**European Aviation Safety Agency — Rulemaking Directorate**

# Comment-Response Document 2012-05

# Certification Specifications for Flight Crew Data (CS-FCD)

CRD TO NPA 2012-05 — RMT.0105 (21.039(d)) — 31.01.2014
Related Opinion No 07/2011 'Operational Suitability Data'


**EXECUTIVE SUMMARY**

The purpose of the NPA 2012-15 was to develop the draft Decision of the Executive Director of the European Aviation Safety Agency on Certification Specifications (CS) and Guidance Material (GM) related to Operational Suitability Data — Flight Crew Data that will be required by an Amendment to Commission Regulation (EU) No 748/2012[1].

This Comment-Response Document (CRD) contains the comments received on NPA 2012-05 (published on 6 July 2012) and the responses, or a summary thereof, provided thereto by the Agency.

The CRD 2012-05 contains the draft Decision on Certification Specifications for Flight Crew Data (CS-FCD) and comprises information related to the type specific elements for flight crew data, as required by the Operational Suitability Data (OSD) concept.

The Certification Specifications include the proposal of the following:

(a) a uniform process and criteria for the determination of a pilot type rating to establish if a candidate aircraft is recognised as a new type or as a variant to an existing aircraft or group of aircraft and to assign the pilot licence endorsement designation for a candidate aircraft;

(b) requirements for pilot type rating training for a specific aircraft;

(c) operational evaluations for the proposed operations.


[1] Commission Regulation (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations and repealing Commission Regulation (EC) No 1702/2003 (OJ L 243, 27.9.2003, p.6-79). Regulation as last amended by Commission Regulation (EU) 69/2014 of 27 January 2014 (OJ L 23, 28.1.2014, p. 12).

| **Applicability** | |
|---|---|
| Affected regulations and decisions: | Part-21; AMC/GM Part-21; Part-CAT; AMC/GM Part-CAT; Part-FCL; AMC/GM Part-FCL |
| Affected stakeholders: | Manufacturers, TC/STC holders, Air Operators, Industry, CAAs |
| Driver/origin: | Regulation (EC) 216/2008 |
| Reference: | NPA 2012-05, Opinion 07/2011 |

| **Process map** | |
|---|---|
| Concept Paper: | No |
| Rulemaking group: | Yes |
| RIA type: | None |
| Technical consultation during NPA drafting: | No |
| Publication date of the NPA: | 2012/Q2 |
| Duration of NPA consultation: | 3 months |
| Review group: | No |
| Focussed consultation: | No |
| Publication date of the Opinion: | NA |
| Publication date of the Decision: | 2014/Q1 |

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# 1. Procedural information

## *1.1. The rule development procedure*

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') developed this Comment-Response Document (CRD) in line with Regulation (EC) No 216/2008[2] and the Rulemaking Procedure[3].

This rulemaking activity is included in the Agency's Rulemaking Programme under RMT.0105 (21.039(d)). The scope and timescale of the task were defined in the related Terms of Reference 21.039.

The draft CS has been developed by the Agency based on the input from the 21.039(f) subgroup, deriving from the 21.039 Rulemaking Group. All interested parties were consulted through NPA 2012-05[4], which was published on 6 July 2012. 84 comments on 12 segments were received on this NPA from 13 different interested parties, including industry and national aviation authorities. Some comments contained several sub-comments.

When there were multiple sub-comments, the Agency responded to all the sub-comments indicating if the sub-comment was accepted, partially accepted, noted or not accepted. In the bold title of the respond, the Agency put partially accepted when there were different sub-responses.

The responses according to the status are as follows: 18 accepted, 43 partially accepted, 20 noted and 3 not accepted.

The text of this CRD has been developed by the Agency.

## *1.2. The structure of this CRD and related documents*

This CRD provides a summary of comments and responses as well as the full set of individual comments (and responses thereto) received to NPA 2012-05. The resulting rule text is provided in Chapter 3 of this CRD.

## *1.3. The next steps in the procedure*

The CRD is published together with the Decision in accordance with the new rulemaking procedure. The CRD is not open for further reactions.

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

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

[4] http://easa.europa.eu/rulemaking/docs/npa/2012/NPA%202012-05.pdf.

## 2. Summary of comments and responses

### GENERAL

Some stakeholders commented on the applicability and transition of existing OEB recommendations, consistency with FAA regulations and the role of the International Operational Evaluation Policy Board (IOEPB).

The Agency noted these comments and stated that already existing joint evaluations will not be impacted. The applicability and transition of existing OEB recommendations is addressed in EASA Opinion 07/2011. Following termination of the OEB process, provisions associated to the OEB process will no longer be applied. Applicability of OSD implementing rules and of corresponding CSs will be specified in their adopted provisions.

The processes and criteria contained within CS-FCD are fully harmonised with the corresponding FAA guidance material in AC 120-53A. The IOEPB facilitates the cooperation between Authorities conducting OEB evaluations in support of a coordinated and efficient use of global resources. The IOEPB has no direct impact on the application of EASA OSD requirements.

AMC2 ORO.FC.240 and GM1 ORO.FC.240 (now AMC1 ORO.FC.240) were transferred to this rulemaking task to ensure alignment of its content with the outcome of the CS-FCD. Terminology is now aligned with CS-FCD and some editorial amendments were made.

### CS-FCD BOOK 1

### SUBPART A

The suggested editorials by the stakeholders are accepted by the Agency and amended accordingly in this Subpart.

#### *CS FCD.050 Scope*

Some stakeholders commented that the scope of *CS FCD.050* was not clear enough. The Agency agreed with that and amended and restructured *CS FCD.050.*

To address the training, checking and currency requirements for a specific aircraft, CS FCD.050(a) has been amended to address this.

CS FCD.050(b)(2) has been expanded to address design changes, specific equipment, procedures or operations of a candidate aircraft.

In CS FCD.050(b)(3) the reference to Part-FCL has been replaced by the wording 'and administrative procedures related to civil aviation aircrew and air operations regulations and of Part-21'.

(Former) CS FCD.050(c) did not refer to 'operational suitability evaluations' but more generally, addressed the operational evaluations for proposed operations and use of equipment (e.g. helicopter sling operations, fire fighting, freight operations, use of EVS/SVS, HUD, RNP AR, steep approaches, etc.). For clarity (former) CS FCD.050(c) has been deleted.

#### *CS FCD.100 Applicability*

Some stakeholders commented that the allocation of the various CS-FCD paragraphs to the boxes 1 to 4 needs to be adjusted. Next to that some stakeholders commented that the repartition of required data within the different boxes is unclear: whereas some data may be required in different boxes, the better part of them should appear only in one box, as they cannot be at the same time mandatory and non-mandatory (recommendations), in particular for the TC holder.

The Agency accepted these comments and amended the allocation of the various CS-FCD paragraphs as proposed accordingly. Next to that the box concept (Appendix 1 to CS FCD 100)

has been moved from the CS-FCD to the new drafted *GM1 CS FCD.100 Applicability*. In this GM the content of the boxes is explained and provides examples of OSD elements that result from the application of the CS-FCD paragraphs, in accordance with the box concept. Because of the deletion of Appendix 1 into GM, the following appendices have been renumbered. Wherever there was a reference to one of those appendices, these references have been amended accordingly.

***CS FCD.105 Definitions***

One stakeholder suggested adding a definition of Training Area of Special Emphasis (TASE) and the Agency accepted this comment and added a definition of TASE in CS FCD.105. Furthermore, the Agency gave all the definitions a letter according to the number convention in the Agency's Rulemaking style guide.

**SUBPART B**

***CS FCD.200 Determination of a pilot type rating***

One stakeholder recommended to amend the proposed criteria in *CS FCD.200 Determination of pilot type rating* to ensure a clearer set of requirements is in place and no undue administrative burden is placed on applicants for type certification of small aeroplanes. The Agency accepted this comment and amended the text in CS FCD.200(a)(2)(iv) to indicate that 'aeroplanes that meet the definition of ELA1 or ELA 2' are not subject to a pilot type rating.

The same stakeholder commented that the Agency should establish clear and performance-based standards for requiring pilot type ratings for aircraft not fully identified in (a)(1) or (a)(2) of CS FCD.200. The Agency partially accepted their text proposal and the text has been amended with reference to a determination based on operational experience, facts or data.

**SUBPART C**

***CS FCD.300 Pilot type rating training and operational training requirements for a specific aircraft***

One stakeholder proposed, for clarity reasons, a few amendments to CS FCD.300, from which the Agency partially accepted some of them. E.g. in CS FCD.050(b)(3), the reference to Part-FCL in CS FCD.300(b) has been replaced by the wording 'and administrative procedures related to civil aviation aircrew and air operations regulations and of Part-21'. Furthermore, the text in CS FCD.300(d) en CS FCD.300(e) has been slightly modified and the title of Subpart C as well as the title of CS FCD.300 have been extended from 'pilot type rating training' into 'pilot type rating training and operational training'.

***CS FCD.305 LIFUS*** *(new paragraph)*

One stakeholder commented that the requirements for LIFUS in CS FCD.400(c) should be located in Subpart C. The Agency accepted this comment and this subparagraph (c) has been relocated as a new paragraph CS FCD.305 LIFUS in Subpart C.

***CS FCD.310 Credit for operation on more than one type or variant*** *(new paragraph)*

Some stakeholders commented that the requirements for the credit for operation on more than one type or variant in CS FCD.405 should be located in Subpart C. The Agency accepted this comment and the text of CS FCD.405 has been relocated as a new paragraph CS FCD.310 Credit for operation on more than one type or variant in Subpart C.

**SUBPART D**

***CS FCD.400 Operational evaluation process***

CS FCD.400 has been deleted.

Subparagraphs (a) and (b) of CS FCD.400 have been deleted, because the Agency considered that the content of these provisions is already covered elsewhere and was to a certain extent misleading. The operational suitability evaluation is going to be part of the type certification process. It is standard practice in type certification that the applicant is only required to include in its application what is mandatory by the certification specifications. Other elements such as additional equipment or special procedures can be included and will then be part of the certified configuration(s). The OSD will have to cover the same configuration(s). These principles will be further explained in guidance material to Part-21, because they are valid for all OSD elements.
For the reallocation of paragraph (c) of CS FCD.400, the Agency refers to the explanation above in CS FCD.305.

***CS FCD.405 Credit for operation on more than one type or variant***

CS FCD.405 has been deleted and reallocated in Subpart C.

For the reallocation of this paragraph, the Agency refers to the explanation above in CS FCD.310. Because of the deletion of CS FCD.405, the following paragraphs in this Subpart D have been renumbered. Wherever there was a reference to one of those paragraphs, these references have been amended accordingly.

***CS FCD.400 Operator Difference Requirement (ODR) tables*** *(former CS FCD 410)*

One stakeholder commented that in CS FCD.410(a) the word 'required' is misleading. The Agency accepted this comment and changed the wording 'required' into 'provided'.

***CS FCD.405 Master Difference Requirement (MDR) tables*** *(former CS FCD 415)*

One stakeholder commented that the content of CS FCD.415 was not clear and ask to clarify 'who' shall elaborate the MDR table, and if it is to be considered as an OSD output data, or as a data dedicated to support the OSD certification process. The Agency accepted this comment and drafted a new text. Based on an applicant's proposal, MDR tables are specified by the Agency for any evaluation between base aircraft and candidate aircraft in accordance with the process contained in this CS-FCD. MDR tables are specified in terms of the minimum difference levels.

***CS FCD.410 Difference levels — General*** *(former CS FCD 420)*

One stakeholder proposed to add the word 'normally' in the last sentence, so to obtain 'Training at level E normally identifies that the candidate aircraft is a different type to the base aircraft'. The adding of this word is very important for all the design options that do not necessitate defining a new type rating (e.g. EVS, HUD, NADP, RNP-AR, etc.). The Agency accepted this proposal and amended the text accordingly.

***CS FCD.415 Difference levels — Training, checking and currency*** *(former CS FCD 425)*

Some stakeholders commented on the table in formerly numbered CS FCD.425(a) (now CS FCD.415(a), especially the references to the different kind of simulators and the lack of reference for the use of simulators for helicopters. The Agency partially accepted the proposed amendments and revised the text in the table and added footnotes in the different boxes of the table with explanation which simulator for which category (aeroplane or helicopter) should be used.

Next to that the Agency has amended the following paragraphs of the newly numbered CS FCD.415 (b) Difference level – Training, newly numbered CS FCD.415 (c) Difference level –

Checking and newly numbered CS FCD.415 (d) Difference level – Currency in order to be consistent with the newly amended CS FCD.415(a).

Some stakeholders also commented on the clarity of certain subparagraphs and the Agency accepted some of their text proposals:

a. The text of the newly numbered CS FCD.415(b)(2) has been reallocated to newly numbered subparagraph CS FCD.415(b)(1);

b. The last two paragraphs of newly numbered CS FCD.415(d) have been combined;

c. The subparagraphs (1),(2) and (3) from newly numbered CS FCD.415(e) have been deleted.

***CS FCD.420 Evaluation process overview*** *(former CS FCD 430)*

There were no substantial comments to this paragraph. Only 2 references in the text have been amended.

***CS FCD.425 Evaluation process and evaluation descriptions*** *(former CS FCD 435)*

Some stakeholders commented on the clarity of certain subparagraphs and the Agency accepted some of their text proposals:

a. In the newly numbered CS FCD.425 the reference to the manufacturer has been replaces by 'applicant';

b. In the newly numbered CS FCD.425(a) the wording 'MFF operations' has been replaced with 'operations on more than one type or variant' for consistency with other regulations;

c. In the newly numbered CS FCD.425(b) after the wording 'vice versa' the wording ', if requested by the applicant. Normally for level A and B differences, two-way testing is not necessary' have been added. In the last sentence of this paragraph the text has been amended to make clear that the Agency will review the request of the applicant to obtain an evaluation;

d. In the table in the newly numbered CS FCD.425(d) under 'Application' the reference to 'T2+T2 for commonality credit' have been added.

e. In the newly numbered CS FCD.425(e) and (f) the evaluation subjects have been added;

f. In the newly numbered CS FCD.425(e) a new subparagraph (3) had been added: The Agency may waive the T1 test if a T2 test is to be performed.

g. In order to be consistent with the flow chart in Appendix 2 (former Appendix 3), the sentence 'If a subsequent T3 test is not requested, level A or B training can be assigned.' has been added;

h. References to simulators have been amended to be in line with the amended text in the newly numbered CS FCD.415(a) (former CS FCD.425(a)).

**APPENDIX 1**

This Appendix 1 with the box-concept has been deleted and the box-concept is now part of the new GM1 FCD.100. The following appendices have been renumbered. Wherever there was a reference to one of those appendices, these references have been amended accordingly.

**APPENDIX 2** *(New Appendix 1)*

One stakeholder commented on the almost identical text of paragraph (c)(1) and (2). The Agency accepted this comment and redrafted the 2 subparagraphs in 1 paragraph and renumbered the following subparagraphs.

**APPENDIX 3** *(New Appendix 2)*

One stakeholder commented that the T3 pass sets levels A/B/C/D, in the associated flow chart in former Appendix 3 to CS FCD.430 only leads to B/C/D. The Agency accepted this comment and amended this discrepancy, now reflected in this new renumbered Appendix 2 to CS FCD.425.

**CS-FCD BOOK 2**

***GM1 CS FCD.050 Scope***

New GM has been drafted for the scope of the CS. The text of this GM is coming from the former GM1 FCD.400 Operational evaluation process, which has been deleted, because CS FCD.400 has been deleted. Some stakeholders proposed to amend some wording of the former GM1 FCD.400 for consistency and to add another interesting example in subparagraph (c) concerning the environmental context for operations. The Agency accepted all these proposals and amended the text accordingly in the new GM1 CS FCD.050.

***GM1 CS FCD.100 Applicability***

See the explanation of this new GM above under CS FCD.100 Applicability.

***GM1 FCD.105 Definitions***

The definition of MMF has been deleted because of a comment of a stakeholder to CS FCD.425(a) (former CS FCD.435(a)), where the reference to MMF has also been deleted.

***GM1 FCD.200 Determination of a pilot type rating***

There were no comments to this GM. The Agency only amended one editorial.

***GM1 FCD.300 Pilot type rating training requirements for a specific aircraft***

There were no comments on this GM. The Agency only amended a few editorials.

***GM1 FCD.310 Credit for operation on more than one type or variant*** *(New)*

This is the former GM1 FCD.405, but as CS FCD.405 has been amended in CS FCD.310, the corresponding GM had to be renumbered as well and be put for the existing new GM1 FCD.400.

***Former GM1 FCD.400 Operational evaluation process*** *(deleted)*

This GM has been deleted. See the explanation above under CS FCD.050 Scope.

***Former GM1 FCD.405 Credit for operation on more than one type or variant*** *(deleted)*

This GM has been deleted. See the explanation for this deletion under *GM1 FCD.310.*

***GM1 FCD.400 Master Difference Requirement (MDR) tables*** (*former GM1 FCD 415)*

There were no comments on this GM.

***GM1 FCD.415 Difference levels — Training, checking and currency*** (*former GM1 FCD 425)*

Some stakeholders commented on the clarity of certain wording. The Agency accepted these comments and amended the wording.

***GM1 FCD.420 Evaluation process and evaluation descriptions*** (*former GM1 FCD 435)*

Some stakeholders commented on the clarity of certain wording. The Agency accepted these comments and amended the wording.

Concerning the comments on the use of base aircraft for the T2 evaluation I paragraph (b), the Agency has added the sentence that at the discretion of the Agency, an approved FSTD as defined in CS FCD.415(a) for Level E can be used for the base aircraft and, when safety considerations dictate, in the candidate aircraft.

## 3. Final text for CS-FCD with tracked changes

## I. DRAFT DECISION ON CERTIFICATION SPECIFICATIONS AND GUIDANCE MATERIAL FOR OPERATIONAL SUITABILITY DATA (FLIGHT CREW DATA) — CS-FCD BOOK 1

# EASA
# Certification Specifications
# for
# Operational Suitability Data (OSD)
# Flight Crew Data
# CS-FCD
# Book 1

# SUBPART A

## GENERAL

### CS FCD.050 Scope

(a) These Certification Specifications for Flight Crew Data (CS-FCD) address:

~~(a)~~ (1) the determination of a pilot type rating:

~~(1)~~ (i) to establish if a candidate aircraft is recogni~~z~~sed as a new type or as a variant to an existing aircraft;

~~(2)~~ (ii) to assign the pilot licence endorsement designation for a candidate aircraft.

(2) Aircraft type specific pilot training, checking and currency requirements;

(b) ~~pilot type rating training, requirements for a specific aircraft, taking~~ This CS-FCD takes into consideration:

(1) the specific characteristics of the candidate aircraft;

(2) any proposal by the manufacturer regarding design changes, specific equipment, procedures or operations of a ~~the~~ candidate aircraft;

(3) the technical requirements ~~of Part-FCL~~ and administrative procedures related to civil aviation aircrew and air operations regulations and of Part-21;

(4) the pilot entry prerequisites;

(5) the commonality between the candidate aircraft and the base aircraft in accordance with the Operator Differences Requirements (ODR) tables, where applicable.

~~(c) the operational evaluations for the proposed operations, taking into consideration Part-21 and air operation Implementing Rules.~~

### CS FCD.100 Applicability

(a) CS FCD.200(a) is applicable to all aircraft. All other paragraphs are applicable to aircraft for which a pilot type rating is determined.

(b) ~~These Certification Specifications are also applicable to changes to the elements referenced in CS FCD.050.~~

(c) This CS-FCD specifies Operational Suitability Data (OSD) based on data provision which is required from the Type Certificate (TC) applicant and data provided at request of the TC applicant. ~~Data provided by the TC applicant is~~ OSD are presented as mandatory or non-mandatory (recommendations) for the end user in accordance with the civil aviation aircrew and air operations regulations~~. The box concept according to Appendix 1 is applicable to the paragraphs~~ as follows:

(1) ~~Box 1 [~~Data required from the TC applicant and mandatory for the end users~~]~~ (Box 1):

(i) CS FCD.200;

(ii) CS FCD.300(a);(b);(c);(d);(e)(1) and (e)(2);

(iii) CS FCD.~~400(a)~~405;

(iv) CS FCD.~~420~~410;

(v) CS FCD.~~425~~415;

(vi) CS FCD.~~430;~~420.

~~(vii) CS FCD.435.~~

(2) ~~Box 2 (~~Data required from the TC applicant and non-mandatory (recommendations) for the end users~~)~~ (Box 2):

(i) CS FCD.300(a);(b);(c);(d);(e)(3) and (f);

(ii) CS FCD.~~400(a)~~415;

(iii) CS FCD.~~430;~~420.

~~(iv) CS FCD.435.~~

(3) ~~Box 3 (~~Data at the request of the TC applicant and mandatory for the end users~~)~~ (Box 3):

(i) CS FCD.300(a);(b);(c);(d); (e)(1) and (e)(2);

(ii) CS FCD.~~400~~310(a) and (b);

(iii) CS FCD.~~405(a) and (b)~~400;

(iv) CS FCD.~~410~~405;

(v) CS FCD.~~415;~~410;

(vi) CS FCD.~~420~~415;

(vii) CS FCD.~~425;~~420.

(viii) ~~CS FCD.430;~~

~~(ix) CS FCD.435.~~

(4) ~~Box 4 (~~Data at the request of the TC applicant and non-mandatory (recommendations) for the end users~~)~~ (Box 4):

(i) CS FCD.300(a);(b);(c);(d);(e)(2);(e)(3) and (f);

(ii) CS FCD.~~400(a);(b) and (c)~~305;

(iii) CS FCD.~~405(a) and (c)~~310(a) and (b);

(iv) CS FCD.~~430~~400;

(v) CS FCD.~~435.~~405;

(vi) CS FCD.410;

(vii) CS FCD.415;

(viii) CS FCD.420.

(5) ~~Box 1 and 2~~ Item (c)(1) and (c)(2) combined constitute the minimum syllabus for pilot type rating training as required by Part-21.

**CS FCD.105 Definitions**

Within the scope of this CS-FCD ~~these Certification Specifications~~, the following definitions apply:

(a) *Base aircraft* means an aircraft ~~or a group of aircraft~~ used as a reference to compare differences with another aircraft.

(b) *Candidate aircraft* means an aircraft ~~or a group of aircraft~~ subject to the evaluation process.

(c) *Common Take-off and Landing Credit (CTLC)* means a programme or process that allows credit for recent experience between aircraft that can be demonstrated to have the same handling and flying characteristics during take-off and initial climb, approach and landing, including the establishment of final landing configuration.

(d) *Currency* means the experience necessary for the safe operation of aircraft, equipment and systems.

(e) *Difference level* means a formally designated level of difference between a base and a candidate aircraft for the evaluation of pilot training, checking, or currency.

(f) *Flight characteristics* means handling characteristics or performance characteristics perceivable by a pilot. Flight characteristics relate to the natural aerodynamic response of an aircraft, particularly as affected by changes in configuration or flight path parameters.

(g) *Handling characteristics* means the manner in which the aircraft responds with respect to rate and magnitude of pilot initiated control inputs to the primary flight control surfaces.

(h) *Line Flying Under Supervision (LIFUS)* means the part of the operator's conversion course in accordance with the air operation Implementing Rules.

(i) *Master Differences Requirements (MDR)* means those requirements that pertain to differences between aircraft. MDRs are specified in terms of the minimum difference levels.

(j) *Minimum syllabus* means the training elements provided by the applicant and approved by the Agency for a specific aircraft type.

(k) *Operator Differences Requirement (ODR)* means a description of differences regarding the level of training, checking, or currency between a base and a candidate aircraft and their impact on flight characteristics and change of procedures.

(l) *Pilot type rating endorsement* means the designation of an aircraft type endorsed on a pilot licence.

(m) *Recent experience* means the recent experience described in Part-FCL.060.

(n) *Training Areas of Special Emphasis (TASE)* means specific knowledge and skills required for the safe operation of an aircraft, use of equipment, application of procedures or performance of operations.

(o) *Training footprint* means a summary description of a training programme, usually in short tabular form, showing training subjects, modules, procedures, manoeuvres or other programme elements which are planned for completion during each day or phase of training.

