



# Notice of Proposed Amendment 2020-08

in accordance with

Articles 6(3), 7 and 8 (Standard procedure: public consultation) of MB Decision No 18-2015

## Regular update of the Certification Specifications for Operational Suitability Data (OSD) Flight Crew Data (CS-FCD)

RMT.0509

### EXECUTIVE SUMMARY

The objective of this Notice of Proposed Amendment (NPA) is to propose amendments to the Certification Specifications for Operational Suitability Data (OSD) for Flight Crew to reflect, within the scope of regular updates, best practices and experience gained since its first implementation. (CS-FCD Initial Issue was published on 31 January 2014).

To this end, this NPA proposes the following amendments to CS-FCD:

- An update of the evaluation process setting up type rating requirements, training programmes and evaluation descriptions. The update comprises the review of evaluation tests (T Tests) to facilitate the comprehension and understanding.
- An update of the evaluation process (diagram) to clarify the T test evaluation flow and logic for same or new type rating.
- The inclusion of guidance material (GM) on the evaluation process. The new GM runs through the stages of the process, describes the purpose of each evaluation test, and identifies type ratings and level of training and checking requirements.
- Clarification of the applicability of OSD Flight Crew to new applications for TC. The clarification was required due to the removal of the ‘complex motor-powered aircraft’ definition from the Basic Regulation (Regulation (EU) 2018/1139), and does not change the applicability.
- Alignment with the ongoing revision of CS-FSTD in the context of the upcoming Issue 3. The alignment takes on board the updated FSTD capability signature and difference level of training for FSTD features.
- A revision of the scope of CS-FCD to identify all the subjects covered in the CS.
- Development of definitions for ‘checking’, ‘evaluation subjects’, ‘modification’ and ‘type of aircraft’ for the purpose of CS-FCD.
- Clarification of the content of Master Difference Requirement tables. Elements identified in the table are the highest difference levels for training, checking and currency from the Difference Requirement (DR) tables.
- Review and update of the difference levels for training, checking and currency. The removal of Level E for currency to align with the evaluation process setting type rating requirements and training programmes.
- Renaming of Operator Difference Requirement (ODR) tables as DR tables to differentiate from Regulation (EU) No 965/2012 on air operations, including revision of elements pertaining to the table.
- Alignment with current practice of the location to record the determination of a type rating or variant. The OSD for flight crew are identified to record this data.

The proposed amendments are expected to facilitate the applicant’s compliance with the OSD requirements for flight crew and increase efficiency by rendering the evaluation process of applications more comprehensible. Overall, the proposed changes are expected to have a moderate safety benefit, and they would have no social or environmental impact.

<b>Action area:</b>	Systemic safety & competence of personnel		
<b>Related rules:</b>	CS-FCD		
<b>Affected stakeholders:</b>	Design organisations of aircraft and other design organisations dealing with changes or supplemental type certificates to these aircraft		
<b>Driver:</b>	Efficiency/proportionality	<b>Rulemaking group:</b>	No
<b>Impact assessment:</b>	No	<b>Rulemaking:</b>	Standard

● EASA rulemaking process milestones



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## 1. About this NPA

### 1.1. How this NPA was developed

The European Union Aviation Safety Agency (EASA) has developed this NPA in line with Regulation (EU) 2018/1139<sup>1</sup> ('Basic Regulation') and the Rulemaking Procedure<sup>2</sup>. This rulemaking activity is included in the European Plan for Aviation Safety (EPAS) for [2020-2024](#) under Rulemaking Task (RMT).0509. The text of this NPA has been developed by EASA. The proposed amendments were submitted to an expert group of EU original equipment manufacturers (OEMs) prior to the publication of this NPA in order to receive some initial comments. It is hereby submitted to all interested parties<sup>3</sup> for consultation.

### 1.2. How to comment on this NPA

Please submit your comments using the automated **Comment-Response Tool (CRT)** available at <http://hub.easa.europa.eu/crt/><sup>4</sup>.

The deadline for the submission of comments is **26 October 2020**.

### 1.3. The next steps

Following the closing of the public commenting period, EASA will review all the comments received.

The comments received on this NPA and the EASA responses to them will be reflected in a comment-response document (CRD). The CRD will be published on the EASA website<sup>5</sup>.

Based on the comments received, EASA will develop a decision that issues Issue 2 of the Certification Specifications for Operational Suitability Data (OSD) Flight Crew Data.

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<sup>1</sup> Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91 (OJ L 212, 22.8.2018, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535612134845&uri=CELEX:32018R1139>).

<sup>2</sup> EASA is bound to follow a structured rulemaking process as required by Article 115(1) of Regulation (EU) 2018/1139. Such a process has been adopted by the EASA Management Board (MB) and is referred to as the 'Rulemaking Procedure'. See MB Decision No 18-2015 of 15 December 2015 replacing Decision 01/2012 concerning the procedure to be applied by EASA for the issuing of opinions, certification specifications and guidance material (<http://www.easa.europa.eu/the-agency/management-board/decisions/easa-mb-decision-18-2015-rulemaking-procedure>).

<sup>3</sup> In accordance with Article 115 of Regulation (EU) 2018/1139, and Articles 6(3) and 7 of the Rulemaking Procedure.

<sup>4</sup> In case of technical problems, please contact the CRT webmaster ([crt@easa.europa.eu](mailto:crt@easa.europa.eu)).

<sup>5</sup> <https://www.easa.europa.eu/document-library/comment-response-documents>

## 2. In summary — why and what

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

The aviation industry is complex and rapidly evolving. Since the first issuance of the Certification Specifications for OSD Flight Crew Data, in January 2014, EASA has gained experience on its implementation. After having considered all the relevant items to be included in this update, EASA has identified those falling within the scope of the task, while at the same time verifying that they are cost-effective and reflect the best practices.

This NPA aims to achieve the objectives by addressing the issues outlined in Section 2.2, by proposing amendments to the CS-CFD subjects that are considered non-complex, non-controversial, and mature.

The content of this RMT does not include direct references for alignment such as ICAO Annexes or ICAO Standards.

### 2.2. What we want to achieve — objectives

The overall objectives of the EASA system are defined in Article 1 of the Basic Regulation.

The specific objectives of this NPA are to:

- align with the update of Regulation (EU) No 965/2012<sup>6</sup>, and in particular with Part-ORO Flight Crew, to include equipment and procedure training as part of the OPS definition of differences and familiarisation training when these interface with OSD;
- align with the upcoming Issue 3 of the Certifications Specifications for Aeroplane Flight Simulation Training Devices (CS-FSTD(A)), in particular with the updates related to the FSTD capability signature and difference levels for FSTD qualification and features;
- provide clarity on the definition of ‘currency’ used for the purpose of CS-FCD, and align with the recent changes to Part-ORO; and
- gain in efficiency overall by rendering the evaluation process more comprehensible, using a run through of the stages of the process, further descriptions of each T Test evaluation and further definition of concepts for TASE, master difference requirements (MDR) and ‘currency’.

