



EASA
European Aviation Safety Agency

OSD – Flight Crew

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Operational Evaluations OSD FC: TCCA OE – FAA FSB – EASA OSD


- **Operational Evaluations for OSD Flight Crew are based on an evolution of harmonized processes jointly used by FAA, TCCA and EASA**



COMMON PROCEDURES DOCUMENT
FOR CONDUCTING
OPERATIONAL
EVALUATION BOARDS

10 June 2004

JOINT AVIATION AUTHORITIES
TRANSPORT CANADA CIVIL AVIATION
FEDERAL AVIATION ADMINISTRATION



Advisory Circular

Subject: Guidance for Conducting and Use of Flight Standardization Board Evaluations
Date: 11/5/13
Initiated by: AFS-200
AC No: 120-53B
Change:

1. PURPOSE. This advisory circular (AC) has two purposes:

- a. Evaluating Manufactured or Modified Aircraft.** It provides a means but not the only means of evaluating manufactured or modified aircraft by the use of standard systems, processes, and tests necessary to determine pilot training and qualification requirements.
- b. Differences in Training and Qualification between Aircraft.** It describes an acceptable means, but not the only means, of compliance with applicable Title 14 of the Code of Federal Regulations (14 CFR) that provide for differences in training and qualification between aircraft with the same type certificate. It further describes an acceptable means for providing related aircraft differences training and qualification under provision of 14 CFR part 121 between aircraft with different type certificates that have been "designated" by the Administrator as related. Both of these processes use the provision of the Flight Standardization Board (FSB) report as the basis for the approval of pilot training and qualification necessary for the operation of aircraft. This AC is intended to enhance safety by:

- (1) Providing a standard method of assessing applicant programs.
- (2) Directly relating pilot training and qualification requirements to fleet characteristics, operating concepts, and pilot assignments.
- (3) Permitting better industry planning and management by outlining what FAA requirements apply, what training resources or devices are needed, and what alternatives are possible.
- (4) Encouraging aircraft manufacturers to design with the goal of developing common characteristics between related aircraft
- (5) Providing a recommended framework for application of suitable credits or constraints to better address new technology and future safety enhancements.

2. CANCELLATION. AC 120-53A, Guidance for Conducting and Use of Flight Standardization Board Evaluations, dated October 15, 2008, is canceled.

3. FOCUS. This AC addresses aircraft manufacturers or modifiers who design, test, and certificate aircraft. In addition, it reflects those changes in part 121 applied to operators whose

Annex to ED Decision 2014/008/R

European Aviation Safety Agency

Certification Specifications for Operational Suitability Data (OSD) Flight Crew Data CS-FCD

Initial Issue
31 January 2014¹

¹ For the date of entry into force of this Amendment, kindly refer to Decision 2014/008/R in the [Official Publication of the Agency](#)



Operational Suitability Data Flight Crew – Scope

- **OSD regulations apply to all aircraft – data are not established for the majority of "small" aircraft**

| Aircraft | OSD FC established (aircraft type rating) |
|---|---|
| <ul style="list-style-type: none">✓ Complex motor-powered aircraft✓ helicopters, except those certified in accordance with CS-VLR✓ gas airships | YES |
| <ul style="list-style-type: none">✓ Aeroplanes that meet the definition of ELA 1 or ELA 2✓ sailplanes✓ powered sailplanes✓ balloons✓ hot air airships | NO |
| <ul style="list-style-type: none">✓ with MTOM above 2000 kg and less than 5700 kg;✓ certified for single-pilot operations; or✓ piston engines✓ helicopters certified in accordance with CS-VLR | Generally NO YES, <ul style="list-style-type: none">• if type rating is required, based on operational experience, data, handling characteristics, performance or level of flight deck technology• on request by the applicant (e.g. to seek credits) |



OSD Evaluations – Certification Basis

➤ **Operational Evaluations for OSD Flight Crew use the Part-21 process for aircraft certification**

- The certification basis for Operational Suitability Data Flight Crew consists of the CS-FCD, unless the Agency accepts other means; and of any special conditions as described in Part-21
- Certification Review Items (CRI) are raised to address specific items, if required
replacing (J)OEB Operational Review Items (ORI) / Issue Papers (IP)
- OSD FC evaluations are performed by a dedicated certification panel, managed by the Product Certification Manager (PCM)



➤ **EASA Operational Evaluations for Flight Crew use the Part-21 process for aircraft certification**

- With regard to aircraft design, proof of compliance is generally established against parameters specified in the applicable certification specifications (e.g. in CS 25 for Large Aircraft). Normally, no subsequent change of these parameters applies to the certified product for the user.
- In comparison, compliance for OSD Flight Crew – following the process contained in CS-FCD – takes into account the applicable rules for personnel licensing and air operations.