(p) *Variant* means an aircraft or a group of aircraft within the same pilot type rating that has differences to the base aircraft requiring difference training or familiarisation training.

# SUBPART B

## DETERMINATION OF A PILOT TYPE RATING

### CS FCD.200 Determination of a pilot type rating

(a) The determination of whether a certain type of aircraft is subject to a pilot type rating is as follows:

(1) The following aircraft are subject to a pilot type rating:

(i) complex motor-powered aircraft;

(ii) helicopters except helicopters certified in accordance with CS-VLR;

(iii) gas airships;

(2) The following aircraft are not subject to a pilot type rating:

(i) sailplanes;

(ii) powered sailplanes;

(iii) balloons;

(iv) aeroplanes that meet the definition of ELA 1 ~~and~~ or ELA 2 ~~aeroplanes.~~;

(v) hot air airships.

(3) An aircraft not listed in subparagraphs (1) or (2) will be subject to a pilot type rating ~~if~~, either:

(i) upon request of the applicant;

(ii) if the Agency determines that based on operational experience, data, its handling characteristics, performance or level of flight deck technology require type rating training ~~in order to fly this aircraft safely~~ for its safe operation.

(b) The determination of whether a certain aircraft is a variant may be made at the request of the applicant in accordance with Subpart D.

(c) The type rating ~~and/~~or variant determination is recorded in the ~~type certificate~~ TC data sheet.

(d) Changes to a TC ~~type certificate~~ are assessed for their impact on the type rating or variant determination.

# SUBPART C

## PILOT TYPE RATING TRAINING AND OPERATIONAL TRAINING REQUIREMENTS

### CS FCD.300 Pilot type rating training and operational training requirements for a specific aircraft

(a) The specific training requirements to build the necessary theoretical and practical skills to fly a specific aircraft are defined.

(b) For the development of the specific training requirements the provisions ~~in Part-FCL~~ related to civil aviation aircrew and air operations regulations and Part-21 are considered.

(c) The development of the specific training requirements is based on the assumption that the pilot undergoing training has met the prerequisites described for the training to be evaluated.

(d) The specific training requirements ~~result from~~ are identified or confirmed through the evaluation process and evaluation descriptions as described in CS FCD.~~435~~425.

(e) The specific training requirements depend on the aircraft type, any design changes, specific equipment, procedures or operations, and contain:

(1) training areas of special emphasis related to the particular aircraft type, including identification of all type specific knowledge and skills;

(2) the prerequisite for the minimum entry-level requirement to be fulfilled by the pilot;

(3) the training footprint.

(f) The training footprint indicates which training methods and device(s) are assumed to be used, based on CS FCD.~~425~~415.

### CS FCD.305 LIFUS

Requirements for LIFUS are specified by air operation Implementing Rules; however, credit for LIFUS between base aircraft and candidate aircraft may be permitted as a result of the evaluation process, and specified in the OSD.

### CS FCD.310 Credit for operation on more than one type or variant

(a) Based on commonalities between candidate aircraft and other aircraft types the applicant may propose:

(1) credit for training, checking and currency for the operation on more than one type or variant;

(2) CTLC.

(b) For substantiation of the credits proposed under (a), the applicant provides ODR tables or other appropriate documentation for comparison of the relevant aircraft characteristics.

**SUBPART D**

**OPERATIONAL EVALUATION**

~~**CS FCD.400 Operational evaluation process**~~

~~(a) The operational evaluation of a candidate aircraft for its normal operational use and the use of standard equipment is part of the aircraft evaluation process.~~

~~(b) At the request of the applicant the Agency may evaluate the use of optional equipment or special operations, as well as compliance with operational provisions, such as the air operation Implementing Rules.~~

~~(c) Requirements for LIFUS are specified by air operation Implementing Rules; however, credit for LIFUS between base aircraft and candidate aircraft may be permitted as a result of the evaluation process, and specified in the OSD.~~

~~**CS FCD.405 Credit for operation on more than one type or variant**~~

~~(a) Based on commonalities between a candidate aircraft and other aircraft types the applicant may propose:~~

~~(1) credit for the operation on more than one type or variant;~~

~~(2) credit for training, checking and currency for operation on more than one type or variant;~~

~~(3) CTLC.~~

~~(b) For substantiation of the credits proposed under (a), the applicant provides ODR tables or other appropriate documentation for comparison of the relevant aircraft characteristics.~~

**CS FCD.~~410~~ 400 Operator Difference Requirement (ODR) tables**

(a) ODR tables are ~~required~~ provided for any evaluation of differences and similarities between a base and a candidate aircraft for type rating assessment and for the content of the type rating training syllabus.

(b) ODR tables identify the differences between base and candidate aircraft in terms of general characteristics, systems and manoeuvres, and propose appropriate difference levels.

(c) ODR tables can be expanded to address multiple aircraft comparisons.

(d) Specifications for setting up the ODR tables are to be found in Appendix ~~2~~ 1.

**CS FCD.~~415~~ 405 Master Difference Requirement (MDR) tables**

~~MDR tables are developed on the basis of ODR tables for any evaluation between base and candidate aircraft. MDRs are those requirements that pertain to differences between aircraft. MDRs are specified in terms of the minimum difference levels.~~

Based on an applicant's proposal, MDR tables are specified by the Agency for any evaluation between base aircraft and candidate aircraft in accordance with the

process contained in this CS-FCD. MDR tables are specified in terms of the minimum difference levels.

**CS FCD.~~420~~ 410 Difference levels — General**

(a) Difference levels are used to identify the extent of difference between a base and a candidate aircraft with reference to the elements described in the ODR tables. These levels are proportionate to the differences between a base and a candidate aircraft. A range of five difference levels in order of increasing requirements, identified as A through E, are each specified for training, checking, and currency.

(b) Difference levels apply when a difference with the potential to affect flight safety exists between a base and a candidate aircraft. Differences may also affect the knowledge, skills, or abilities required from a pilot. If no differences exist, or if differences exist but do not affect flight safety, or if differences exist but do not affect knowledge, skills, or abilities, then difference levels are neither assigned nor applicable to pilot qualification. When difference levels apply, each level is based on a scale of differences related to design features, systems, or manoeuvres. In assessing the effects of differences, both flight characteristics and procedures are considered since flight characteristics address handling qualities and performance, while procedures include normal, non-normal and emergency items.

(c) Levels for training, checking, and currency are assigned independently, but are linked depending on the differences between a base and a candidate aircraft. Training at level E normally identifies that the candidate aircraft is a different type to the base aircraft.

**CS FCD.~~425~~ 415 Difference levels — Training, checking and currency**

(a) Difference levels are summarizsed in the table below regarding training, checking, and currency:

| DIFFERENCE LEVEL | TRAINING | CHECKING | CURRENCY |
|---|---|---|---|
| A | • Self-instruction | Not applicable or integrated with next proficiency check | Not applicable |
| B | • Aided instruction | Task or system check | Self-review |
| C | • System devices | Partial proficiency check using qualified device | Designated system |
| D | Manoeuvre ~~Flight Simulation~~ Training Devices[1] ~~(FSTDs),~~ ~~Full Flight Simulator (FFS)~~ or aircraft to accomplish specific manoeuvres | Partial proficiency check using qualified device[1] | Designated manoeuvre(s)[1] |
| E | ~~Level C or D simulator,~~ Flight Simulation Training Devices (FSTDs)[2] or | Proficiency check using ~~Level C or D simulator,~~ FSTDs[2] or aircraft | As per regulation, ~~(level C or D simulator,~~ using FSTDs[2] or aircraft |

| | | | |
|---|---|---|---|
| | aircraft | | |

Footnote (1):

- Aeroplane: FTD Level 2, or FFS, or aeroplane
- Helicopter: FTD Level 2 and 3, or FFS, or helicopter

Footnote (2):

- Aeroplane: FFS Level C or D, or aeroplane
- Helicopter: FSTD'S having dual qualification: FFS Level B and FTD Level 3, or FFS Level C or D, or helicopter

(b) Difference level — Training

The training differences levels specified represent the minimum requirements. Devices associated with a higher difference level may be used to satisfy a training differences requirement.

(1) Level A training

Level A differences training is applicable to aircraft with differences that can adequately be addressed through self-instruction. Level A training represents a knowledge requirement such that once appropriate information is provided, understanding and compliance can be assumed to be demonstrated.

Training needs not covered by level A training may require level B training, or higher, depending on the outcome of the evaluations in the aircraft evaluation process described in CS FCD.420.

(2) Level B training

Level B differences training is applicable to aircraft with system or procedure differences that can adequately be addressed through aided instruction.

At level B aided instruction is appropriate to ensure pilot understanding, emphasise issues, provide a standardised method of presentation of material, or to aid retention of material following training.

~~Training needs not covered by level A training may require level B training, or higher, depending on the outcome of the evaluations described in the aircraft evaluation process (CS FCD.435).~~

(3) Level C training

Level C differences training can only be accomplished through the use of devices capable of systems training.

Level C differences training is applicable to variants having 'part task' differences that affect skills or abilities as well as knowledge. Training objectives focus on mastering individual systems, procedures, or tasks, as opposed to performing highly integrated flight operations and manoeuvres in 'real time'. Level C may also require self-instruction or aided instruction of a pilot, but cannot be adequately addressed by a knowledge requirement alone. Training devices are required to supplement instruction to ensure attainment or retention

of pilot skills and abilities to accomplish the more complex tasks, usually related to operation of particular aircraft systems.

The minimum acceptable training media for level C is interactive computer-based training, cockpit systems simulators, cockpit procedure trainers, part task trainers ~~[such as Inertial Navigation System (INS), Flight Management System (FMS), or Traffic Collision Avoidance System (TCAS) trainers],~~ or similar devices.

(4) Level D training

Level D differences training can only be accomplished with devices capable of performing flight manoeuvres and addressing full task differences affecting knowledge, skills, or abilities.

Devices capable of flight manoeuvres address full task performance in a dynamic 'real time' environment and enable integration of knowledge, skills and abilities in a simulated flight environment, involving combinations of operationally oriented tasks and realistic task loading for each relevant phase of flight. At level D, knowledge and skills to complete necessary normal, non-normal and emergency procedures are fully addressed for each variant.

Level D differences training requires mastery of interrelated skills that cannot be adequately addressed by separate acquisition of a series of knowledge areas or skills that are interrelated. However, the differences are not so significant ~~however,~~ that a full type rating training course is required. ~~If demonstration of interrelationships between the systems was important, the use of a series of separate devices for systems training would not suffice.~~

Training for level D differences requires a training device that has accurate, high fidelity integration of systems and controls and realistic instrument indications. Level D training may also require manoeuvre visual cues, motion cues, dynamics, control loading or specific environmental conditions. Weather phenomena such as low visibility operations or wind shear may or may not be incorporated. Where simplified or generic characteristics of an aircraft type are used in devices to satisfy level D difference training, significant negative training cannot occur as a result of the simplification.

~~Devices satisfying level D differences training range from those where relevant elements of aircraft flight manoeuvring, performance, and handling qualities are incorporated. When appropriately justified, such devices may be of a simplified or generic design such as fixed base visual or non-visual training devices up to level C or D simulators or aircraft at the upper end.~~

~~Devices acceptable for level D differences training are FSTDs which are appropriate for the training of manoeuvres. When an FFS or an aircraft is used, it is limited for the conduct of specific manoeuvres or handling differences, or for specific devices when the T2 evaluation is otherwise successfully completed, as described in the aircraft evaluation process (CS FCD.435).~~

Appropriate devices as described in CS FCD.415(a), satisfying level D differences training range from those where relevant elements of aircraft flight manoeuvring, performance, and handling qualities are incorporated. The use of a manoeuvre training device or aircraft is limited for the conduct of specific manoeuvres or handling differences, or for specific equipment or procedures.

(5) Level E training

Level E differences training is applicable to a candidate aircraft having such a significant 'full task' differences that a full type rating training course or a type rating training course with credit for previous experience on similar aircraft types is required to meet the training objectives.

The training requires a 'high fidelity' environment to attain or maintain knowledge, skills, or abilities that can only be satisfied by the use of ~~an FFS certified to level C or higher~~, FSTDs or the aircraft itself as mentioned in CS FCD.415(a). Level E training, if done in an aircraft, should be modified for safety reasons where manoeuvres can result in a high degree of risk.

When level E differences training is assigned, suitable credit or constraints may be applied for knowledge, skills or abilities related to other pertinent aircraft types and specifies the relevant subjects, procedures or manoeuvres.

(c) Difference level — Checking

Differences checking addresses any pertinent pilot testing or checking. Initial and recurrent checking levels are the same unless otherwise specified.

It may be possible to satisfactorily accomplish recurrent checking objectives in devices not meeting initial checking requirements. In such instances the applicant may propose for revalidation checks the use of certain devices not meeting the initial check requirements ~~for revalidation checks~~.

(1) Level A checking

Level A differences checking indicates that no check related to differences is required at the time of differences training. However, a pilot is responsible for knowledge of each variant flown.

(2) Level B checking

Level B differences checking indicates that a 'task' or 'systems' check is required following initial and recurring training.

(3) Level C checking

Level C differences checking requires a partial check using a suitable qualified device. A partial check is conducted relative to particular manoeuvres or systems.

(4) Level D checking

Level D differences checking indicates that a partial proficiency check is required following both initial and recurrent training. In conducting the partial proficiency check, manoeuvres common to each variant may be credited and need not be repeated. The partial proficiency check covers the specified particular manoeuvres, systems, or devices. Level D checking is performed using scenarios representing a 'real time' flight environment and uses qualified devices permitted for level D training or higher.

(5) Level E checking

Level E differences checking requires that a full proficiency check be conducted ~~in a level C or D FFS,~~ in FSTDs or in an aircraft as mentioned in CS FCD.415(a), following both initial and recurrent

training. If appropriate, alternating Level E checking ~~Alternating check are possible~~ between ~~the~~ relevant aircraft ~~if appropriate,~~ is possible and credit may be defined for procedures or manoeuvres based on commonality.

Assignment of level E checking requirements alone, or in conjunction with level E currency, does not necessarily result in assignment of a separate type rating.

(d) Difference level — Currency

Differences currency addresses any currency and re-currency levels. Initial and recurrent currency levels are the same unless otherwise specified.

(1) Level A currency

Level A currency is common to each aircraft and does not require separate tracking. Maintenance of currency in any aircraft suffices for any other variant within the same type rating.

(2) Level B currency

Level B currency is 'knowledge-related' currency, typically achieved through self-review by individual pilots.

(3) Level C currency

(i) Level C currency is applicable to one or more designated systems or procedures, and relates to both skill and knowledge requirements. When level C currency applies, any pertinent lower level currency is also to be addressed.

(ii) Re-establishing level C currency

When currency is lost, it may be re-established by completing required items using a device equal to or higher than that specified for level C training and checking.

(4) Level D currency

(i) Level D currency is related to designated manoeuvres and addresses knowledge and skills required for performing aircraft control tasks in real time with integrated use of associated systems and procedures. Level D currency may also address certain differences in flight characteristics including performance of any required manoeuvres and related normal, non-normal and emergency procedures. When level D is necessary, any pertinent lower level currency is also to be addressed.

(ii) Re-establishing level D currency

When currency is lost, currency may be re-established by completing pertinent manoeuvres using a device equal to or higher than that specified for level D differences training and checking.

(5) Level E currency

(iii) Level E currency requires that recent experience requirements of Part-FCL and operational requirements be complied with in each aircraft separately. Level E currency may also specify other system, procedure, or manoeuvre currency item(s) necessary for safe operations, and requires procedures or manoeuvres to be accomplished in ~~a level C or D simulator~~ FSTDs or in an aircraft

as mentioned in CS FCD.415(a). Provisions are applied in a way which addresses the required system or manoeuvre experience.

When level E is assigned between aircraft of common characteristics, credit may be permitted. Assignment of level E currency requirements does not automatically lead to a determination on same or separate type rating. Level E currency is tracked by a means that is acceptable to the competent authority.

When CTLC is permitted, any credit or constraints applicable to using ~~level C or D simulators~~ FSTDs as mentioned in CS FCD.415(a) are also to be determined.

(ii) Re-establishing level E currency

When currency is lost, currency may be re-established by completing pertinent manoeuvres using a device specified for level E differences training and checking.

(e) Competency regarding non-normal and emergency procedures — Currency

Competency for non-normal and emergency manoeuvres or procedures is generally addressed by checking requirements. Particular non-normal and emergency manoeuvres or procedures may not be considered mandatory for checking or training. In this situation it may be necessary to periodically practice or demonstrate those manoeuvres or procedures specifying currency requirements for those manoeuvres or procedures.

~~(1) Level C currency~~

~~(i) Level C currency is applicable to one or more designated systems or procedures, and relates to both skill and knowledge requirements. When level C currency applies, any pertinent lower level currency is also addressed.~~

~~(iv) Re-establishing level C currency~~

~~When currency is lost, it may be re-established by completing the required items using a device equal to or higher than that specified for level C training and checking.~~

~~(2) Level D currency~~

~~(i) Level D currency is related to designated manoeuvres and addresses knowledge and skills required for performing aircraft control tasks in real time with integrated use of associated systems and procedures. Level D currency may also address certain differences in flight characteristics including performance of any required manoeuvres and related normal, non-normal and emergency procedures. When level D is necessary, lower level currency is also addressed.~~

~~(ii) Re-establishing level D currency~~

~~When currency is lost, it may be re-established by completing pertinent manoeuvres using a device equal to or higher than that specified for level D differences training and checking.~~

~~(3) Level E currency~~

~~(i) Level E currency requires that recent experience requirements of Part-FCL and operational requirements be complied with in each aircraft separately. Level E currency may also specify other~~

~~system, procedure, or manoeuvre currency item(s) necessary for safe operations, and requires procedures or manoeuvres to be accomplished in a level C or D simulator. Provisions are applied in a way which addresses the required system or manoeuvre experience.~~

~~When level E is assigned between aircraft of common characteristics, credit may be permitted. Assignment of level E currency requirements does not automatically lead to a determination on same or separate type rating.~~

~~When CTLC is permitted, any credit or constraints applicable to using a level C or D simulator are also to be determined.~~

~~(ii) Re-establishing level E currency~~

~~When currency is lost, it may be re-established by completing pertinent manoeuvres using a device specified for level E differences training and checking.~~

**CS FCD.~~430~~ 420 Evaluation process overview**

(a) Six standard evaluations (T1, T2, T3, T4, T5 and T6) are defined under CS FCD.~~435~~ 425. They are used to set MDRs, acceptable training programmes, other provisions, and to define type rating requirements as shown in Appendix ~~3~~ 2. One or more of these six evaluations are applied depending on the objectives of the applicant, on the difference level sought, and on the successful outcome of any previous evaluations used in identifying MDRs.

(b) The following evaluations are used:

(1) The T1, T2 and T3 evaluations are used when an applicant presents an aircraft seeking pilot training, checking, or currency credit, based on similarities with an existing aircraft, in order to determine its level of difference with the base aircraft of comparison. The results of these evaluations determine whether the aircraft is a new type or a variant. The level of differences determines the minimum required training, checking and currency standards as applicable to the candidate aircraft.

(2) The T4 evaluation is used to establish relief from established currency requirements based on system, procedural and manoeuvring differences between aircraft.

(3) The T5 evaluation is used when an applicant presents a candidate aircraft as a new aircraft type with no anticipated application for pilot type rating credit for similarities with aircraft previously type certified. The results of a T5 evaluation determine a separate pilot type rating and the minimum required training, checking, and currency standards as applicable to that type of aircraft.

(4) The T6 evaluation is used to evaluate CTLC between different types of aircraft.

(c) The flow chart for the evaluation process is to be found in Appendix ~~3~~ 2.

**CS FCD.~~435~~ 425 Evaluation process and evaluation descriptions**

Definition of the evaluation process and evaluation descriptions:

(a) Difference level evaluations

Five standard evaluations are used to evaluate a candidate aircraft with regard to pilot type rating, minimum syllabus, operational evaluations, and credit for ~~Military Free Fall (MFF)~~ operations on more than one type or variant. One additional evaluation, the T6 evaluation, can be used to establish CTLC between related aircraft when not previously demonstrated in a T2 evaluation.

One or more of these six evaluations are applied depending on the objectives of the applicant, difference level sought, and the successful outcome of any previous evaluations used in identifying MDRs.

(b) Steps in the evaluation process

When evaluation is accomplished, T1 and T2 evaluation compare the candidate aircraft with the base aircraft. The applicant submits ODR and MDR tables that address the differences between the base and candidate aircraft and vice versa~~.~~, if requested by the applicant. Normally for level A and B differences, two-way testing is not necessary.

If an ~~manufacturer~~ applicant wished to obtain an evaluation ~~of an additional training course~~ for a direction that was not initially evaluated, ~~a T3~~ the Agency will review the request and may perform an evaluation in the direction that was not previously evaluated ~~is to be performed~~.

(c) Prior to evaluation:

(1) representative training programmes, difference programmes and necessary supporting information are developed as needed;

(2) proposed MDRs and example ODRs are identified;

(3) the applicant proposes which evaluations and criteria apply. Evaluations may be combined;

(4) the applicant proposes which aircraft, variants, simulation devices, or analysis is needed to support the evaluation;

(5) the applicant proposes test procedures, schedules and specific interpretation of possible results.

(d) Evaluation purpose and application

Evaluation purpose and application are summari~~z~~sed in the table below:

| | **EVALUATION PURPOSE** | **APPLICATION** |
|---|---|---|
| T1 | Establishes functional equivalence | Sets levels A/B |
| T2 | Handling qualities comparison | Pass permits T3, and A/B/C/D; failure sets level E and requires T5 or T2+T3 for commonality credit |
| T3 | Evaluates differences and sets training or checking requirements | Pass sets levels A/B/C/D; failure sets level E and requires T5 or T2+T3 for commonality credit |
| T4 | Revises currency requirements | |
| T5 | Sets training or checking for new or 'E' aircraft | Sets level E |
| T6 | Evaluation for CTLC | Sets recent experience requirements |

Detailed description of the purpose, process and application of each of the six difference level evaluations is as follows:

(e) Evaluation 1 (T1): functional equivalence

Evaluation purpose: to determine whether A or B training level is appropriate.

Evaluation subjects: as established by the Agency based on a proposal by the applicant.

Evaluation process: administer appropriate portions of a proficiency check as agreed by the Agency based on a proposal by the ~~manufacturer~~ applicant. This evaluation may be accomplished in a training device, ~~or simulator~~ FFS, or aircraft as appropriate. Only those portions of the proficiency check which are affected by the differences from the base aircraft need to be evaluated. For minor level A or B differences this evaluation may be conducted through analysis.

(1) Successful evaluation validates that base and candidate aircraft are sufficiently alike to assign level A or B differences.

(2) Failure of evaluation generally requires completion of T2 and T3 evaluation. Normally, re-evaluation is not appropriate; however, at the request of the applicant re-evaluation may be accepted by the Agency.

(3) The Agency may waive the T1 test if a T2 test is to be performed.

(f) Evaluation 2 (T2): handling qualities comparison

Evaluation purpose: to evaluate handling qualities using specific flight manoeuvres to determine whether level A, B, C or D training is appropriate. At the discretion of the Agency the T2 evaluation may be completed through analysis ~~without requiring an aircraft flight~~.

Evaluation subjects: as established by the Agency based on a proposal by the applicant.

Evaluation process: compare the handling qualities during a set of agreed manoeuvres. This evaluation is conducted in the base and candidate aircraft, unless safety considerations dictate use of an approved ~~simulator~~ FSTD as defined in CS FCD.415(a) for Level E. Manoeuvres are performed with the aid of a safety pilot who may only aid in areas not related to the evaluation. Normal crew call-outs and coordination are permitted; however, the safety pilot may not assist in any other manner unless directly related to a safety of flight issue, for example no 'coaching' or instructing is permitted.

Successful evaluation: validates that base and candidate aircraft are sufficiently alike in handling characteristics to permit assignment of level A, B, C or D training. A successful evaluation permits a subsequent evaluation (T3) to assess systems differences, training or checking to be conducted. If a subsequent T3 test is not requested, level A or B training can be assigned.

