Certification Specifications for Operational Suitability Data (OSD) Flight Crew Data (CS-FCD) Issue 2 — Change information

The European Union Aviation Safety Agency (EASA) publishes issues of certification specifications (CSs) as consolidated documents. These documents are used to establish the certification basis for applications submitted after the date of entry into force of the applicable issue.

The consolidated CS-FCD Issue 2 (the Annex to ED Decision 2021/012/R) does not highlight the changes introduced. To show the changes, this change information document was created, using the following format:

(a) deleted text is ~~struck through~~;

(b) new or amended text is highlighted in blue;

(c) an ellipsis '[…]' indicates that the rest of the text is unchanged.

Note to the reader

In amended, and in particular in existing (that is, unchanged) text, 'Agency' *is used interchangeably with* 'EASA'. *The interchangeable use of these two terms is more apparent in the consolidated versions. Therefore, please note that both terms refer to the* 'European Union Aviation Safety Agency (EASA)'.

SUBPART A — GENERAL

CS FCD.050 Scope

(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~~an aircraft is recognised as a new type or as a variant to~~of~~ an existing type of aircraft, or as a modification to an existing type or variant, including its new systems, new equipment, or new procedures; and

(ii) to assign the pilot licence endorsement designation for ~~a candidate~~an aircraft;

(2) ~~Aircraft type~~ the minimum syllabus for an aircraft type-specific pilot training course, including checking requirements~~and~~, currency requirements 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 of checking and credit based on the differences/commonalities between types, variants, aircraft systems, equipment, or procedures; and

(5) pilot experience and pilot prerequisites for the issuance of a type rating, as provided for in Regulation (EU) No 1178/2011 (‘Aircrew Regulation’).

(b) The following elements are taken~~This CS-FCD takes~~ into consideration to achieve 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~~the Aircrew and ~~air operations r~~Regulation~~s~~, Regulation (EU) No 965/2012 (‘Air OPS Regulation’), and those of ~~Part-21~~Annex I (Part 21) to Regulation (EU) No 748/2012 (‘Initial Airworthiness Regulation’);

(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 D~~difference~~s~~ ~~R~~requirement~~s~~ (~~ODR~~DR) tables, where applicable.

GM1 FCD.050 Scope

(a) The scope of CS-FCD includes ~~T~~the following element~~sis evaluated~~, as appropriate:

(1) ~~specific type of operations or specific aircraft missions~~training elements related to types of operations subject to specific approvals as per Annex III (Part-ORO), Annex V (Part-CAT), and Annex VIII (Part-SPO) to the Air OPS Regulation; and

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

~~(3)~~ the use of optional aircraft equipment.

(b) Specific types 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; and

~~(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)s~~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,~~: N~~new aircraft technology or specific equipment such as HUD, EFB, NVIS, ECL customisation, ~~EVS~~EFVS, and ~~SVS~~SFVS equipment.

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) This CS-FCD specifies ~~O~~operational ~~S~~suitability ~~D~~data (OSD) based on data provision which is required from the ~~T~~type ~~C~~certificate (TC) applicant/holder and data provided at the request of the TC applicant/holder. OSD ~~are~~is presented as mandatory or non-mandatory (recommendations) for the end user in accordance with the ~~civil aviation a~~Aircrew and ~~air operations~~Air OPS ~~r~~Regulations as follows:

(1) ~~D~~data required from the TC applicant/holder 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; and

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

(2) ~~D~~data required from the TC applicant/holder 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.415; and

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

(3) ~~D~~data at the request of the TC applicant/holder and mandatory for the end users (Box 3):

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

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

(iii) CS FCD.400;

(iv) CS FCD.405;

(v) CS FCD.410;

(vi) CS FCD.415; and

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

(4) ~~D~~data at the request of the TC applicant/holder 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.305;

(iii) CS FCD.310(a) and (b);

(iv) CS FCD.400;

(v) CS FCD.405;

(vi) CS FCD.410;

(vii) CS FCD.415; and

(viii) CS FCD.420~~.~~; and

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

GM1 ~~CS~~ FCD.100 Applicability

(a) The technical requirements and administrative procedures related to ~~civil aviation aircrew and air operations regulations~~the Aircrew and Air OPS Regulations contain references to OSD that may be established in accordance with ~~Commission~~ Regulation (EU) No ~~1702/2003~~748/2012.

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

(1) the type of aircraft categorisation;

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

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

(4) theoretical knowledge and flight instruction for the issu~~e~~ance of ~~class and~~ type ratings;

(5) difference training provisions between different variants of one type or between an aircraft and the related systems, equipment, and procedures that are associated with a modification;

(6) credit related to reduced type rating training, based on commonalities between two types from the same manufacturer;

(~~5~~7) recent experience credit 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~~9) pilot type-specific training elements;

(~~8~~10) credit related to crewing of inexperienced flight crew members;

(~~9~~11) credit related to the number of take-offs and landings following ZFTT;

(1~~0~~2) type-specific training elements related to~~or~~ the issu~~e~~ance of a specific approval; and

(13) credit related to specific types of operations, when so allowed by the Air OPS Regulation.

