.

GM1 to Appendix 6 Modular training courses for the IR, Aa. IR(A)(8)

p. 36-47

comment	8 comment by: Stephen Oddy GM1 to Appendix 6 Whilst it is very useful to both applicants and examiners to have a list of learning objectives for the oral examination of competency based IR applicants, there is still no guidance on the normal duration of the oral examination, nor of the required level of competency of the applicants. Without such guidance there are likely to be significant differences between the assessments carried out by individual examiners and between what is expected by different National Authorities. There is currently no uniform EASA standard. Guidance could either be given in this GM or in the Examiners' Handbook. Appropriate text might be: 'Oral examinations should normally last for between 60 and 90 minutes. Where possible, questions should be related to the route flown and the weather conditions encountered. The applicant's answers should leave the examiner in no doubt that the applicant could safely plan and conduct an IFR flight in IMC.'
response	Noted EASA acknowledges your comment and thanks you for your feedback. As RMT.0587 addresses only non-controversial issues, all comments received that are outside the scope of this Decision will be considered separately.



comment	25 comment by: <i>CAE Oxford Aviation Academy</i> This is over-prescriptive and too detailed.
response	Noted The nature of GM is to be non-prescriptive, therefore, EASA acknowledges your comment and thanks you for your feedback.
comment	46 comment by: <i>UK CAA</i> Page No: 36 Paragraph No: GM1 to Appendix 6 Modular training courses for the IR, Aa. IR(A)(8) Comment: We believe the introductory paragraph “The following provides a list of Learning Objectives (LOs) ... demonstration of knowledge” should be amended to read as shown below: Justification: Clarity. Proposed Text: Amend to read as follows: “The following provides a list of Learning Objectives for consideration by the Examiner to establish the applicants competence and level of knowledge:”.
response	Noted EASA acknowledges your comment and thanks you for your feedback.
comment	55 comment by: <i>René Meier, Europe Air Sports</i> page 36/103 7. New GM1... GM1 to Appendix 6... (a) Air Law (11) We think behind (DH) on the second line the description of OCA is missing...
response	Accepted The text has been amended accordingly.
comment	123 comment by: <i>French DGAC</i> We welcome the list of learning objectives.



response

Noted
EASA thanks you for your feedback.

comment

170 comment by: *Czech Technical University*
GM1 to Appendix 6
(a)(10) Consider add "without visual reference" (Pilot can descend below OCA/H with suitable visual reference).
(29) Consider re-word or add "A missed approach, after an approach flown as CDFA, should be executed when reaching the MAPt or DA/H, whichever occur first". (There are no LOs concerning CDFA. We find this important with respect to Air Ops - vast majority of approaches is flown using CDFA technique).

response

Accepted
The text has been amended accordingly.

3.2.2. AMC/GM to Part-ARA — GM1 ARA.GEN.105 Definitions

p. 90-94

comment

39 comment by: *Luftfahrt-Bundesamt*
LBA comment:
The acronym "IR" (page 93 of 103) seems to have two different definitions. This could cause misunderstandings.

response

Accepted
The text has been amended accordingly.

comment

59 comment by: *René Meier, Europe Air Sports*
pages 90.../103
3.2.2. AMC/GM to Part-ARA
1. GM1 ARA.GEN.105
Questions:
"Bpm" or "bpm"?
"Cm" or "cm"?
"Ft" or "ft"?
"Hz": "Hertz", please, not "Herz"



	<p>"Kg" or "kg"</p> <p>"M" or "m" for meter?</p> <p>"Mm" or "mm" for millimeter?"</p> <p>"TAWS": some say/wrtite "Terrain Avoidance and Warning System"...</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>

AMC2 ARA.GEN.200(a)(2) Management system	p. 94-95
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comment	<p>32</p> <p>comment by: <i>Luftfahrt-Bundesamt</i></p> <p><u>LBA comment:</u></p> <p><u>AMC2 ARA.GEN.200 (a)(2):</u></p> <p>It has been detected that most of the Inspectors of an authority approving Training Manuals of ATOs and/or AOC Holder are not aware of the qualification requirements of an FSTD and the implications to training aspects. Therefor it is more than essential to implement a respective requirement.</p> <p>For example: (5) Inspectors approving Training Manuals for ATO and AOC Holders shall have a good knowledge of FSTD standards.</p> <p><u>The federal state of Bavaria comments as follows:</u></p> <p><u>AMC2 ARA.GEN.200(a)(2) Management system</u></p> <p><u>Qualification and Training – Inspectors:</u></p> <p>The description under (a) seems to be too extensive as all inspectors would need to receive the same training. In order to allow for more flexibility, we suggest to add a similar wording as under (b), e.g. by the phrase “as appropriate to their role”.</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>