When T2 is otherwise successfully completed, manoeuvre training devices or aircraft as mentioned in CS FCD.415(a) ~~FFS or aircraft training~~ may be proposed within level D training for the conduct of specific manoeuvres.

Failure of evaluation: failure of the T2 evaluation indicates that major differences exist in handling characteristics during critical phases of flight (such as take-off or landing) or that numerous less critical but still significant handling qualities differences exist between the base and candidate aircraft. T2 evaluation failure requires the assignment of level E training. Also with level E training a separate type rating is normally

assigned to the candidate aircraft being evaluated. Normally T2 re-evaluation is not appropriate; however, re-evaluation may be proposed.

(g) Evaluation 3 (T3): systems differences and validation of proposed differences training and checking

Evaluation purpose: to evaluate the proposed differences training and checking programmes and training devices at level A, B, C or D.

Evaluation subjects: pilots designated by the Agency, trained and experienced in the base aircraft and having been given the proposed differences training programme for the candidate aircraft.

Evaluation process: if level B training is appropriate, T3 may be completed by analysis. If level C or D training is appropriate, administer appropriate portions of a proficiency check in system or manoeuvre training devices or in an aircraft, as mentioned in CS FCD.415(a) ~~a level C or D simulator as established by the Agency based on a proposal by the manufacturer~~. Following completion of the flight test (proficiency check), a simulated Line Oriented Flying (LOF) check may be administered by the Agency. This LOF check is normally administered in ~~a simulator~~ an FFS but may be accomplished in a test aircraft as appropriate.

Successful evaluation: permits assignment of level A, B, C or D training and validates the proposed differences training or checking programmes.

Failure of evaluation: indicates that either the proposed training is inadequate and is in need of revision to qualify for a re-evaluation opportunity or T3 failure may require the assignment of level E training. With level E training a separate type rating is normally assigned to the candidate aircraft. Re-evaluation may be proposed.

(h) Evaluation 4 (T4): currency validation

Evaluation purpose: used to evaluate relief from established currency requirements. This currency evaluation addresses system, procedural and manoeuvring differences between aircraft and not the recent experience requirements for take-off, approach and landing as mentioned in FCL.060(b) of Part-FCL.

Evaluation subjects: as established by the Agency based on a proposal by the ~~manufacturer~~ applicant.

Evaluation process: as established by the Agency based on a proposal by the ~~manufacturer~~ applicant, but normally involves a process for validating a specific currency proposal made by the ~~manufacturer~~ applicant or alternative evaluation methods such as direct observation of proficiency checks or LOF simulator sessions.

Successful evaluation: validates that the proposed currency provision(s) is (are) accepted as a means of compliance with the applicable requirements and provides an equivalent level of safety. T4 may be completed as part of an initial certification or evaluation process or as a follow-up of evaluation.

Failure of evaluation: indicates that the proposed currency requirements do not provide an equivalent level of safety and may lead to re-evaluation as determined by the Agency based on a proposal by the ~~manufacturer~~ applicant, if appropriate.

(i) Evaluation 5 (T5): initial or transition training programme validation

Evaluation purpose: used to validate training course(s) at level E (new type rating). In accordance with the pilot prerequisites for the subject training

course, training course(s) to be evaluated is (are) either a full type rating course(s) or reduced type rating course(s) with credit for previous experience on similar aircraft types.

Evaluation subjects: as established by the Agency based on a proposal by the ~~manufacturer~~ applicant.

Evaluation process: as established by the Agency based on a proposal by the ~~manufacturer~~ applicant, but normally involves evaluation subjects receiving the proposed training and the Agency observing or administering the checking upon completion of the training. A T2 and T3 evaluation may be performed if credit for commonality is requested. This evaluation may be structured to evaluate specific commonality objectives as established by the Agency based on a proposal by the ~~manufacturer~~ applicant.

Successful evaluation: validates that the proposed training satisfies the appropriate requirements.

Failure of evaluation: indicates that the proposed training programme requires modification to satisfy the appropriate requirements. A re-evaluation as established by the Agency based on a proposal by the ~~manufacturer~~ applicant would normally be required.

T5 evaluation may credit applicable evaluation done during T2 and T3 evaluations in the event of T2 or T3 evaluation failures.

(j) Evaluation 6 (T6): CTLC

Evaluation purpose: to establish credit between the base and candidate aircraft towards the recent experience requirements for take-off and landing.

Evaluation subjects: pilots designated by the Agency, ~~not~~ neither trained ~~and~~ nor experienced in the candidate aircraft.

Evaluation process: evaluation subjects are first provided with refresher training in the base aircraft to establish a baseline of proficiency. This training may be accomplished in the aircraft or in an approved level C or D ~~full flight simulator~~ FFS. The subject is then evaluated in the candidate aircraft, without any training in it, accomplishing a minimum of three take-offs and landings without use of the autopilot. It may not be practical to conduct some evaluations in an aircraft. A simulator may be used to conduct these evaluations. Evaluation subjects should be evaluated on the ability to fly the aircraft manually through take-off, initial climb, approach and landing (including the establishment of final landing configuration).

Successful evaluation: validates that the proposed training satisfies the appropriate requirements and an equivalent level of safety can be maintained when full or partial credit for take-offs and landings is given between the base and candidate aircraft.

Failure of evaluation: indicates that an equivalent level of safety cannot be maintained when either full or partial credit for take-offs and landings is given between the base and candidate aircraft.

(k) Disposition of evaluation results

Evaluation results should be summari~~z~~sed by the Agency and the outcome documented in the OSD.

Prior to the issuance of the OSD, a statement declaring the results of the type rating determination may be issued.

## ~~Appendix 1 to CS FCD.100 OSD content~~

~~Box 1: Data required from the TC applicant; mandatory for the end users.~~

~~Box 2: Data required from the TC applicant; non-mandatory (recommendations) for the end users.~~

~~Box 3: Data at the request of the TC applicant; mandatory for the end users.~~

~~Box 4: Data at the request of the TC applicant; non-mandatory (recommendations) for the endusers.~~

**Appendix ~~2~~ 1 to CS FCD.~~410~~400 Compilation of ODR tables**

This appendix specifies the compilation of ODR tables. The applicant conducts a detailed evaluation of the differences and similarities of the aircraft concerned and compiles this into the ODR tables.

(a) ODR 1: General

The general characteristics of the candidate aircraft are compared with the base aircraft with regard to:

(1) general dimensions and aircraft design (number and type of rotors, wing span or category);

(2) flight deck general design;

(3) cabin layout;

(4) engines (number, type and position);

(5) limitations (flight envelope).

(b) ODR 2: Systems

Consideration is given to differences in design between the candidate aircraft and the base aircraft. For this comparison the Air Transport Association (ATA) 100 index is used. This index establishes a system and subsystem classification and then an analysis performed for each index item with respect to the main architectural, functional and operations elements, including controls and indications on the systems control panel.

(c) ODR 3: Manoeuvres

~~(1)~~ Operational differences encompass normal, abnormal and emergency situations and include any change in aircraft handling and flight management. It is necessary to establish a list of operational items for consideration on which an analysis of differences can be made.

~~(2) Operational differences encompass normal, abnormal and emergency situations and include any change in aircraft handling and flight management. It is necessary to establish a list of operational items for consideration on which an analysis of differences can be made~~.

The operational analysis should take the following into account:

~~(i)~~ (1) flight deck dimensions (size, cut-off angle and pilot eye height);

~~(ii)~~ (2) differences in controls (design, shape, location and function);

~~(iii)~~ (3) additional or altered function (flight controls) in normal or abnormal conditions;

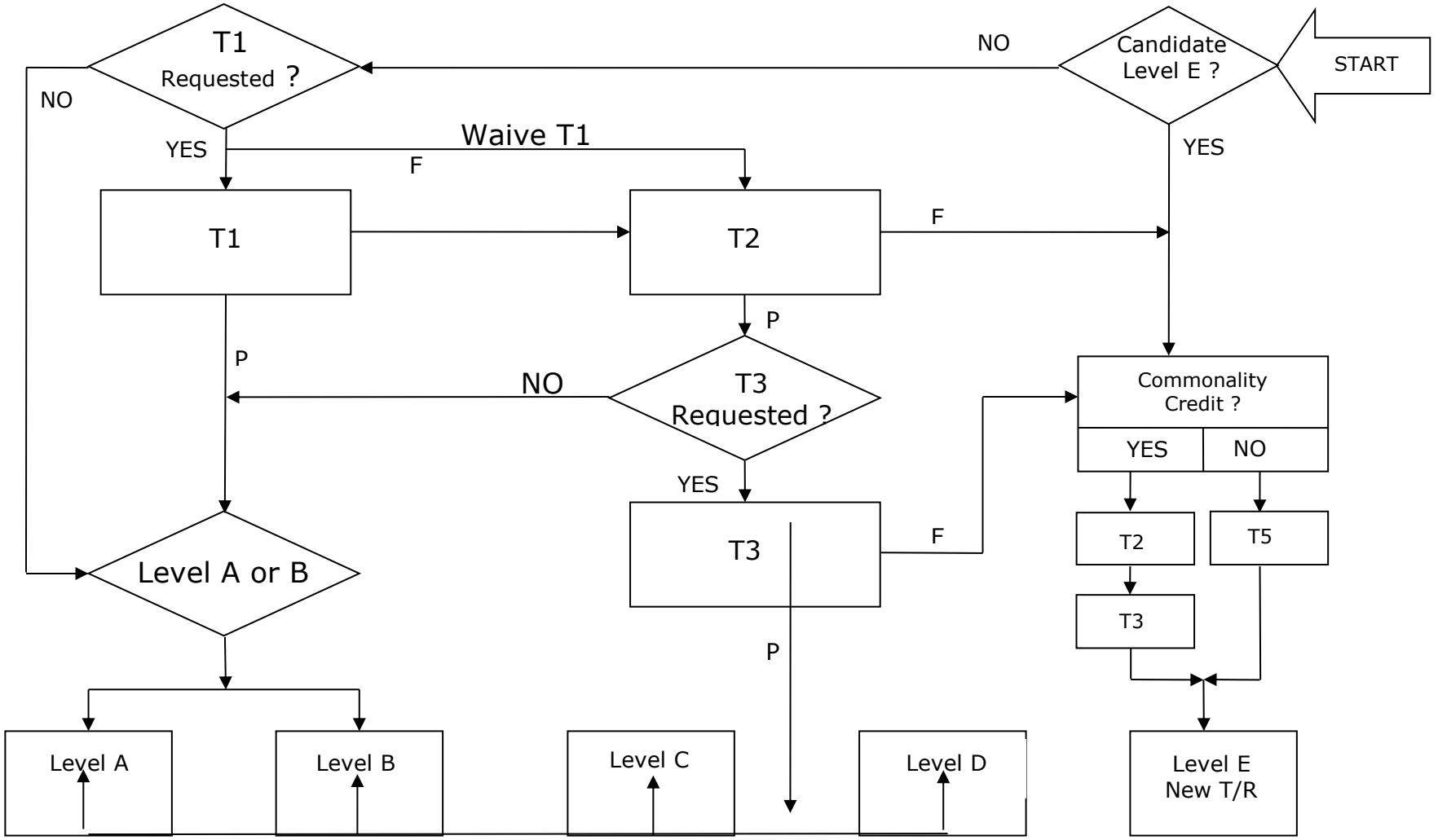
~~(iv)~~ (4) handling qualities (including inertia) in normal and in abnormal configurations;

~~(v)~~ (5) aircraft performance in specific manoeuvres;

~~(vi)~~ (6) aircraft status following failure;

~~(vii)~~ (7) management (such as Electronic Centralised Aircraft Monitoring (ECAM), Engine Indication and Crew Alerting System (EICAS), navaid selection and automatic checklists).

**Appendix ~~3~~ 2 to CS FCD.~~430~~ 425 — Evaluation process**



**II. DRAFT DECISION ON CERTIFICATION SPECIFICATIONS FOR OPERATIONAL SUITABILITY DATA (OSD) FLIGHT CREW DATA — CS-FCD BOOK 2**

# EASA
# Certification Specifications
# for
# Operational Suitability Data (OSD)
# Flight Crew Data
# CS-FCD
# Book 2

**GM1 FCD.050 Scope**

(a) The following is evaluated as appropriate:

(1) specific type of operations or specific aircraft missions;

(2) use of the aircraft in specific environmental context (special approval);

(3) use of optional aircraft equipment.

(b) Specific type of operations and specific aircraft missions include, but are not limited to:

(1) LVO;

(2) ETOPS;

(3) operations dedicated to helicopters such as HHO, HEMS and off-shore operations;

(4) adverse weather such as winter conditions, heavy rain fall, wind shear, thunderstorms, turbulences, volcanic activity and widespread sandstorm;

(5) transport of dangerous goods and cargo flights;

(6) single-pilot operations.

(c) Environmental context for operations includes, but is not limited to:

(1) specific environment such as mountainous area, desert area, particular airports with short or narrow runways, steep approach, Noise Abatement Departure Procedure and brown-out and white-out conditions;

(2) specific airspace such as RVSM, MNPS and BRNAV;

(3) security considerations.

(d) Optional equipment includes, but is not limited to:

New aircraft technology or specific equipment such as HUD, EFB, NVIS, ECL customisation, EVS and SVS.

**GM1 CS FCD.100 Applicability**

(a) The technical requirements and administrative procedures related to civil aviation aircrew and air operations regulations contain references to OSD that may be established in accordance with Commission Regulation (EU) No 1702/2003.

These data may contain mandatory or non-mandatory (recommendations) elements concerning:

(1) type of aircraft categorisation;

(2) period of validity for class and type ratings;

(3) pilot experience requirements and prerequisites to commence training;

(4) theoretical knowledge and flight instruction for the issue of class and type ratings;

(5) recent experience for the operation of more than one type of aircraft;

(6) training, checking, and recent experience, as well as alternating proficiency checks, for operation on more than one type or variant;

(7) pilot training;

(8) crewing of inexperienced flight crew members;

(9) the number of take-offs and landings following ZFTT;

(10) or the issue of a specific approval.

(b) The mandatory and non-mandatory (recommendations) OSD may have been established based on data required from an applicant, or based on data provided at the request of an applicant.

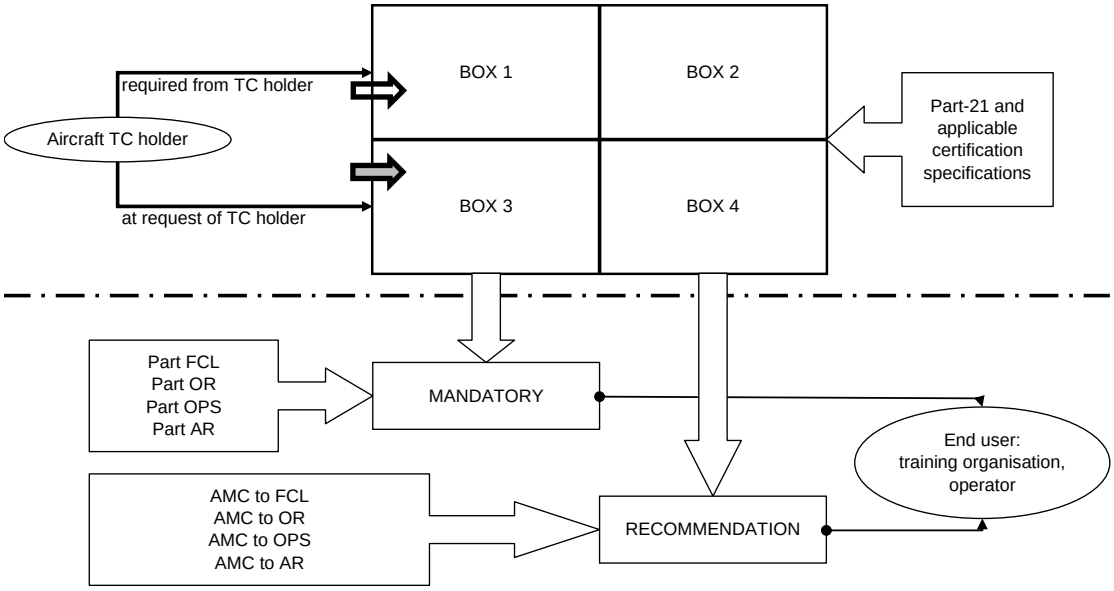
Therefore, OSD can be grouped in 'Boxes' as follows:

(1) Box 1: Data required from the applicant and mandatory for the end user;

(2) Box 2: Data required from the applicant and non-mandatory (recommendations) for the end user;

(3) Box 3: Data at the request of the applicant and mandatory for the end user; and

(4) Box 4: Data at the request of the applicant and non-mandatory (recommendations) for the end user.




Box 1 and 2 combined constitute the minimum syllabus for pilot type rating training as required by Part-21.

2. Some practical examples are provided in the following table:

| **Box 1** | **Box 2** |
|---|---|
| Aircraft type designation and pilot license endorsement<br><br>Prerequisites for initial type rating training and checking<br><br>Training Areas of Special Emphasis (TASE) for initial type rating | Training footprint:<br>(5) for initial type rating |
| **Box 3** | **Box 4** |
| Level of Differences Determination – ODR & MDR Tables<br><br>TASE for:<br>(6) differences training<br>(7) type rating training based on credit for commonality<br>(8) training for specific operations, procedures or equipment (e.g. steep approaches, RNP AR, EVS/SVS, EFB, NVIS, etc.)<br><br>Prerequisites or recent experience requirements for operation on more than one type or variant | Training footprint for:<br>• differences training<br>• type rating training based on credit for commonality<br>• training for specific operations, procedures or equipment (e.g. steep approaches, RNP AR, EVS/SVS, EFB, NVIS, etc.)<br><br>CTLC<br><br>Credits for training, checking or currency |

**GM1 FCD.105 Definitions**

List of acronyms used in CS-FCD

| | |
|---|---|
| ACARS | Aircraft Communication Addressing and Reporting System |
| AGNA | Advisory Group of National Authorities |
| ATA | Air Transport Association |
| ATQP | Alternative Training and Qualification Programme |
| BRNAV | Basic Area Navigation |
| CBT | Computer-Based Training |
| CTLC | Common Take-off and Landing Credit |
| CRD | Comment Response Document |
| CRT | Comment Response Tool |
| CS | Certification Specifications |
| DR | Difference Requirement |
| ECL | Electronic Check List |

| | |
|---|---|
| EFB | Electronic Flight Bag |
| EFIS | Electronic Flight Instrument System |
| ETOPS | Extended range operations with two-engine aeroplane |
| EVS | Enhanced Vision System |
| FAA | Federal Aviation Administration |
| FC | Flight Crew |
| FCL | Flight Crew Licensing |
| FD | Flight Director |
| FFS | Full Flight Simulator |
| FGCS | Flight Guidance Control System |
| FMS | Flight Management System |
| FNPT | Flight and Navigation Procedures Trainer |
| FSTD | Flight Simulation Training Devices |
| FTD | Flight Training Device |
| GM | Guidance Material |
| GPWS | Ground Proximity Warning System |
| HEMS | Helicopter Emergency Medical Service |
| HHO | Helicopter Hoist Operations |
| HUD | Head Up Display |
| INS | Inertial Navigation System |
| JAA | Joint Aviation Authorities |
| JOEB | Joint Operational Evaluation Board |
| LBS | Load & Balance and Servicing |
| LIFUS | Line Flying Under Supervision |
| LOF | Line Oriented Flying |
| LVO | Low Visibility Operations |
| MDR | Master Difference Requirement |
| MNPS | Minimum Navigation Performance Specification |
| MMEL | Master Minimum Equipment List |
| ~~MFF~~ | ~~Military Free Fall~~ |
| NAA | National Aviation Authorities |
| NPA | Notice of Proposed Amendment |
| NVIS | Night Vision Imaging System |
| ODR | Operator Difference Requirement |
| OEB | Operational Evaluation Board |
| OPT | Operational Performance Tool |
| OSD | Operational Suitability Data |
| OTD | Other Training Devices |
| PIC | Pilot-In-Command |
| QRH | Quick Reference Handbook |
| RVSM | Reduced Vertical Separation Minima |
| SSCC | Safety Standards Consultative Committee |
| SVS | Synthetic Vision System |

| | |
|---|---|
| TC | Type Certificate |
| TCAS | Traffic Collision Avoidance System |
| TCCA | Transport Canada |
| ToR | Terms of Reference |
| TRI | Type Rating Instructor |
| VFR | Visual Flight Rules |

**GM1 FCD.200 Determination of a pilot type rating**

For the category of aircraft described in CS FCD.200(a)(3) during the type certification process an assessment will be performed whether the aircraft type requires a pilot type rating. The applicant for a TC ~~type certificate~~ is then requested to apply for approval of a minimum syllabus for pilot type rating training unless he/she can show that type training is not required to fly the aircraft safely. This should be based on the considerations listed in that subparagraph.

**GM1 FCD.300 Pilot type rating training requirements for a specific aircraft**

(a) The following table presents an example ~~of an evaluated full type rating course which was found to be compliant with the applicable requirements~~ of a training footprint for a type rating course. This footprint can be equally applicable to other training courses by adapting the contents and duration.

| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
|---|---|---|---|---|
| **Tablet Introduction**<br>**CBT Module 1**<br>(x:xx hrs) | **CBT MODULE 2**<br>(x:xx hrs) | **CBT MODULE 3**<br>(x:xx hrs) | **CBT MODULE 4**<br>(x:xx hrs)<br>**OTD MODULE 1**<br>(x:xx hrs) | **Tutorial 1**<br>**OPT**<br>(x:xx hrs) |

| Day 6 | Day 7 | Day 8 | Day 9 | Day 10 |
|---|---|---|---|---|
| **CBT MODULE 5**<br>(x:xx hrs)<br>**OTD MODULE 2**<br>(x:xx hrs) | **CBT MODULE 6**<br>(x:xx hrs)<br>**OTD MODULE 3**<br>(x:xx hrs) | **CBT MODULE 7**<br>(x:xx hrs)<br>**OTD 4**<br>(x:xx hrs) | **CBT MODULE 8**<br>(x:xx hrs)<br>**OTD MODULE 5**<br>(x:xx hrs) | **CBT MODULE 9**<br>(x:xx hrs)<br>**OTD MODULE (**<br>(x:xx hrs) |

| Day 11 | Day 12 | Day 13 | Day 14 | Day 15 |
|---|---|---|---|---|
| **CBT MODULE 10**<br>(x:xx hrs)<br>**OTD MODULE 7**<br>(x:xx hrs) | **CBT MODULE 11**<br>(x:xx hrs)<br>**OTD MODULE 8**<br>(x:xx hrs) | **CBT MODULE 12**<br>(x:xx hrs)<br>**OTD MODULE 9**<br>(x:xx hrs) | **CBT MODULE ~~1S~~ 13**<br>(x:xx hrs)<br>**OTD MODULE 10**<br>(x:xx hrs) | **Tutorial 2**<br>**EFB, QRH**<br>(x:xx hrs)<br>**Tutorial 3**<br>**LBS**<br>(x:xx hrs) |

| Day 16 | Day 17 | Day 18 | Day 19 | Day 20 |
|---|---|---|---|---|
| **Variances (if needed)**<br>(x:xx hrs) | **FFS MODULE 1**<br>(x:xx hrs) | **FFS MODULE 2**<br>(x:xx hrs) | **FFS MODULE 3**<br>(x:xx hrs) | **FFS MODULE 4**<br>(x:xx hrs) |

| Day 21 | Day 22 | Day 23 | Day 24 | Day 25 |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| **FFS MODULE 5**<br>(x:xx hrs)<br>**Wind shear briefing**<br>(x:xx hrs) | **FFS MODULE 6**<br>(x:xx hrs) | **FFS MODULE 7**<br>(x:xx hrs) | **FFS MODULE 8**<br>(x:xx hrs) | **Skill test**<br>(x:xx hrs) |

*Note:* Times for OTD and FFS modules include time for briefing and debriefing.

(b) Reduced training footprint

Type rating training is based on pilot's prerequisites.

If there is commonality between the base and candidate aircraft, a reduced type rating training footprint may be provided by giving credit to the common characteristics between these types.