Consequently, Operational Suitability Data Flight Crew are also related to the amendment status of the rules for pilot licensing and air operations. An amendment to those rules does not invalidate the OSD, but may create a situation where these data are no longer relevant, are in conflict, create a gap, or can no longer be applied by the user – as the user is required to comply with the latest status of these rules.



➤ **EASA Operational Evaluations for Flight Crew use the Part-21 process for aircraft certification**

➤ **Users of OSD – ATO's, Operators, Competent Authorities**

Users of operational suitability data should confirm the validity of these data against the applicable rules for personnel licensing and operations.

If conflicts are identified, users should address such issues in the implementation of these data.

A resolution could consist of seeking an amendment to the OSD from the owner of the data, could involve the development of alternate Means of Compliance in the case of non-mandatory data, or could make use of the flexibility provisions of Article 14 of the Basic Regulation in the case of mandatory data.

➤ **TC Holders**

TCH holding operational suitability data should consider an amendment to the operational suitability data when inconsistencies between the data and the current applicable rules for personnel licensing and air operations are identified.



- **EASA Operational Suitability Data consist of mandatory and non-mandatory elements for the user**

- Mandatory elements must be considered by the user (ATO, operator)
 - examples are
 - Training Areas of Special Emphasis (TASE)
 - Operator Differences Requirement (ODR) Tables
 - Prerequisites

- Non-mandatory elements have the status of Acceptable Means of Compliance (AMC) and provide flexibility for alternate means of achieving the same objective
 - examples are
 - Training Footprint (delivery method of training, selection of training devices, duration of training)
 - Training for optional devices



➤ **Operational Suitability Data consist of elements which must be provided by the manufacturer and of elements which may be provided**

➤ Certain data must be provided for each aircraft

examples are

- Aircraft type designation and license endorsement
- Initial type rating syllabus

➤ Certain data may be provided by the manufacturer

examples are

- Variant determination and associated differences training syllabus
- Flight crew requirements for the operation of optional equipment (HUD, EVS, etc.) or the performance of optional procedures (RNP AR, LVO, Steep Approaches, etc.)
- Common Take-Off and Landing Credits (CTLIC)



-
- ```
graph TD
 START([START]) --> CLE{Candidate Level E?}
 CLE -- YES --> CC{Commonality Credit?}
 CLE -- NO --> T1R{T1 Requested?}
 T1R -- YES --> T1[T1]
 T1R -- NO --> CLE
 T1 -- P --> LAB{Level A or B}
 T1 -- F --> T2[T2]
 T2 -- P --> T3{ }
 T2 -- F --> CLE
 T3 -- YES --> T3[T3]
 T3 -- NO --> LAB
 T3 -- P --> L3[Level C]
 T3 -- F --> CC
 CC -- YES --> T2[T2]
 CC -- NO --> T5[T5]
 T2 --> T3[T3]
 T3 --> LAB
 T5 --> LAB
 LAB --> LA[Level A]
 LAB --> LB[Level B]
 LAB --> LC[Level C]
 LAB --> LD[Level D]
 LAB --> LE[Level E New T/R]
```



## Evaluation Process – Testing

- **Certification Specifications Flight Crew Data (CS-FCD) describe the OSD process**
- Regulations for pilot licensing and air operations contain the technical requirements

|    | Evaluation Purpose                                           | Differences Levels                                   |
|----|--------------------------------------------------------------|------------------------------------------------------|
| T1 | Establishes functional equivalence                           | Sets levels A/B                                      |
| T2 | Handling qualities comparison                                | Pass permits T3, and A/B/C/D<br>Failure sets level E |
| T3 | Evaluate differences and sets training/checking requirements | Pass sets levels A/B/C/D<br>Failure sets level E     |
| T4 | Revises currency requirements                                | Sets currency requirements                           |
| T5 | Sets training/checking for new or “E” ACFT                   | Sets level E                                         |
| T6 | Evaluation for CTLC                                          | Sets recent experience requirements                  |