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

Subject 1: The scope of CS-FCD is revised to fully describe the subjects of CS FCD.300. Even though some areas were already part of the CS-FCD Initial Issue (as mandatory from the applicant or for the end user), they are now also captured in the scope in CS FCD.050. These subjects are TASE, the determination of training, checking and credit as well as pilot experience and prerequisites for the issue of the type rating.

With the same aim, the GM related to the scope for types of operations subject to specific approval under Regulation (EU) No 965/2012, Annexes III, V and VIII has been reviewed.

<sup>6</sup> Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1 (<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1600160780354&uri=CELEX:32012R0965>)).

Subject 2: To provide clarity on the concept of TASE, guidance material has been included providing a rationale, the types of TASE, elements that may generate a TASE and the link between TASE and difference training levels.

Subject 3: To clarify the understanding of ‘checking’, ‘evaluation subjects’, ‘modification’ and ‘type of aircraft’ for the purpose of CS-FCD, definitions have been developed.

Subject 4: Clarification of the applicability of OSD Flight Crew Data to new applications for TC. The clarification was required due to the removal of the ‘complex motor-powered aircraft’ definition from the Basic Regulation and does not change the applicability.

Subject 5: To align with current practice the location of the record of the determination of type rating or variant, the OSD for Flight Crew has been updated.

Subject 6: Operator Difference Requirement (ODR) tables and MDR tables:

ODR tables have been renamed as Difference Requirement (DR) tables to differentiate from Regulation (EU) No 965/2012 — in addition, a revision of the elements pertaining to the table has been performed.

The content of MDR tables has been clarified. The elements identified are the highest difference levels for training, checking and currency from the DR tables.

Subject 7: Alignment with the revision in the context of the upcoming Issue 3 of CS-FSTD. To this effect, the updated FSTD capability signature and difference level for FSTD features including its new levels of granularity have been considered in the determination of training, checking and currency levels.

Subject 8: Difference levels — training, checking and currency

Training, checking and currency difference levels have been reviewed and updated. For currency, level E has been removed to align with the evaluation process setting type rating requirements and training programmes. Since level E is used in the context of the initial type rating for a new aircraft, commonalities or credits do not apply for currency.

Subject 9: The evaluation process for setting type rating requirements, training programmes and evaluation descriptions

The objectives and context of the evaluation process have been clarified for either initial type rating training or for reduced type rating training, based on credit for previous experience on similar aircraft types.

- The descriptions of the six standard evaluations (T1, T2, T3, T4, T5 and T6) have been reviewed to facilitate comprehension.
- The evaluation descriptions have been reviewed. The purpose of the T2 evaluation test has been further developed. The conditions to complete the T2 test by analysis have been clarified.
- The diagram for the evaluation process has been reviewed. It provides additional clarity when assigning differences between training levels within the same type rating or, alternatively, the assignment of a new type rating with the possibility to apply for credit when applicable.

- New guidance material is proposed to run through the stages of the process, which describes the purpose of each test for the evaluation of the candidate aircraft in terms of the type rating and the level of training and checking requirements.

Subject 10: The list of acronyms has been updated.

#### **2.4. What are the expected benefits and drawbacks of the proposals**

The proposed amendments are expected to facilitate the applicant's compliance with the OSD requirements for flight crew and improve efficiency by rendering the evaluation process for OSD certification more comprehensible. Overall, the proposed changes will provide moderate safety benefits, and would have no social or environmental impacts.



### 3. Proposed amendments and rationale in detail

The text of the amendment is arranged to show deleted, new or amended, and unchanged text as follows:

- deleted text is ~~struck through~~;
- new or amended text is highlighted in blue;
- an ellipsis '[...]' indicates that the rest of the text is unchanged.

#### 3.1. Draft certification specifications (draft EASA decision)

## SUBPART A — GENERAL

### CS FCD.050 Scope

The scope of CS-FCD is revised to fully describe the subjects covered in points (3), (4) and (5), which were initially covered by CS FCD.300.

- (a) These Certification Specifications for Flight Crew Data (CS-FCD) address:
- (1) the determination of a pilot type rating:
    - (i) to establish ~~if~~ whether a candidate aircraft is recognised as a new type or as a variant to an existing type of aircraft, or as a modification of an existing type or variant including new systems, equipment or procedures;
    - (ii) to assign the pilot licence endorsement designation for a candidate aircraft.
  - (2) ~~Aircraft type~~ the minimum syllabus of an aircraft type-specific pilot training course, including checking ~~and~~ currency and recent experience requirements;
  - (3) the identification and validation of Training Areas of Special Emphasis (TASE);
  - (4) the determination of initial and recurrent training as well as checking and credit based on the differences/commonality between types, variants and aircraft systems, equipment or procedures; and
  - (5) pilot experience and prerequisites for the issue of a type rating, as provided for under Regulation (EU) No 1178/2011 on aircrew.
- (b) The following elements are taken ~~This CS-FCD takes~~ into consideration when establishing compliance with CS FCD:
- (1) the specific characteristics of the candidate aircraft;
  - (2) any ~~proposal by the manufacturer regarding~~ type-specific training elements related to design changes, specific equipment, procedures or operations of an candidate aircraft;
  - (3) the technical requirements and administrative procedures related to civil aviation aircrew and air operations regulations, and those of ~~Part-21~~ Part 21;



- (4) the pilot **experience and** entry prerequisites **for the issuance of a type rating**;
- (5) the ~~commonality~~ **commonalities and differences** between the candidate aircraft and the base aircraft in accordance with the ~~Operator~~-Differences Requirements (~~ODR~~ **DR**) tables, where applicable.

## GM1 FCD.050 Scope

- (a) The following **elements belong to the scope** ~~are also evaluated~~, as appropriate:
  - ~~(1) specific type of operations or specific aircraft missions;~~
  - (1) training elements related to types of operations subject to specific approval under Annexes III, V and VIII to Regulation (EU) No 965/2012 on air operations;**
  - ~~(2) use of the aircraft in specific environmental context (special approval);~~
  - (2) the** 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~~ **offshore** 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.~~
  - (4) steep approaches.**
- ~~(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~~
- ~~(c) (2)~~ **Specific airspace includes, but is not limited to,** ~~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, ~~EVSE~~ **EFVS** and ~~SVSE~~ **SFVS**.



## CS FCD.100 Applicability

[...]

(b) [...]

(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](#);

~~(iii)~~ (iv) [CS FCD.405](#);

~~(iv)~~ (v) [CS FCD.410](#);

~~(v)~~ (vi) [CS FCD.415](#);

~~(vi)~~ (vii) [CS FCD.420](#).

[...]

(5) Items [\(e\)\(1\)](#) and [\(e\)\(2\)](#) combined constitute the minimum syllabus for pilot type rating training as required by ~~Part 21~~ [Part 21](#).

## GM1 ~~CS~~ FCD.100 Applicability

The following points (5) and (6) are added and others are reviewed:

(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~~ [748/2012](#).

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

[...]

(2) [the](#) period of validity for ~~class-and~~ type ratings;

[...]