If the determination is made that the base and candidate aircraft are considered variants, only differences or familiari~~z~~sation training is required.

(c) Training methods

For the training methods for pilot type rating training:

(1) knowledge can be adequately addressed through self-instruction and aided instruction;

(2) hands-on training can be adequately addressed by part task trainers or system devices (for example for FMS and TCAS);

(3) demonstration can only be adequately addressed in a flight training device enabling integration of knowledge, skills and abilities. Depending upon the element to be trained, acceptable training media could be an ~~FNPT, FTD, or FFS~~ FSTD or aircraft.

**GM1 FCD.310 Credit for operation on more than one type or variant**

Credit can be given for common equipment, common procedures, and types of operations which include, but are not limited to:

(a) TCAS training or GPWS training;

(b) alternating proficiency checks;

(c) take-off and landing currency;

(d) currency in conduct of special operations (e.g. low visibility operations, HUD use, and NVIS operations).

~~**GM1 FCD.400 Operational evaluation process**~~

~~(e) At the request of the applicant, the following may be evaluated as appropriate:~~

~~(4) specific type of operations or specific aircraft missions;~~

~~(5) use of the aircraft in specific environmental context (special approval);~~

~~(6) use of optional aircraft equipment.~~

~~(f) Type of operations and aircraft missions include, but are not limited to:~~

~~(7) LVO;~~

~~(8) ETOPS;~~

~~(9) operations dedicated to helicopters such as HHO, HEMS and off-shore operations;~~

~~(10) adverse weather such as winter conditions, heavy rain fall, wind shear, thunderstorms, turbulences, volcanic activity and widespread sandstorm;~~

~~(11) transport of dangerous goods and cargo flights;~~

~~(12) single-pilot operations.~~

~~(g) Environmental context for operations includes, but is not limited to:~~

~~(4) specific environment such as mountainous area, desert area, particular airports with short or narrow runways, steep approach;~~

~~(5) specific airspace such as RVSM, MNPS and BRNAV;~~

~~(6) security considerations.~~

~~(h) Optional equipment~~

~~Use of new aircraft technology or specific equipment such as HUD, EFB, NVIS, ECL customisation, EVS and SVS.~~

**~~GM1 FCD.405 Credit for operation on more than one type or variant~~**

~~Credit can be given for common equipment, common procedures, and types of operations which include, but are not limited to:~~

~~(e) TCAS training or GPWS training;~~

~~(f) alternating proficiency checks;~~

~~(g) take-off and landing currency;~~

(h) ~~currency in conduct of special operations (for example low visibility operations, HUD use, and NVIS operations).~~

**GM1 FCD.~~**~~**415**~~ **405 Master Difference Requirement (MDR) tables**

**Proposed MDRs**

MDR tables are established when candidate aircraft is evaluated in comparison to base aircraft.

*MDRs example:*

| *Aircraft type* | | ***FROM AIRCRAFT (base)*** | | |
|---|---|---|---|---|
| | | **aircraft 1** | **aircraft 2** | **aircraft** |
| **TO AIRCRAFT (candidate)** | **aircraft 1** | n/a | A / A / A | C / B / B |
| | **aircraft 2** | A / A / A | n/a | D/B/B |
| | **aircraft** | C / B / B | D / B / B | n/a |

**GM1 FCD.~~425~~ 415 Difference levels — Training, checking and currency**

(a) While particular aircraft are often assigned the same level for training, checking and currency (for example C/C/C), such assignment is not necessary. Levels might be assigned independently. As an example, candidate aircraft may be assigned level C for training, level B for checking, and level D for currency (for example C/B/D).

(b) Difference level — Training

As an example for the use of a device associated with a higher difference level than required, if level C differences have been assessed due to installation of a different FMS, pilots may be trained using the FMS installed in an FFS as a system trainer, if a dedicated part task FMS training device is not available.

(1) Level A training

Compliance with level A training is typically achieved by methods such as issuance of operating manual page revisions, dissemination of flight crew operating bulletins or differences hand-outs to describe minor differences between aircraft.

Level A training is normally limited to situations such as the following:

(i) the change introduces a different version of a system or component for which the flight crew has already demonstrated the ability to understand and use (for example an updated version of an engine);

(ii) the change results in ~~minor~~ minimal or non-procedural changes and does not result in adverse safety effects if the information is not reviewed or is forgotten;

(iii) information highlighting a difference that, once called to the attention of a crew, is self-evident, inherently obvious and easily understood (for example different location of a communication radio panel, a different exhaust gas temperature limit which is placarded, or changes to abnormal 'read and do' procedures).

(2) Level B training

Level B aided instruction typically employs means such as presentations, tutorials, CBT, stand-up lectures, or videotapes or DVDs.

(3) Level C training

While level C systems knowledge or skills relate to specific rather than fully integrated tasks, performance of steps to accomplish normal, abnormal and emergency procedures or manoeuvres related to particular systems (~~for example flight guidance control systems, flight management systems, etc.~~ such as INS, FMS, or TCAS trainers) may be necessary.

Examples of devices acceptable for level C training:

(i) interactive computer-based training to include FMS trainers, and systems trainers;

(ii) qualified training devices;

(iii) specific systems incorporated in FFS;

(iv) a static aircraft;

(4) Level D training

Manoeuvre training devices or an aircraft as mentioned in CS FCD.~~425~~ 420(a) ~~FFS or aircraft training~~ may be specified for the conduct of specific manoeuvres or handling differences, such as HUD training or a manoeuvre (for example no-flap landing, tail-rotor control failure, etc.). In such cases, the number of hours required ~~in an FFS or aircraft~~ should normally be limited to ~~two hours for aeroplanes and~~ an appropriate number of hours within Level D training ~~for other aircraft~~.

(5) Level E training

If training is performed in an aircraft, it should be modified for situations like setting the affected engine at idle thrust to simulate an engine failure, for safety reasons.

(c) Difference level — Checking

(1) Level A checking

Differences items should be included as an integral part of subsequent proficiency checks.

(2) Level B checking

Level B checking typically applies to particular tasks or systems, such as INS, FMS, TCAS, or other individual systems or related groups of systems.

(3) Level C checking

An example of level C checking would be the evaluation of a sequence of manoeuvres demonstrating a pilot's ability to use a flight guidance control system or flight management system. An acceptable scenario would include each relevant phase of flight but would not necessarily address manoeuvres that do not relate to set up or use of the FD or FMS.

(d) Difference level — Currency

(1) Level A currency

Level A currency consists of a self-review as necessary.

(2) Level B currency

Self-review is usually accomplished by review of material provided by the operator to pilots. Such currency may be undertaken at an individual pilot's initiative; however, the operator identifies the material and the frequency or other situations in which the material should be reviewed. Self-review may be based on manual information, bulletins, aircraft placards, memos, class hand-outs, videotapes or DVDs, or other memory aids that describe the differences, procedures, manoeuvres, or limits for the aircraft that pilots are flying.

An example of acceptable compliance with level B currency would be the issuing of a bulletin which directs pilots to review specific operating manual information. Level B currency may be regained by review of pertinent information to include bulletins, if that variant has not been flown within a specified period (for example fly that variant or have completed a review of the differences in limitations and procedures within the past 90 days).

Another method of compliance would be pilot certification on a dispatch release that they have reviewed pertinent information for a particular variant to be flown on that trip. However, level B currency cannot be achieved solely by review of class notes taken by and at the initiative of an individual pilot, unless the adequacy of those notes is verified by the operator.

(3) Level C currency

An example of level C currency would be the establishment of INS currency, FMS currency, flight guidance control system currency, or other particular currency that is

necessary for safe operation of an aircraft. Establishment of level C currency for an FMS would typically require a pilot to fly the aircraft within a specified period or to re-establish currency. Typically, currency constraints for level C are 90 days. However, some systems or procedures may require shorter time limits while others may be longer than the normal interval for proficiency checks, if the pertinent items are not always addressed by these checks.

Examples of methods acceptable for addressing level C currency are:

(i) pilot scheduling practices resulting in a pilot being scheduled to fly a variant with the pertinent system or procedure within the specified period;

(ii) tracking of an individual pilot's flying to ensure that the particular system or procedure has been flown within the specified period;

(iii) use of a higher level method (level D or E currency).

Re-establishing level C currency

Means to re-establish currency include flights with an appropriately qualified TRI, completion of proficiency training, or a proficiency check. In the case of a non-current co-pilot, a designated PIC may be authorised to accompany a flight crew member to re-establish currency. In some instances, a formal re-familiarization period in the actual aircraft with the applicable system operating while on ground may be acceptable. Such re-familiarization periods are completed using an operator-established procedure under the supervision of a pilot designated by the operator.

(4) Level D currency

A typical application of level D currency is to specify selected manoeuvres, such as take-off, departure, arrival, approach, or landing, which are to be performed using a particular FGCS and instrument display system. A pilot either flies an aircraft equipped with the FGCS and particular display system sufficiently often to retain familiarity and competence within the specified currency period, or re-establishes currency.

Examples of methods acceptable for addressing level D currency are:

(i) tracking of flights by an individual pilot to assure experience within the specified currency period;

(ii) tracking of completion of specific manoeuvres based on logbook entries, ACARS data, or other reliable records to assure experience within the specified currency period;

(iii) scheduling of aircraft or crews to permit currency requirements to be met with verification that each pilot has actually accomplished the assigned or an equivalent schedule;

(iv) completion of pilot certification, proficiency check, proficiency training, ATQP evaluations, or other pertinent events in which designated manoeuvres are performed in a device or simulator acceptable for level D currency;

(v) use of a higher level method (level E currency).

Re-establishing level D currency

Means to re-establish currency include flight with an appropriately qualified TRI during training or in line operations, completion of proficiency training, a proficiency check, or ATQP proficiency evaluation.

(5) Level E currency

If FGCS, FMS, EFIS, navigation, or other system or manoeuvre experience is the basis for a currency requirement, approval of an operator's programme at level E includes use of those systems in conjunction with satisfactory take-off and landing requirements. In such an instance making three simulator take-offs and landings in

VFR closed traffic without using the FGCS, EFIS, or FMS may not be sufficient to meet level E currency requirements.

When credit is permitted between aircraft of common flight characteristics, pertinent currency requirements for knowledge, skills, procedures, or other manoeuvres not related to take-off and landings may be necessary.

Re-establishing level E currency

Means to re-establish currency include flight with an appropriately qualified TRI during training or in line operations, completion of proficiency training, a proficiency check, or ATQP evaluation.

**GM1 FCD.~~435~~ 420 Evaluation process and evaluation descriptions**

Definition of the evaluation process and evaluation descriptions

(a) Steps in the evaluation process

Normally for level A and B differences a two-way evaluation is not necessary. Typically, T3 evaluation to validate level C and D differences is done in both directions (base to candidate aircraft, and candidate to base aircraft). However, the applicant may request that T3 evaluation be done in only one direction (for example from the base to candidate aircraft). If this is done, the MDR and ODR tables will only reflect findings for this direction. No credit will be given in the MDR or ODR tables for the other direction (candidate to base aircraft).

(b) T2 evaluation: handling qualities comparison

T2 manoeuvres are flown in the base aircraft or base aircraft simulator, and in the candidate aircraft.

The T2 evaluation profile is subject to the characteristics of the base and candidate aircraft. The evaluation profile should incorporate all relevant handling quality aspects of the candidate aircraft. T2 consists of a comparison between selected pilot type rating check manoeuvres (normal, abnormal; please refer to Part-FCL) performed first in the base aircraft ~~(using either the actual aircraft or a level C or D simulator),~~ and then in the candidate aircraft. At the discretion of the Agency, an approved FSTD, as defined in CS FCD.420(a) for Level E, can be used for the base aircraft and, when safety considerations dictate, in the candidate aircraft.

Although T2 evaluations should always be accomplished in the candidate aircraft, some portions that significantly affect aircraft safety (such as flight control failures) may be conducted in a simulator suitable for the test. Subject pilots are ~~evaluated~~ observed and provide feedback on performance of required manoeuvres consistent with the standards set in Part-FCL and on the degree of difficulty in performing manoeuvres in the candidate aircraft compared to the base aircraft.

(c) T4 evaluation: currency validation

T4 evaluation is a currency test that can be used when an applicant seeks relief from existing currency provisions as set in the applicable ODR tables. This test may be done before or after the aircraft enters into service.

(d) T6 evaluation: CTLC

Test subjects should be evaluated on their ability to fly the aircraft manually through take-off, initial climb, and approach and landing (including the establishment of final landing configuration). The applicant should consider the effects on the take-off and landing manoeuvres for the following factors when designing the T6 test:

(1) aircraft weight;

(2) aircraft centre of gravity;

(3) take-off and landing crosswinds.

## 4. Individual comments (and responses)

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

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

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

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

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

| **(General comments)** | - |
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| comment | *11* comment by: *Luftfahrt-Bundesamt*<br>The LBA has no comments on NPA 2012-05. |
| response | *Noted*<br>Noted.<br>The Agency thanks for this positive feedback. |

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| comment | *16* comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*<br>The Swedish Transport Agency finds the proposal acceptable. |
| response | *Noted*<br>Noted.<br>The Agency thanks for this positive feedback. |

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| comment | *18* comment by: *ADAC Hems Academy*<br>The certification Specifications mostly are written for fixed wing. On some points helicopters need different types of training. E.g. some special manoeuvres, like training a shaft brake of the tail rotor, can not be trained on an aircraft due to safety reasons. Therefore it has to be trained on a simulator.<br>Level A and B simulators are left out of consideration. |
| response | *Noted*<br>Noted.<br>Helicopters need different types of training: This is exactly the scope of this CS-FCD 0.50.<br>Concerning level of simulators:<br>Partially accepted. |

See the Agency's response to Bristow Helicopters comments 2 to 8.

comment *20* comment by: *UK CAA*

**General Comment**
**Page No:** All
**Comment:** The OSD process will now be part of Certification. It is an Operational or Flight Standards function and making it part of Certification is likely to reduce the independent approach which has so usefully complemented aircraft evaluation in the past. Thought processes are different between the two areas and this diversity should be encouraged – it produces safer aircraft.

response *Noted*

Noted.
The impact of integrating the OSD process into the scope of aircraft certification was considered and consulted during the development of the relevant implementing rules, leading to the EASA Opinion 07/2011. This integration has the benefit of sharing knowledge between airworthiness and operational experts in a coordinated process. Furthermore, this issue is outside the scope of this NPA.

comment *42* comment by: *Dassault Aviation*

DASSAULT**-**AVIATION comment ***GEN-1 Global background concern***
DASSAULT-AVIATION report a global background concern, as for DASSAULT-AVIATION the aim of the OSD FC is mainly to:

1. identify how possible impacts on safety have to be managed/avoided through the knowledge that must possess the pilots (this analysis leads to "TCH minimum requirements for training" output)

2. identify/confirm the Pilot Type Rating of a given aircraft/variant.

This introduction points out that the aim of the OSD evaluation is definitively not to evaluate the training course: the aim is to evaluate/validate the FC Operational Suitability Data, which practically may be done through means such as the use of a "not yet validated" training course.

This subtlety is critical, all the more it also impacts reliability aspects: DASSAULT-AVIATION have to specify the level of knowledge that must possess the trainee, and not the training course itself. It is the responsibility of the training provider to build a training course that adequately addresses the TCH requirements/inputs.

As a consequence, the CS should not mislead the reader by using words such as "acceptable training" or "validation of training", when used in the OSD target context (e.g. **CS FCD.300(c), CS FCD.430(a), CS FCD.435(g), CS FCD.435(i), CS FCD.435(j)**, …).

This being said, and in order to ease efficiency and practical organizational aspects, DASSAULT-AVIATION understand and even promote possible "combined" sessions/meetings, where EASA would evaluate/validate the OSD (in interface with the TCH), while an Authority would simultaneously evaluate/validate the training course (in interface with the training provider).

response *Noted*

Noted.
The Agency has taken this global comment into consideration during the review of the relevant elements of the proposal.

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| comment | *43* comment by: *Dassault Aviation*<br><br>DASSAULT**-**AVIATION comment ***GEN-2 Different natures of notions to be considered***<br><br>As confusions are frequent for many readers within our organization, it appears to be very important that the CS-FCD more clearly distinguishes:<br><br>1. the data that are output data for the OSD (i.e the output data to be certified). These data shall be distributed among Boxes 1 to 4.<br><br>2. the data that aim to support the OSD certification process (i.e. flight documentation, ODR tables, …). They are not to be related to the Boxes concept.<br><br>3. the "genuine" applicable requirements,<br><br>4. and the possible substantiation means and methods, which should be included in the Book 2 section.<br><br>In order to better reflect the difference of nature between above notions, DASSAULT-AVIATION even suggest the plan of the CS-FCD to be articulated in such a way. |
| response | *Noted*<br><br>Noted.<br>The CS-FCD contains flight crew specific processes and criteria related to the determination of a pilot type rating and to operational evaluations for proposed operations. The management of changes and interactions between the TCH and the Agency, including DOA, transitory and catch-up arrangements, are outside the scope of the CS-FCD and are addressed separately on a global level for all OSD elements. The EASA Opinion 07/2011 addresses the extension of scope of design organisation approval or alternative procedures to design organisation approval, as applicable, to include operational suitability aspects. |

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| comment | *44* comment by: *Dassault Aviation*<br><br>DASSAULT**-**AVIATION comment ***GEN-3 Need to open on changes***<br>· The CS does not provide any requirement nor guidance regarding the management of changes, though the CS mentions notions such as "base" and "candidate" aircraft, ODR tables, optional equipment, … . This appears incoherent or even abnormal for DASSAULT-AVIATION, as such notions are generally driven by design changes.<br>· The CS does not provide any criteria (even temporary criteria) about classification, which will force the TCH to apply -on a voluntary basis !- during many years, i.e. each time a new OSD will need to be published.<br>In order to ease a progressive implementation of the process, while easing the catch-up of data at the time the final criteria will be published, DASSAULT-AVIATION propose that the CS integrates some "typical transitory" criteria for TCH who intend to extend their DOA privileges to some OSD.<br>In order to illustrate this idea, and as DASSAULT-AVIATION understand that these "typical transitory" criteria need to be acceptable by the EASA waiting for pending industry-EASA discussions to come, these "typical transitory" criteria would avoid a TCH application when the evaluation would:<br>o not need any T2 test,<br>o not need any need a training level that is greater than "Level C" (from ODR table),<br>o not need any ESF |

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| | o not trigger any 21A.16 criteria.<br>Of course and as a prerequisite, the use of these "typical transitory" criteria would only be authorized on a case-to-case basis, after a TCH-EASA formal agreement based on the TCH ability and associated demonstrated process. |
| response | *Noted*<br><br>Noted.<br>See the Agency's response to Dassault comment 43. |

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| comment | *45* comment by: *Dassault Aviation*<br><br>DASSAULT**-**AVIATION comment ***GEN-4 Use of Authority word (+ think to possible DOA privileges extension)***<br>· It appears to DASSAULT-AVIATION that the way the CS is written arbitrarily closes some doors regarding possible future extensions of DOA privileges (e.g. in **CS FCD.435**, …).<br>As a general comment, the "Agency" word would better often be replaced by the (of course competent) "Authority" word, the "Authority" being defined as "the Agency or any other Authority being granted by sufficient DOA privileges by the Agency".<br>· Moreover, the CS should make a clearer distinction between above Authority, and the Authority that is mentioned for qualifying a means (e.g. **CS FCD.425(d)(5)(i)**). The responsibilities are not the same. |
| response | *Noted*<br><br>Noted.<br>Already existing joint evaluations will not be impacted as the processes and criteria contained within CS-FCD are fully harmonised with the corresponding FAA guidance material in AC 120-53A. Furthermore, the current criteria and processes applied in operational evaluations under the existing EASA OEB concept are fully compliant with the provisions contained in CS-FCD. |

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| comment | *46* comment by: *Dassault Aviation*<br><br>DASSAULT**-**AVIATION comment ***GEN-5 What about already existing "joint" projects ?***<br>There are currently some projects that are jointly conducted with the FAA, and also some projects where the evaluation of an Authority (EASA or FAA) is made by a "paper" analysis of the evaluation results of the other Authority (FAA or EASA). How do the developments of these current projects will fit within the framework of this NPA? |
| response | *Noted*<br><br>Noted.<br>See the Agency's response to Dassault comment 45. |

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| comment | *47* comment by: *Dassault Aviation*<br><br>DASSAULT**-**AVIATION comment ***GEN-6 Applicability of existing references ?***<br>DASSAULT-AVIATION think that the Agency should make clear the possible impacts of this CS on existing applicable requirements (understand: at the time the CS will be applicable). E.g. what about the destiny and applicability of the Common Procedures Document? Moreover how will this CS fit within the frame of the IOEBPB ? |

response | *Noted*

Noted.

The applicability and transition of existing OEB recommendations is addressed in the EASA Opinion 07/2011. Applicability of OSD implementing rules and of corresponding CSs will be specified in their adopted provisions. The content of the Common Procedures Document has been transposed to the CS-FCD.

The CS-FCD is consistent with FAA AC 120-53A. Following termination of the OEB process, provisions associated to the OEB process will no longer be applied.

The International Operational Evaluation Policy Board (IOEPB) facilitates the cooperation between Authorities conducting OEB evaluations in support of a coordinated and efficient use of global resources. The IOEPB has no direct impact on the application of EASA OSD requirements.

comment | *48* comment by: *Dassault Aviation*

DASSAULT**-**AVIATION comment ***GEN-7 Minimum syllabus of pilot type rating***
The wordings "minimum syllabus" and "pilot type rating training requirements" that are sometimes use are misleading: the CS-FCD should in all cases use the referent wording of the Basic Rule, i.e. "minimum syllabus of pilot type rating".
This being said this Basic Rule wording is not explicit enough according to DASSAULT-AVIATION.
DASSAULT-AVIATION suggest to include a GM or a dedicated definition (in the **CS FCD.105**) to better show that this "minimum syllabus of pilot type rating" is in fact a "TCH Minimum Requirements for Pilot Type Rating syllabus", in order to highlight the fact that these data are output data to be provided by the TCH.
According to DASSAULT-AVIATION, these "TCH Minimum Requirements for Pilot Type Rating syllabus" could be composed of (when applicable):
o prerequisites for trainees,
o a list of TASEp that may impact the minimum knowledge (seen from the TCH) for TR training (initial, familiarization, difference and recurrent) or TR checking,
o the definition of the necessary currency in order that skills may be kept, o a MDR table (only in case of new TR or impacted TR for a variant), o (as a result of the evaluation) the determination of the TR.

response | *Partially accepted*

Partially accepted.
While CS FCD.105 already contains an adequate definition of Minimum Syllabus, amendments to better reflect the minimum syllabus and context to pilot training have been made throughout CS-FCD.

comment | *67* comment by: *AIRBUS*

The proposed CS-FCD has embraced the concept of the former JAA/EASA Common Procedure document, and allows as a consequence continuation of joint evaluation with FAA, as it is similar enough to the current FAA AC 120-53A.
However, when looking at the specific of the OSD box concept and its application, some adjustments are needed, so as to be accurate compared to the discussions that took place between OEMs and EASA.

response | *Noted*

Noted.
The Agency has taken this global comment into consideration during the review of the relevant elements of the proposal.