(b) ~~The m~~Mandatory and non-mandatory ~~(recommendations)~~ OSD ~~may have been established~~elements are approved upon satisfactory demonstration of compliance. This data may be required from, or voluntarily provided by, the applicant, based on data required ~~from an applicant~~ to be approved, or based on data ~~provided~~approved at the request of ~~an~~the applicant.

[…]

Box~~e~~s 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 ~~license~~licence endorsement Aircraft variant designations Prerequisites for initial type rating training and checking Training ~~A~~areas of ~~S~~special ~~E~~emphasis (TASE) for initial type rating and recurrent training MDR tables between variants	Training footprint for: ~~(5)~~ — ~~for~~ initial type rating and difference training (when applicable)

DR tables related to systems training, equipment training, and procedures training, based on aircraft modifications	
Box 3	**Box 4**
Level of ~~D~~differences ~~D~~determination ~~—~~ — ~~ODR~~DR & MDR Tables TASE for: ~~(6)~~— differences training; ~~(7)~~— type rating training based on credit for commonalities~~y~~; and ~~(8)~~— training for specific operations, procedures or equipment (e.g. steep approaches, RNP AR, ~~EVS/SVS~~EFVS/SFVS, EFB, NVIS, etc.) Prerequisites, credit for training and checking or recent experience requirements for ~~operation~~operations on more than one type or variant	Training footprint for: — differences training; — type rating training based on credit for commonalities~~y~~; and — training for specific operations, procedures or equipment (e.g. ~~steep approaches~~LVO, RNP AR, ~~EVS/SVS~~EFVS/SFVS, EFB, NVIS, etc.) CTLC: credit for recent experience requirements Credit for training, checking, or currency

CS FCD.105 Definitions

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

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

(b) *Candidate aircraft* means an aircraft subject to the evaluation process.

(c) *Checking* means skill testing, proficiency checking, and recurrent checking.

(d) *Common ~~T~~take-off and ~~L~~landing ~~C~~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 qualities, flight~~and flying~~ characteristics, operating techniques, and operating procedures 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.

(~~k~~g) ~~*Operator*~~ *Differences ~~R~~requirement (~~ODR~~DR)* 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, to be used by ATOs for the development of training courses and by operators for the development of ODR tables and training programmes.

(h) *Evaluation subjects* means pilots possessing the general and specific prerequisites for taking a training course and/or for conducting the specific test, 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 of any credit.

(~~f~~i) *Flight characteristics* means the handling ~~characteristics~~qualities 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~~j) *Handling ~~characteristics~~qualities* 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~~k) *Line ~~F~~flying ~~U~~under ~~S~~supervision (LIFUS)* means the part of the operator's conversion course in accordance with the ~~a~~Air ~~o~~~~peration~~OPS Regulation~~Implementing Rules~~.

(~~i~~l) *Master ~~D~~differences ~~R~~requirements (MDRs)* means those requirements that pertain to differences between types of aircraft or variants of the same type of aircraft. MDRs are specified in terms of the minimum difference levels for training, checking, and currency, and include the highest difference level identified in the applicable DR tables.

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

(n) *Modification* means a change to an aircraft type design and to the associated TC, which has an impact on the flight crew data in relation to new systems, new equipment, or new procedures.

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

(~~m~~p) *Recent experience* means the recent experience described in ~~Part~~point FCL.060 of Annex I (Part-FCL) to the Aircrew Regulation.

(~~n~~q) *Training ~~A~~areas of ~~S~~special ~~E~~emphasis (TASE)* means specific knowledge and skills required for the safe operation of an aircraft type or variant, the use of equipment, the application of procedures, or the performance of operations.

(~~o~~r) *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~~that are planned for completion during each day or phase of training.

(s) *Type of aircraft* means a category of aircraft that requires a type rating as determined in the OSD established in accordance with Part 21, and which includes all aircraft of the same basic design, including all modifications thereto, except those modifications that result in a change of handling qualities or of flight characteristics.

(~~p~~t) *Variant* means an aircraft or a ~~group~~series of aircraft that shares the same basic design within the same pilot type rating, and that has such differences ~~to~~from the base aircraft that require~~ing~~ difference training or familiarisation training as per point FCL.710 of Part-FCL.

GM1 FCD.105 Definitions

List of acronyms used in CS-FCD

[…]

~~AGNA Advisory Group of National Authorities~~

[…]

ATO approved training organisation

[…]

CTLC ~~C~~common ~~T~~take-off and ~~L~~landing ~~C~~credit

~~CRD Comment Response Document~~

~~CRT Comment Response Tool~~

[…]

EFVS ~~E~~enhanced flight ~~V~~vision ~~S~~system

~~FAA Federal Aviation Administration~~

[…]

FCD flight crew data

[…]

FCS FSTD capability signature

[…]

FFS ~~F~~full ~~F~~flight ~~S~~simulator

[…]

~~FNPT Flight and Navigation Procedures Trainer~~

FSTD ~~F~~flight ~~S~~simulation ~~T~~training ~~Devices~~device

FTD ~~F~~flight training device

[…]