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

(5) [difference training provisions between variants within one type or between a variant or a type and related systems, equipment and procedures associated with an aircraft modification](#);

(6) [credits related to a reduced type rating training based on commonality with another type of the same manufacturer](#);

(7) recent experience credits for ~~the-operation-of~~ [operations on](#) more than one type of aircraft;

~~(6)~~ (8) [recurrent](#)—training, [and](#) checking, ~~and-recent-experience~~, as well as alternating proficiency checks, for ~~operation~~ [operations](#) on more than one type or variant;



- (7) pilot type-specific training elements;
  - ~~(8)~~ (10) credits related to crewing of inexperienced flight crew members;
  - ~~(9)~~ (11) credits related to the number of take-offs and landings following ZFTT;
  - ~~(10)~~ ~~or~~ (12) type-specific training elements related to the issue of a specific approval.
- (b) ~~The~~ Mandatory and non-mandatory ~~(recommendations)~~ OSD elements ~~may have been established~~ are approved upon satisfactory compliance demonstration. This data may be required from or voluntary requested by the applicant based on data required ~~from an applicant~~ to be approved, or based on data ~~provided~~ approved at the request of an applicant.
- [...]

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

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

Box 1	Box 2
Aircraft type designation and pilot <del>license</del> licence endorsement Prerequisites for initial type rating training and checking Training Areas of Special Emphasis (TASE) for initial type rating DR tables related to systems, equipment and procedures training based on aircraft modifications	Training footprint: <del>(5)</del> for initial type rating
Box 3	Box 4
Level of Differences Determination – <del>ODR</del> DR & MDR Tables TASE for: <ul style="list-style-type: none"> <li>• <del>(6)</del> differences training</li> <li>• <del>(7)</del> type rating training based on credit for commonality</li> <li>• <del>(8)</del> training for specific operations, procedures or equipment (e.g. steep approaches, RNP AR, <del>EVS/SVS</del>EFVS/SFVS, EFB, NVIS, etc.)</li> </ul> Prerequisites, credits for training and checking or recent experience requirements for <del>operation</del> operations on more than one type or variant.	Training footprint for: <ul style="list-style-type: none"> <li>• differences training</li> <li>• type rating training based on credit for commonality</li> <li>• training for specific operations, procedures or equipment (e.g. <del>steep approaches</del>LVO, RNP AR, <del>EVS/SVS</del>EFVS/SFVS, EFB, NVIS, etc.)</li> </ul> CTLC: credits for recent experience requirements  Credits for training, checking or currency



## CS FCD.105 Definitions

The following definitions are reviewed and/or added:

Within the scope of this CS-FCD, the following definitions apply:

[...]

- (c) **Checking** means skill testing, proficiency checking and recurrent checking.
- (d) **Common Take-off and Landing Credit (CTLC)** means a programme or process that allows credit for recent experience between aircraft types that can be demonstrated to have the same very similar handling ~~and flying~~ characteristics during take-off and initial climb, approach and landing, including the establishment of the final landing configuration.
- (~~d~~e) **Currency** means the experience and recurrent training necessary for the safe operation of aircraft, systems and equipment ~~and systems~~.
- (~~e~~f) **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.
- (~~g~~k) **Operator Differences Requirement (ODRDR)** means a description of the differences regarding the level of training and checking, or currency between a base and a candidate aircraft and their impact on flight characteristics and changes of procedures, meant to be used by ATOs and operators for the development of training courses or DR tables.
- (~~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.~~
- (h) **Evaluation Subjects** means pilots possessing the general and specific prerequisites to enter a training course, who are used in T tests for the purpose of determining the compliance of the proposed OSD FC initial or difference training elements, as well as any credit.
- (~~g~~i) **Handling characteristics** means the manner in which the aircraft responds with respect to the rate and magnitude of pilot-initiated control inputs to the primary flight control surfaces flight controls based on the aerodynamic response of an aircraft, also as affected by changes in configuration or flight path parameters.
- (~~h~~j) **Line Flying Under Supervision (LIFUS)** means the part of the operator's conversion course in accordance with the Air eOperation Implementing Rules.
- (~~i~~k) **Master Differences Requirements (MDR)** means those requirements that pertain to differences between variants of the same type of aircraft. MDRs are specified in terms of the minimum difference levels and include the highest difference level identified in the associated DR table.
- (~~j~~i) **Minimum syllabus** means the training elements and associated footprint provided by the applicant and approved by the Agency EASA for a specific aircraft type.
- (m) **Modification** means a change to an aircraft type design and the associated type certificate having an impact on the Flight Crew Data in relation to new systems, equipment and procedures.



- (h) *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 of Annex I to Regulation (EU) No 1178/2011.
- (+)(p) *Training Areas of Special Emphasis (TASE)* means specific knowledge and skills required for the safe operation of an aircraft **type or variant**, use of equipment, application of procedures or performance of operations.
- (eq) *Training footprint* means a summary description of a training programme, usually in short tabular form, showing **the** training subjects, modules, procedures, manoeuvres or other programme elements which are planned for completion during each day or phase of training.
- (r) *Type of aircraft* means a categorisation of aircraft requiring a type rating as determined in the **operational suitability data established in accordance with Part 21, and which includes all aircraft of the same basic design, including all modifications thereto, except those which result in a change in handling or flight characteristics.**
- (ps) *Variant* means an aircraft or ~~a group~~ **series** of aircraft **sharing the same basic design**, within the same pilot type rating, that has differences ~~to~~ **from** the base aircraft requiring difference training or familiarisation training **as per FCL.710 of Annex I to Regulation (EU) No 1178/2011.**

## GM1 FCD.105 Definitions

The GM is reviewed to update of the following acronyms:

[...]

~~AGNA~~ ~~Advisory Group of National Authorities~~

**ATO** **Approved Training Organisation**

~~CRD~~ ~~Comment Response Document~~

~~CRT~~ ~~Comment Response Tool~~

[...]

**EFVS** **Enhanced **Flight** Vision System**

~~FAA~~ ~~Federal Aviation Administration~~

[...]

**FSTD** **Flight Simulation Training ~~Devices~~ **Device****

[...]



~~JAA~~ — ~~Joint Aviation Authorities~~

~~JOEB~~ — ~~Joint Operational Evaluation Board~~

[...]

~~MMEL~~ — ~~Master Minimum Equipment List~~

~~NAA~~ — ~~National Aviation Authorities~~

~~NPA~~ — ~~Notice of Proposed Amendment~~

[...]

~~ODR~~ — ~~Operator Difference Requirement~~

OEB                      Operational Evaluation Board

[...]

~~SSCC~~ — ~~Safety Standards Consultative Committee~~

SFVS                      Synthetic **Flight** Vision System

[...]

~~TCCA~~ — ~~Transport Canada~~

~~ToR~~ — ~~Terms of Reference~~

[...]