**NPA 2012-05 — General comments** p. 1-3

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| comment | *12* comment by: *CAA-NL*<br>Please be advised that the Netherlands has no comments on this NPA |
| response | *Noted*<br>Noted.<br>The Agency thanks for this positive feedback. |

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| comment | *41* comment by: *Swiss International Airlines / Bruno Pfister*<br>SWISS Intl Air Lines takes note of the NPA 2012-05 CS FCD without further comments. |
| response | *Noted*<br>Noted.<br>The Agency thanks for this positive feedback. |

**B. DRAFT RULES — I. DRAFT DECISION ON CERTIFICATION SPECIFICATIONS AND GUIDANCE MATERIAL FOR OPERATIONAL SUITABILITY DATA (FLIGHT CREW DATA) — CS FCD BOOK 1 — SUBPART A GENERAL** p. 10-12

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| comment | *13* comment by: *EUROCOPTER*<br>**CS FCD 100 Applicability**<br>c) second sentence,<br>**Proposal:** amend to read "data provided by the TC applicant <u>are</u> presented… "<br>**Justification**: editorial |
| response | *Accepted*<br>Accepted.<br>See the resulting text for the new wording for entire subparagraph c. |

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| comment | *34* comment by: *EUROCOPTER*<br>**CS FCD 100 Applicability, page 10**<br>Para (c) (1) to (c) (4),<br>**Comment**<br>Repartition of required data within the different boxes is unclear.<br>☐ · Whereas some data may be required in different boxes, the better part of them should appear only in one box, as they cannot be at the same time mandatory and non-mandatory, in particular for the TC holder.<br>· There are articles of this CS FCD that are pertaining to processes, and not data, such as CS FCD 420 and CS FCD 425. It is proposed not to include them in any box. If it is however deemed necessary to keep them in the box concept they should then appear in box3. (*)<br>FCD.405 (c) doesn't exist (**)<br>**Proposal**<br>Amend the 4 bullets to read:<br>(1) Box 1 [Data required from the TC applicant and mandatory for the end users]: |

(i) CS FCD.200;
(ii) CS FCD.300(a);(b);(c);(d);(e)(1) and (2);
(iii) CS FCD.400(a);
(iv) CS FCD.430;
(v) CS FCD.435.
(2) Box 2 (Data required from the TC applicant and non-mandatory for the end users):
(i) CS FCD.300;(e)(3) and (f);
(ii) CS FCD.430;
(iii) CS FCD.435.
(3) Box 3 (Data at the request of the TC applicant and mandatory for the end users):
(i) CS FCD.400 (b);
(ii) CS FCD.405 (a) and (b);
(iii) CS FCD.410;
(iv) CS FCD.415;
(v) CS FCD.420*;
(vi) CS FCD.425*;
(vii) CS FCD.430;
(viii) CS FCD.435.
(4) Box 4 (Data at the request of the TC applicant and non-mandatory for the end users):
(i) CS FCD.400 (b) and (c);
(ii) CS FCD.405 (a) and (b) ;(**)
(iii) CS FCD.430;
(iv) CS FCD.435.

response

*Accepted*

Accepted.
See the Agency's response to Eurocopter comment 13.
The box concept has been moved from the CS-FCD to the newly drafted GM1 CS FCD.100 Applicability.
In this GM the content of the boxes is explained as well.

comment

*49* comment by: *Dassault Aviation*

DASSAULT**-**AVIATION comment ***CS FCD.050 Scope***
· CS FCD.050: In order to ease the CS-FCD reading, please make clear that (a) is addressed in Subpart B, (b) in Subpart C, and (c) in Subpart D.
· CS FCD.050(a): should include the case that (hopefully) an existing Type Rating may be kept.
· CS FCD.050(b): The scope remains unclear: does the CS-FCD intend to be applicable for subjects such as Enhanced Vision Systems for example? Indeed so far (b) only encompasses "pilot type rating training requirements", but for the EVS there is no Type Rating ! This seems incoherent with **CS FCD.400** and with **GM1 FCD.400** that however seem to consider possible EVS evaluations. Again, the CS-FCD should be more opened to design changes, which represent a noticeable part of the activities.
· CS FCD.050(b): should be extended to **GM1 FCD.400(a)**:
o (1) specific type of operations or specific aircraft missions
o (2) use of the aircraft in specific environmental context (special approval)
o (3) use of optional aircraft equipment.
· CS FCD.050(b): should explicitly mention that subjects such as training / checking / currency shall be addressed
· CS FCD.050(b)(1): a GM should be added, so to make clear that TASEp are identified by the TCH through a method which is to be accepted by the Authority,

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| | and then completed and checked through the **CS FCD.300(d)**.<br>· CS FCD.050(b)(2): please clarify the intention ("any proposal by the manufacturer of the candidate aircraft")<br>· CS FCD.050(b)(3): shall be deleted as Part-FCL is apart from the OSD world, and not applicable to the TCH.<br>· CS FCD.050(c): operational suitability evaluations should not be mentioned in the scope, as they should be considered as means that are used to demonstrate the conformity (please see GEN-2 "Different natures of notions to be considered" comment). Please clarify (c), as well as the link with Subpart D. |
| response | *Partially accepted*<br><br>Bullet point 1:<br><br>Not accepted.<br><br>CS FCD.050 does not directly correspond to Subparts B, C, and D (e.g. Subpart D describes processes related to all three subparagraphs of CS FCD.050) but describes the scope of the CS as a whole.<br><br>Bullet point 2:<br><br>Noted.<br><br>CS FCD.050 includes the determination whether '*to establish if a candidate aircraft is recognised as a new type or as a variant to an existing aircraft*'. This implies that in the case of a variant, the same (a single) license endorsement will be determined.<br><br>Bullet point 3:<br><br>Partially accepted.<br><br>CS FCD.050 has been restructured.<br><br>Bullet point 4:<br><br>Partially accepted.<br><br>CS FCD.050 has been restructured. CS FCD.050(b)(2) has been expanded to address design changes, specific equipment, procedures or operations of a candidate aircraft.<br><br>Bullet point 5:<br><br>Accepted.<br><br>To address the training, checking and currency requirements for a specific aircraft, CS FCD.050(a) has been amended accordingly.<br><br>Bullet point 6 and 7:<br><br>Accepted.<br><br>CS FCD.050(b)(2) has been expanded for clarification.<br><br>Bullet point 8:<br><br>Not accepted.<br><br>The requirements related to civil aviation aircrew (Part-FCL) and air operations must be taken into account during the evaluation. In particular, as these requirements contain references to the OSD (e.g. with regard to training areas of special emphasis, legal basis for credit to various elements of pilot type rating).The text has been amended for clarification.<br><br>Bullet point 9: |

Accepted.

(Former) CS FCD.050(c) was not referring to 'operational suitability evaluations' but more general, addresses the operational evaluations for proposed operations and use of equipment (e.g. helicopter sling operations, fire fighting, freight operations, use of EVS/SVS, HUD, RNP AR, steep approaches, etc.). For clarity (former) CS FCD.050(c) has been deleted.

comment *50* comment by: *Dassault Aviation*

DASSAULT**-**AVIATION comment ***CS FCD.100 Applicability***
· CS FCD.100(c)(1)(2)(3)(4): **CS FCD.100(c)(5)** cannot be correct … unless the content of the 4 boxes represents an output data as described in **CS FCD.300(e)**. Which is not the case today, as a mix of different notions is made (please see GEN-2 "Different natures of notions to be considered" comment).
Indeed they are too many parts of CS FCD.XXX chapters, that are distributed in more than one Box of the Box concept. This makes the CS-FCD difficult to understand and as a consequence will make it difficult to comply with. Analysis shows that in fact these CS FCD.XXX parts are generally means dedicated to demonstrate the conformity: such parts should be located in the Book2 (GM), not in the Book 1.
· CS FCD.100(4)(iii): the **CS FCD.405(c)** does not exist. Should (b) be written instead of (c) ?

response *Partially accepted*

Bullet point 1:
Partially accepted.
The Agency has added GM1 CS FCD.100, which provides examples of OSD elements that result from the application of these paragraphs, in accordance with the box concept.
As defined in FCD.105, '*minimum syllabus means the training elements provided by the applicant and approved by the Agency for a specific aircraft type'*. Consequently, the elements described in Box 1 and 2 combined constitute the minimum syllabus for pilot type rating training as required by Part-21. Furthermore, the drafting group which developed CS-FCD considered different options of describing the box contents and decided that the current text would best describe the issue and provide the flexibility needed by industry.

Bullet point 2:
Accepted.
The text of the box concept has been moved from the CS-FCD to the newly drafted GM1 CS FCD.100 Applicability (see the Agency's response to Eurocopter comment 34).

comment *51* comment by: *Dassault Aviation*

DASSAULT**-**AVIATION comment ***CS FCD.105 Definitions***

Some definitions are lacking e.g.:

o "Minimum syllabus of pilot type rating", as this Basic Rule wording is not explicit enough according to DASSAULT-AVIATION.

DASSAULT-AVIATION suggest to include a GM or a dedicated definition (in the **CS FCD.105**) to better show that this "minimum syllabus of pilot type rating" is in fact a "TCH Minimum Requirements for Pilot Type Rating syllabus", in order to highlight the fact that these data are requirements for pilot knowledge (output

data) to be provided by the TCH. Please also see GEN-7 "Minimum syllabus of pilot type rating" comment.

o "Familiarization training" (level A or B).

o "Difference training" (level C or more).

o "TASEp": Training Area of Special Emphasis for pilots.

As a suggestion for definition:

TASEp are part of the "Minimum syllabus of pilot type rating". A TASEp is a training/checking area that is necessary to highlight because it is usually safety-related. Typically TASEp analysis aims at identifying all unusual characteristics of the aircraft that need a special care in order to eliminate the risk of a potential negative impact on the safety. TASEp are mandatory aspects (from the TCH) to be taken into account, as a minimum, by flight crew and by training providers when designing training courses and / or checking programs for flight crew. TASEp mentions as necessary the associated training media.

o "TRI": Type Rating Instructor

response *Partially accepted*

Partially accepted.
A definition of TASE has been added in CS FCD.105. CS FCD.105 already contains an adequate definition of minimum syllabus.

comment *70* comment by: *AIRBUS*

**CS FCD.100 Applicability**
The allocation of the various CS paragraphs to the Boxes 1 to 4 needs to be adjusted as follows:
Case 1
Current text reads:
Quote
1) Box 1 [Data required from the TC applicant and mandatory for the end users]:
(i) CS FCD.200
(ii) CS FCD.300(a);(b);(c);(d);(e);(1) and (2);
(iii) CS FCD.400(a);
(iv) CS FCD.420;
(v) CS FCD.425;
(vi) CS FCD.430;
(vii) CS FCD.435.
Unquote
(ii) above should be modified to read:
(ii) CS FCD.300(a);(b);(c);(d);(e);(1) ~~**and (2)**~~;
As in fact CS FCD.300(e) states:
Quote
(e) The specific training requirements depend on the aircraft type and contain:
(1) training areas of special emphasis related to the particular aircraft type, including identification of all type specific knowledge and skills;
(2) the prerequisite for the minimum entry-level requyirement to be fulfilled by the pilot;
(3) the training footprint
Unquote
(e)(1) is definitely a BOX 1 mandatory element, however, (e)(2) and (e)(3) are combined, in the sense that a footprint is always associated to a prerequisite, and that footprint is a "Recommendation" that goes together with its associated prerequisite.
A footprint for a full course is based on a prerequisite as currently seen in the

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| | A380 EASA OEB report by indicating that the proposed course is designed for pilots having already experience in commercial operations and have been previously qualified on multi-engine transport turbojet equipped with glass cockpit technology including FMS.<br>this means that the duration outline is linked to the pilot previous experience; would a pilot need to be qualified on an A380 with no FMS experience for example, an additional module for FMS familiarization would be required prior conducting the type rating course.<br>Case 2<br>Current text reads:<br>Quote<br>(2) Box 2 (Data required from the TC applicant and non-mandatory for the end users):<br>(i) CS FCD.300(a);(b);(c);(d);(e)(3) and (f);<br>(ii) CS FCD.400(a);<br>(iii) CS FCD.430;<br>(iv) CS FCD.435.<br>Unquote<br>To be consistent with the above comment as prerequisite and footprint are "combined", (i) should be amended to read:<br>(i) CS FCD.300(a);(b);(c);(d);**(e)(2)**; (e)(3) and (f);<br>Case 3:<br>Current text reads:<br>Quote<br>(3) Box 3 (Data at the request of the TC applicant and mandatory for the end users):<br>(i) CS FCD.300(a);(b);(c);(d);(e)(1) and (2);<br>Unquote<br>In fact, CS FCD.300(e)(1) only would be mandatory for end users and should be listed in BOX 3 (Same rationale as for Case 1). (e)(2) would be in BOX 4 in this flow.<br>The text should consequently be amended to read:<br>(i) CS FCD.300(a);(b);(c);(d);(e)(1) ~~**and (2)**~~;<br>Case 4:<br>Current text reads:<br>Quote<br>(4) Box 4 (Data at the request of the TC applicant and non-mandatory for the end users):<br>(i) CS FCD.300(a);(b);(c);(d); (e)(3) and (f);<br>(ii) CS FCD.400(a);(b) and (c);<br>(iii) CS FCD.405(a) and (c);<br>(iv) CS FCD.430;<br>(v) CS FCD.435.<br>Unquote<br>Based on the above comment, the text should be amended to read:<br>(4) Box 4 (Data at the request of the TC applicant and non-mandatory for the end users):<br>(i) CS FCD.300(a);(b);(c);(d); **(e)(2)**; (e)(3) and (f);<br>(ii) CS FCD.400(a);(b) and (c);<br>(iii) CS FCD.405(a) and (c);<br>(iv) **CS FCD.420**<br>(v) **CS FCD.425**<br>(**vi**) CS FCD.430;<br>(**vii**) CS FCD.435. |
| response | *Accepted* |

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| | Accepted.<br>The text has been amended accordingly.<br>The text of the box concept has been moved from the CS-FCD to the newly drafted GM1 CS FCD.100 Applicability (see the Agency's response to Eurocopter comment 34). |

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| comment | *86* comment by: *ADAC Luftrettung GmbH*<br><br>general:<br>Especially for new helicopter types Level C/D simulators will not be immediately available. Until such LEVEL C/D device exists, it should be possible to conduct full training, checking and currency on LEVEL A/B devices for the same type but different variant.<br>This possibility exists by now, and the "grandfathering right" should be granted by the authorities for a period of at least 3 years<br>Justification: even if the Simulator does not represent the real helicopter in full detail (i.e. different variant) the known advantages of using simulators should be taken into account! |
| response | *Partially accepted*<br><br>Partially accepted<br>See the Agency's response to Bristow Helicopters comments 2 to 8. |

**B. DRAFT RULES — I. DRAFT DECISION ON CERTIFICATION SPECIFICATIONS AND GUIDANCE MATERIAL FOR OPERATIONAL SUITABILITY DATA (FLIGHT CREW DATA) — CS FCD BOOK 1 — SUBPART B DETERMINATION OF A PILOT TYPE RATING** p. 13

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| comment | *17* comment by: *ADAC Hems Academy*<br><br>A helicopter pilot has only the aircraft type on his pilot licence, e.g. EC135. The variants are not mentioned on the licence. **Not** like e.g. the Boeing 737, the series are not recorded on the pilot licence. What are then the benefits of a differential training, since it will only be for internal use in a company |
| response | *Noted*<br><br>Noted.<br>In accordance with the Agency Type Rating List, license endorsements do not specify the particular variant for which a pilot has received differences or familiarisation training and that he is qualified to operate. However, the operator (or individual pilot) must have a record of familiarisation/differences training received. E.g. all B737 NG variants have the same Agency designation 'B737 300-900' for the entire series.<br>The benefits of a familiarisation/differences training between variants are absolutely evident, as soon as substantial differences appear most of the time between variants requiring familiarisation or difference training (e.g. Conventional Cockpit versus Glass cockpit for the same type).<br>Familiarisation/differences training already received remains valid when a pilot moves from one company to another. Additional training must be received to operate other variants in the other company. |

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| comment | *52* comment by: *Dassault Aviation* |

DASSAULT**-**AVIATION comment ***CS FCD.200 Determination of a pilot type rating***

· CS FCD-200(a): this chapter would have a better place in the Part 21

· CS FCD-200(b): should refer to the MDR table (**CS FCD.415**)

· CS FCD-200(c),(d): DASSAULT-AVIATION suggest to invert (d) and (c) order, as temporally the change impact analysis is made before part of its result (i.e. type rating and/or variant determination) is recorded in the type certificate data sheet.

response *Not accepted*

Bullet point 1:
Not accepted.
FCD.200(a) relates specifically to pilot type rating, while Part 21 applies to all OSD elements.

Bullet point 2:
Not accepted.
FCD.200(b) already refers to the processes described in Subpart D. An additional reference to the MDR table is not required and would highlight only one of several elements of the determination process.

Bullet point 3:
Not accepted.
FCD.200(c) and (d): the order appears logical as a determination has to be recorded in the TCDS before a change of the entry can be assessed.

comment *71* comment by: *General Aviation Manufacturers Association / Hennig*

The General Aviation Manufacturers Association (GAMA) recommends that EASA revise in several ways the proposed criteria in CS FCD.200 "Determination of pilot type rating" to ensure a clearer set of requirements are in place and no undue administrative burden is placed on applicants for type certification of small aeroplanes.

GAMA Comment 1: The definition of "complex motor-powered aircraft" continues to create artificial barriers to several segments of general and business aviation. While this Notice of Proposed Amendment (NPA) does not lend itself to revise the definition, GAMA believes that the agency should set criteria in CS FCD.200 (a)(1)(i) that by-passes the definition of "complex motor-powered aircraft" in favor of criteria that are performance based. The proposed CS establishes the criteria for required type rating training to which historically many, but not all aircraft currently defined as "complex motor-powered aircraft" are subject to.

The agency has often stated that the introduction of the Operational Suitability Data (OSD) framework is not intended to change the requirements or standards for aircraft, but instead provide the legal vehicle through which generally binding standards, such as a decision, can be linked to the product. As currently written, (a)(1)(i) may expand the type rating requirement to products to which it would otherwise not be applicable. Additionally, some products currently undergoing development would automatically be subject to a type rating when design and performance decision may otherwise have allowed the manufacturer to by-pass the type rating.

GAMA recommends that EASA replace (a)(1)(i) with "multi-pilot certified aircraft" or language similar to that effect to avoid capturing any aircraft model currently not subject to pilot type rating training.

response *Partially accepted*

Partially accepted.

The Agency has taken these comments into consideration during the revision of CS FCD.200.

However, the definition of complex motor-powered aircraft has been established through the 'Basic Regulation' as a means to provide a defined level of safety through requirements applicable for the operation of complex motor-powered aircraft. In particular, this includes a specific requirement for the operator of a complex motor-powered aircraft to '*use only suitably qualified and trained personnel and implement and maintain training and checking programmes for the crew members …*' (Annex IV Para. 8.a.2 refers). By-passing the type-rating requirement for complex motor-powered aircraft to limit the type-rating requirement to multi-pilot certified aircraft (which would eliminate a type rating requirement for aircraft such as the Embraer Phenom 100/300, Cessna Citation, Pilatus PC-12, etc.) would not meet the safety objectives established by the Basic Regulation. Furthermore, sufficient flexibility is needed with regard to emerging aircraft designs (e.g. fly-by-wire light aircraft).

comment *72* comment by: *General Aviation Manufacturers Association / Hennig*

The General Aviation Manufacturers Association (GAMA) recommends that EASA revise the proposed criteria in CS FCD.200 Determination of pilot type rating to ensure a clearer set of requirements are in place and no undue administrative burden is placed on applicants for type certification of small aeroplanes.
GAMA Comment 2: In sub-paragraph (a)(2) the agency proposes types of aircraft that "are not subject to pilot type rating" without further review by the agency. These include (i) sailplanes; (ii) powered sailplanes; and (iii) balloons as well as (iv) "ELA 1 and ELA 2 aeroplanes".
It is GAMA's understanding that ELA 1 and ELA 2 are not necessarily aircraft types, but processes used for type certification to which certain types of aeroplanes can be made subject; that is, for ELA 1 "aeroplanes, sailplanes or powered sailplanes that are not classified as complex motor-powered aeroplanes up to a maximum take-off weight of 1200 kg" and for ELA 2 "aeroplanes, sailplanes or powered sailplanes that are not classified as complex motor-powered aeroplanes up to a maximum take-off weight of 2000 kg" (per EASA Opinion 01/2011).
GAMA further notes that the use of type ratings for most non-complex aircraft (that is, aircraft other than complex motor-powered) is expected to be remain the exception rather than the standard and as such primarily would add an administrative burden if not clearly exempted including forcing an inferred requirement to assess whether the aircraft would warrant a type rating. GAMA believes that the agency must take every step to minimize the burden on the general aviation industry as discussed in many forums. GAMA believes that providing clear guidance that even a type rating assessment is not required for most non-complex aircraft.
GAMA recommends that EASA replace (a)(2)(iv) with "all other non-complex motor-powered aeroplanes" to avoid unnecessary administrative burdens.
Additionally, GAMA notes that in the originally proposed (iv) "ELA 1 and ELA 2 aeroplanes" statement, the agency likely also intended to say "Aeroplanes **that meet the definition** of ELA 1 or ELA 2" to ensure consistent structure with the criteria with (i), (ii) and (iii).

response *Partially accepted*

First comment:
Accepted.
The text of CS FCD.200 has been amended accordingly for clarification.

Second comment:
Partially accepted.
See the Agency's response to GAMA comment 71.

Third comment:
Accepted.
The text of CS FCD.200(a)(2)(iv) has been amended accordingly.

comment *83* comment by: *General Aviation Manufacturers Association / Hennig*

The General Aviation Manufacturers Association (GAMA) recommends that EASA revise the proposed criteria in CS FCD.200 Determination of pilot type rating to ensure a clearer set of requirements are in place and no undue administrative burden is placed on applicants for type certification of small aeroplanes.
GAMA Comment 3: In sub-paragraph (a)(3) the agency proposes to give itself significant discretion to require a pilot type rating for aircraft "...if its handling characteristics, performance or level of flight deck technology require type rating training in order to fly this aircraft safely."
The lack of a clear standard (one could even say that the agency is establishing a circular argument; that is, the "...an aircraft is subject to a pilot type rating... if x, y, or z require a type rating...") is not an acceptable framework for regulating small aeroplanes and will add unbounded unpredictability and administrative burden to any application for type design for small aeroplanes. This would contradict numerous ongoing efforts to simplify and streamline regulatory requirements for general aviation (such as, EASA MB "European General Aviation Safety Strategy" discussion on principles which includes adopting a philosophy of minimum necessary rules focused on the main risks and and a "mimise bureaucracy".)
GAMA believes that EASA must establish clear and performance based standards for requiring pilot type ratings for aircraft not fully identified in (a)(1) or (a)(2) of CS FCD.200 "Determination of pilot type rating".
In the original Notice of Proposed Amendment (NPA 2009-01) that resulted in the opinion for operational suitability data, the agency discussed its interest in having a vehicle for "ways to deal with operational suitability issues" citing specifically the Robinson R22 for which the FAA produced a Special Federal Aviation Regulation (see, NPA 2009-01, page 45). In the case of the R22, the FAA took action to establish a training program for this aircraft based on an accident rate that supported type specific training. In the case of the R22, the FAA supported type training based on operational experience, data and facts.
As currently written, (a)(3) is not acceptable as it introduces a huge administrative burden that seems to be disproportionate in relation to the potential benefit to a limited number of aircraft models. GAMA believes it will raise costs for the applicant, the operator community and the agency without clear benefit to safety in most cases.
Manufacturers do take steps to establish appropriate pilot training guidelines and establishes voluntary training programs (such as for the Cirrus SR-22) and at times by proposing a JOEB process (such as SOCATA's EASA TBM-850 JOEB). GAMA believes that the manufacturer should still have discretion to propose a operational evaluation board for aircraft that are not directly subject to a type rating requirement.
GAMA Recommendation: EASA should re-write (a)(3) to provide clear criteria for when the agency can make an aircraft subject to type rating training. Such clear criteria for initial type certification could include an ability to operate in RVSM airspace. Additionally, if operational history (that is, accident statistics, data or other facts) point to having unique handling characteristics or specific

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| | performance that point to requiring pilot type rating training to operate, then the agency may require the aircraft be made subject to pilot type rating training. Finally, the TC applicant should clearly have the option to make a request to the agency, as has been done in the past, to require pilot type rating training for the aircraft.<br>In short, the following are examples of a revised sub-paragraph (a)(3) that would better establish clear criteria:<br><br>• An aircraft will be subject to a pilot type rating upon formal request by the TC applicant.<br>• Capable of operating in RVSM airspace and equipped with systems for such operation.<br>• A determination based on **operational experience, facts or data** [emphasis added] that the unique handling characteristics or specific performance of the aircraft warrant pilot type rating.<br><br>GAMA, as discussed at length in various meetings of rulemaking group 21.039, is opposed to requiring a pilot type rating based solely flight deck technology and recommend that this criteria be removed from the CS. There are numerous safety efforts underway to promote the introduction of safety enhancing flight deck technology that provide pilots enhanced situational awareness and information about the state of the aircraft. It would undermine these efforts if EASA took steps to introduce the possibility of this safety enhancing avionics also forcing a type rating assessment. |
| response | *Partially accepted*<br><br>Partially accepted.<br>The text has been amended with reference to a determination based on operational experience, facts or data. However, reference to the level of flight deck technology has been retained as the Agency believes that fight deck technology must be considered.<br>See also the Agency's response to GAMA comment 71. |

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| comment | *84* comment by: *General Aviation Manufacturers Association / Hennig*<br><br>The General Aviation Manufacturers Association (GAMA) recommends that EASA ensure that the proposed criteria in CS FCD.200 "Determination of pilot type rating" are only applicable to new applications for type certification of small aeroplanes and that no retro-active requirements are established for the general aviation fleet.<br>EASA Rulemaking Group 21.039 undertook lengthy reviews of grand-fathering and transition measures for the operational suitability data requirements, including CS-FCD, for those types aircraft that are subject to type ratings, MMEL or other OSD requirements.<br>As noted in previous GAMA comments (GAMA 1 / EASA CRT 71, GAMA 2 / EASA CRT 72 and GAMA 3 / EASA CRT 83), the requirements of CS-FCD should be minimal or non-existing for the vast number of non-complex aircraft currently type certificated in Europe.<br>GAMA, however, believes that it is important that the agency affirm that CS-FCD will not be retroactively applied to any non-complex aircraft as part of finalizing the Certification Specification. |
| response | *Noted*<br><br>Noted.<br>The issues of grandfathering and retro-active applicability are outside the scope of |

the CS-FCD and must be addressed on a global level for all OSD elements.
See also the Agency's response to GAMA comment 71.

