

The TC holder's perspective

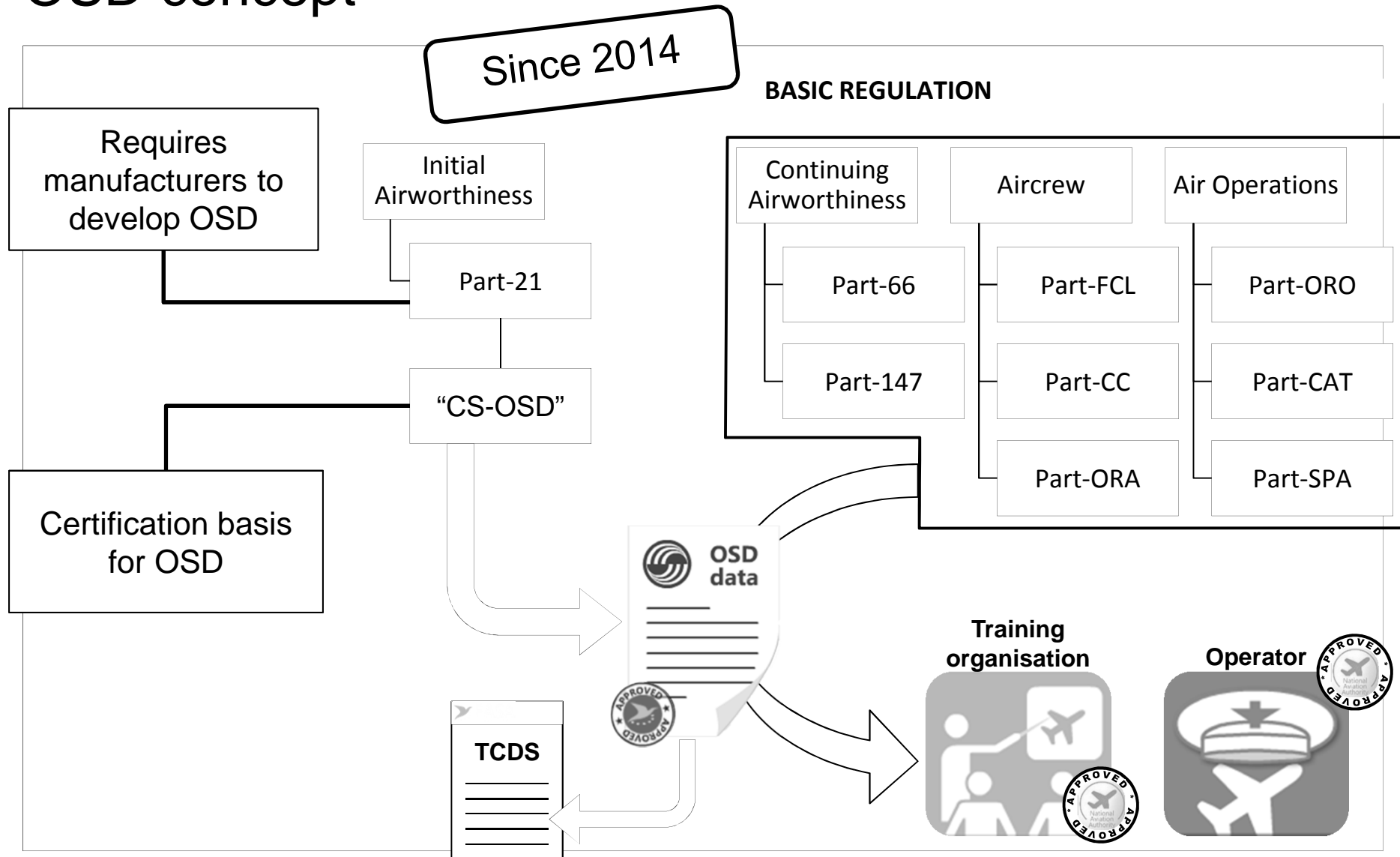
Cologne, 21st October 2015.