**WBT**                      **Web-Based Training or Computer-Based Training**

## SUBPART B — DETERMINATION OF A PILOT TYPE RATING

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

- (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~~ **aeroplanes:**
- **with a maximum certificated take-off mass exceeding 5 700 kg, or**



- certificated for a maximum passenger seating configuration of more than 19, or
  - certificated for operation with a minimum crew of at least two pilots, or
  - equipped with (a) turbojet engine(s) or more than one turboprop engine;
- (ii) helicopters except ~~helicopters~~ those certified in accordance with CS-VLR;
- (iii) tilt rotors;
- ~~(iii)~~ (iv) gas airships;
- [...]
- (b) The determination of whether a certain aircraft is a new type or a variant ~~may be~~ is made at the request of the applicant in accordance with Subpart D.
- (c) The type rating or variant determination is recorded in the TC data sheet. flight crew data.
- (d) Changes to a TC type design are assessed for their impact on the ~~type rating or variant determination~~. associated flight crew data and addressed, if necessary, through changes to the flight crew data.

## GM1 FCD.200 Determination of a pilot type rating and a variant

For the category of aircraft described in CS FCD.200 ~~(a)(3)~~, it may be determined, during the type certification process or based on in-service experience, ~~an assessment will be performed to determine whether~~ that the aircraft type requires a pilot type rating for safe operations. The applicant for a TC applicant/holder is then requested to ~~apply for~~ obtain approval of a minimum syllabus for pilot type rating training by including the OSD Flight Crew Specifications in the certification basis. ~~unless he/she can show that type training is not required to fly the aircraft safely.~~ This determination is ~~should be~~ based on the considerations listed in that subparagraph.

With reference to CS FCD.200(d), when assessing changes for their impact on the FCD, a new model or series, as identified in the OSD flight crew report, would usually determine a variant or, potentially, a new type.

Modifications that are significant from the flight crew perspective, performed by the TCH or via an STC, even though they do not determine a new model or series, may require the determination of a new variant (e.g. the installation of a new avionic suite).

Design modifications to an existing type or variant that do not determine a new variant are only addressed through changes to the DR tables or supplemental DR tables to support operators in the development of their training programmes.



## 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~~operate a specific aircraft are defined in the flight crew data.
- (b) ~~For the development definition~~ of the specific training requirements has to consider the provisions related to civil aviation aircrew and air operations regulations and Part 21 ~~Part 21 are considered~~, taking into account the relevant references to the OSD.
- (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 ~~are~~ shall be identified ~~or confirmed through the evaluation process and evaluation descriptions as described in~~ and established in accordance with CS FCD.425.
- (e) [...]
  - (1) [...]
  - (2) the prerequisites for the minimum entry-level requirements to be fulfilled by the pilot, when more stringent than those established under Regulation (EU) No 1178/2011;
  - (3) [...]



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

A definition of TASE has been developed to give further clarity on the aspects for the applicant and the end users, as well as to clarify the differences between TASE and difference training levels.

- (a) The following table presents an example of a training footprint for a type rating course. This footprint can be made equally applicable to other training courses by adapting the contents and durations.

<b>Day 1</b>	<b>Day 2</b>	<b>Day 3</b>	<b>Day 4</b>	<b>Day 5</b>
<b>Tablet Introduction</b> <b>CBT Module 1</b> (x:xx hrs)	<b>CBT MODULE 2</b> (x:xx hrs)	<b>CBT MODULE 3</b> (x:xx hrs)	<b>CBT MODULE 4</b> (x:xx hrs) <b>OTD MODULE 1</b> (x:xx hrs)	<b>Tutorial 1 OPT</b> (x:xx hrs)
<b>Day 6</b>	<b>Day 7</b>	<b>Day 8</b>	<b>Day 9</b>	<b>Day 10</b>
<b>CBT MODULE 5</b> (x:xx hrs) <b>OTD MODULE 2</b> (x:xx hrs)	<b>CBT MODULE 6</b> (x:xx hrs) <b>OTD MODULE 3</b> (x:xx hrs)	<b>CBT MODULE 7</b> (x:xx hrs) <b>OTD 4</b> (x:xx hrs)	<b>CBT MODULE 8</b> (x:xx hrs) <b>OTD MODULE 5</b> (x:xx hrs)	<b>CBT MODULE 9</b> (x:xx hrs) <b>OTD MODULE 6</b> (x:xx hrs)
<b>Day 11</b>	<b>Day 12</b>	<b>Day 13</b>	<b>Day 14</b>	<b>Day 15</b>
<b>CBT MODULE 10</b> (x:xx hrs) <b>OTD MODULE 7</b> (x:xx hrs)	<b>CBT MODULE 11</b> (x:xx hrs) <b>OTD MODULE 8</b> (x:xx hrs)	<b>CBT MODULE 12</b> (x:xx hrs) <b>OTD MODULE 9</b> (x:xx hrs)	<b>CBT MODULE 15</b> <b>13</b> (x:xx hrs) <b>OTD MODULE 10</b> (x:xx hrs)	<b>Tutorial 2 EFB, QRH</b> (x:xx hrs) <b>Tutorial 3 LBS</b> (x:xx hrs)
<b>Day 16</b>	<b>Day 17</b>	<b>Day 18</b>	<b>Day 19</b>	<b>Day 20</b>
<b>Variances</b> <b>(if needed)</b> (x:xx hrs)	<b>FFSFSTD MODULE 1</b> (x:xx hrs)	<b>FFSFSTD MODULE 2</b> (x:xx hrs)	<b>FFSFSTD MODULE 3</b> (x:xx hrs)	<b>FFSFSTD MODULE 4</b> (x:xx hrs)
<b>Day 21</b>	<b>Day 22</b>	<b>Day 23</b>	<b>Day 24</b>	<b>Day 25</b>
<b>FFSFSTD MODULE 5</b> (x:xx hrs) <b>Wind shear briefing</b> (x:xx hrs)	<b>FFSFSTD MODULE 6</b> (x:xx hrs)	<b>FFSFSTD MODULE 7</b> (x:xx hrs)	<b>FFSFSTD MODULE 8</b> (x:xx hrs)	<b>Skill test</b> (x:xx hrs)

Note: Times for **OTD other training devices** and **FFS FSTD** modules include time for briefing and debriefing.

- (b) [...]

If the determination is made that the base and the candidate aircraft are considered variants, then only differences or familiarisation training is required.



## (c) Training methods

For the training methods for pilot type rating training:

[...]

- (2) hands-on training can be adequately addressed by part task trainers or system training devices (for example for FMS and TCAS);
- (3) demonstration can only be adequately addressed in an ~~flight~~FSTD with the appropriate capability to achieve the training device objectives, and enabling the integration of knowledge, skills and abilities. Depending upon the element to be trained, acceptable training media could be an FSTD or an aircraft.

## (d) Development of Training Areas of Special Emphasis (TASE)

## (1) TASE are identified:

- (i) in order to prevent misunderstandings, skill errors or skill deficiencies having an impact on the safety of the flight, TASE may be specified as mandatory items specific to a given aircraft type, variant or equipment to be integrated in training (type-rating training, difference or familiarisation training, or equipment training as applicable), or
- (ii) when the impact on the safety of the flight is considered to be associated with aircraft failure conditions with a severity classified as Major or higher.