**B. DRAFT RULES — I. DRAFT DECISION ON CERTIFICATION SPECIFICATIONS AND GUIDANCE MATERIAL FOR OPERATIONAL SUITABILITY DATA (FLIGHT CREW DATA) — CS FCD BOOK 1 — SUBPART C PILOT TYPE RATING TRAINING REQUIREMENTS** p. 14

comment *1* comment by: *Bristow Helicopters*

**General Comment on FSTD to be used:** Throughout NPA 2012-05, the use of any Flight Synthetic Training Device (FSTD) other than FFS C/D for level D (differences) or E (type rating) training, testing, checking, recency or currency has been ignored.
NPA 2012-05 claims to have considered Part FCL in its development, but the proposed text is inconsistent with several sections of Part FCL. Appendix 9 to part FCL allows the use of FTD and FFS for type rating training and checking and testing and does not state the required level of device, other than a general statement regarding "the qualification of the FSTD as set out in Part OR". The extent to which any FSTD may be used in training and checking programmes should be determined by the credits stated on the device Qualification Certificate, and should not be subject to further arbitrary regulatory restrictions.
Part FCL AMC2 FCL.725(a) is the only section that specifically mentions the level of device that may be used for type training programmes. This AMC applies to helicopters only, and was derived from text hastily inserted into JAR-FCL 2 Amendement 6 ( I was a member of the LSST(H) group which produced Amendments 4 to 6 to JAR-FCL 2). The text ommitted FFS A/B, mainly on the assumption that none existed at the time and were unlikley to be built, in spite of the fact that there is a specification standard for such devices contained in JAR FSTD(H), which continued into EASA CS-FSTD(H). However, AMC2 FCL.725(a) does mention how FTD 2/3 may be used in type rating training, so NPA 2012-05 is inconsistent with this guidance. NPA 2012-05 is also inconsistent with EASA CS-FSTD(H) **Appendix 9 to AMC1 FSTD(H).300 General technical requirements for FSTD qualification levels**, which suggests what training and checking credits may be awarded to lower level FFS and FTD.
Due to the very limited number of helicopter FFS available, and deficiencies in the existing traditional helicopter FFS level C/D, linked primarily to the collimated display technology imported from the aeroplane FFS with its inherent limited vertical field of view and poor close-in cues due to the focal point at infinity, operators have developed their own FFS around the FSTD(H) Level B and FTD 3 specification, by building devices which meet the higher requirement of each of these specification levels. These devices are fitted with direct projection visual systems to give the greater vertical field of view and better focal point necessary for many helicopter manoeuvres, such as offshore deck or pinnacle landings and close to the surface manoeuvres. The combination of FFS B and FTD 3 specification was chosen to address the deficiencies in the pure FFS level B associated with the hover and low speed flight envelope (the requirements for the FTD 3 flight data package are equivalent to FFS C/D). The hybrid FFS B/FTD 3 matches, and in some cases exceeds, the capability of existing helicopter FFS C/D. Since the qualification of the first such device in Europe (an S92 FFS B/FTD 3 qualified 04/02/2010), which was awarded the same training and checking credits as a FFS C/D, the number of such devices has steadily grown and includes most modern medium and heavy helicopter types, including S92, EC225, EC135, AS332L2, S76C++ and AW139. Many type rating courses, skill tests, operator conversion courses, proficiency checks, recency and recurrent training sessions

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| | have already been conducted successfully in these devices. It would have a significant impact on industry, training and safety standards to exclude these devices under this NPA from such training, testing and checking. |
| response | *Noted*<br><br>Noted.<br>See the Agency's response to your Bristow Helicopters comments 2 to 8. |

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| comment | *53* comment by: *Dassault Aviation*<br><br>DASSAULT**-**AVIATION comment ***CS FCD.300 Pilot type rating training requirements for a specific aircraft***<br>· CS FCD-300: title should be consistent with the Basic Rule wording, i.e. "minimum syllabus of pilot type rating"<br>· CS FCD-300 (if to be kept): define what is a "specific" aircraft in **CS FCD.105**<br>· CS FCD-300(b): shall be deleted as Part-FCL is apart from the OSD world, and not applicable to the TCH.<br>· CS FCD-300(c): please refer to GEN-1 "Global background concern" comment: the aim is not to evaluate the training.<br>· CS FCD-300(d): appears to be erroneous when stating that "specific training requirements result from the evaluation process and evaluations descriptions as described in CS FCD.435".<br>It is not correct, as in fact the main objective of the evaluations is to confirm the training levels (A, B, C, D, or E) that have previously been proposed by the TCH in its ODR table, and to validate the list of TASEp that has previously been proposed by the TCH.<br>Though it is true that during these evaluations some (additional) specific training requirements may be identified, the origin of these specific training requirements is not located in the evaluation process, which shall be explained more clearly. |
| response | *Partially accepted*<br><br>Bullet point 1:<br>Noted.<br>See the Agency's response to Dassault comment 42.<br><br>Bullet point 2:<br>Not accepted.<br>The Agency believes that the meaning of "specific aircraft" is clear. Furthermore, this phraseology is harmonised with FAA AC 120-53A using the same nomenclature.<br><br>Bullet point 3:<br>Not accepted.<br>See the Agency's response to Dassault comment 49.<br><br>Bullet point 4:<br>Noted.<br>See the Agency's response to Dassault comment 42.<br><br>Bullet point 5:<br>Partially accepted.<br>CS FCD.300 has been amended accordingly. |

**B. DRAFT RULES — I. DRAFT DECISION ON CERTIFICATION SPECIFICATIONS** p. 15-26

**AND GUIDANCE MATERIAL FOR OPERATIONAL SUITABILITY DATA (FLIGHT CREW DATA) — CS FCD BOOK 1 — SUBPART D OPERATIONAL EVALUATION**

comment *2* comment by: *Bristow Helicopters*

**Page No:** 16
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency (a)
**Comment:** FSTD is the generic name for FTD, FFS, FNPT and OTD. "Manoeuvre Flight Simulation Training Device" is not defined elsewhere in the EASA rules. Delete this term and replace with FTD.
**Justification:** Since difference (level D) training is related to a variant of a type, the device used should be specific to that type or variant and not a generic device such as FNPT. Either FTD or FFS of varying levels are capable of such training, subject to the credits stated in the device qualification certificate.
**Proposed Text:**

| DIFFERENCE LEVEL | TRAINING | CHECKING | CURRENCY |
|---|---|---|---|
| D | · ~~Manoeuvre Flight Simulation Training Devices (FSTDs),~~ **FTD,** Full Flight Simulator (FFS) or aircraft to accomplish specific manoeuvres | Partial proficiency check using qualified device | Designated manoeuvre(s) |

response *Partially accepted*

Partially accepted.
As followed:

| DIFFERENCE LEVEL | TRAINING | CHECKING | CURRENCY |
|---|---|---|---|
| D* | Manoeuvre Training Devices(1) or aircraft to accomplish specific manoeuvres | Partial proficiency check using qualified device(1) | Designated manoeuvre(s)(1) |

* For Level D Difference
Footnote (1)
· Aeroplane : FTD Level 2, or FFS, or aeroplane
· Helicopter : FTD Level 2 and 3, or FFS, or helicopter

comment *3* comment by: *Bristow Helicopters*

**Page No:** 16
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency (a)

**Comment:** The text fails to recognise FFS other than level C/D, or that FTD may be eligible devices for training. Reference to FFS level C/D should be removed. Part FCL allows the use FTD or FFS with the level unspecified.
**Justification:** Recently introduced helicopter simulators built to the FFS B / FTD 3 standard match and exceed the existing helicopter FFS C/D capability, are already qualified and in operation throughout Europe and the rest of the world, and are currently being used for type and differences training, testing, checking and recency in accordance with the credits stated in their Qualification Certificate. To fail to recognise such devices under this EASA NPA is inconsistent with EASA part FCL and the FSTD certification process. Refer to my General Comment to Subpart C Page 14. Any FTD or FFS may be used for training, checking, testing, recency or currency subject to its applicability and credits stated on the associated Qualification Certificate.
**Proposed Text:**

| **DIFFERENCE LEVEL** | **TRAINING** | **CHECKING** | **CURRENCY** |
|---|---|---|---|
| E | · ~~Level C or D~~ **FTD,** simulator, or · Aircraft | Proficiency check using ~~level C or D~~ simulator, or aircraft | As per regulation (~~level C or D~~ simulator, or aircraft) |

response *Noted*

Partially accepted:
As followed:

| **DIFFERENCE LEVEL** | **TRAINING** | **CHECKING** | **CURRENCY** |
|---|---|---|---|
| E** | FSTD's (2), or · Aircraft | Proficiency check Using FSTD's(2), or aircraft | As per regulation Using FSTD's(2), or aircraft |

* * For Level E Difference
Footnote (2)
· Aeroplane : FFS Level C or D, or aeroplane
· Helicopter : FSTD'S having dual qualification : FFS Level B and FTD Level 3, or FFS Level C or D, or helicopter

comment *4* comment by: *Bristow Helicopters*

**Page No:** 18
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency (b) (5) Level E training
**Comment:** The text fails to recognise FFS other than level C/D, or that FTD may be eligible devices for training. Reference to FFS level C/D should be removed. Part FCL allows the use FTD or FFS with the level unspecified.
**Justification:** Recently introduced helicopter simulators built to the FFS B / FTD 3 standard match and exceed the existing helicopter FFS C/D capability, are already qualified and in operation throughout Europe and the rest of the world, and are currently being used for type and differences training, testing, checking and

recency in accordance with the credits stated in their Qualification Certificate. To fail to recognise such devices under this EASA NPA is inconsistent with EASA part FCL and the FSTD certification process. EASA Part FCL Appendix 9 does not specify the level of FTD or FFS to be used for training, testing and checking. Any FTD or FFS may be used for training, checking, testing, recency or currency subject to its applicability and credits stated on the associated Qualification Certificate. For in depth detail of the new generation helicopter FFS B / FTD 3 refer to my General Comment to Subpart C Page 14.
**Proposed Text:** The training requires a 'high fidelity' environment to attain or maintain knowledge, skills, or abilities that can only be satisfied by the use of an FFS**, FTD** ~~certified to level C or higher~~, or the aircraft itself. Level E training, if done in an aircraft, should be modified for safety reasons where manoeuvres can result in a high degree of risk.

response *Partially accepted*

Partially accepted.

The Agency has amended the table in CS FCD.425(a) concerning Level E training. This is in the new rule text CS FCD.420(a). See the Agency's response to Bristow Helicopters comment 3.

Next to that the Agency has amended CS FCD.425(b)(5) accordingly. This in the new rule text CS FCD.420(b)(5).

comment *5* comment by: *Bristow Helicopters*

**Page No:** 19

**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency (c) (5)

Level E checking

**Comment:** The text fails to recognise FFS other than level C/D, or that FTD may be used for some elements of testing checking as stated in Part FCL (checking of IFR section under some circumstances). Reference to FFS level C/D should be removed. Part FCL allows the use FTD or FFS with the level unspecified.

**Justification:** Recently introduced helicopter simulators built to the FFS B / FTD 3 standard match and exceed the existing helicopter FFS C/D capability, are already qualified and in operation throughout Europe and the rest of the world, and are currently being used for type and differences training, testing, checking and recency in accordance with the credits stated in their Qualification Certificate. To fail to recognise such devices under this EASA NPA is inconsistent with EASA part FCL and the FSTD certification process. EASA Part FCL Appendix 9 does not specify the level of FTD or FFS to be used for training, testing and checking. Any FTD or FFS may be used for training, checking, testing, recency or currency subject to its applicability and credits stated on the associated Qualification Certificate. For in depth detail of the new generation helicopter FFS B / FTD 3 refer to my General Comment to Subpart C Page 14.

**Proposed Text:** (5) Level E checking

Level E differences checking requires that a full proficiency check be conducted in **an** ~~level C or D~~ FFS, or in an aircraft, following both initial and recurrent training. Alternating checks are possible between the relevant aircraft, if appropriate, and credit may be defined for procedures or manoeuvres based on commonality. Assignment of level E checking requirements alone, or in conjunction with level E currency, does not necessarily result in assignment of a separate type rating.

response *Partially accepted*

Partially accepted.
The Agency has amended the table in CS FCD.425(a) concerning Level E checking. This is in the new rule text CS FCD.420(a). See the Agency's response to Bristow Helicopters comment 3.
Next to that the Agency has amended CS FCD.425(c)(5) accordingly. This is in the new rule text CS FCD.420(c)(5).

comment *6* comment by: *Bristow Helicopters*

**Page No:** 20
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency (d) (5) (i) Level E currency
**Comment:** The text fails to recognise FFS other than level C/D. Reference to FFS level C/D should be removed. Part FCL allows the use FFS with the level unspecified.
**Justification:** Recently introduced helicopter simulators built to the FFS B / FTD 3 standard match and exceed the existing helicopter FFS C/D capability, are already qualified and in operation throughout Europe and the rest of the world, and are currently being used for type and differences training, testing, checking and recency in accordance with the credits stated in their Qualification Certificate. To fail to recognise such devices under this EASA NPA is inconsistent with EASA part FCL and the FSTD certification process. Any FTD or FFS may be used for training, checking, testing, recency or currency subject to its applicability and credits stated on the associated Qualification Certificate. For in depth detail of the new generation helicopter FFS B / FTD 3 refer to my General Comment to Subpart C Page 14.
**Proposed Text:** Level E currency
(i) Level E currency requires that recent experience requirements of Part-FCL and operational requirements be complied with in each aircraft separately. Level E currency may also specify other system, procedure, or manoeuvre currency item(s) necessary forsafe operations, and requires procedures or manoeuvres to be accomplished in a ~~level C or D~~ Full Flight simulator or aircraft . Provisions are applied in a way which addresses the required system or manoeuvre experience.
When level E is assigned between aircraft of common characteristics, credit may be permitted. Assignment of level E currency requirements does not automatically lead to a determination on same or separate type rating. Level E currency is tracked by a means that is acceptable to the competent authority.
When CTLC is permitted, any credit or constraints applicable to using ~~level C or D~~ simulators are also to be determined.

response *Partially accepted*

Partially accepted.
The Agency has amended the table in CS FCD.425(a) concerning Level E currency. This is in the new rule text CS FCD.420(a). See the Agency's response to Bristow Helicopters comment 3.
Next to that the Agency has amended CS FCD.425(d)(5) accordingly. This is in the new rule text CS FCD.420(d)(5).

comment *7* comment by: *Bristow Helicopters*

**Page No:** 21
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency (e) (3) (i) Competency regarding non-normal and emergency procedures — Level E currency
**Comment:** The text fails to recognise FFS other than level C/D, or that FTD may

be eligible devices for some elements of currency. Reference to FFS level C/D should be removed. Part FCL allows the use FTD or FFS with the level unspecified.
**Justification:** Recently introduced helicopter simulators built to the FFS B / FTD 3 standard match and exceed the existing helicopter FFS C/D capability, are already qualified and in operation throughout Europe and the rest of the world, and are currently being used for type and differences training, testing, checking and recency in accordance with the credits stated in their Qualification Certificate. To fail to recognise such devices under this EASA NPA is inconsistent with EASA part FCL and the FSTD certification process. EASA Part FCL Appendix 9 does not specify the level of FTD or FFS to be used for training, testing and checking. Any FTD or FFS may be used for training, checking, testing, recency or currency subject to its applicability and credits stated on the associated Qualification Certificate. For in depth detail of the new generation helicopter FFS B / FTD 3 refer to my General Comment to Subpart C Page 14.
**Proposed Text:** Level E currency
(3) Level E currency
(i) Level E currency requires that recent experience requirements of Part-FCL and operational requirements be complied with in each aircraft separately. Level E currency may also specify other system, procedure, or manoeuvre currency item(s) necessary for safe operations, and requires procedures or manoeuvres to be accomplished in a**n** ~~level C or D~~ **FTD or** simulator. Provisions are applied in a way which addresses the required system or manoeuvre experience.
When level E is assigned between aircraft of common characteristics, credit may be permitted. Assignment of level E currency requirements does not automatically lead to a determination on same or separate type rating. When CTLC is permitted, any credit or constraints applicable to using ~~level C or D~~ **FTD or** simulators are to be determined.

response

*Partially accepted*

Partially accepted.
The Agency has amended the table in CS FCD.425(a). This is in the new rule text CS FCD.420(a). See the Agency's response to Bristow Helicopters comment 3.
Next to that the Agency has amended CS FCD.425(e) and deleted all the subparagraphs (1)(2) and (3). This is in the new rule text CS FCD.420(e). See the Agency's response to Eurocopter comment 76.

comment

*8* comment by: *Bristow Helicopters*

**Page No:** 25
**Paragraph No:** CS FCD.435 Evaluation process and evaluation descriptions (g) Evaluation 3 (T3):
**Comment:** The text fails to recognise FFS other than level C/D. Reference to FFS level C/D should be removed. Part FCL allows the use FFS with the level unspecified.
**Justification:** Recently introduced helicopter simulators built to the FFS B / FTD 3 standard match and exceed the existing helicopter FFS C/D capability, are already qualified and in operation throughout Europe and the rest of the world, and are currently being used for type and differences training, testing, checking and recency in accordance with the credits stated in their Qualification Certificate. To fail to recognise such devices under this EASA NPA is inconsistent with EASA part FCL and the FSTD certification process. EASA Part FCL Appendix 9 does not specify the level of FFS to be used for testing and checking. Any FFS may be used for checking and testing subject to its applicability and credits stated on the associated Qualification Certificate. For in depth detail of the new generation helicopter FFS B / FTD 3 refer to my General Comment to Subpart C Page 14.
**Proposed Text:** Level E currency

(g) Evaluation 3 (T3): systems differences and validation of proposed differences training and checking Evaluation purpose: to evaluate the proposed differences training and checking programmes and training devices at level B, C or D. Evaluation subjects: pilots designated by the Agency, trained and experienced in the base aircraft and having been given the proposed differences training programme for the candidate aircraft.
Evaluation process: if level B training is appropriate, T3 may be completed by analysis. If level C or D training is appropriate, administer appropriate portions of a proficiency check in a ~~level C or D~~ simulator as established by the Agency based on a proposal by the manufacturer. Following completion of the flight test (proficiency check), a simulated Line Oriented Flying (LOF) check may be administered by the Agency. This LOF check is normally administered in a simulator but may be accomplished in a test aircraft as appropriate.

response

*Partially accepted*

Partially accepted.
The Agency has amended the table in CS FCD.425(a). This is in the new rule text CS FCD.420(a). See the Agency's response to Bristow Helicopters comment 3.
Next to that the Agency has amended CS FCD.435(g) concerning the T3 evaluation process accordingly. This is in the new rule text CS FCD.430(g).

comment

*10* comment by: *cueSim*

Does this therefore clarify that, for a type not previously licensed, a pilot MUST train for that type in an FFS Level C or D (or the aircraft)? This is not explictly stated in Part-FCL. Indeed Level A and B FFSs are currently being used for initial TR training, and AMC2 FCL.725(a) makes it clear that FTD 2/3 can be used for practical training. What is the primary need for the change to just FFS Level C or D? See also my Rulemaking Enquiry ref:#648 regarding use of FFS A/B for TR training.

response

*Partially accepted*

Partially accepted
See the Agency's response to Bristow Helicopters comments 2 to 8.

comment

*14* comment by: *EUROCOPTER*

CS FCD.425 Difference levels - Training, checking and currency
page 19, (c) Difference level - checking, second alinea
**Proposal**: amend to read "In such instances the applicant may propose <u>for revalidation checks</u> the use of certain devices no meeting the initial check requirements"
**Justification**: editorial

response

*Accepted*

Accepted.
The Agency has amended CS FCD.425(c) second sentence accordingly. This is in the new rule text CS FCD.420(c) second sentence.

comment

*15* comment by: *EUROCOPTER*

CS FCD.425 Difference levels - Training, checking and currency
page 19, (c) (5) Level E checking, second sentence
**Proposal**: amend to read: "Alternating checks between the relevant aircraft is

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| | possible..."<br>Justification: editorial, probably more true to the intended meaning. |
| response | *Partially accepted*<br><br>Partially accepted.<br><br>The Agency has amended the text of CS FCD.425(c)(5) as follows: 'If appropriate, alternating Level E checking between relevant aircraft is possible, and credit may be defined for procedures or manoeuvres based on commonality.'<br><br>This is in the new rule text CS FCD.420(c)(5). |

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| comment | *19* comment by: *ADAC Hems Academy*<br><br>P. 26:Evaluation 6 (T6): CTLC<br>This is typical fixed wing. Helicopters connot comply. |
| response | *Noted*<br><br>Noted.<br>This T6 is mainly dedicated to fixed wing. |

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| comment | *21* comment by: *UK CAA*<br><br>**Page No:** 16<br>**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency<br>**Comment:** The Table Difference Level for **TRAINING** (Level D) states:<br>" · Manoeuvre Flight Simulation Training Devices (FSTDs), Full Flight Simulator (FFS) or aircraft to accomplish specific manoeuvres"<br>FSTD is the generic name for FTD, FFS, FNPT and OTD. It is misleading to refer to FSTD, since this would suggest that FDT, OTD and FNPTs could also be used, were they Manoeuvre devices. The FAA document stated "Manoeuvre devices **", with a sub note suggesting that "**FFS or Aircraft may be used to accomplish specific manoeuvres".<br>**Justification:** Clarity.<br>**Proposed Text:**<br>~~"· Manoeuvre Flight Simulation Training Devices (FSTDs),~~ Full Flight Simulator (FFS) or aircraft to accomplish specific manoeuvres". |
| response | *Partially accepted*<br><br>Partially accepted.<br>See the Agency's response to Bristow Helicopters comment 2. |

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| comment | *22* comment by: *UK CAA*<br><br>**Page No:** 16<br>**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency<br>**Comment:** The Table Difference Level for **TRAINING** (Level E) states:<br>"· Level C or D simulator, or Aircraft"<br>NPA 2012-25 is based on the Common Procedures Document for Conducting Operational Evaluation Boards dated 10 June 2004. This was a document prepared jointly between the JAA, the FAA and transport Canada. At the time of preparation Level A and B FFS devices were not available and the document did not recognise their capability.<br>Since then there have been a number of Level B devices built that are currently |

being used for type related training and checking. Part FCL recognises that Training may be conducted in the aircraft or an FFS: it does not specify the level of the FFS. It would be inappropriate for this document to mandate the level of FFS since it would not be consistent with Part FCL.
**Justification:** Consistency and clarity.
**Proposed Text:**
"· ~~Level C or D~~ **Full Flight** simulator, or · Aircraft"

response

*Partially accepted*

Partially accepted.
See the Agency's response to Bristow Helicopter comment 3.