A350XWB and OSD

Regime VADROT
HO Training & Operational Certification

AGENDA

OSD concept



A350 OSD pilot case



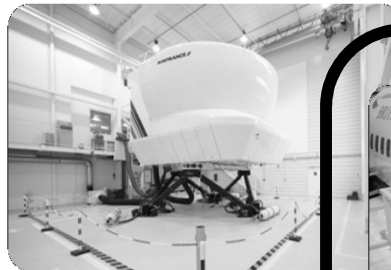
Flight Crew:

- A350 Training Areas of Special Emphasis TASE
- A330 – A350 CTR
- A320, A340, A380 CCQs to A350



MMEL

A350
In Focus



A350 FSTD
Validation
Source
Data - Process



Cabin Crew:

- A350 Type Specific Data
- A330-A340 and A350 one type for Cabin Crew

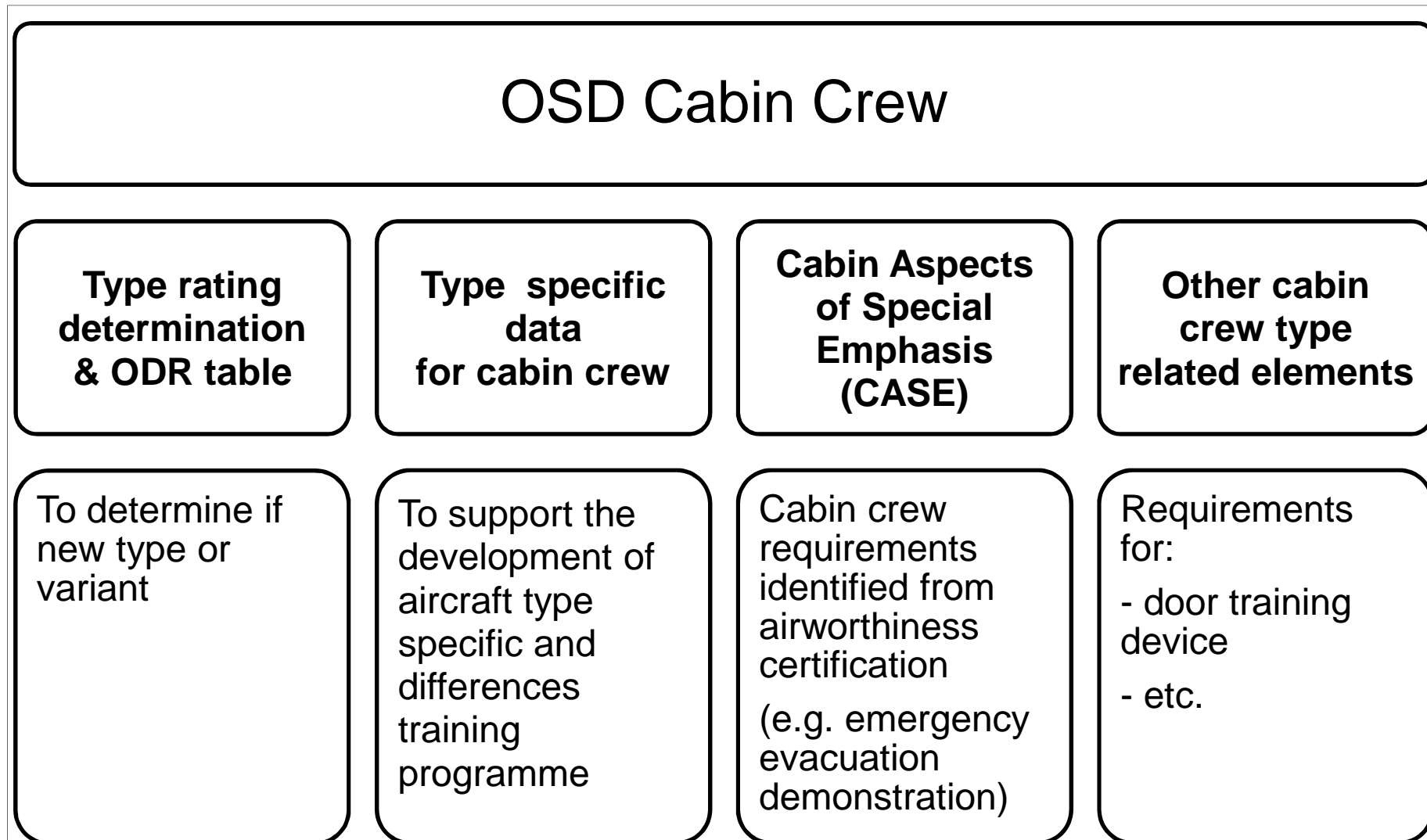


EASA – FAA joint process
Launched in 2010



Electronic
Flight Bag
Head-up-
Display

A350 OSD Cabin Crew – Scope



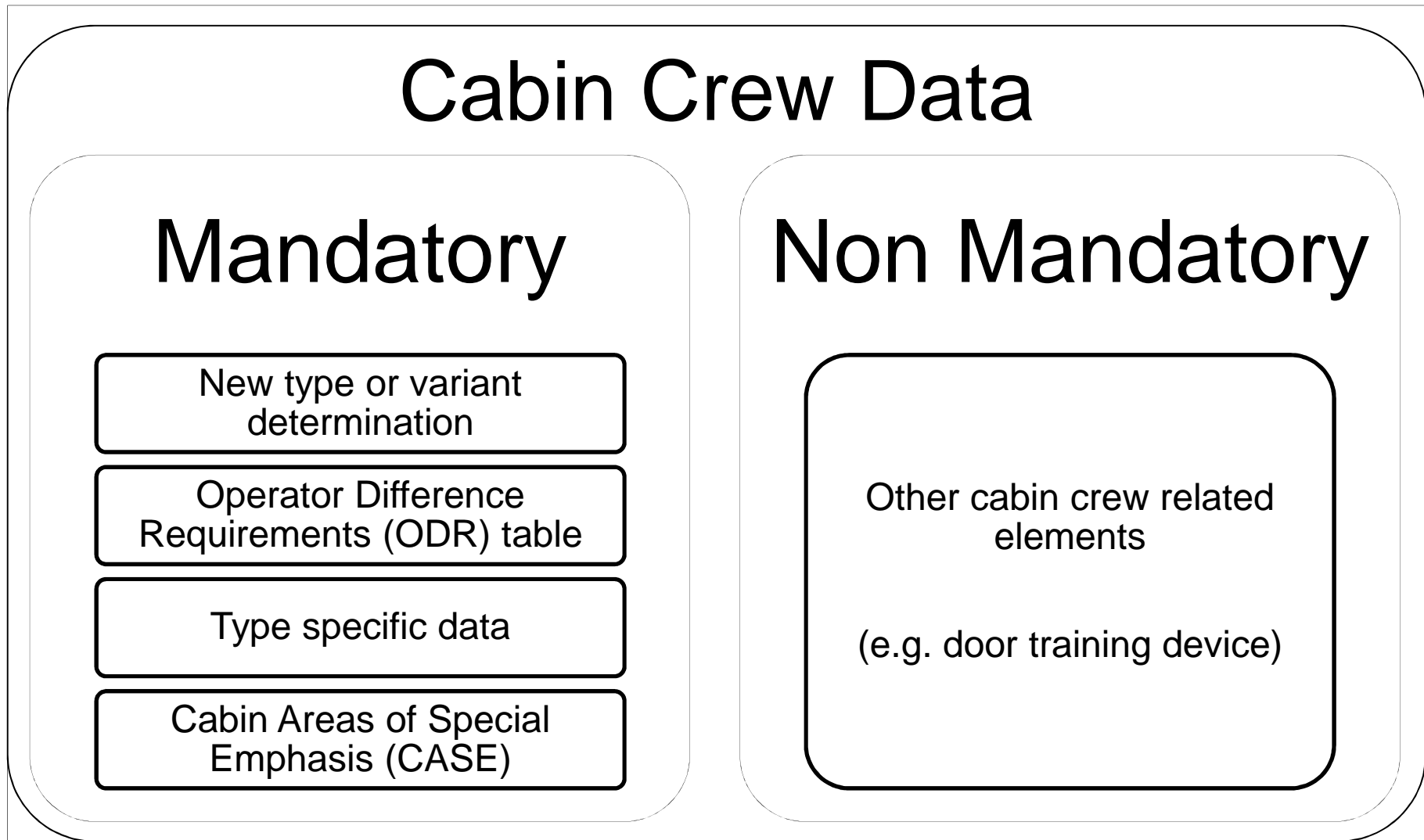
A350 OSD Cabin Crew – Activity

- A350 OEB/Cabin Crew activity
 - 1 meeting held in May 2012
 - 1 meeting held in January 2014
 - 1 meeting following Cabin evac test in May 2014
 - 1 WebEx meeting – 8 July 2014
 - Ad-hoc meetings with EASA in 2015
- Topics assessed:
 - Type for Cabin Crew CS-CCD Subpart B
 - Cabin Crew Type Specific Data CS-CCD Subpart C
 - Training to support evac test