~~JAA Joint Aviation Authorities~~

[…]

HUD Head-Up Display

[…]

LOF ~~L~~line ~~O~~oriented ~~F~~flying

LVO Low-Visibility Operations

[…]

~~MMEL Master Minimum Equipment List~~

~~NAA~~	~~National Aviation Authorities~~
~~NPA~~	~~Notice of Proposed Amendment~~

[…]

RNP AR	required navigation performance authorisation required

[…]

~~SSCC~~	~~Safety Standards Consultative Committee~~
SFVS	~~S~~synthetic flight ~~V~~vision ~~S~~system

[…]

TCH	type-certificate holder
TRI	Type-Rating Instructor

[…]

~~TCCA~~	~~Transport Canada~~
~~ToR~~	~~Terms of Reference~~

[…]

WBT	web-based training
ZFTT	zero flight time 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~~aeroplanes:

— with a maximum certified take-off mass (MCTOM) exceeding 5 700 kg, or

— certified for a maximum passenger seating configuration of more than 19, or

— certified for operation with a minimum crew of at least two pilots, or

— equipped with one or more turbojet engines or more than one turboprop engine;

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

(iii) tilt rotors; and

(iv) 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 or ELA 2; and

(v) hot air airships.

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

(i) either ~~upon~~at the request of the applicant; or

(ii) if EASA~~the Agency~~ determines that ~~based on~~the aircraft's operational experience, data, ~~its~~ handling ~~characteristics~~qualities, performance, or level of flight deck technology require type rating training for its safe operation.

(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~~OSD FC.

(d) Changes to a ~~TC~~type design are assessed for their impact on the ~~type rating or variant determination~~associated FC data and addressed, if necessary, through changes to the OSD FC.

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 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 FC 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 design changes for their impact on the FCD, a new model or a new series, as identified in the TC data sheet, would usually determine a variant or, potentially, a new type.

Modifications that are significant from the FC perspective, performed by the TC holder or via an STC, even though they do not determine a new model or a new 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 developing their training programmes.

SUBPART C — PILOT TYPE 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 OSD FC.

(b) ~~For T~~the ~~development~~definition of the specific training requirements has to consider the provisions related to ~~civil aviation aircrew and air operations~~Aircrew and Air OPS ~~r~~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~~must be identified ~~or confirmed through the evaluation process and evaluation descriptions as described in~~and established in accordance with CS FCD.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~~TASE related to the particular aircraft type, including identification of all type-specific knowledge and skills;

(2) the prerequisites for the minimum entry-level requirements to be fulfilled by the pilot, when they are more stringent than those established under the Aircrew Regulation; and

(3) the training footprint.

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

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

(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.

Day 1	Day 2	Day 3	Day 4	Day 5
Table~~t~~ ~~1~~introduction **CBT ~~Module~~MODULE 1** (x:xx hrs)	**CBT MODULE 2** (x:xx hrs)	**CBT MODULE 3** (x:xx hrs)	**CBT MODULE 4** (x:xx hrs) **OTD MODULE 1** (x:xx hrs)	**Tutorial 1 OPT** (x:xx hrs)

Day 6	Day 7	Day 8	Day 9	Day 10
CBT MODULE 5 (x:xx hrs) **OTD MODULE 2** (x:xx hrs)	**CBT MODULE 6** (x:xx hrs) **OTD MODULE 3** (x:xx hrs)	**CBT MODULE 7** (x:xx hrs) **OTD MODULE 4** (x:xx hrs)	**CBT MODULE 8** (x:xx hrs) **OTD MODULE 5** (x:xx hrs)	**CBT MODULE 9** (x:xx hrs) **OTD MODULE 6** (x:xx hrs)
Day 11	**Day 12**	**Day 13**	**Day 14**	**Day 15**
CBT MODULE 10 (x:xx hrs) **OTD MODULE 7** (x:xx hrs)	**CBT MODULE 11** (x:xx hrs) **OTD MODULE 8** (x:xx hrs)	**CBT MODULE 12** (x:xx hrs) **OTD MODULE 9** (x:xx hrs)	**CBT MODULE ~~15~~13** (x:xx hrs) **OTD MODULE 10** (x:xx hrs)	**Tutorial 2 EFB, QRH** (x:xx hrs) **Tutorial 3 LBS** (x:xx hrs)
Day 16	**Day 17**	**Day 18**	**Day 19**	**Day 20**
Variances (if needed) (x:xx hrs)	**~~FFS~~FSTD MODULE 1** (x:xx hrs)	**~~FFS~~FSTD MODULE 2** (x:xx hrs)	**~~FFS~~FSTD MODULE 3** (x:xx hrs)	**~~FFS~~FSTD MODULE 4** (x:xx hrs)
Day 21	**Day 22**	**Day 23**	**Day 24**	**Day 25**
~~FFS~~FSTD MODULE 5 (x:xx hrs) **Wind shear briefing** (x:xx hrs)	**~~FFS~~FSTD MODULE 6** (x:xx hrs)	**~~FFS~~FSTD MODULE 7** (x:xx hrs)	**~~FFS~~FSTD MODULE 8** (x:xx hrs)	**Skill test** (x:xx hrs)

Note: Times for OTD and ~~FFS~~FSTD modules include time for briefing and debriefing when appropriate.