## Evaluation Process – Difference Levels

- **Certification Specifications Flight Crew Data (CS-FCD) describe the OSD process**
- Regulations for pilot licensing and air operations contain the technical requirements

| DIFFERENCE LEVEL | TRAINING                                                                                                                                                        | CHECKING                                         | CURRENCY                                                           |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------|
| A                | Self-Instruction                                                                                                                                                | --                                               | --                                                                 |
| B                | Aided instruction                                                                                                                                               | Task or system check                             | Self-review                                                        |
| C                | System devices                                                                                                                                                  | Partial proficiency check using qualified device | Designated system                                                  |
| D                | Manoeuvre Training Devices or aircraft to accomplish specific manoeuvres<br><i>FTD Level 2 (&amp; Level 3 for helicopter) or FFS or aircraft</i>                | Partial proficiency check using qualified device | Designated manoeuvre(s)                                            |
| E                | Aeroplane: FFS Level C or D, or aeroplane<br><br>Helicopter: FSTD'S having dual qualification (FFS Level B and FTD Level 3), or FFS Level C or D, or helicopter | Proficiency check                                | in accordance with regulation<br>(Licensing / Air Ops Regulations) |



## Evaluation Process – Master Differences Requirements (MDR)

- **Certification Specifications Flight Crew Data (CS-FCD) describe the OSD process**
- Regulations for pilot licensing and air operations contain the technical requirements

Example of MDR table:

| Master Differences Requirements (MDR) TABLE |            |               |            |            |            |
|---------------------------------------------|------------|---------------|------------|------------|------------|
| Aircraft Type Rating: xxx                   |            | FROM AIRCRAFT |            |            |            |
| TO<br>AIRCRAFT                              |            | Aircraft 1    | Aircraft 2 | Aircraft 3 | Aircraft 4 |
|                                             | Aircraft 1 | ---           | D/D/C      | D/D/C      | *          |
|                                             | Aircraft 2 | C/C/B         | ---        | A/A/A      | *          |
|                                             | Aircraft 3 | C/C/B         | A/A/A      | ---        | *          |
|                                             | Aircraft 4 | D/D/E         | D/D/D      | D/D/A      | ---        |



## some examples from EU Licensing regulations:

|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>FCL.010<br/>Definitions</b>                                                                                                                                             | <b>"Type of aircraft"</b> means a categorisation of aircraft <b><u>requiring a type rating as determined in the operational suitability data</u></b> established in accordance with Part-21, and which include all aircraft of the same basic design including all modifications thereto except those which result in a change in handling or flight characteristics.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>FCL.725<br/>Requirements for the<br/>issue of class and<br/>type ratings</b>                                                                                            | (a) <b>Training course.</b> An applicant for a class or type rating shall complete a training course at an ATO. The type rating training course <b><u>shall include the mandatory training elements for the relevant type as defined in the operational suitability data established in accordance with Part-21.</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Part-FCL<br/>Appendix 9<br/>Training, skill test<br/>and proficiency<br/>check for MPL, ATPL,<br/>type and class<br/>ratings, and<br/>proficiency check for<br/>IRs</b> | <b>CONTENT OF THE TRAINING, SKILL TEST/PROFICIENCY CHECK</b><br><br>4. <b><u>Unless otherwise determined in the operational suitability data established in accordance with Part-21,</u></b> the syllabus of flight instruction shall comply with this Appendix. The syllabus may be reduced to give credit for previous experience on similar aircraft types, <b><u>as determined in the operational suitability data</u></b> established in accordance with Part-21.<br><br>5. Except in the case of skill tests for the issue of an ATPL, <b><u>when so defined in the operational suitability data established in accordance with Part-21 for the specific type, credit may be given</u></b> for skill test items common to other types or variants where the pilot is qualified. |



## some examples from EU OPS regulations:

### **ORO.FC.140**

**Operation on more than one type or variant**

(a) Flight crew members operating more than one type or variant of aircraft shall comply with the requirements prescribed in this Subpart for each type or variant, **unless credits related to the training, checking, and recent experience requirements are defined in the mandatory part of the operational suitability data** established in accordance with Regulation (EU) No 748/2012 for the relevant types or variants.

### **AMC1 ORO.FC.240**

**Operation on more than one type or variant**

(2) When a flight crew member operates more than one aeroplane type or variant within one or more licence endorsement as determined by the operational suitability data established in accordance with Commission Regulation (EU) No 748/2012, the operator should ensure that:

...

(ii) the flight crew member does not operate more than two aeroplane types or variants for which a separate licence endorsement is required, **unless credits related to the training, checking, and recent experience requirements are defined in operational suitability data** established in accordance with Commission Regulation (EU) No 748/2012 for the relevant types or variants; and

### **SPA.GEN.105**

**Application for a specific approval**

(a) The operator applying for the initial issue of a specific approval shall provide to the competent authority the documentation required in the applicable Subpart ...

(b) The operator shall provide the following evidence to the competent authority:

(1) compliance with the requirements of the applicable Subpart;

(2) that the **relevant elements defined in the data established in accordance with Regulation (EU) No 748/2012** are taken into account.

...



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**Thank You**  
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