 - CASE* – CS-CCD Subpart D

* CASE: Cabin Aspects of Special Emphasis



Cabin Crew Data – Results of process



Cabin Crew Data – Aircraft Difference Table

A350-900 Aircraft Differences Table (ADT), as per CS CCD.215

Determination of variant

- Determination of “variant” status (where applicable), is required for the TCH demonstration of compliance with Part 21.A.15(d)(4);
- CS CCD.215(b) - “ Existing differences (between the base and the candidate aircraft) and their assessed impact are compiled in the aircraft difference table 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)”;

Cabin Crew Data – ODR (ADT in EASA terms)

Operator Difference Requirements (ODR) table



OSD A350 CC
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Mean of compliance for the aircraft type rating determination

To be used and customized by operators when developing difference training program

Example:

BASE AIRCRAFT: A330-200/-300		CANDIDATE AIRCRAFT: A350-900		DIFFERENCE LEVELS	
SYSTEMS	DIFFERENCES	DESC	OPS	TRNG	CHECK
DOORS and EXITS Controls and indicators Door actuation controls	On the candidate aircraft, the gust lock release pushbutton is located on the hinge arm assist handle, whereas on the base aircraft it is located on top of the hinge arm	YES	NO	1	--
DOORS and EXITS Controls and indicators Door actuation indicators	On the candidate aircraft, the door locking indicators are located underneath the observation window, whereas the door locking indicators on the base aircraft are located on the top part of the door.	YES	NO	1	--

Systems

Description of the identified differences

Impact assessment

Difference Training Levels
(from 1 to 3)

Cabin Crew Data – Type rating determination

Base aircraft
A330



EASA and FAA have commonly agreed, that A330 & A350 doors present similar characteristics and operations.



EASA



Federal Aviation
Administration

- Door arming/disarming
- Direction of movement of the operating handle
- Direction of door opening
- Power-assist mechanism
- Assisting evacuation means