(b) Reduced training footprint

Type rating training is based on the pilot's prerequisites.

If there is some 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 the candidate aircraft are considered variants, then ~~only~~ difference~~s~~ training or familiarisation training is required.

(c) Training methods

For the training methods for pilot type rating training and operational 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 training devices (for example for FMS and TCAS), or aircraft on ground;

(3) demonstration can only be adequately addressed in an ~~flight~~FSTD or in an aircraft with the appropriate capability to achieve the training ~~device~~objectives, and enable~~ing~~ 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) to prevent misunderstandings, skill errors, or skill deficiencies that have an impact on the safety of the flight, and may be specified as mandatory items specific to a given aircraft type, variant, or equipment to be integrated in the training (type rating training, difference training, 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 and when there are associated pilot training elements to mitigate the effects; or

(iii) when the flight manual emergency and abnormal procedures require specific knowledge or skills to be acquired.

(2) Types of TASE

(i) TASE provided in the initial FCD corresponding to the aircraft configuration in the TC (or provided in 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 that are provided in addition to the DR tables for the difference training, familiarisation training, 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 TASE may be provided as part of the OSD.

(4) Relationship between TASE and difference training levels

TASE are typically associated with training items that require at least level B difference training.

(5) Sources for TASE

Typical sources of TASE or elements that may generate TASE are:

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

(ii) operational evaluations: FCD evaluations (T testing), or ATO training syllabus evaluations; and

(iii) in-service or training feedback/experience.

CS FCD.305 LIFUS

Requirements for LIFUS are specified ~~by~~in the Air OPS Regulation~~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 operations 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 of Part-ORO of the Air OPS Regulation, the applicant may propose:

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

(2) ~~CTLC~~credit related to recent-experience requirements when operating more than one type.

(b) For substantiation of the credit~~s~~ that is 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 operations on more than one type or variant

Credit can be given for common equipment, common procedures, and types of operations ~~which~~that 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; and

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

(c) other credit to be established under the OSD in the relevant subparts of Parts ORO, CAT, and SPO of the Air OPS Regulation.

SUBPART D — OPERATIONAL EVALUATION

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

~~(a) ODR tables are 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.~~

(a) DR tables are provided for:

(1) any evaluation of differences between a base aircraft and a candidate aircraft for type rating and variant assessment;

(2) the content of difference training or familiarisation training between variants;

(3) new systems or equipment and associated procedures; and

(4) credit based on commonality.

(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 are established in accordance with the Appendix to CS FCD.400.

Appendix ~~1~~ to CS FCD.400 Compilation of ~~ODR~~DR tables

This ~~a~~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~~incorporates it into the ~~ODR~~DR tables.

(a) ~~ODR~~DR 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~~wingspan or category);

(2) flight deck general design;

(3) cabin layout;

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

(5) limitations (flight envelope).

(b) ~~ODR~~DR 2: Systems

[…]

(c) ~~ODR~~DR 3: Manoeuvres

[…]

(6) aircraft status following a failure;

[…]

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 that are established in accordance with CS FCD.400, MDR tables must be included in the OSD.

(b) MDR tables are specified in terms of the minimum difference levels for training, checking, and currency, and include the highest difference 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

(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 the next proficiency check	Not applicable
B	Aided instruction	Task or system check	Self-review
C	System devices	Partial proficiency check that uses~~ing~~ a qualified device	Designated systems and procedures that use system devices or aircraft
D	~~Manoeuvre Training Devices~~[~~1~~]FSTDs[1] or aircraft to execute~~accomplish~~ specific manoeuvres	Partial proficiency check that uses~~ing~~ a qualified device[1]	Designated manoeuvre(s)[~~1~~] that use FSTDs[1] or aircraft
E	~~Flight Simulation Training Devices (~~FSTDs~~)~~[2] or aircraft	Proficiency check using FSTDs[~~2~~3] or aircraft	~~As per regulation, using FSTDs[2] or aircraft~~

Footnote ~~(~~1~~)~~:

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

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

(1) aeroplanes:

(i) FFS level D, or

(ii) FSTD with an FCS at least equal to FTD level B as defined in CS-FSTD(A) Issue 3[1].

(2) helicopters:

(i) FTD Levels 2 and 3, or

(ii) FFS.

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) aeroplanes:

FSTDs that meet the training objectives and requirements provided for in the Aircrew Regulation.

(2) helicopters:

FSTDs that have dual qualification: FFS Level B and FTD Level 3, or FFS Level C or D.

Footnote 3:

(1) aeroplanes:

(i) FFS level D, or

(ii) FSTDs that have at least fidelity level S (Specific) for the following features:

(A) flight deck layout and structure,

(B) flight model,

(C) ground reaction and handling qualities, and

(D) flight controls and forces.

