



EASA

European Aviation Safety Agency

Operational Suitability Data Requirements for Cabin Crew (Cabin Crew Data- CCD)

EASA STC Workshop –24/25 May 2016, Cologne

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Cabin Crew Operational Suitability Data

AGENDA



Part 1

*Brief introduction to Cabin Crew Operational Suitability Data
(Cabin Crew Data- CCD)*



Part 2

Brief introduction to Changes to CCD



Part 1- CCD Regulatory Framework – Part-21

Part-21, Subpart B Type-Certificates and Restricted Type-Certificates

21.A.15

...

(d) An application for a type-certificate or restricted type-certificate for an aircraft shall include, or be supplemented after the initial application to include the application for approval of operational suitability data, consisting of, as applicable:

1. the minimum syllabus of pilot type rating training, including determination of type rating;
2. the definition of scope of the aircraft validation source data to support the objective qualification of simulator(s) associated to the pilot type rating training, or provisional data to support their interim qualification;
3. the minimum syllabus of maintenance certifying staff type rating training, including determination of type rating;
4. determination of type or variant for cabin crew and type specific data for cabin crew;
5. the master minimum equipment list; and
6. other type-related operational suitability elements.



Part-21- OSD Availability (see 21.A.62/21.A.108/21.A120B)

e.g:

21.A.108 Availability of operational suitability data

In the case of a change affecting the operational suitability data, the holder of the minor change approval shall make available:

- (a) at least one set of changes to the operational suitability data prepared in accordance with the applicable operational suitability certification basis, to all known EU operators of the changed aircraft, before the operational suitability data must be used by a training organisation or an EU operator; and
- (b) any further change to the affected operational suitability data, to all known EU operators of the changed aircraft; and
- (c) on request, the relevant parts of the changes in points (a) and (b) above, to:
 - 1. the competent authority responsible for verifying conformity with one or more elements of the affected operational suitability data; and
 - 2. any person required to comply with one or more elements of this set of operational suitability data.



Part 1-Brief Introduction to CCD

Process-wise novelties generated by Part 21 governing the CC Operational Evaluations of A/C

- **Inclusion of the CCD evaluation as part of the Certification Plan**
- **Establishing the Certification Basis for the CCD evaluation**
 - The certification basis for CC OSD consists of the CS-CCD, unless the Agency accepts other means, and of any special conditions as described in Part-21
 - Status of Certification basis for existing CC OSD:
 - CS-CCD, Initial Issue, 31 January 2014 - for CUP + ongoing evaluations;
 - CRI -"Elect to Comply" to CS-CCD - for Grandfathering (GF), or
 - CRI -"Special Conditions"- for GF-ing.
- **Support (S)TCH compliance for special instructions to operators, as per Part 21.A.16B-"Special Conditions"(...for novel and unusual design features)-e.g. CASE document**
- **Issue OSD-CCD Approval**



Part 1- Brief introduction to CCD

21A.15(d) 4 Compliance is specified by the CS-CCD

CS CCD.050 Scope

These Certification Specifications for Cabin Crew Data (CS-CCD) establish the specifications for the applicant for a type certificate, change approval or supplemental type certificate to develop and provide:

- (a) data for the determination process of a new type or variant for cabin crew; and
- (b) type specific data for cabin crew.

CS CCD.100 Applicability

These Certification Specifications are applicable to:

- (a) aircraft with a maximum passenger seating capacity of more than 19 seats;
- (b) aircraft with a passenger seating capacity of 19 seats or less required to carry cabin crew; and
- (c) any other aircraft with a maximum passenger seating configuration capacity of 19 seats or less if voluntarily elected by the applicant.



Part 1- Brief Introduction to CCD

Cabin Crew Operational Suitability Data- Deliverables deriving from the Scope

➤ **Mandatory Deliverables:**

- CS CCD. 210/CS.CCD 215 –Determination of a new type or variant;
- CS CCD. 400 – Cabin Aspects of Special Emphasis (CASE) - as a stand-alone document if necessary at the time of the Initial TC, or, included in the Type Specific Data of the respective new type or variant;
- CS CCD. 310 – Type Specific Data for the new type or variant;
- CS CCD. 215 – Aircraft Difference Table for variant.