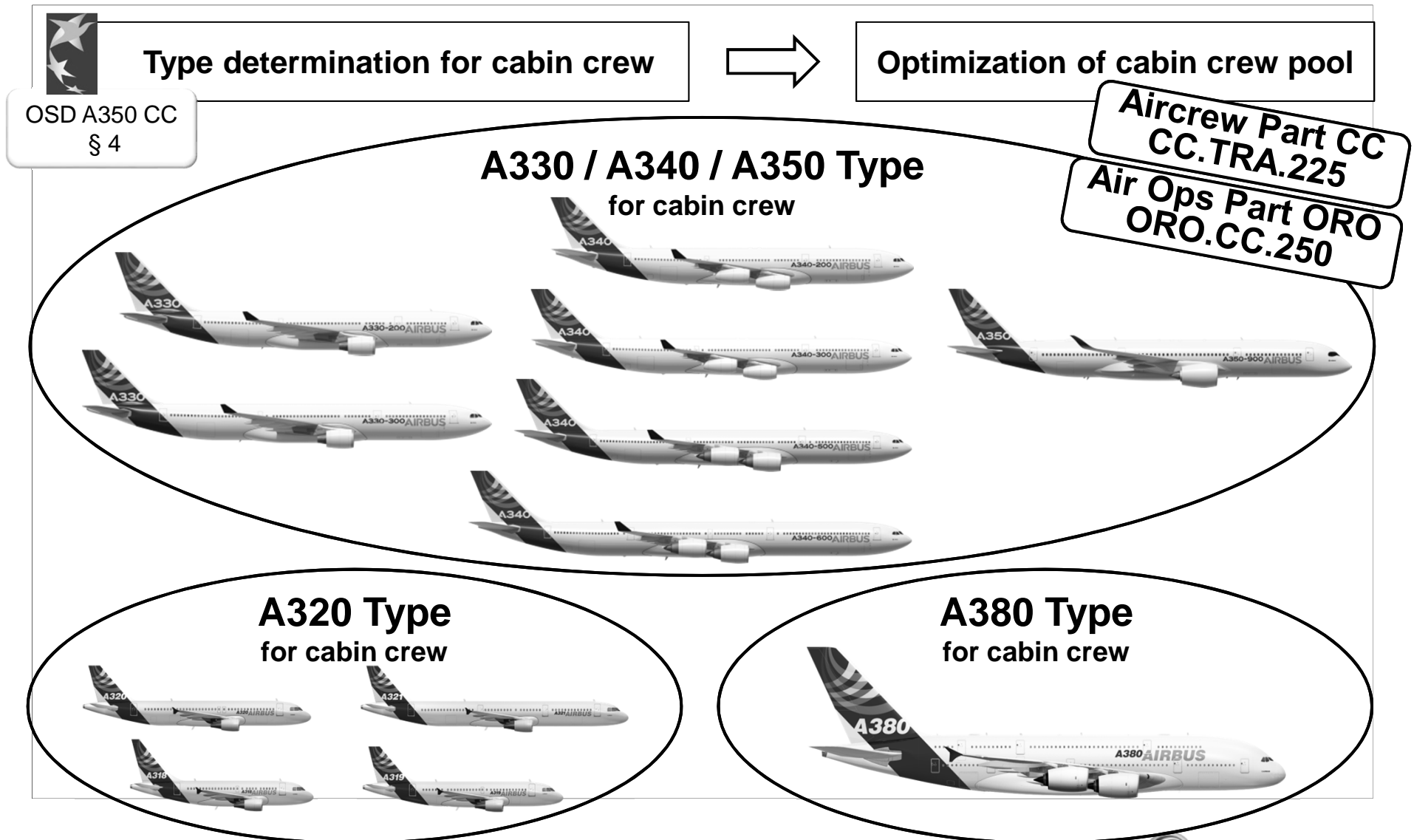
Candidate aircraft
A350



OSD A350 CC
§ 10

**Doors operations in all modes have been assessed as similar.
Consequently practical door training may occur in either the A330 or the A350,
provided difference briefing is completed.**

Example of use of OSD by end-users and benefits



Cabin Crew Data – Type specific data

A350-900 Type Specific Data, as per CS CCD.310

Type specific data content

- Determination of type specific data for cabin crew is required for the TCH demonstration of compliance with Part 21.A.15(d)(4);
- CS CCD.300 -Data required from the applicant :
 - “(a) The applicant includes the following in the type specific data for cabin crew:
 - (1) all necessary data in accordance with CS CCD.310 to support the development of type specific training programme(s); and
 - (2) all necessary data in accordance with CS CCD.205 to support the development of differences training programmes”.