## (2) Types of TASE

- (i) TASE provided in the initial FCD corresponding to the aircraft configuration at TC (or the aircraft basic specification at the time of the FCD catch-up). These TASE are the only mandatory FCD items for the type-rating course content based on the aircraft configuration at TC.
- (ii) TASE provided in the update of the FCD for the modified aircraft (TASE for a variant, TASE for equipment). These TASE are mandatory FCD items provided in addition to the DR tables for the difference, familiarisation and equipment training.

## (3) Initial and recurrent training

TASE are applicable to both initial and recurrent training. However, more detailed provisions on the applicability of a TASE may be provided as part of the OSD.

## (4) Relationship between TASE and difference training levels

TASE are typically associated with training items requiring at least level B difference training (i.e. TASE should not be related to Level A difference training items, as these should not adversely affect safety if the information is not properly acquired).

## (5) Sources for TASE

Typical sources or elements that may generate TASE are:

- (i) design validation: validation of an aircraft design (systems, functions, etc.) and procedures (e.g. flight test, HF evaluation, safety analysis);



- (ii) operational evaluation: FCD evaluations (T testing), or ATO training syllabus evaluations; and
- (iii) in-service feedback or experience.

## CS FCD.305 LIFUS

Requirements for LIFUS are specified by the air operation Implementing Rules; however, ~~credit for LIFUS credit~~ between ~~base~~-aircraft types for the number of take-offs and ~~candidate aircraft may be~~ landings related to LIFUS following a ZFTT is 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 or variants and based on the provisions included in Annex III to Regulation (EU) No 965/2012, the applicant may propose:
  - (1) credit for training, checking and currency for ~~the~~ operations on more than one type or variant;
  - ~~(2) CTLC.~~
  - (2) credit related to recent experience requirements when operating more than one type.
- (b) For substantiation of the credits proposed under (a), the applicant provides ~~ODR~~DR tables or other appropriate documentation for comparison of the relevant aircraft characteristics.

## 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)~~(a) alternating proficiency checks;
- ~~(c) take-off and landing~~
- (b) currency and recent experience;
- ~~(d) currency in conduct of special operations (e.g. low visibility operations, HUD use, and NVIS operations).~~
- (c) other credit provided for in the relevant subparts of Annex III to Regulation (EU) No 965/2012 as determined under the OSD.



## SUBPART D — OPERATIONAL EVALUATION

### CS FCD.400 ~~Operator~~-Difference Requirement (~~ODR~~DR) tables

The evaluation of equipment and procedures between a base and a candidate aircraft have been included to align with ORO.FC.126 'Equipment and procedure training' of Regulation (EU) No 965/2012. In addition, the name of the tables containing the description of differences regarding levels of training, checking and currency has been changed from Operator Difference Requirement (ODR) to Difference requirement (DR) to differentiate from the above regulation.

- (a) ~~ODR~~DR tables are provided for any evaluation of differences ~~and similarities~~ between a base and a candidate aircraft for type rating ~~and variant~~ assessment, ~~as well as for new systems or equipment and procedures~~, and for the content of the type rating, ~~difference or familiarisation~~ training ~~syllabus~~.
- (b) ~~ODR~~DR tables identify the differences between ~~the~~ base and ~~the~~ candidate aircraft in terms of general characteristics, systems and manoeuvres, and propose appropriate difference levels.
- (c) ~~ODR~~DR tables can be expanded to address multiple aircraft comparisons.
- (d) ~~Specifications for setting up the ODR tables are to be found in Appendix to CS FCD.400.~~ DR tables have to be established in accordance with the Appendix to CS FCD.400.

### Appendix to CS FCD.400 — Compilation of ~~ODR~~DR tables

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

- (a) ~~ODR~~DR 1: General  
[...]
- (b) ~~ODR~~DR 2: Systems  
[...]
- (c) ~~ODR~~DR 3: Manoeuvres
  - (1) [...]
  - (2) [...]
  - (3) [...]
  - (4) [...]
  - ~~(5)~~ aircraft performance in specific manoeuvres;
  - ~~(6)~~(5) aircraft status following a failure;
  - ~~(7)~~(6) management (such as Electronic Centralised Aircraft Monitoring (ECAM), Engine Indication and Crew Alerting System (EICAS), navaid selection and automatic checklists).



## CS FCD.405 Master Difference Requirement (MDR) tables

~~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.~~

- (a) Based on the DR tables established in accordance with CS FCD 400, EASA-approved MDR tables shall be issued.
- (b) MDR tables are specified in terms of the minimum difference levels and contain the highest level identified in the applicable DR tables.

## CS FCD.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~~ DR tables. [...]

## CS FCD.415 Difference levels — Training, checking and currency

RMT.0196, regular update of CS-FSTD (A) Issue 3, introduces new difference levels of fidelity applicable to the FSTD features required to support training tasks. To align with these standards (fidelity levels), CS-FCD has been updated accordingly.

Having further re-assessed the overall logic and structure of CS FCD.415, the Level E currency and currency for competency for non-normal and emergency procedures do not apply to aircraft for which a new type rating is issued.

- (a) Difference levels are summarised 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 and procedures
D	<del>Manoeuvre</del> Flight Simulation Training Devices <sup>3</sup> or aircraft to accomplish specific manoeuvres	Partial proficiency check using qualified device <sup>1</sup>	Designated manoeuvre(s) <sup>1</sup>
E	Flight Simulation Training Devices (FSTDs) <sup>2</sup> or aircraft	Proficiency check using <del>FSTDs</del> <sup>2</sup> FSTDs <sup>3</sup> or aircraft	As per regulation, using FSTDs <sup>2</sup> or aircraft

Footnote (1):

— Aeroplane: ~~FTD Level 2, or FFS; or aeroplane~~

— Helicopter: ~~FTD level 2 and 3, or FFS or helicopter~~



## (1) Aeroplane:

- (i) FFS level D qualified in accordance with CS-FSTD Initial Issue or Issue 2, or
- (ii) FFS level D or FTD level B qualified in accordance with CS-FSTD Issue 3.

## (2) Helicopter:

- (i) FTD Level 2 and 3, or
- (ii) FFS, or
- (iii) 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~~

(1) Aeroplane: The FSTD Capability used for training must meet the training objectives and requirements set-out in Regulation (EU) No 1178/2011.

(2) Helicopter: FSTDs having dual qualification: FFS Level B and FTD Level 3, or FFS Level C or D, or helicopter.

Footnote (3):

## (1) Aeroplane:

- (i) FFS level D qualified in accordance with CS-FTSD Issue 2, or
- (ii) FFS level D or an FSTD having at least a type-specific flight deck layout and structure, flight model, ground reaction and handling characteristics, and flight controls and forces, or
- (iii) Aeroplane

## (2) Helicopter:

- (i) FTD Level 2 and 3, or
- (ii) FFS, or
- (iii) Helicopter.

## (b) Difference level — Training

[...]

## (3) Level C training

[...]

Level C differences training is applicable ~~to variants having 'part-task'~~ when cockpit design that affect skills or abilities as well as knowledge exist. [...]

## (4) Level D training



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

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

[...]

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 manoeuvring 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.

The applicant needs to propose the features that define the FSTD capability required to meet the training objectives among those identified in the table in point (a). 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.