comment

*23* comment by: *UK CAA*

**Page No:** 16
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency
**Comment:** The Table Difference Level for **CHECKING** (Level E) states:
"Proficiency check using level C or D simulator , or aircraft"
NPA 2012-25 is based on the Common Procedures Document for Conducting Operational Evaluation Boards dated 10 June 2004. This was a document prepared jointly between the JAA, the FAA and transport Canada. At the time of preparation Level A and B FFS devices were not available and the document did not recognise their capability.
Since then there have been a number of Level B devices built that are currently being used for type related training and checking. Appendix 9 to Part FCL recognises that Checking may be conducted in the aircraft or an FFS: it does not specify the level of the FFS. It would be inappropriate for this document to mandate the level of FFS since it would not be consistent with Part FCL.
**Justification:** Consistency and clarity.
**Proposed Text:**
"· Proficiency check using ~~level C or D simulator~~ **FFS**, or aircraft"

response

*Partially accepted*

Partially accepted.
See the Agency's response to Bristow Helicopters comment 5.

comment

*24* comment by: *UK CAA*

**Page No:** 16
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency
**Comment:** The Table Difference Level for **CURRENCY** (Level E) states:
"As per regulation (level C or D simulator , or aircraft)"
NPA 2012-25 is based on the Common Procedures Document for Conducting Operational Evaluation Boards dated 10 June 2004. This was a document prepared jointly between the JAA, the FAA and transport Canada. At the time of preparation Level A and B FFS devices were not available and the document did not recognise their capability.
Since then there have been a number of Level B devices built that are currently being used for type related training and checking. Part FCL and Part OPs recognises that Currency may be conducted in the aircraft or an FFS: it does not specify the level of the FFS. It would be inappropriate for this document to mandate the level of FFS since it would not be consistent with Part FCL.
**Justification:** Consistency and clarity.
**Proposed Text:**
" As per regulation ~~(level C or D simulator~~ (**FFS**, or aircraft)"

response | *Partially accepted*

Partially accepted.
See the Agency's response to Bristow Helicopters comment 6.

comment | *25* comment by: *UK CAA*

**Page No:** 18
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency, para (b)(5)
**Comment:** Paragraph (b)(5) Level E training states:
"The training requires a 'high fidelity' environment to attain or maintain knowledge, skills, or abilities that can only be satisfied by the use of an FFS certified to level C or higher, or the aircraft itself. Level E training, if done in an aircraft, should be modified for safety reasons where manoeuvres can result in a high degree of risk."
NPA 2012-25 is based on the Common Procedures Document for Conducting Operational Evaluation Boards dated 10 June 2004. This was a document prepared jointly between the JAA, the FAA and transport Canada. At the time of preparation Level A and B FFS devices were not available and the document did not recognise their capability.
Since then there have been a number of Level B devices built that are currently being used for type related training and checking. Appendix 9 to Part FCL recognises that Checking may be conducted in the aircraft or an FFS: it does not specify the level of the FFS. It would be inappropriate for this document to mandate the level of FFS since it would not be consistent with Part FCL.
**Justification:** Consistency and clarity.
**Proposed Text:**
"(5) Level E training
The training requires a 'high fidelity' environment to attain or maintain knowledge, skills, or abilities that can only be satisfied by the use of an ~~FSS certified to level C or higher~~ **appropriately certified FFS**, or the aircraft itself. Level E training, if done in an aircraft, should be modified for safety reasons where manoeuvres can result in a high degree of risk."

response | *Partially accepted*

Partially accepted.
See the Agency's response to Bristow Helicopters comment 4.

comment | *26* comment by: *UK CAA*

**Page No:** 19
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency, pararaph (c)(5)
**Comment:** Paragraph (c)(5) Level E checking states:
"Level E differences checking requires that a full proficiency check be conducted in a level C or D FFS, or in an aircraft, following both initial and recurrent training. Alternating checks are possible between the relevant aircraft, if appropriate, and credit may be defined for procedures or manoeuvres based on commonality. Assignment of level E checking requirements alone, or in conjunction with level E currency, does not necessarily result in assignment of a separate type rating."
NPA 2012-25 is based on the Common Procedures Document for Conducting Operational Evaluation Boards dated 10 June 2004. This was a document prepared jointly between the JAA, the FAA and transport Canada. At the time of preparation Level A and B FFS devices were not available and the document did

not recognise their capability.
Since then there have been a number of Level B devices built that are currently being used for type related training and checking. Appendix 9 to Part FCL recognises that Checking may be conducted in the aircraft or an FFS: it does not specify the level of the FFS. It would be inappropriate for this document to mandate the level of FFS since it would not be consistent with Part FCL.
Appendix 9 to Part FCL states:
"CONDUCT OF THE TEST/CHECK
6. The examiner may choose between different skill test or proficiency check scenarios containing simulated relevant operations developed and approved by the competent authority. Full flight simulators and other training devices, when available, shall be used, as established in this Part."
The text should be amended as proposed below.
**Justification:** Consistency and clarity.
**Proposed Text:**
"(5) Level E checking
Level E differences checking requires that a full proficiency check be conducted in ~~a level C or D~~ FFS, or in an aircraft, following both initial and recurrent training. Alternating checks are possible between the relevant aircraft, if appropriate, and credit may be defined for procedures or manoeuvres based on commonality. Assignment of level E checking requirements alone, or in conjunction with level E currency, does not necessarily result in assignment of a separate type rating."

response

*Partially accepted*

Partially accepted.
See the Agency's response to Bristow Helicopters comment 5.

comment

*27* comment by: *UK CAA*

**Page No:** 20
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency, pararaph (d)(5)
**Comment:** Paragraph (d)(5) Level E currency states:
"(i) Level E currency requires that recent experience requirements of Part-FCL and operational requirements be complied with in each aircraft separately. Level E currency may also specify other system, procedure, or manoeuvre currency item(s) necessary for
safe operations, and requires procedures or manoeuvres to be accomplished in a level C or D simulator. Provisions are applied in a way which addresses the required system or manoeuvre experience."
NPA 2012-25 is based on the Common Procedures Document for Conducting Operational Evaluation Boards dated 10 June 2004. This was a document prepared jointly between the JAA, the FAA and transport Canada. At the time of preparation Level A and B FFS devices were not available and the document did not recognise their capability.
Since then there have been a number of Level B devices built that are currently being used for type related training and checking. Appendix 9 to Part FCL recognises that Checking may be conducted in the aircraft or an FFS: it does not specify the level of the FFS. It would be inappropriate for this document to mandate the level of FFS since it would not be consistent with Part FCL.
**Justification:** Consistency and Clarity.
**Proposed Text:**
"(5) Level E currency
(i) Level E currency requires that recent experience requirements of Part-FCL and operational requirements be complied with in each aircraft separately. Level E currency may also specify other system, procedure, or manoeuvre currency

item(s) necessary for safe operations, and requires procedures or manoeuvres to be accomplished in a ~~level C or D~~ **Full Flight** simulator **or aircraft** . Provisions are applied in a way which addresses the required system or manoeuvre experience."

response *Partially accepted*

Partially accepted.
See the Agency's response to Bristow Helicopters comment 7.

comment *28* comment by: *UK CAA*

**Page No:** 21
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency, pararaph (d)(5)(i)
**Comment:** Paragraph (d)(5)(i) Level E currency, final sub-paragraph states:
"When CTLC is permitted, any credit or constraints applicable to using level C or D simulators are also to be determined."
NPA 2012-25 is based on the Common Procedures Document for Conducting Operational Evaluation Boards dated 10 June 2004. This was a document prepared jointly between the JAA, the FAA and transport Canada. At the time of preparation Level A and B FFS devices were not available and the document did not recognise their capability.
Since then there have been a number of Level B devices built that are currently being used for type related training and checking. Appendix 9 to Part FCL recognises that Checking may be conducted in the aircraft or an FFS: it does not specify the level of the FFS. It would be inappropriate for this document to mandate the level of FFS since it would not be consistent with Part FCL.
**Justification:** Consistency and clarity.
**Proposed Text:**
"(5) Level E currency
When CTLC is permitted, any credit or constraints applicable to using ~~level C or D simulators~~ **FFS** are also to be determined."

response *Partially accepted*

Partially accepted.
See the Agency's response to Bristow Helicopters comment 6.

comment *29* comment by: *UK CAA*

**Page No:** 21
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency, paragraph (e)(3)
**Comment:** Paragraph (e)(3) Level E currency states:
"(i) Level E currency requires that recent experience requirements of Part-FCL and operational requirements be complied with in each aircraft separately. Level E currency may also specify other system, procedure, or manoeuvre currency item(s) necessary for safe operations, and requires procedures or manoeuvres to be accomplished in a level C or D simulator. Provisions are applied in a way which addresses the required system or manoeuvre experience."
NPA 2012-25 is based on the Common Procedures Document for Conducting Operational Evaluation Boards dated 10 June 2004. This was a document prepared jointly between the JAA, the FAA and transport Canada. At the time of preparation Level A and B FFS devices were not available and the document did not recognise their capability.
Since then there have been a number of Level B devices built that are currently

being used for type related training and checking. Appendix 9 to Part FCL recognises that Checking may be conducted in the aircraft or an FFS: it does not specify the level of the FFS. It would be inappropriate for this document to mandate the level of FFS since it would not be consistent with Part FCL.
**Justification:** Consistency and clarity.
**Proposed Text:**
"(3) Level E currency
(i) Level E currency requires that recent experience requirements of Part-FCL and operational requirements be complied with in each aircraft separately. Level E currency may also specify other system, procedure, or manoeuvre currency item(s) necessary for safe operations, and requires procedures or manoeuvres to be accomplished in a ~~level C or D~~ **Full Flight** simulator **or aircraft** . Provisions are applied in a way which addresses the required system or manoeuvre experience."

response

*Partially accepted*

Partially accepted.
See the Agency's response to Bristow Helicopters comment 7.

comment

*30* comment by: *UK CAA*

**Page No:** 22
**Paragraph No:** CS FCD.425 Difference levels — Training, checking and currency, paragraph (e)(3)(i)
**Comment:** Paragraph (e)(3)(i) Level E currency, final sub-paragraph states:
"When CTLC is permitted, any credit or constraints applicable to using level C or D simulators are to be determined"
NPA 2012-25 is based on the Common Procedures Document for Conducting Operational Evaluation Boards dated 10 June 2004. This was a document prepared jointly between the JAA, the FAA and transport Canada. At the time of preparation Level A and B FFS devices were not available and the document did not recognise their capability.
Since then there have been a number of Level B devices built that are currently being used for type related training and checking. Appendix 9 to Part FCL recognises that Checking may be conducted in the aircraft or an FFS: it does not specify the level of the FFS. It would be inappropriate for this document to mandate the level of FFS since it would not be consistent with Part FCL.
**Justification:** Consistency and clarity
**Proposed Text:**
"(3) Level E currency
When CTLC is permitted, any credit or constraints applicable to using ~~level C or D simulators~~ **FFS** are to be determined."

response

*Partially accepted*

Partially accepted.
See the Agency's response to Bristow Helicopters comment 6.

comment

*31* comment by: *UK CAA*

**Page No:** 25
**Paragraph No:** CS FCD 435 Evaluation process and evaluation descriptions, Paragraph (g), 4th sub-paragraph
**Comment:** Include the use of aircraft as an alternative to simulators.
**Justification:** Simulators are not always available and may not accurately represent the aircraft in the relevant area.

**Proposed Text:**
"Evaluation process: if level C or D training is appropriate, administer appropriate portions of a proficiency check in a level C or D simulator, **or aircraft**, as established by
the Agency based on a proposal by the manufacturer."

response

*Partially accepted*

Partially accepted.
See the Agency's response to Bristow Helicopters comment 8.

comment

*35* comment by: *EUROCOPTER*

**CS FCD 405 Credit for operation on more than one type or variant**
**Comment**
Difference between a (1) and a (2) is not understood. According to GM1 FCD.405, (p 35), credit for operation on more than one type or variant applies to training (bullet a), checking (bullet b), and/or currency (bullets c&d).
**Proposal**
Delete sub para (a) (1) "credit for the operation on more than one type or variant;" and renumber sub-para (a) (2) & (a) (3) accordingly.

response

*Accepted*

Accepted.
The Agency has amended CS FCD.405 accordingly and deleted subparagraph (a)(1).
The text of CS FCD.405 has been moved from this Subpart D to Subpart C and the new rule text can be found in CS FCD.310.

comment

*36* comment by: *EUROCOPTER*

**CS FCD. 425 Difference levels – Training, checking and currency**
**General comment**
The link done, in the table of sub-para (a) as well as in other sub paras of this CS, between E difference levels and FFS level C or D may apply to aeroplanes; it is not justified for helicopters.
1. It does not take into account the progress achieved in the technology of helicopter FSTDs since the implementation of the Common Procedure Document between JAA, FAA and TCC.
2. It is not in line either with the Appendix 9 to EASA Part FCL, sub part C, which does not specify the level of the FSTDs that can be used for a type rating training, or with AMC2 FCL.725 (a), , which defines what can be done using FTDs 2 and 3.
3. It does not take into account what is currently done, with the agreement of several NAAs, which have given specific credits for training on FSTDs dual qualified as, for example FTD3 and FFSB.
**Proposal**
*Modification to the table of sub-para (a), to better fit with other references*

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| D | Simulation Device or aircraft to accomplish specific manoeuvres | Partial PC using qualified device | Designated manoeuvre(s) |
| E | Type specific high fidelity Flight Simulation Training Device qualified by NAA for the intended training, or Aircraft | Proficiency check using a high fidelity Flight Simulation Training Device qualified by NAA for the intended checking, or Aircraft | As per regulation |

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| response | *Partially accepted*<br><br>Partially accepted.<br>See the Agency's response to Bristow Helicopters comments 2 and 3. |

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| comment | *37* comment by: *EUROCOPTER*<br><br>**CS FCD. 425 Difference levels – Training, checking and currency**<br>**Comment**<br>b) 2) seems to apply to all cases above A level.<br>**Proposal**<br>Move the third bullet "Training needs not covered by level A training…" under (b) (1)Level A training |
| response | *Accepted*<br><br>Accepted.<br>The Agency has amended the text in CS FCD.425(b)(1) and (b)(2) accordingly. This is in the new rule text CS FCD.420(b)(1) and (b)(2). |

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| comment | *38* comment by: *EUROCOPTER*<br><br>**CS FCD. 425 Difference levels – Training, checking and currency**<br>b) 4) third paragraph, third line: "the differences are not so significant; however a full type rating training course is required"<br>**Comment**: As written here the meaning of this sentence is at the opposite of what is written in the Common Procedure Document, and is not adapted to Level D requirements.<br>**Proposal**:<br>amend to read "The differences are not, however, so significant that a full type rating training course is required" |
| response | *Accepted*<br><br>Accepted.<br>The Agency has amended the text in CS FCD.425(b)(4) accordingly. This is in the new rule text CS FCD.420(b)(4). |

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| comment | *39* comment by: *EUROCOPTER*<br><br>**CS FCD. 425 Difference levels – Training, checking and currency**<br>(b) (4) last paragraph "Devices acceptable for Level D …<br>**proposal:** delete the whole paragraph,<br>**justification:** this paragraph does not bring more than the previous one. |
| response | *Partially accepted*<br><br>Partially accepted.<br>The Agency has amended the text in CS FCD.425(b)(4) and combined the last two paragraphs. This is in the new rule text CS FCD.420(b)(4). |

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| comment | *40* comment by: *EUROCOPTER*<br><br>**CS FCD. 425 Difference levels – Training, checking and currency**<br>(b) (5) second paragraph:<br>"The training requires a 'high fidelity' environment…that can only be satisfied by the use of an FFS certified to level C or higher…".<br>**Proposal**<br>Amend to read: "The training requires a 'high fidelity' environment to attain or maintain knowledge, skills, or abilities that can only be satisfied by the use of a type specific, high fidelity flight simulation training device, qualified by NAA for the intended training, or the aircraft.<br>Insert the following paragraph:<br>In the definition of high fidelity, the fact that the simulator has been designed using the helicopter manufacturer's (or OEM) data must be taken into consideration in parallel with other parameters such as motion system, visual system, representativity of the cockpit/flight deck, etc…<br>**Justification**<br>See comment 36 |
| response | *Partially accepted*<br><br>Partially Accepted for part 1 of the comment.<br>See Bristow Helicopters comment 2 to 8.<br><br>Not accepted for part 2 of the comment.<br>High fidelity is based on the CS-FSTD (H) data requirements. |

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| comment | *54* comment by: *Dassault Aviation*<br><br>DASSAULT-AVIATION comment ***CS FCD.400 Operational evaluation process***<br>CS FCD.400(c): should be located in Subpart C |
| response | *Accepted*<br><br>Accepted.<br>Paragraph (c) from CS FCD.400 has been relocated accordingly as a new paragraph CS FCD.305 (LIFUS) in Subpart C. |

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| comment | *55* comment by: *Dassault Aviation*<br><br>DASSAULT-AVIATION comment on ***CS FCD.405 Credit for operation or more than one type or variant***<br>CS FCD.405: should be located in Subpart C |
| response | *Accepted*<br><br>Accepted.<br>See the Agency's response to Eurocopter comment 35. |

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| comment | *56* comment by: *Dassault Aviation*<br><br>DASSAULT-AVIATION comment on ***CS FCD.410 ODR tables***<br>· CS FCD.410(a): in order to make sure the difference between the TCHs ODR and the operators ODR, while being more coherent with FAA wording, DASSAULT-AVIATION suggest to call the TCH ODR "sample ODR". This may affect **CS FCD.105** definitions.<br>· CS FCD.410(a) : the word "required" is misleading, DASSAULT-AVIATION do not |

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| | understand if it addresses the supply of the ODR table as an OSD output data, or the supply of the ODR table as a data that supports the OSD certification process. From the TCH point of view "required" implies "Box 1", though CS FCD.100 states "Box 3". |
| response | *Partially accepted*<br><br>Bullet point 1:<br>Not accepted.<br>From the applicability provisions in CS FCD.100(c) it is clear that the ODR data are provided by the applicant (TCH) and do not constitute operator specific ODR tables.<br><br>Bullet point 2:<br>Accepted.<br>The Agency has amended the text in CS FCD.410(a) and changed the wording 'required' into 'provided'. This is in the new rule text CS FCD.405(a). |

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| comment | *57* comment by: *Dassault Aviation*<br><br>DASSAULT**-**AVIATION comment on ***CS FCD.415 MDR tables***<br>· CS FCD.415: as long as it does not contain any requirement, this chapter should be located in CS FCD.105 "Definitions".<br>· CS FCD.415: please make clear "who" shall elaborate the MDR table, and if it is to be considered as an OSD output data, or as a data dedicated to support the OSD certification process.<br>· CS FCD.415: The MDR table should be in Box1 for all possible new or impacted TRs, and in Box3 otherwise. |
| response | *Partially accepted*<br><br>Bullet point 1:<br>Not accepted.<br>This chapter describes a process and does not constitute a definition.<br><br>Bullet point 2:<br>Accepted.<br>The Agency has amended the text in CS FCD.415 accordingly. This is in the new rule text CS FCD.410.<br><br>Bullet point 3:<br>Not accepted.<br>CS FCD.100 and GM1 to CS FCD 100 identify MDR tables as content of Box 3. Box 1 does not address differences between aircraft and therefore does not contain MDR tables. |

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| comment | *58* comment by: *Dassault Aviation*<br><br>DASSAULT**-**AVIATION comment on ***CS FCD.420 Differences levels - General***<br>CS FCD.420(c): add "normally" (this word comes from the CPD = Common Procedures Document) in the last sentence, so to obtain "Training at level E normally identifies that the candidate aircraft is a different type to the base aircraft".<br>This comment is very important for all the design options that do not necessitate to define a new Type Rating (e.g. EVS, HUD, NADP, RNP-AR, …).<br>Adding this "normally" word will also ensure the coherence with **CS FCD.435(f)**, where it is hopefully already used. |

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| | DASSAULT-AVIATION moreover suggest creating a **GM FCD.420** to make clear what "normally" means. |
| response | *Partially accepted*<br><br>Partially accepted.<br>The Agency has amended the text in CS FCD.420(c) accordingly. This is in the new rule text CS FCD.415(c). The creating of GM to FCD.420 was considered not necessary. |

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| comment | *59* comment by: *Dassault Aviation*<br><br>DASSAULT**-**AVIATION comment on ***CS FCD.425 Differences levels – Training, checking and currency***<br>· CS FCD.425(a): the content of the cells is not always homogeneous, as they sometimes mention a training method (e.g. self-instruction), sometimes mention a training media (e.g. FFS), and sometimes mention points to be addressed during the training (e.g. designated maneuvers).<br>· CS FCD.425(a), cell(A; Checking): add "or integrated with next PC" after "Not applicable" (as in CPD).<br>· CS FCD.425(a), line E : "simulator" should be replaced by "FFS"<br>· CS FCD.425(a) : the boundary between Training Level D and Training Level E is not clear enough. In the practical life, when defining an ODR table, it is hard for the applicant to choose between Level D and Level E (as they often address the same training means i.e. FFS or aircraft).<br>DASSAULT-AVIATION appreciate the effort made in GM1 FCD.425(b)(4), that stipulates a 2 hours limit criteria. But such a duration criteria is not pertinent: it is not the training duration that should define the Level; and moreover the TCH is not qualified to determine the training duration (its neither its job nor its responsibility). |
| response | *Partially accepted*<br><br>Bullet Point 1:<br>Noted.<br>However, the Agency believes that training methods, training media and other points (such as manoeuvres) are pertinent to the description of differences levels. This view is also supported by FAA AC 120-53A.<br><br>Bullet Point 2:<br>Accepted.<br>The Agency has amended the text in CS FCD.425(a) accordingly. This is in the new rule text CS FCD.420(a).<br><br>Bullet Point 3:<br>Partially accepted.<br>The text of CS FCD.425(a) has been revised to clarify the use of training devices. This is in the new rule text CS FCD.420(a).<br>See also the Agency's response to Bristow comments 2 and 3.<br><br>Bullet Point 4:<br>Accepted.<br>The Agency has amended the text in GM1 CS FCD.425(b)(4) accordingly. This is in the new text GM1 CS FCD.420(b)(4). |

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| comment | *60* comment by: *Dassault Aviation* |

DASSAULT**-**AVIATION comment on *CS FCD.435* ***Evaluation process and evaluation descriptions***

· CS FCD.435(a): what does MFF means here ?
· CS FCD.435(b): add "if requested by the applicant" just after "vice versa"
· CS FCD.435(b): add (as in CPD 5.2) that "Normally for level A and B differences, two-way testing is not necessary"
· CS FCD.435(b): in order to be homogeneous with CPD 5.2, replace "a T3 evaluation in the direction that was not previously evaluated is to be performed" by "the Authority will have to review the request and may have to reconvene to perform a T3 in the direction that was no previously evaluated".
· CS FCD.435(c)(1): representative training program may not be available at this stage, as the aim of the evaluation is to validate the " minimum syllabus of pilot type rating". Indeed such a representative training program can only be defined/available after the validation of the "minimum syllabus of pilot type rating". The state of representativeness may be subjective.
· CS FCD.435(c)(5): "schedules" must be deleted. As it is not a technical requirement, it is out of scope of the CS FCD.
· CS FCD.435(d), cell(T3;Application): T3 pass sets levels A/B/C/D, though associated Flow diagram in **Appendix 3 to CS FCD.430** only leads to B/C/D. This discrepancy must be corrected. For DASSAULT-AVIATION it is **Appendix 3 to CS FCD.430** that must be corrected, as practically after a T3 level A may also be reached especially if T1 is waived (the aim is then to reach level A or B).
· CS FCD.435(d), cell(T3;Application): after "require T5", add "or (T2 + T3) if commonality credit" for consistency with Flow diagram.
· CS FCD.435(e): paragraph "Evaluation subject" lacks and must be added
· CS FCD.435(e): why does the CS propose to evaluate on a simulator or aircraft, as T1 evaluation addresses training levels A or B (which by definition are self instruction or aided instruction ?)
· CS FCD.435(e) : in order to ensure the consistency with the flow diagram (and CPD), add that T1 evaluation may be thought unnecessary by the Authority.
· CS FCD.435(f): paragraph "Evaluation subject" lacks and must be added. Associated GM1 CFC.435 is insufficient.
· CS FCD.435(f) T2 test : add "simulator flight or an" just before "aircraft flight" (at the end of 1st paragraph).
· CS FCD.435(f): in order to ensure the consistency with the flow diagram (and CPD), add that T3 evaluation is not always necessary (in "Successful evaluation" paragraph). In case no T3 is performed, only levels A and B can be reached.
· CS FCD.435(g): please refer to above **CS FCD.435(d)**, cell(T3;Application) comment: replace "level B, C or D" by "level A, B, C, or D" (in "Evaluation purpose" paragraph)
· CS FCD.435(g): the aim is indeed not to validate the training course (see GEN-1 "Global background concern" comment).
· CS FCD.435(g): Level A should be added in the "Evaluation purpose" paragraph. DASSAULT-AVIATION propose : "Evaluation purpose: to evaluate the proposed differences training and checking programmes and training devices at level A, B, C or D."
· CS FCD.435(g): the note of CPD 5.2.2.3 must be added ("Note: only those portions of the proficiency check need to be tested which are affected by the differences from the base aircraft") or even rewritten i.e. "the only portions of the proficiency check that are affected by the differences from the base aircraft need to be tested."
· CS FCD.435(h): add a comma "," between "system" and "procedural".
· CS FCD.435(i): the aim is indeed not to validate the training course (see GEN-1 "Global background concern" comment).
· CS FCD.435(j): the aim is indeed not to validate the training course (see GEN-1 "Global background concern" comment).