Cabin Crew Data – Type specific data and CCOM

00: Introduction

01: Aircraft General

02: Cockpit

03: Cabin Layout

04: Cabin Intercommunication Data System (CIDS)

05: Cabin communication systems

06: Cabin Systems

07: Cabin oxygen systems

08: In-Flight Entertainment (IFE)

09: Doors and Slides

10: Evacuation (EVAC) and Alert (ECAS) Systems

11: Emergency and medical Equipment

12: Preflight Checklists

13: Standard Operating Procedures (SOPs)

14: Abnormal/Emergency Procedures

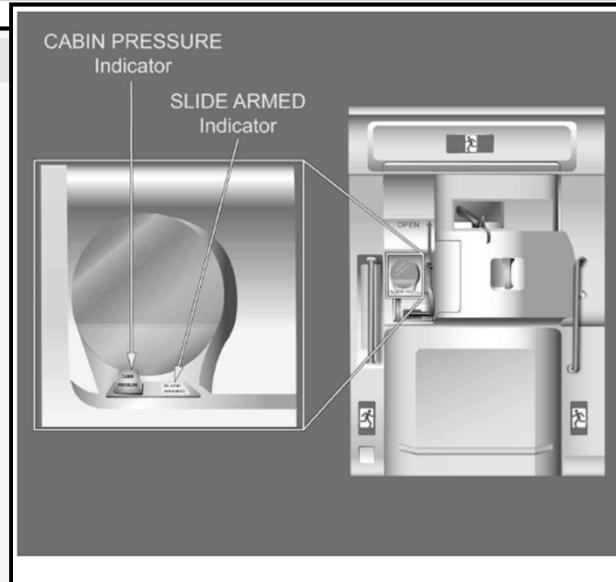
15: Function Recovery procedures (FRPs)

16: Cabin Crew Bulletins (CCB)

OSD are only applicable to system description and operational instructions.

CCOM: DOORS & SLIDES

- [-] DOORS AND SLIDES
 - [+] Preliminary Pages
 - [-] Passenger Doors
 - [+] General
 - [+] Location
 - [+] Description
 - [+] Operation
 - [+] Controls and Indicators
 - [-] Slide Raft
 - [+] Location
 - [+] Description
 - [+] Operation
 - [+] Slide Raft Use for Ditching
 - [+] Aircraft Configuration in Crash Situations



SLIDE RAFT OPERATION

The deployment and the inflation of the slide raft initiate automatically when the cabin crew opens the door in the armed mode.

When the door opens, the girt tension pulls the packboard from the door. The packboard falls below the door sill, the speed lacing releases, and the slide raft falls out of the packboard. An inflation cable actuates the regulator valve, primary gas supplies the aspirators, and inflation starts. The time of inflation will last up to 6 s.

An intermediate restraint tie device keeps the slide raft at approximately one third of its extended length, to ensure that the slide raft does not inflate underneath the fuselage. After the slide raft is pressurized sufficiently, the intermediate restraint tie device releases, and the slide raft extends to its full length to touch the ground.

Cabin Crew Data – Type specific data and CCOM

Type specific data



OPERATIONAL SUITABILITY DATA CABIN CREW

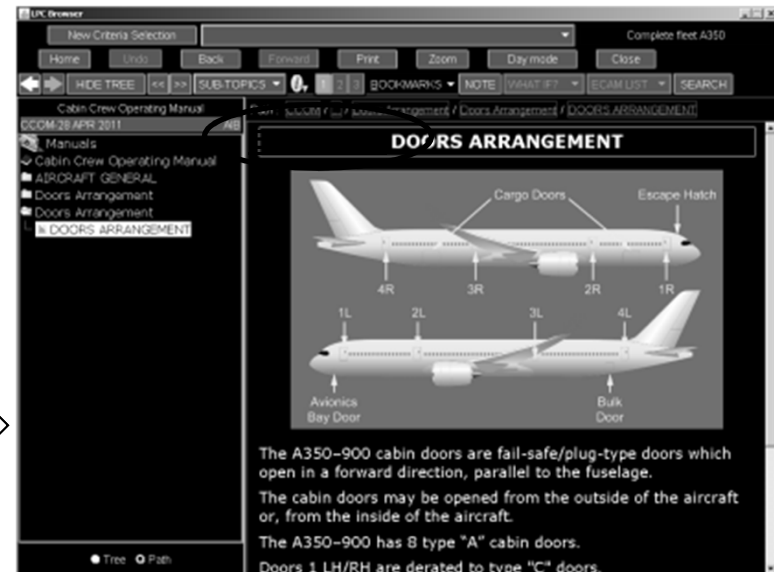
Approval date: 22 JUL 15
Approval reference: 10053878