Appropriate devices as described in CS FCD.415(a), satisfying level D differences training are those range for which 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 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 for manoeuvres can result in with 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.

When level E difference training is assigned, as well as for any initial type rating training, experience requirements and prerequisites for the issue of the relevant rating may be approved, based on the provisions included in Regulation (EU) No 1178/2011, FCL.720.A



and FCL.720.H. Recurrent training and checking credits for operations on more than one type may be approved based on the provisions under Annex III to Regulation (EU) No 965/2012.

(c) Difference level — Checking

(1) [...]

(2) [...]

(3) Level C checking

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

(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~~ equipment. Level D checking is performed using scenarios representing a 'real-time' flight environment and uses ~~qualified devices permitted for~~ FSTDs capable of level D training or higher.

5) Level E checking

Level E differences checking requires that a full ~~proficiency check~~ skill test be conducted in FSTDs or in an aircraft as mentioned in CS FCD.415(a), following both initial and recurrent training. If appropriate, alternating ~~Level-E~~ recurrent checking between relevant aircraft types is possible and credit may be defined for procedures or manoeuvres based on commonality.

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

(d) Difference level — Currency

~~Differences-e~~ Currency differences addresses any currency and ~~re-currency~~ recurrent training difference levels. Initial and recurrent currency levels are the same unless otherwise specified.

(1) [...]

(2) Level B currency

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

(3) Level C currency

(i) Level C currency is applicable to one or more designated systems, equipment 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.

[...]

## (4) Level D currency

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

[...]

~~(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 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 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.~~

**GM1 FCD.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, it is not necessary. Levels always the case. Training, checking and currency 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 **training** device associated with a higher difference level than required, if level C differences have been assessed due to **the** installation of a different FMS, pilots may be trained using the FMS installed in ~~an FFS~~ **an FSTD used** as a system trainer, if a dedicated part task FMS training device is not available.

## (1) Level A training

[...]

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

- (i) the change introduces a different version of a system or **component equipment** for which the flight crew has already demonstrated **understanding and** the ability to ~~understand and use~~ **it safely** (for example, an updated version of an engine);

[...]

## (2) Level B training

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

## (3) Level C training

While level C systems **or equipment and procedures** knowledge or skills relate to specific rather than fully integrated tasks, **the** performance of **the** steps to accomplish normal, abnormal and emergency procedures or manoeuvres related to particular systems 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 **flight simulation** training devices (**FSTDs**);
- (iii) specific systems incorporated in ~~FFS~~ **an FSTD**; or
- (iv) a static aircraft;

## (4) Level D training

~~Manoeuvre~~ **The use of an FSTD for manoeuvre** training ~~devices~~ or an aircraft as mentioned in [CS FCD.420\(a\)](#) 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 should normally be limited to an appropriate number of hours within Level D training.

## (5) Level E training

~~if~~ **For safety reasons, if the** training is performed in an aircraft, it should be ~~modified~~ **adapted** for **high-risk** situations like **engine loss, by not shutting down the engine but rather simulating the engine failure by** setting the affected engine at idle **or zero** thrust. ~~to simulate an engine failure, for safety reasons~~

## (c) Difference level — Checking

[...]

## (2) Level B checking

Level B checking typically applies to particular tasks or **systems or equipment and procedures**, 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 **the** set up or use of the FD or FMS.

## (d) Difference level — Currency

[...]

## (2) Level B currency

[...]

An example **of acceptable of how** compliance with level B currency **can be shown** 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, **by flying** that variant or having **re-**completed a review of the differences in limitations and procedures within the past 90 days).

[...]

## (3) Level C currency

[...]

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, **equipment** or procedure within the specified period;
- (ii) tracking of an individual pilot's flying to ensure that the particular system, **equipment** or procedure has been flown within the specified period;
- (iii) use of a higher **level** method (level D or E currency).

[...]

~~(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.~~

## CS FCD.420 Evaluation process overview

- (a) Six standard evaluations (T1, T2, T3, T4, T5 and T6) are defined under CS FCD.425. They are used to set MDRs, acceptable training programmes, other provisions, and to define type rating requirements as shown in **the Appendix to CS FCD.420. Appendix 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~~ shall be performed **when an applicant presents an aircraft to validate difference training, checking and currency requirements between a base and a candidate aircraft that share the same basic design.** ~~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 **or a modification of an existing type or variant.** The level of differences determines the minimum required training, checking and currency ~~standards as~~ **requirements** applicable to the candidate aircraft.  
  
**When a reduced initial type rating training are established based on previous experience on similar aircraft types, the T2 and T3 tests are used for this purpose.**
  - (2) The T4 evaluation is used to establish relief from ~~established~~ **approved** currency requirements based on system, **equipment**, procedural and manoeuvring differences between aircraft.
  - (3) The T5 evaluation is used ~~when an applicant presents a candidate aircraft as~~ **to validate the minimum syllabus of the initial type rating training for a new aircraft TC 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~~ **the minimum syllabus of pilot type rating and the minimum required training, checking, and currency standards as** applicable to that type of aircraft, including the associated TASE, **additional prerequisites and limitations as provided for in Regulation (EU) No 1178/2011.**