(2) helicopters:

(i) FTD Levels 2 and 3, or

(ii) FFS.

(b) Difference level — Training

[…]

(3) Level C training

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

[1] The related NPA is under preparation.

Level C differences training is applicableto variants having 'part task'when cockpit design exist, andwhich 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 or similar devices.

(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.

DevicesFSTDs capable of flight manoeuvres address full task performancereplicate the aircraft in a dynamic 'real-time' simulation flight environment, and enablinge the integration of knowledge, skills, and abilities in a simulated flight environment, involving combinations ofby combining operationally oriented tasks and realistic task loadingworkloads 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.

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 that a full type rating training course is required.

Training for level D differences requires a training deviceathat has accurate, high-fidelity integration of systems and controls and realistic instrument indications. Level D training may also require manoeuvringe 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 that is required to meet the training objectives among those identified in the table of paragraph (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.

The Aappropriate devices, as described in CS FCD.415 (a), which satisfying level D differences training, are those which incorporaterange 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 difference~~s~~ 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, and/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, the experience requirements and prerequisites for the issuance of the relevant rating may be approved based on the requirements of points FCL.720.A and FCL.720.H of Part-FCL of the Aircrew Regulation. Recurrent training credit for operations on more than one type may be approved based on the requirements of Part-ORO of the Air OPS Regulation.

(c) Difference level — Checking

[…]

(3) Level C checking

Level C difference~~s~~ 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 difference~~s~~ 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 that represent~~ing~~ a 'real-time' flight environment, and uses ~~qualified devices permitted for~~FSTDs capable of level D ~~training~~ or higher-level training.

Level E difference~~s~~ 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 the relevant aircraft types is possible, and credit may be defined for procedures or manoeuvres based on commonality.

The ~~A~~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 c~~Currency differences addresses~~es~~ any currency and ~~re-currency~~recurrent training difference 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 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.

(ii) Re-establishing level C currency

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

(4) Level D currency

(i) Level D currency is related to designated manoeuvres and addresses the knowledge and skills that are 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.

[…]

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~~ this is not ~~necessary. Levels~~ always the case. Training, checking, and currency levels may~~ight~~ be assigned independently. As an example, a 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~~FSTD that is used 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 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); or

(ii) the change results in 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 brought to the attention of a crew, is self-evident, inherently obvious and easily understood (for example, a communication radio panel installed in a 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 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 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

For safety reasons, if the training is performed in an aircraft, consideration must be given to high-risk situations, such as engine loss, by not shutting down the engine but rather by simulating the engine failure, using safe original-equipment manufacturer (OEM)-

recommended methods, for example such as training mode, or by setting the affected engine to idle or zero thrust.

~~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

Difference~~s~~ 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, 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

(1) Level A currency

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

(2) Level B currency

[…]

An example of ~~acceptable~~how compliance with level B currency can be demonstrated would be the issuance~~ing~~ of a bulletin which directs pilots to review specific operating manual information. Level B currency may be regained by reviewing ~~of~~ the pertinent information, ~~to~~ including~~e~~ bulletins, if that variant has not been flown within a specified period (for example, by flying that variant or by having~~e~~ 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 the pertinent information for a particular variant to be flown on that trip. However, level B currency cannot be achieved solely by reviewing ~~of~~the 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

[…]

Examples of methods acceptable for addressing level C currency are:

Re-establishing level C currency

(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).

[…]

(4) Level D currency

[…]

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, and other provisions, and to define the type rating requirements as shown in the Appendix to CS FCD.420Appendix 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 usedmust be carried out when an applicant presents an aircraftto 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 asrequirements applicable to the candidate aircraft.

Additionally, when the applicant requests approval for a reduced initial type rating training course, based on previous experience on similar aircraft types (different type ratings), as per Part-FCL of the Aircrew Regulation, the T2 and T3 tests must be used for this purpose.