comment	<p>97</p> <p>comment by: <i>Harry Karlsson</i></p> <p>AMC".ARA.GEN.200(a)(2)</p> <p>(a) Qualification:</p> <p>The auditing techniques should be more specified or standardized. To be able to achieve a more uniform standard of auditing, the acceptance of only receiving training is not sufficient. As there are generally accepted auditing training and examination standards for personnel involved in auditing in other industries, the enforcement of a requirement of actual</p>
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response	<p>achievement in auditing technique exams is feasible.</p> <p>Additional qualification criteria:</p> <p>(1), (2),(3):</p> <p>It is the core of an inspection process that the person(s) involved in the sampling have a basic understanding of the processes they are sampling. The contextual perception of the basic mechanics and semantics in flight training, be it in aircraft, FSTD:s or in the classroom, is the only possible means to adequately assess the performance of the organizational SMS and CMS functions.</p> <p>Noted</p> <p>EASA acknowledges your comment and thanks you for your feedback. As passing the examination is not a proof of knowledge, and as it is at the discretion of the training provider to decide which teaching methods are used for the training, the proposal has not been accepted.</p>
comment	<p>146 comment by: Finnish Transport Safety Agency</p> <p>AMC2 ARA.GEN.200(a)(2)</p> <p>Point (a), Additional qualification criteria, paragraph (1):</p> <p><i>inspectors conducting sampling of training flights in aircraft or FSTD sessions should hold or have held a pilot licence and relevant ratings and certificates appropriate to the level of the training conducted in the ATO</i></p> <p>The wording of paragraph (1) should not be as restrictive as proposed in the NPA. Instead broader description should be used. Trafi would like to point out that EASA’s Use of Inspector Pilot—working group is currently developing guidance material for FCL and OPS inspectors regarding this matter. Hence making restrictive wording in the relevant AMC unnecessary.</p> <p>Trafi’s proposed wording for paragraph (1):</p> <p><i>“inspectors conducting sampling of training flights in aircraft or FSTD sessions should have a practical background in aviation in the areas relevant to the training provided by the ATO”</i></p> <p>In addition, please give a reference number/letter to 'Additional qualification criteria' to clarify the chapter structure.</p>
response	<p>Noted</p> <p>EASA acknowledges your comment and thanks you for your feedback. The ‘Use of Inspector Pilot’ working group is developing guidance material taking into consideration AMC/GM to Regulation (EU) No 965/2012, and AMC/GM to Part-ARA, Amendment 4. The intention is to facilitate the competent authority’s compliance with the new sets of AMC/GM in both domains (Air OPS and Aircrew) for those tasks requiring specific pilot competencies.</p>



comment	<p>147 comment by: Finnish Transport Safety Agency</p> <p>AMC2 ARA.GEN.200(a)(2)</p> <p>Point (a), Additional qualification criteria, paragraph (3):</p> <p><i>inspectors conducting sampling of theoretical-knowledge instruction should have a practical background in aviation in the areas relevant to the training provided and have undergone a training course in instructional techniques</i></p> <p>Aircrew regulation does not require the theoretical knowledge instructor to undergo a training course in instructional techniques. Therefore such requirement should not be mandatory for the inspector. Trafi proposes that the requirement of training course in instructional techniques will be omitted.</p> <p>Trafi's proposed wording for paragraph (3):</p> <p><i>"inspectors conducting sampling of theoretical-knowledge instruction should have a practical background in aviation in the areas relevant to the training provided. "</i></p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>

GM2 ARA.GEN.200(a)(2) Management system

p. 96

comment	<p>33 comment by: Luftfahrt-Bundesamt</p> <p><u>LBA comment:</u></p> <p><u>GM2 ARA.GEN.200 (a)(2):</u></p> <p>Refer to the explanation above (AMC2 ARA.GEN.200 (a)(2)) and add the following as Number (7): ICAO Doc 9625 "Manual of Criteria for the Qualification of Flight Simulation Training Devices"</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>113 comment by: French DGAC</p> <p>The list of relevant documents in GM2 ARA GEN200 (a) (2) could include Doc 9995 Manual of Evidence-based Training</p>



response

Accepted
The text has been amended accordingly.

GM3 ARA.GEN.200(a)(2) Management system

p. 96

comment

99

comment by: *Lauris*

Could you please define what sms knowledge and experience is expected for an inspector to evaluate the SMS elements of an ATO?

response

Noted

The reference to the relevant manual is mentioned in the text. Please refer to GM2 ARA.GEN.200(a)(2).

comment

117

comment by: *French DGAC*

Item c) : the purpose of the simulator evaluation is to check that further to a objective and a subjective evaluation an FSTD is compliant with technical criteria and it can be used for training, testing and checking. Downstream the evaluation and qualification process, there is two other processes which are :

- the issuance of an user approval for AoC holders which have to comply with requirements of Regulation 965/2014 (paragraph ORO.FC.230) ;
- demonstration of suitability of the FSTD with the initial training intended to be conducted by an ATO (ORA.ATO.135) ;

Consequently, it is relevant to ask a simulator evaluation team to determine if the FSTD may be used initial or recurrent training. But the "YES PARTIALLY" appears not relevant at all since the content of the Type rating course, training course, or syllabus of the recurrent training, is not known by the simulator evaluation team.

response

Noted

EASA acknowledges your comment and thanks you for your feedback. As RMT.0587 addresses only non-controversial issues, all comments received that are outside the scope of this Decision will be considered separately.