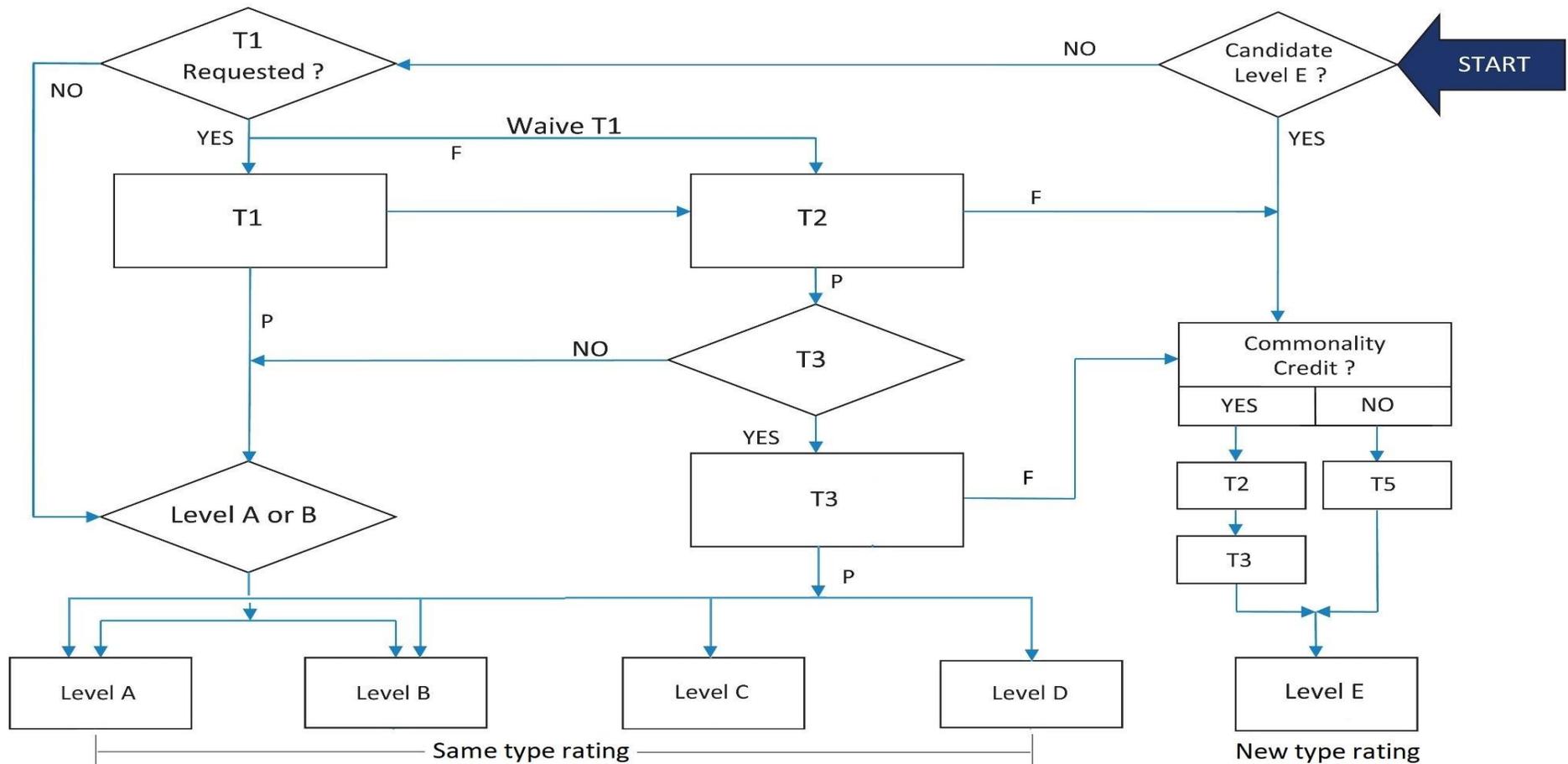
- (4) The T6 evaluation is used to evaluate the CTLC between different types of aircraft for the purpose of allowing credit for recent experience requirements as provided for in Regulation (EU) No 1178/2011.

[...]



## Appendix to FCD.420 — Evaluation process overview

For clarity reasons, a new table, describing the evaluation process, is included in the Appendix to CS FCD.420. The initial version can be consulted in CS-FCD Initial Issue.



## GM1 FCD.420 Evaluation process ~~and evaluation descriptions~~ overview

For clarity reasons, a new GM1 FCD.420 'Evaluation process overview' is proposed below.

### ~~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 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 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.~~

- (a) For a new TC, the type of the aircraft has to be determined (CS FCD.200) and the minimum syllabus for an initial type rating training approved (CS FCD.300). The means of compliance for the approval of the OSD FC is, in this case, the T5 test.

In addition to the above, the applicant may request the approval of reduced initial type rating training based on previous experience on similar aircraft types. In this case, T2 and T3 tests are used as the means of compliance.

When applying for a change to an existing TC that has an associated OSD FC, or for the issue of an STC, the applicant assesses the impact of the design changes to the OSD FC. These changes may or may not determine a new variant, or, if the changes are significant, may determine a new type of aircraft for the purpose of pilot type rating. The applicable tests are, in this case, T1, or T2 and T3.

- (b) T tests: general description and purpose

- (1) T1 evaluation: functional equivalence and training

When the differences between the base and the candidate aircraft are very small and there is certainly no impact on the handling qualities, a T1 test may be proposed. T1 tests the functional equivalence between the base and the candidate aircraft. Satisfactory crew performance during the test establishes that the differences between the base and the candidate aircraft are considered minor, and, consequently, training requirements no greater than level B are assigned.

If a T1 test is waived or is failed, the T2 and T3 tests may be used.

- (2) T2 evaluation: handling qualities comparison

The T2 test compares handling qualities using predetermined flight manoeuvres to confirm that the candidate aircraft may be considered a variant of the base aircraft. If no major differences are found in the handling qualities, then the T2 test is successful, and a T3 test from the base aircraft to the candidate aircraft can be performed to validate the difference levels up to level D.

T2 manoeuvres are flown in the base aircraft or a base aircraft FFS to establish a baseline, and then in the candidate aircraft for comparison.

The T2 evaluation profile is subject to the characteristics of the base and the candidate aircraft. The evaluation profile should incorporate all the relevant handling quality aspects of the candidate aircraft. T2 consists of a comparison between the selected pilot type rating proficiency check manoeuvres performed first in the base aircraft and then in the candidate aircraft. An approved level D FFS may be used in place of the base aircraft, and, only when safety considerations dictate, in place of the candidate aircraft.

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



**(3) T3 evaluation: System and equipment differences and training**

The test has the purpose of identifying system, equipment, procedures, and manoeuvre differences, and validating the proposed difference training, checking and currency requirements. It is also used to validate a proposed reduced initial type rating training course based on previous experience on similar aircraft types.

A successful T3 test permits the assignment of A, B, C or D difference training levels. The result may be the assignment of the same type rating if no training differences greater than level D exist, or the assignment of a different type rating if level E training differences are identified.

Normally, for level A and B differences, a two-way evaluation is not necessary. Typically, a T3 evaluation to validate level C and D differences is valid in one direction only (base to candidate aircraft). However, the applicant may request that a T3 evaluation be conducted in both directions (base to candidate aircraft, and candidate to base aircraft). The MDR (for variants only) and DR tables will reflect the validated difference levels accordingly.

**(4) T4 evaluation: currency validation**

T4 tests are not shown in the evaluation process since they are only triggered when the applicant seeks relief from the system, equipment, procedural and manoeuvre currency requirements as set in the DR tables.

**(5) T5 evaluation: minimum syllabus validation for new type rating**

The T5 test is appropriate and required for a new TC, in order to establish and approve the minimum syllabus of pilot type rating training.

Evaluation subjects are pilots who meet the prerequisites established under Part-FCL to obtain a type rating, and who are checked (with a skill test) in accordance with Part-FCL after having been delivered the proposed full type rating training syllabus.

**(6) T6 evaluation: CTLC**

T6 Evaluation subjects are pilots who are rated and experienced on the base aircraft. They are evaluated on their ability to fly, with no previous training, the candidate aircraft manually through take-off, initial climb, and approach and landing (including the establishment of the final landing configuration). When designing the T6 test, the applicant should consider the effects on the take-off and landing manoeuvres of the following factors:

- (1) the aircraft weight;
- (2) the aircraft centre of gravity; and
- (3) take-off and landing crosswinds.

## CS FCD.425 Evaluation process and evaluation descriptions

Definition of the evaluation process and evaluation descriptions:

(a) Difference level evaluations

~~Five standard evaluations~~ Tests T1 through T5 are used to evaluate a candidate aircraft with regard to ~~the~~ pilot type rating, minimum syllabus, operational evaluations, and credit for operations on more than one type or variant. ~~One additional evaluation, the T6 evaluation,~~ can be used to establish ~~the~~ CTLC between related aircraft when not previously demonstrated in a T2 evaluation.