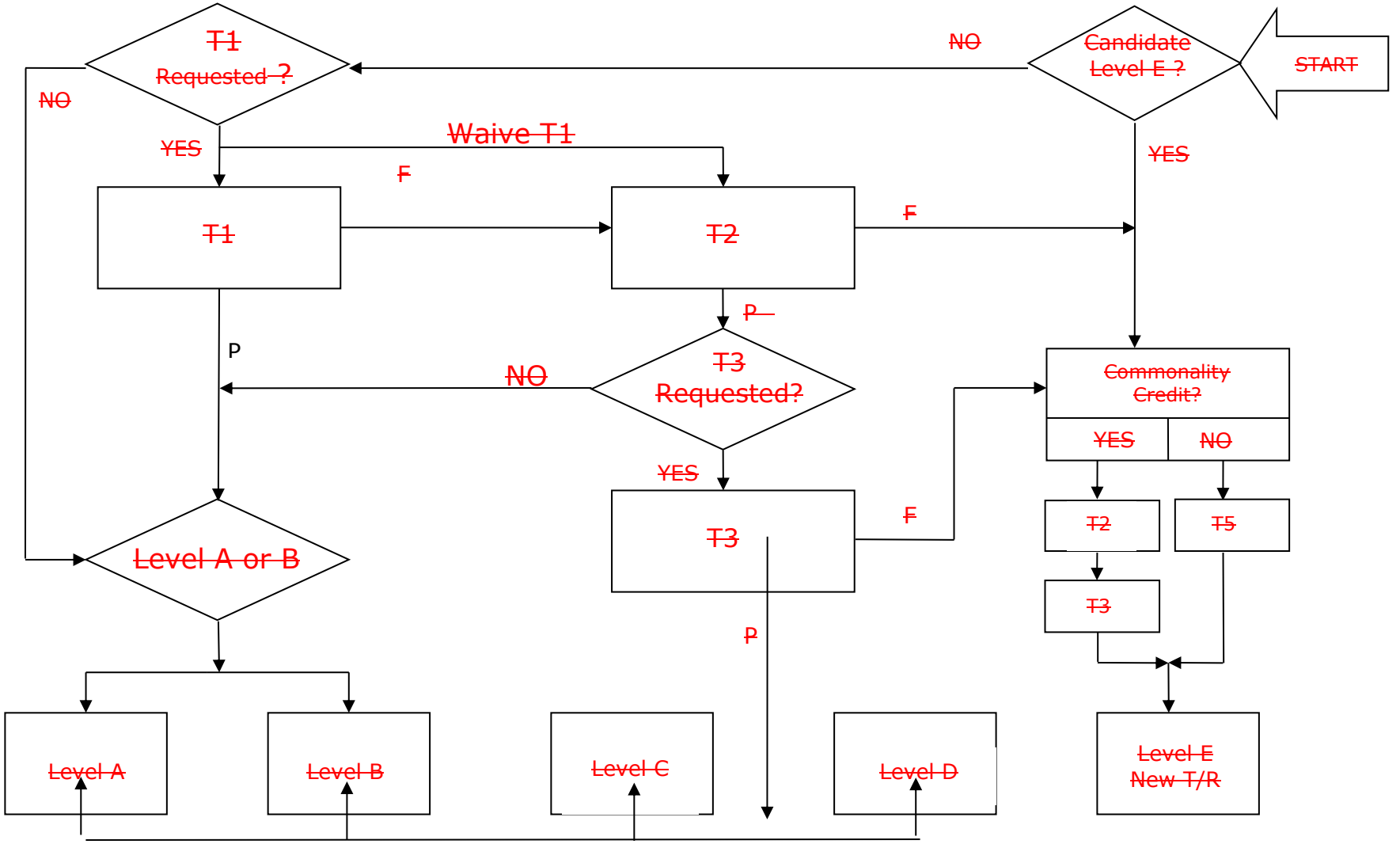
(2) The T4 evaluation is used to establish relief from establishedthe approved currency requirements based on the system, equipment, procedural, and manoeuvreing differences between the aircraft.

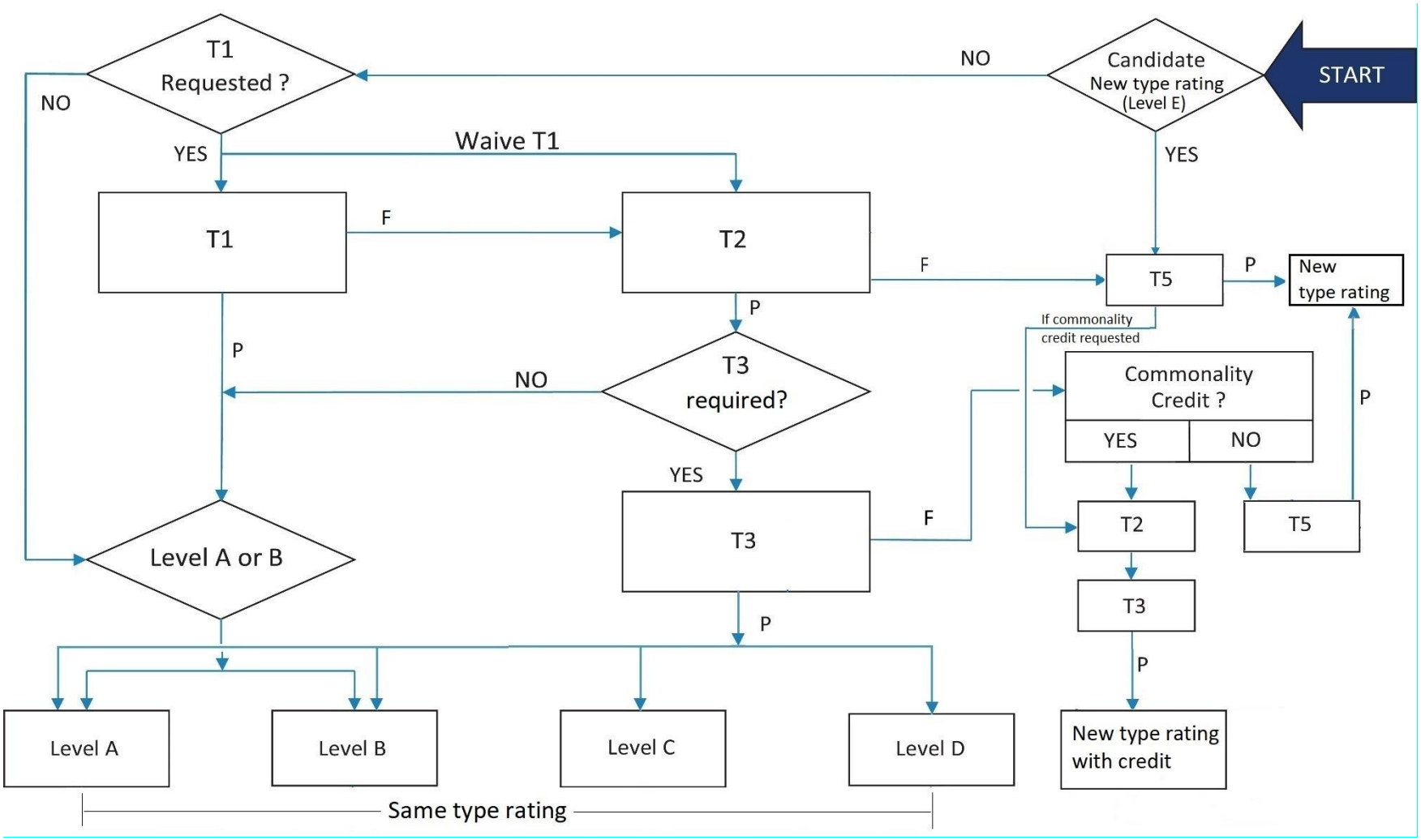
(3) The T5 evaluation is used when an applicant presents a candidate aircraft asto validate the minimum syllabus for the initial type rating training for a new aircraft TC.type with no anticipated application for pilot type rating credit for similarities with aircraft previously type certified. The results of a T5 evaluation determine a separatethe minimum syllabus for a pilot type rating and the minimum required training, checking, and currency standards as applicable to that type of aircraft, including the associated TASE, and any additional prerequisites and limitations as provided for in the Aircrew Regulation.