GM1 ORA.GEN.130(c) Changes to organisations

p. 100

comment

2

comment by: *Bruno Herencic*

Typical examples of changes not requiring prior approval are listed below:



	<p>Would add the following:</p> <p>(d) Lesson Plans</p> <p>(e) Standard Operating Procedures - SOPs</p> <p>(f) Modifications to the training programme or syllabus where the content of the programme is not reduced</p> <p>It is recommended that lists of changes not requiring prior approval are included as annexes or appendices to the ATO documentation.</p>
response	<p>Noted</p> <p>EASA acknowledges your comment and thanks you for your feedback. As the principle of additional documents is already covered by 'annex', it is not necessary to include another term with the same meaning.</p>
comment	<p>119 comment by: French DGAC</p> <p>We recommend reminding the requirements of ORA.ATO.135 by beginning the first sentence of the GM with : '<u>Subject to the provisions of ORA.ATO.135</u>, typical examples of changes...'</p> <p>We also recommend removing '(b) the list of FSTDs used; and' from the GM; as the ATO certificate would become inaccurate as soon as an FSTD is replaced.</p> <p>This § is also applicable to FSTD operator, hence the last line should be : It is recommended that lists of changes not requiring prior approval are included as annexes to the <u>ATO and FSTD operator's and aeromedical centres</u> documentation. Example should be given in the FSTD field (eg : Visual projection system replacement when the technology remains equivalent)</p>
response	<p>Partially accepted</p> <p>The text has been amended accordingly. The reference to ORA.ATO.135 is considered unnecessary.</p>
comment	<p>151 comment by: Romanian CAA</p> <p>The lists of aircraft and FSTD to be used by ATOs <u>should</u> be considered as changes REQUIRING prior approval, as they have a direct impact on the training courses. Otherwise, if found inappropriate during oversight, the training courses already finished will have to be cancelled.</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>

AMC1 ORA.ATO.305(b) Classroom instruction

p. 100

comment

127

comment by: *Swedish Transport Agency, Civil Aviation Department
(Transportstyrelsen, Luftfartsavdelningen)*

Relevant Text: Classroom instruction delivered by an instructor to a student may include appropriate videoconferencing.

Comment: The AMC needs to be clarified and expanded to ensure uniform application. Some questions arise which needs to be answered.

Is this only applicable for 1 on 1 instruction as the nouns are in singular form?

What is meant by appropriate?

- What type of equipment could be used?
- Is two-way communication required?
- If multiple students are allowed, is it required for all the students and the instructor see each other, or do the students only need to see the instructor?
- Is it acceptable for the students only to be able to send instant messages?
- Is an electronic presentation tool, without the possibility for the instructor to write, comment or highlight, acceptable? As in a tutor lead CBT?
- Is it appropriate for all types of instruction, even such topics containing a high degree of practical work and practice?

Proposal: Clarify the AMC to ensure uniform application.

response

Accepted

The text has been amended accordingly.



3. Attachments

[AMC3 FSTD \(A\).300 page 138.PNG](#)

 Attachment #2 to comment [#138](#)

AMC3 FSTD(A).300 Guidance on design and qualification of flight and navigation procedures trainers (FNPTs)

(a) Background

- (1) Traditionally training devices used by the *ab-initio* professional pilot schools have been relatively simple instrument flight-only aids. These devices were loosely based on the particular school's aeroplane. The performance would be approximately correct in a small number of standard configurations, however the handling characteristics could range from rudimentary to loosely representative. The instrumentation and avionics fit varied between basic and very close to the target aeroplane. The approval to use such devices as part of a training course was based on a regular subjective evaluation of the equipment and its operator by an inspector of the competent authority.
- (2) CS-FSTD(A) introduces two new devices: FNPT I & FNPT II. The FNPT I device is essentially a replacement for the traditional instrument flight ground training device taking advantage of recent technologies and having a more objective design basis. The FNPT II device is the more advanced of the two defined standards and fulfils the wider requirements of the various Part-FCL professional pilot training modules up to and including (optionally with additional features) multi-crew cooperation (MCC) training.
- (3) The currently available technologies enable such new devices to have much greater fidelity and lower life-cycle costs than was previously possible. A more objective design basis encourages better understanding and therefore modelling of the aeroplane systems, handling and performance. These advances combined with the ever upwardly spiralling costs of flying and with the environmental pressures all point towards the need for revised standards.
- (4) The FNPT II device essentially bridges the gap in design complexity between the traditional subjectively created device and the objectively based level A full flight simulator (FFS).
- (5) These new standards are designed to replace the highly subjective design standards and qualification methods with new objective and subjective methods, which ensure that the devices fulfil their intended goals throughout their service lives.

(b) Design standards

Two sets of design standards are specified within CS-FSTD(A): FNPT I and FNPT II, the more demanding of which is FNPT II.

(1) Simulated aeroplane configuration

Unlike FFS devices, FNPT I and FNPT II devices are intended to be representative of a class of aeroplane (although they may in fact be type specific).

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