➤ **Non-mandatory Deliverables**

- CS CCD.305–Supplementary data provided at the request of the applicant- e.g. door training device recommendation.

NOTE: If changes occur to data contained by any of the deliverables, the applicant is expected to modify/supplement data accordingly.



Part 1- Brief introduction to CCD

CS-CCD contain the process for the determination of an a/c as a new type or as variant for cabin crew and the content of the associated type specific data.

➤ BOOK 1

Requirements:

- Subpart A- General
 - Scope/Applicability/Definitions/OSD box concept-status of provided data.
- Subpart B- Determination of a new type and a variant - to support (Reg.956/2012) ORO.CC.250-Operation on more than one type or variant
- Subpart C- Type specific data for cabin crew - to support ORO.CC 125-Aircraft type specific and operator conversion training, and ORO.CC.130-Differences training.
- Subpart D- Cabin aspects of special emphasis (CASE) - to support ORO.CC.125 and 130

➤ BOOK 2

GM to:

- Subpart A-General
 - OSD box concept-status of provided data
- Subpart B- Determination of a new type and a variant
- Subpart C- Type specific data for cabin crew



Part 1- Brief introduction to CCD

Cabin Crew Data consist of mandatory and non-mandatory elements for the (S)TCH and end-user

➤ Mandatory elements

- Required by EU regulation 965/2012
- Must be included in training

➤ Non-mandatory elements

- Additional technical data
- Reference information for Operators Manual

CS-CCD BOOK 1

Appendix 1 to CS CCD.310 Type specific data content

Type specific data content

The type specific data for cabin crew include the following, as relevant to the candidate aircraft:

Aircraft description

General

- (a) type of aircraft – narrow/wide-bodied; single/multi passenger deck;
- (b) range of operation and maximum operating altitude;
- (c) principal dimensions (length; height; width; wing span);
- (d) main characteristics (engines; landing gear; fuel tanks; flight controls; speed; maximum take-off weight);
- (e) engine danger area;

Annex to ED Decision 2014/006/R
European Aviation Safety Agency

Certification Specifications and Guidance Material for Cabin Crew Data CS-CCD

Initial Issue
31 January 2014¹

¹ For the date of entry into force of the Amendment, kindly refer to Decision 2014/006/R in the [Official Journal of the European Union](#).



Part 1-Brief Introduction to CCD

➤ **OSD CCD Mandatory Elements for (S)TCH:**

- Determination of type or variant by assessing at least the following type specific elements, and the associated type specific data:
 - Aircraft configuration (e.g. narrow/wide - bodied; number of passenger decks, etc);
 - Doors/exits (e.g. number; types and location; assisting evacuation means; etc);
 - Aircraft systems (e.g. system operation; location; etc)
 - Normal and emergency operations.

➤ **OSD CCD Non-mandatory Elements for (S)TCH:**

- Additional data to support production by training providers of Type Training and of Differences Training (e.g. installed portable safety & emergency equipment, passenger seats, delivery methods for relevant training elements-i.e. recommendations for training devices etc.).



Part 1- Brief introduction to CCD

Status of data content- Box Concept-Examples

ATO (*looking from top to bottom*)



TCH
(*looking from left to right*)

$(B_1)_{M,M}$ e.g Power assist mechanism and its malfunction/Emergency Lighting System/etc	$(B_2)_{M,V}$ e.g Seating location of CC members for max. seating capacity/Crew rest compartment/etc
$(B_3)_{V,M}$ e.g Description and use of installed galley compartment/Portable safety and emergency equipment- if installed/etc	$(B_4)_{V,V}$ e.g Delivery method of relevant training- e.g. training devices recommendation/duration of training/etc