(4) The T6 evaluation is used to evaluate the CTLC between different types of aircraft to allow credit for recent experience requirements as provided for in the Aircrew Regulation.

(c) The flow chart for the evaluation process is ~~to be found~~available in ~~Appendix 2~~ the Appendix to CS FCD.420.

Appendix to CS FCD.420 Evaluation process




START
Candidate
New type rating
(Level E)
NO
YES
T1
Requested ?
NO
YES
Waive T1
T1
F
T2
F
T5
P
New
type rating
If commonality
credit requested
Commonality
Credit ?
YES
NO
P
P
NO
T3
required?
YES
T3
F
T2
T5
Level A or B
T3
P
P
Level A
Level B
Level C
Level D
New type rating
with credit
Same type rating

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

~~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 must be determined (CS FCD.200) and the minimum syllabus for an initial type rating training course must be 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 a reduction in the initial type rating training based on previous experience on similar aircraft types, as well as the approval of credit based on commonality for operations on more than one type. In this case, the T2 and T3 tests are used as means of compliance.

When applying for a change to an existing TC that has associated OSD FC, or for the issuance 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 not significant from the pilot's perspective, and there is 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 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 may be performed from the base to the candidate aircraft, as appropriate, to validate the difference levels up to level D.

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

The T2 evaluation profile is established via an applicant's proposal, with EASA agreement, based on the differences that may potentially affect the handling qualities between the base and the candidate aircraft. The T2 test consists of a comparison between the selected pilot type rating proficiency check manoeuvres that are 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 when safety considerations dictate so, in place of the candidate aircraft.

Although T2 evaluations should always be carried out in the candidate aircraft, some portions that may 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 to the base aircraft.

When designing the T6 test, the applicant should also consider the effects on the take-off and landing manoeuvres of the following factors:

(i) the aircraft weight;

(ii) the aircraft centre of gravity (CG); and

(iii) the take-off and landing crosswinds.

(3) T3 evaluation — System and equipment differences and training

The test has the purpose of identifying system, equipment, procedural, and manoeuvre differences, and of validating the proposed familiarisation training or difference training, checking, and currency requirements.

A successful T3 test permits to assign A, B, C, or D difference training levels. The same type rating may be assigned if no training differences greater than level D exist, or 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 should reflect the validated difference levels accordingly.

The T3 test is also used to validate a proposed reduced initial type rating training course based on previous experience on similar aircraft types. In this case, the purpose of the test is to validate and approve the proposed content and duration of the reduced initial type rating training. The result is a reduced initial type rating training course (level E differences or 'new type').

(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 a new type rating

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

Evaluation subjects are pilots who meet the prerequisites established under Part-FCL of the Aircrew Regulation for obtaining a type rating, and who are checked (through a skill test) in accordance with Part-FCL, after having undergone the proposed full type rating training syllabus.