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| | · CS FCD.435(j): (paragraph "Evaluation subjects"). Replace "not trained and experienced" by "neither trained nor experienced".<br>· CS FCD.435(k): will the OSD Report be an Applicant document (DOA organization if privilege granted) ?<br>· CS FCD.435(k): who will be responsible of the statement "prior to the issuance of the OSD": DASSAULT-AVIATION suppose it could be DOA organization (if privilege granted).<br>· CS FCD.435(k): who shall write the evaluation summary ? DASSAULT-AVIATION suppose that it will be the Agency.<br>· CS FCD.435(k): the outcome will not be "documented in the OSD", but more probably "documented in the documentation that supports the OSD certification process". |
| response | *Partially accepted*<br><br>The Agency has amended the text in CS FCD.435. This is in the new rule text CS FCD.430.<br><br>Bullet point 1 concerning paragraph (a):<br>Accepted.<br>The wording 'MFF operations' has been replaced with 'operations on more than one type or variant' for consistency with other regulations.<br><br>Bullet point 2 and 3 concerning paragraph (b):<br>Accepted.<br>The text has been amended accordingly.<br><br>Bullet point 4 concerning paragraph (b):<br>Partially accepted.<br>The text has been amended accordingly to reflect the possibility to perform T tests in directions not previously evaluated (e.g. T3 or T6 tests).<br><br>Bullet point 5 concerning paragraph (c)(1):<br>Not accepted.<br>The representative training programme, difference programme and supporting documentation are required to provide the means to evaluate the minimum syllabus for pilot training.<br><br>Bullet point 6 concerning paragraph (c)(5):<br>Not accepted.<br>All elements described in CS FCD.435(c)(5) are part of the evaluation process.<br><br>Bullet point 7 concerning paragraph (d):<br>Accepted.<br>The figure in Appendix 3 to CS FCD.430 has been amended accordingly. This is in the new rule text Appendix 2 to CS FCD.420.<br><br>Bullet point 8 concerning paragraph (d):<br>Accepted.<br>The text in cell T3: Application has been amended accordingly.<br><br>Bullet point 9 concerning paragraph (e):<br>Accepted.<br>A paragraph "Evaluation subject" has been added.<br><br>Bullet point 10 concerning paragraph (e):<br>Noted. |

A proof of concept may require a partial proficiency check accomplished in a training device or aircraft, in order to validate that Level A or B training provides the pilot with the knowledge required to safely operate the variant.

Bullet point 11 concerning paragraph (e):
Partially accepted.
The text has been amended accordingly. A new subparagraph has been added, reading (3). The Agency may waive the T1 test if a T2 test is to be performed.

Bullet point 12, 13 and 14 concerning paragraph (f):
Accepted.
The text has been amended accordingly.

Bullet point 15 concerning paragraph (g):
Accepted.
The text has been amended accordingly.

Bullet point 16 concerning paragraph (g):
Noted.
See the Agency's response to Dassault comment 42.

Bullet point 17 concerning paragraph (g):
Accepted.
The text has been amended accordingly.

Bullet point 18 concerning paragraph (g):
Not accepted.
Paragraph (g) already specifies to 'administer appropriate portions of a proficiency check …'. The note only constitutes a repetition.

Bullet point 19 concerning paragraph (h):
Accepted.
The text has been amended accordingly.

Bullet point 20 concerning paragraph (i):
Noted.
It is the training elements that are being evaluated.

Bullet point 21 concerning paragraph (j):
Noted.
It is the training elements that are being evaluated.

Bullet point 22 concerning paragraph (j):
Accepted.
The text has been amended accordingly.

Bullet point 23, 24 and 26 concerning paragraph (k):
Noted.
The Agency recognises the need for clarification of this issue. However, this is outside the scope of CS-FCD and must be addressed on a global basis for all OSD elements.

Bullet point 25 concerning paragraph (k):
Accepted.
The text has been amended accordingly.

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| comment | *73* comment by: *EUROCOPTER*<br><br>**CS FCD. 425 Difference levels – Training, checking and currency**<br>(c) (5) Level E checking, page 19<br>**Proposal**<br>first sentence:<br>amend to read<br>"Level E differences checking requires that a full proficiency check be conducted in a type specific, high fidelity flight simulation training device, qualified by NAA for the intended checking, or in an aircraft, following both initial and recurrent training."<br>**Justification**<br>See comment 36 |
| response | *Partially accepted*<br><br>Partially accepted.<br>See the Agency's response to Bristow Helicopters comment 5 and see the Agency's response to Eurocopter comment 40. |

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| comment | *74* comment by: *EUROCOPTER*<br><br>**CS FCD. 425 Difference levels – Training, checking and currency**<br>(d) Difference level- Currency, page 20<br>paragraphs (d)(3)(i) and (d)(4)(i)<br>suggest to harmonize last sentences of both paragraphs<br>· when level C currency applies, any pertinent lower level currency is also to be addressed.<br>· When level D is necessary, lower level currency is also addressed |
| response | *Accepted*<br><br>Accepted.<br>The Agency has amended the text in CS FCD.425(d)(4)(i) accordingly. This is in the new rule text CS FCD.420(d)(4)(i). |

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| comment | *75* comment by: *EUROCOPTER*<br><br>**CS FCD. 425 Difference levels – Training, checking and currency**<br>(d) (5) (i) Level E currency<br>(a) First paragraph, second sentence<br>**Proposal**<br>Amend to read "Level E currency may also specify other system, procedure, or manoeuvre currency item(s) necessary for safe operations, and requires procedures or manoeuvres to be accomplished in a type specific, high fidelity flight simulation training device, qualified by NAA for the intended checking, or in an aircraft."<br>**Justification**<br>See comment 36<br>(b) Third paragraph<br>**Proposal**<br>Amend to read "When CTLC is permitted, any credit or constraints applicable to using flight simulation training devices are also to be determined." |
| response | *Partially accepted*<br><br>Partially accepted.<br>See the Agency's response to Bristow Helicopters comment 6. |

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| comment | *76* comment by: *EUROCOPTER*<br><br>**CS FCD. 425 Difference levels – Training, checking and currency**<br>(e) Competency regarding non-normal and emergency procedures – Currency, page 21<br>**Comment**<br>This article is not understood, and not developed in GM –<br>**Proposal**<br>Suggest deleting it. |
| response | *Partially accepted*<br><br>Partially accepted.<br>The Agency has amended the text in CS FCD.425(e) by deleting all the subparagraphs (1), (2) and (3). Only the first paragraph in (e) remains. This is in the new rule text CS FCD.420(e). |

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| comment | *77* comment by: *EUROCOPTER*<br><br>**CS FCD.435 Evaluation process and evaluation descriptions**<br>(1) (f) fourth paragraph, page 24<br>**Proposal**<br>Amend to read "When T2 is otherwise successfully completed, type specific, high fidelity flight simulation training device, qualified by NAA or aircraft training may be proposed within level D training for the conduct of specific manoeuvres."<br>**Justification**<br>See comment 36<br>(2) (g) Fourth paragraph, second sentence, page 25<br>**Proposal**<br>Amend to read<br>"If level C or D training is appropriate, administer appropriate portions of a proficiency check in a type specific, high fidelity flight simulation training device, qualified by NAA, or the aircraft as established by the Agency based on a proposal by the manufacturer."<br>**Justification**<br>See comment 36<br>(3) (j) Fourth paragraph, second sentence, page 26<br>**Proposal**<br>Amend to read<br>"This training may be accomplished in a type specific, high fidelity flight simulation training device, qualified by NAA, or in the aircraft."<br>**Justification**<br>See comment 36 |
| response | *Accepted*<br><br>First proposal:<br>Accepted.<br>The Agency has amended the text in CS FCD.435(f) accordingly. This is in the new rule text CS FCD.430(f).<br><br>Second proposal:<br>Partially accepted.<br>The Agency has amended the text in CS FCD.435(g). This is in the new rule text CS FCD.430(g). |

Third proposal:
Not accepted.
A level C or D FFS or an aircraft is required to evaluate the appropriate level of safety.

comment *85* comment by: *ADAC Luftrettung GmbH*

(5) Level E Training, second chapter
It is written that the training "reuires a high fidelity environment...that can only be satisfied by the use of an FFS crtified to Level C or higher"!
**Justification:** it is not appropriate not to give credits when using high sophisticated FFS level A/B devices. The amount of credit can be given up to a certain value and will be based on the individual FSTD equipment and quality, e.g a "minimum equipped" FFS C device should not get more credits then a FFS level B with a complete, highly sophisticated equipment! The final amount of credits depend on the respective FSTD qualification level given during the aviation authorities "onsite evaluation and acceptance" anyway. Therefore only the catagories i.e. FFS and no levels should be listed!
This change should be considered throughout the document

response *Partially accepted*

Partially accepted.
See the Agency's response to Bristow Helicopters comment 4.

**B. DRAFT RULES — I. DRAFT DECISION ON CERTIFICATION SPECIFICATIONS AND GUIDANCE MATERIAL FOR OPERATIONAL SUITABILITY DATA (FLIGHT CREW DATA) — CS FCD BOOK 1 — SUBPART D OPERATIONAL EVALUATION — Appendix 2 to CS FCD.410 Compilation of ODR tables** p. 28

comment *61* comment by: *Dassault Aviation*

DASSAULT-AVIATION comment on ***Appendix 2 to CS FCD.410 Compilation of ODR tables***
· Appendix 2 to CS FCD.410(c): (1) and (2) are almost identical. Some sentences must be deleted.
· Appendix 2 to CS FCD.410(c)(2)(vi) : what means "performance in maneuvers" ?
· Appendix 2 to CS FCD.410(c)(2)(viii) : does "Procedures" aims to replace "Management" of the CPD ? If yes, please provide some examples E.g. ECAM, EICAS, navaid selection, automatic checklists …

response *Accepted*

Accepted for all 3 bullet points.
The Agency has amended the text in Appendix 2 to CS FCD.410. This is in the new rule text Appendix 1 to CS FCD.405.
For the first bullet point 1, see also Agency response to Eurocopter comment 78.

comment *78* comment by: *EUROCOPTER*

**Appendix 2 to CS FCD.410 Compilation of ODR tables**
Para (c) ODR 3: Manoeuvres, page 28
**Comment**
Sub para (1) and beginning of sub para (2) are identical.

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| | **Proposal**<br>Suggest to delete numbering and make it one unique sub paragraph. |
| response | *Accepted*<br><br>Accepted.<br>The Agency has amended the text in Appendix 2 to CS FCD.410 accordingly and deleted subparagraph (2) and renumbered the paragraphs. This is in the new rule text Appendix 1 to CS FCD.405. |

**B. DRAFT RULES — I. DRAFT DECISION ON CERTIFICATION SPECIFICATIONS AND GUIDANCE MATERIAL FOR OPERATIONAL SUITABILITY DATA (FLIGHT CREW DATA) — CS FCD BOOK 1 — SUBPART D OPERATIONAL EVALUATION — Appendix 3 to CS FCD.430 Evaluation process** p. 29

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| comment | *62* comment by: *Dassault Aviation*<br><br>DASSAULT**-**AVIATION comment on ***Appendix 3 to CS FCD.430 Evaluation process***<br>CS FCD.435(d), cell(T3;Application): T3 pass sets levels A/B/C/D, though associated Flow diagram in **Appendix 3 to CS FCD.430** only leads to B/C/D. This discrepancy must be corrected. For DASSAULT-AVIATION it is **Appendix 3 to CS FCD.430** that must be corrected, as practically after a T3 level A may also be reached especially if T1 is waived (the aim is then to reach level A or B). |
| response | *Accepted*<br><br>Accepted.<br>The diagram of Appendix 3 to CS FCD.430 has been amended accordingly. This is in the new rule text Appendix 2 to CS FCD.425. |

**B. DRAFT RULES — II. DRAFT DECISION ON CERTIFICATION SPECIFICATIONS FOR OPERATIONAL SUITABILITY DATA (OSD) FLIGHT CREW DATA — CS FCD BOOK 2 — GM1 FCD.300 Pilot type rating training requirements for a specific aircraft** p. 33-34

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| comment | *63* comment by: *Dassault Aviation*<br><br>DASSAULT**-**AVIATION comment on GM1 FCD.300 Pilot type rating requirements for a specific aircraft<br>· GM1 FCD.300(a): providing such a table is useful. But make clear that such a table can only be defined by a Training Provider (TCH is not qualified to do that).<br>· GM1 FCD.300(b): table (a) provides an initial course syllabus. It would also be useful to provide in (b) a difference or familiarization course syllabus.<br>· GM1 FCD.300(c)(3) : after "FFS" add "or aircraft" in order to be consistent with **CS FCD.425(a)**. |
| response | *Partially accepted*<br><br>Bullet point 1:<br>Noted.<br>The Agency believes that by referencing the table as a footprint of a type rating course it has already established the link to the training provider.<br><br>Bullet point 2:<br>Partially accepted. |

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| | The Agency has amended the wording in GM1 CS FCD.300(a) to reflect that it can be applied equally to differences or familiarisation courses.<br><br>Bullet point 3:<br>Accepted.<br>The Agency has amended the wording in GM1 CS FCD.300(c)(3) accordingly. |

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| comment | *79* comment by: *EUROCOPTER*<br><br>**GM1 FCD.200 Determination of a pilot type rating, page 33**<br>**Proposal**<br>Amend to read GM1 FCD.200 (a) (3)<br>**Justification**<br>This GM applies only to sub para (a)(3) of the CS FCD 200 |
| response | *Noted*<br><br>Not accepted.<br>Confirm the Agency's Rulemaking style guide the title of the GM has to be similar to the title of the rule. |

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| comment | *80* comment by: *EUROCOPTER*<br><br>**GM1 FCD.300 Pilot type rating training requirements for a specific aircraft** (a) page 33<br>**Proposal**<br>Amend the sentence to read:<br>"The following table presents an example of training footprint for a type rating course."<br>**Justification**<br>As there is no indication of the hours dedicated to each module, it seems odd to write that this has been found compliant with the requirements. |
| response | *Partially accepted*<br><br>Partially accepted.<br>The Agency has amended the wording in GM1 CS FCD.300(a).<br>See also the Agency's response to Dassault comment 63, bullet point 2. |

**B. DRAFT RULES — II. DRAFT DECISION ON CERTIFICATION SPECIFICATIONS FOR OPERATIONAL SUITABILITY DATA (OSD) FLIGHT CREW DATA — CS FCD BOOK 2 — GM1 FCD.400 Operational evaluation process** p. 34

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| comment | *32* comment by: *UK CAA*<br><br>**Page No:** 34<br>**Paragraph No:** GM1 FCD.400 Operational evaluation process, Paragraph (d)<br>**Comment:** Change wording for 'optional equipment'.<br>**Justification:** Wording for optional equipment should follow the same format as paragraphs (a), (b) and (c) for consistency.<br>**Proposed Text:**<br>"Optional equipment includes, but is not limited to:<br>New aircraft technology or specific equipment such as HUD, EFB, NVIS, ECL customisation, EVS and SVS." |
| response | *Accepted* |

Accepted.
The Agency has amended the wording in GM1 CS FCD.400(d) accordingly.

comment *64* comment by: *Dassault Aviation*

DASSAULT-AVIATION comment on ***GM1 FCD.400 Operational evaluation process***
GM1 FCD.400(c)(1): as another interesting example, add "NADP (Noise Abatement Departure Procedure)" after "steep approach".

response *Accepted*

Accepted.
The Agency has amended the wording in GM1 CS FCD.400(c)(1) accordingly.

comment *81* comment by: *EUROCOPTER*

**GM1 FCD.400 Operational Evaluation process, page 34**
**1)** para (b)
**Proposal**
add "specific" twice in the title to read: **"**Specific type of operations and specific aircraft missions include…"
**Justification**
To make the title in line with sub para (a) (1) of this GM
**2)** para (c)
**Proposal 1**
add "specific" in the title to read: "Specific environmental context for operations includes…"
**Justification**
To make the title in line with sub para (a) (2) of this GM
**Proposal 2**
Add "brownout and white out conditions" in sub para (1)
**Justification**
Examples of environmental conditions specific to helicopters

response *Accepted*

Accepted.
The Agency has amended the wording in GM1 CS FCD.400(b)(2) and (c) accordingly.

**B. DRAFT RULES — II. DRAFT DECISION ON CERTIFICATION SPECIFICATIONS FOR OPERATIONAL SUITABILITY DATA (OSD) FLIGHT CREW DATA — CS FCD BOOK 2 — GM1 FCD.425 Difference levels — Training, checking and currency** p. 36-39

comment *65* comment by: *Dassault Aviation*

DASSAULT-AVIATION comment on ***GM1 FCD.425 Difference levels – Training, checking and currency***
· GM1 FCD.425(b)(1)(ii): what is a "minor" change ? As this word may later be used for classification purposes, may be it should be avoided here.
· GM1 FCD.425(b)(4): please refer to comment made in **CS FCD245(a)**: a duration criteria is not pertinent.
· GM1 FCD.425(b)(4): should this 2 hours duration criteria be kept, please make clear if it addresses the entire crew, or just one pilot.

response | *Accepted*

Accepted for all three bullet points.

The Agency has amended the text in GM1 CS FCD.425(b) accordingly. This is in the new text GM1 CS FCD.420(b). See the Agency's response to Dassault comment 59.

comment | *82* comment by: *EUROCOPTER*

**GM1 FCD.425 Difference levels – Training, checking and currency**
(b)(4) Level D training, page 37
**Proposal**
Amend to read
"Training in a type specific, high fidelity flight simulation training device, qualified by NAA, or in the aircraft may be specified…In such cases, the number of hours required should normally be limited to two hours…."
**Justification**
In the logic of comment 36

response | *Partially accepted*

Partially accepted.
The Agency has amended the text in GM1 CS FCD.425(b)(4). This is in the new text GM1 CS FCD.420(b)(4).

**B. DRAFT RULES — II. DRAFT DECISION ON CERTIFICATION SPECIFICATIONS FOR OPERATIONAL SUITABILITY DATA (OSD) FLIGHT CREW DATA — CS FCD BOOK 2 — GM1 FCD.435 Evaluation process and evaluation descriptions** p. 39-40

comment | *9* comment by: *Bristow Helicopters*

**Page No:** 39
**Paragraph No:** GM1 FCD.435 Evaluation process and evaluation descriptions (b) T2 evaluation: handling qualities comparison
**Comment:** The text fails to recognise FFS other than level C/D. Reference to FFS level C/D should be removed. Part FCL allows the use FFS with the level unspecified.
**Justification:** Recently introduced helicopter simulators built to the FFS B / FTD 3 standard match and exceed the existing helicopter FFS C/D capability, are already qualified and in operation throughout Europe and the rest of the world, and are currently being used for type and differences training, testing, checking and recency in accordance with the credits stated in their Qualification Certificate. To fail to recognise such devices under this EASA NPA is inconsistent with EASA part FCL and the FSTD certification process. EASA Part FCL Appendix 9 does not specify the level of FTD or FFS to be used for training, testing and checking. Any FTD or FFS may be used for training, checking, testing, recency or currency subject to its applicability and credits stated on the associated Qualification Certificate. For in depth detail of the new generation helicopter FFS B / FTD 3 refer to my General Comment to Subpart C Page 14.
**Proposed Text:** Level E currency
T2 manoeuvres are flown in the base aircraft or simulator and in the candidate aircraft. The T2 evaluation profile is subject to the characteristics of the base and candidate aircraft. The evaluation profile should incorporate all relevant handling quality aspects of the candidate aircraft. T2 consists of a comparison between selected pilot type rating check manoeuvres (normal, abnormal; please refer to

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| | Part-FCL) performed first in the base aircraft (using either the actual aircraft or a ~~level C or D~~ simulator), then in the candidate aircraft. |
| response | *Not accepted*<br><br>Not Accepted.<br>The Agency has accepted the use of FSTDs or aircraft for training to difference levels. However, for the conduct of T2 and T6 tests, only Level C or D FFS or aircraft may be used for those tests. |

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| comment | *33* comment by: *UK CAA*<br><br>**Page No:** 39<br>**Paragraph No:** GM1 FCD.435 Evaluation process and evaluation descriptions, Paragraph (b) 2nd sub-paragraph<br>**Comment:** Remove 'simulator' as part of the T2 evaluation involving the base aircraft.<br>**Justification:** In previous evaluations, there have been unknown deficiencies in the simulator fidelity which have involved handling qualities. This does not allow an accurate comparison of handling qualities.<br>**Proposed Text:**<br>"T2 manoeuvres are flown in the base aircraft ~~or simulator~~ and in the candidate aircraft." |
| response | *Not accepted*<br><br>Not Accepted.<br>Although T2 evaluations should normally be accomplished in the candidate aircraft, some portions that significantly affect aircraft safety (such as flight control failures) may be conducted in a simulator suitable for the test. The use of Level C or D FFS is also in line with FAA AC 120-53A for FSB evaluations. |

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| comment | *66* comment by: *Dassault Aviation*<br><br>DASSAULT**-**AVIATION comment on ***GM1 FCD.435 Evaluation process and evaluation descriptions***<br>· GM1 FCD.435(a): is the "DR" table an "ODR" table ?<br>· GM1 FCD.435(b): the sentence should be "T2 manoeuvres are flown in the base aircraft or in the simulator of the base aircraft, and in the candidate aircraft. They also may be flown in the simulator of the candidate aircraft in case these manoeuvres may be dangerous".<br>· GM1 FCD.435(b): The sentence "subject pilots are evaluated on performance of required maneuvers…" is not correct, as the subject pilots are not evaluated during this exercise. Subject pilots just provide their feed-back and feelings. |
| response | *Noted*<br><br>Bullet point 1:<br>Accepted.<br>The Agency has amended the text in GM1 CS FCD.435(a) accordingly. This is in the new text GM1 CS FCD.430(a).<br><br>Bullet point 2:<br>Partially accepted.<br>The Agency has amended the text in GM1 CS FCD.435(b) to clarify the use of an FSTD. This is in the new text GM1 CS FCD.430(b). |

Bullet point 3:
The Agency has amended the text in GM1 CS FCD.435(b) to reflect that subject pilots are observed and provide feedback. This is in the new text GM1 CS FCD.430(b).