[...]

(b) Steps in the evaluation process

When ~~an~~ evaluation is ~~accomplished~~ carried out, the T1, T2 and ~~T2~~ T3 evaluation tests compare the candidate aircraft with the base aircraft. ~~The applicant submits ODR-DR tables and, in the case of a variant, MDR tables that address the differences between the base and the candidate aircraft are established. and vice versa, if requested by the applicant. Normally for level A and B differences, two-way testing is not necessary.~~

~~If an applicant wished to obtain~~ For establishing ~~an evaluation data~~ for a direction that was not ~~initially~~ previously evaluated assessed, ~~an additional evaluation using the above T tests the Agency will review the request and may perform an evaluation in the direction that was not previously evaluated~~ may be carried out based on an application. In general, level A and B differences do not require two-way testing.

(c) Prior to evaluation:

(1) [...]

(2) ~~the~~ proposed MDRs and example ~~ODRs~~DRs are identified;

(3) [...]

(4) the ~~applicant proposes which~~ aircraft, variants, ~~simulation devices,~~ training aids, training devices, FSTDs, or analyses ~~is~~ needed to support the evaluation are identified;

(5) [...]

(d) Evaluation purpose and application

The ~~E~~ evaluation purpose and application are summarised 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 and/or, if required, 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 and/or, if required, T2+T3 for commonality credit
T4	Revises currency requirements	
T5	Sets training or checking for new or 'E'	Sets level E

	aircraft	
T6	Evaluation for CTLC	Sets recent experience requirements

A 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~~ validate the functional equivalence between the base and the candidate aircraft and validate the level A or B ~~training level is appropriate differences~~.

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

Evaluation process: administer appropriate portions of a proficiency check as agreed by ~~the Agency~~ EASA based on a proposal by the applicant. This evaluation may be accomplished in a training device, ~~FFS~~ an FSTD with the appropriate FSTD capability to achieve the training objectives, 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) [...]

(2) [...]

(3) ~~The Agency~~ EASA may waive the T1 test if ~~a T2 and T3 tests is are~~ 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 ~~to be validated via a T3 test~~. At the discretion of ~~the Agency~~ EASA, the T2 evaluation may be completed through analysis ~~when it is assessed that the nature of the proposed design changes does not affect the handling qualities of the candidate aircraft~~.

Evaluation subjects: as established by ~~the Agency~~ EASA 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 ~~the~~ candidate aircraft, unless safety considerations dictate ~~the~~ use of ~~an approved FSTD~~ an FFS as defined in CS FCD.415(a) for Level E. Manoeuvres ~~are performed with in the aid of~~ aircraft require 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 ~~the~~ base and ~~the~~ candidate aircraft are sufficiently alike in handling characteristics to permit ~~the~~ assignment of ~~level~~ A, B, C or D training levels. A successful T2 evaluation permits a subsequent T3 evaluation ~~(T3)~~ to assess systems ~~and equipment~~ 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, ~~an FFS or aircraft for~~ manoeuvre training ~~devices or aircraft~~, as mentioned in [CS FCD.415\(a\)](#), may be proposed within level D training for the conduct of specific manoeuvres.

[...]

- (g) Evaluation 3 (T3): ~~this is a systems and equipment differences test~~ and validation of ~~the proposed differences training and checking or reduced type rating training, based on credit for previous experience on similar aircraft types.~~

Evaluation purpose: to evaluate the proposed ~~differences training~~, and ~~the checking programmes~~ and training devices at level A, B, C or D. ~~It is also used to evaluate reduced type rating training, checking and currency, as well as training devices for reduced initial type rating training based on credit for previous experience on similar aircraft types.~~

Evaluation subjects: pilots designated by ~~EASA the Agency~~, trained and experienced in the base aircraft and having been given the proposed ~~differences training~~ ~~or reduced initial type rating training~~ programme for the candidate aircraft.

Evaluation process: if level ~~A or~~ 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~~ ~~system trainers~~ or ~~an FSTD for~~ manoeuvre training ~~devices~~—or in an aircraft, as mentioned in [CS FCD.415\(a\)](#). Following ~~the~~ completion of the ~~flight test (proficiency check)~~, a simulated Line Oriented Flying (LOF) check may be administered by ~~EASA the Agency~~. This LOF check is normally administered in ~~an FFS~~ ~~an FSTD~~, but may be accomplished in a test aircraft, as appropriate.

[...]

- (h) Evaluation 4 (T4): currency validation

Evaluation purpose: used to evaluate relief from established currency requirements. This currency evaluation addresses ~~systems, equipment~~, procedural and manoeuvring differences between aircraft and ~~does not address~~ 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~~ ~~EASA~~ based on a proposal by the applicant.

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

[...]

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

Evaluation purpose: [...]

Evaluation subjects: as established by ~~the Agency~~ ~~EASA~~ based on a proposal by the applicant, ~~meeting the prerequisites established under Part-FCL of Regulation (EU) No 1178/2011 for the issue of a type rating.~~

Evaluation process: [...]



Successful evaluation: [...]

Failure evaluation: [...]

[...]

(j) Evaluation 6 (T6): CTLC

Evaluation purpose: [...]

Evaluation subjects: [...]

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 FFS. The subject is then evaluated in the candidate aircraft, without any training in it, **by** 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~~, **and in such cases, an FFS** 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 **the** final landing configuration).

Successful evaluation: [...]

Failure of evaluation: [...]

(k) Disposition of evaluation results

Evaluation results should be summarised by ~~the Agency~~ **EASA** **to the applicant** and the outcome documented in the OSD **FC**.

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



#### 4. Impact assessment (IA)

The review of CS-FCD has been performed within the context of regular updates and includes subjects that are non-complex, non-controversial, and mature. Consequently, no IA is required.



## 5. Proposed actions to support implementation

N/A



## 6. References

### 6.1. Related regulations

N/A

### 6.2. Related decisions

Decision 2014/008/R of the Executive Director of the Agency of 31 January 2014 adopting Certification Specifications and Guidance Material for Operational Suitability Data (OSD) Flight Crew Data ('CS-FCD — Initial Issue')

### 6.3. Other reference documents

- Regulation (EU) No 965/2012, Air operations
- Certification Specifications for Aeroplane Flight Simulation Training Devices (CS-FSTD(A))
- Regulation (EU) No 1178/2011, aircrew
- Regulation (EU) 2018/1139, Basic Regulation



## 7. Appendix

N/A



## 8. Quality of the document

If you are not satisfied with the quality of this document, please indicate the areas which you believe could be improved, and provide a short justification/explanation:

- the technical **quality** of the draft proposed rules and/or regulations and/or the proposed draft amendments to them
- the clarity and readability of the text
- the quality of the impact assessment (IA)
- application of the ‘better regulation’ principles<sup>7</sup>
- others (please specify)

*Note:* Your replies and/or comments to this section will be considered for internal quality assurance and management purposes only and will not be published in the related CRD.

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<sup>7</sup> For information and guidance, see:

- [https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox\\_en](https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox_en)
- [https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how\\_en](https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how_en)
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