(6) T6 evaluation — CTLC

T6 evaluation subjects are pilots who are type-rated and experienced on the base aircraft. They are evaluated on their ability to manually fly, with no previous training, the candidate aircraft through take-off, initial climb, as well as 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:

(i) the aircraft weight;

(ii) the aircraft CG; and

(iii) the 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 to T5 are used to evaluate a candidate aircraft ~~with regard to~~on the pilot type rating, minimum syllabus, operational evaluations, and credit for operations on more than one type or variant. ~~One additional evaluation, t~~The T6 evaluation~~, can~~may be used to establish the 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~~of 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 MDR tables (between variants of aircraft types) are established, which~~that~~ address the differences between the base and the 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 applicant wished to obtain an evaluation~~To establish data for a direction that was not ~~initially evaluated~~previously assessed, an additional evaluation using the above T tests may be carried out based on an application~~the Agency will review the request and may perform an evaluation in the direction that was not previously evaluated~~. In general, level A and B differences do not require two-way testing.

(c) Prior to the evaluation:

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

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

(3) the applicant proposes which evaluations and criteria apply;~~.~~ ~~E~~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 which~~ aircraft, variants, ~~simulation devices~~training aids, FSTDs, or analysi~~s~~es ~~is~~that are needed to support the evaluation are identified;

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

(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	Compares ~~H~~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' aircraft	Sets level E
T6	Evaluates~~ion for~~ CTLC	Sets recent experience requirements

A ~~D~~detailed description of the purpose, process, and application of each of the six difference level evaluations is as follows:

(e) Evaluation 1 (T1)~~:~~ — ~~F~~Functional equivalence

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

— the functional equivalence between the base and the candidate aircraft; and

— the level 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~~carried out in ~~a training device, FFS~~an FSTD with the appropriate capability to achieve the training objectives, or an 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 the base and candidate aircraft are sufficiently alike, to assign level A or B differences.

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

(3) ~~The Agency~~EASA may waive the T1 test if a T2 test, or T2 and T3 tests ~~is~~are to be performed.

(f) Evaluation 2 (T2)~~:~~ ~~—~~ ~~h~~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, when required. 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.

The test has also the purpose of validating the commonality, in terms of handling qualities, between two different aircraft types, when seeking approval for a reduced type rating training course.

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~~FFS, as defined in CS FCD.415(a) for Level E. Manoeuvres that 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~~qualities to permit the applicant to assign~~assignment of level~~ A, B, C, or D training levels. A successful T2 evaluation permits a subsequent T3 evaluation ~~(T3)~~ to assess the system~~s~~ differences and equipment differences, the training, or checking to be conducted. If a subsequent T3 test is not requested, level A or B training ~~can~~may be assigned.

When a T2 test 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~~performing specific manoeuvres.

Failure of the evaluation: failure of the T2 evaluation indicates that major differences exist in handling ~~characteristics~~qualities during the critical phases of flight (such as take-off or landing), or that numerous less critical but still significant differences in handling qualities ~~differences~~ exist between the base and the candidate aircraft. A failure of a T2 evaluation ~~failure~~ requires ~~the assignment of~~to assign level E training. Also with level E training, a separate type rating is normally assigned to the candidate aircraft being evaluated. Normally, a T2 re-evaluation is not appropriate; however, a re-evaluation may be proposed.

(g) Evaluation 3 (T3)~~:~~

This is a test of the system~~s~~ and equipment differences, and validation of the proposed difference~~s~~ training and checking or of the reduced type rating training, based on credit for previous experience on similar aircraft types.

Evaluation purpose: to evaluate the proposed difference~~s~~ training, and the checking ~~programmes~~ and training devices at level A, B, C, or D. T3 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 difference~~s~~ training or reduced initial type rating training~~programme~~ for the candidate aircraft.

Evaluation process: if level A or B training is deemed appropriate, T3 may be completed by analysis. If level C or D training is deemed appropriate, administer appropriate portions of a proficiency check in 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~~FSTD, but may be ~~accomplished~~conducted in a test aircraft, as appropriate.

[…]

(h) Evaluation 4 (T4)~~:~~ — ~~c~~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 made by the applicant.

Evaluation process: as established by ~~the Agency~~EASA based on a proposal made 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.

[…]

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 EASA ~~the Agency~~ based on a proposal by the applicant, if appropriate.

(i) Evaluation 5 (T5)~~:~~ — ~~i~~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~~EASA based on a proposal by the applicant, who meet the prerequisites that are established under Part-FCL for issuing a type rating.

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

[…]

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

A T5 evaluation may give credit for an applicable evaluation that is carried out~~done~~ during T2 and T3 evaluations in the event of T2 or T3 evaluation failures.

(j) Evaluation 6 (T6)~~:~~ — CTLC

[…]

Evaluation subjects: pilots designated by EASA, ~~the Agency,~~ neither trained nor experienced in the candidate aircraft.

Evaluation process: the evaluation subjects are first provided with refresher training in the base aircraft to establish a baseline of proficiency. This training may be completed~~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. The ~~E~~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: validates that the proposed training satisfies the appropriate requirements, and that 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 the 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 summarised by ~~the Agency~~EASA and sent to the applicant, and the outcome should be documented in the OSD FC.

[…]