M=mandatory

V=voluntary(non-mandatory)



Part 1- Brief Introduction to CCD

Determination of new type/variant status is achieved by using the Aircraft Difference Table (ADT)

- Determination of the a/c “new type” or “variant” status is required for the TCH demonstration of compliance with Part 21.A.15(d)(4);
- Determination of “variant” status (where applicable), is achieved by comparing the “candidate” aircraft to the “base” aircraft.
- CS CCD.215(b) - “Existing differences (between the base and the candidate aircraft) and their assessed impact are compiled in the aircraft difference table (ADT) in accordance with CS CCD.200(b)(1), or using the applicant’s standard form in accordance with CS CCD200(b)(2), to support the development of the differences training by the end user(s)”;



Part 1- Brief Introduction to CCD

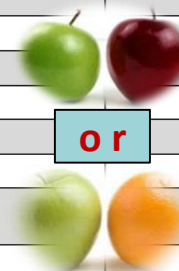
- Aircraft type/variant determinations are based on the evaluation of the Aircraft Difference Tables

Aircraft difference table						
Base aircraft						
Candidate aircraft						
Determination elements	Existing difference from base aircraft	Description of identified differences	Impact assessment			
			(a)		(b)	
	Yes		Impact on description of the element	Impact on operation of the element	Potential impact on procedures	Combined impact on operation of the element and potentially on procedures
AIRCRAFT CONFIGURATION						

DOORS AND EXITS						

AIRCRAFT SYSTEMS						

NORMAL AND EMERGENCY OPERATIONS						





Part 2- Brief Introduction to Changes to CCD

► **Annex to ED Decision 2016/007/R of 25 April 2016 - "AMC/GM to Part-21 for Changes to OSD" provides complementary guidance on:**

- Changes to TC, which can include a change to the type design and/or a change to the OSD.
- Classification of changes to OSD, including changes to CCD, as follows:
 - CCD change related to change to type design- classified as minor/major
 - The method used to operate this classification is from CS-CCD Subpart B- Determination of a new type or a variant, and relies on the use of the ADT for the comparison of the aircraft with the change as the "candidate" to the aircraft without the change as the "base" aircraft.
 - Stand-alone changes to CCD (not related to type design changes, but triggered by in-service experience or introduction of data after TC)-classified as minor/major
 - The method used to operate this classification is from CS-CCD Subpart B- Determination of a new type or a variant, and relies on the use of the ADT.

Note: Minor changes to type design are not expected to have an impact on CCD.



Part 2- Brief Introduction to Changes to CCD

► Examples of CCD major changes to type design

➤ Major design change - STC

- Mini-suits vs. normal pax seats;
- High wall-suits vs. mini-suits vs. normal pax seats;
- Change in max pax seating configuration- "smart cabin"-
 - Pushing seat-rows forward= reduction of seat number/increase of pitch;
 - Lateral reduction- from triple to double seating.

➤ Major design change - STC/OEM

- Replacement of normal CC seats with "high comfort" seats (for TTL and as Crew Rest Compartment);
- Increase of max pax seating capacity beyond TCDS number(s);

➤ Major design change - OEM

- Change in door arrangement:
 - Activation/deactivation of Over Wing Exit (OWE);
 - Change from Type III to Automatic Disposal Hatch.



Part 2- Brief Introduction to Changes to CCD

► Examples of CCD stand-alone major changes

- **Stand-alone major changes based on in-service experience (feedback from customers):**
 - Update description of certain items of the Initial CCD:
 - Water heater in lavatories-2 heaters mentioned in Initial CCD. Only one actually installed-correct information;
 - Smoke-detection indication and controls-Initial CCD revised to better reflect standard description and also to include customization options;
 - Cabin handset use (PA + Interphone System)- need to clarify handset use for better understanding by operators;
 - Slide inflation/disconnection- reworded info related to manual inflation in order to avoid repetitions, and updated info to clarify the existence of two independent possibilities to disconnect slide.



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Thank you

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