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Engineering Product Integrity
Operational Certification
31707 BLAGNAC CEDEX France

REFERENCE: ENVOSD OSD-CC

ISSUE DATE: 28 JUL 15



OSD will be directly identified in the CCOM and highlighted accordingly

The Operator will meet the EASA requirements and can demonstrate easily compliance.

Cabin Crew Data – CASE

A350-900 Cabin Aspects of Special Emphasis, as per CS CCD.400 CASE document

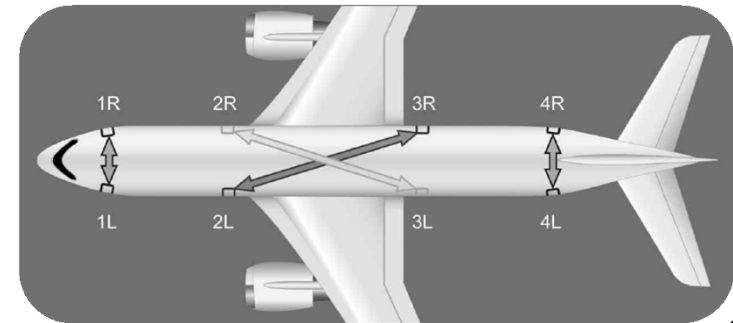
- Established at the time of the A350 Initial TC, to demonstrate the Type Certificate Holder (TCH) compliance with Part 21.A.16B- "Special Conditions" (for novel and unusual design features).
- Is the means to provide "special instructions" to the Operators

Cabin Crew Data – CASE

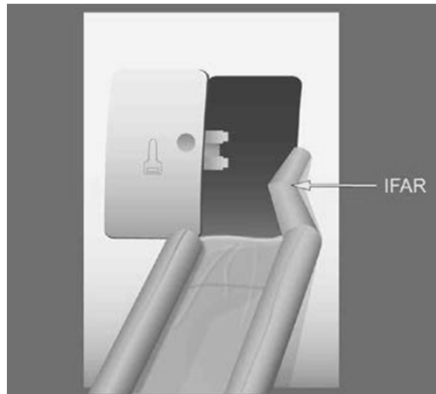
Cabin Aspects of Special Emphasis (CASE)

Elements identified during airworthiness certification and to be included in procedures by operators.

Example 1: specific slideraft transportation path



OSD A350 CC
§ 7



Example 2: Inflatable Free Aisle Restrictor (IFAR)

The single lane slideraft has a specific feature called Inflatable Free Aisle Restrictor (IFAR). The IFAR is a part of the head end of the inflatable structure of the single lane slideraft. The IFAR intends to reduce the width of each doorway, to ensure that only one person can access the slideraft at a time

22 July 2015



OPERATIONAL SUITABILITY DATA (OSD) APPROVAL

10053878

This Operational Suitability Data (OSD) Approval is issued by EASA, acting in accordance with Commission Regulation (EC) No. 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of the Regulation to

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and certifies that the Operational Suitability Data elements listed below are approved by the European Aviation Safety Agency under the EASA Type Certificate EASA.A.151 as part of the Operational suitability Data (OSD) as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014.

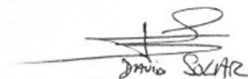
OSD element(s): Cabin Crew Data-Operational Suitability Data for A350 - Initial Approval

OSD Certification basis:
CS-CCD, Initial issue, dated 31 January 2014

Associated technical documentation:
A350 Operational Suitability Data Cabin Crew (Ref.: Airbus V01RP1519368 Issue 1.0. dated 03 July 2015).

For the European Aviation Safety Agency,

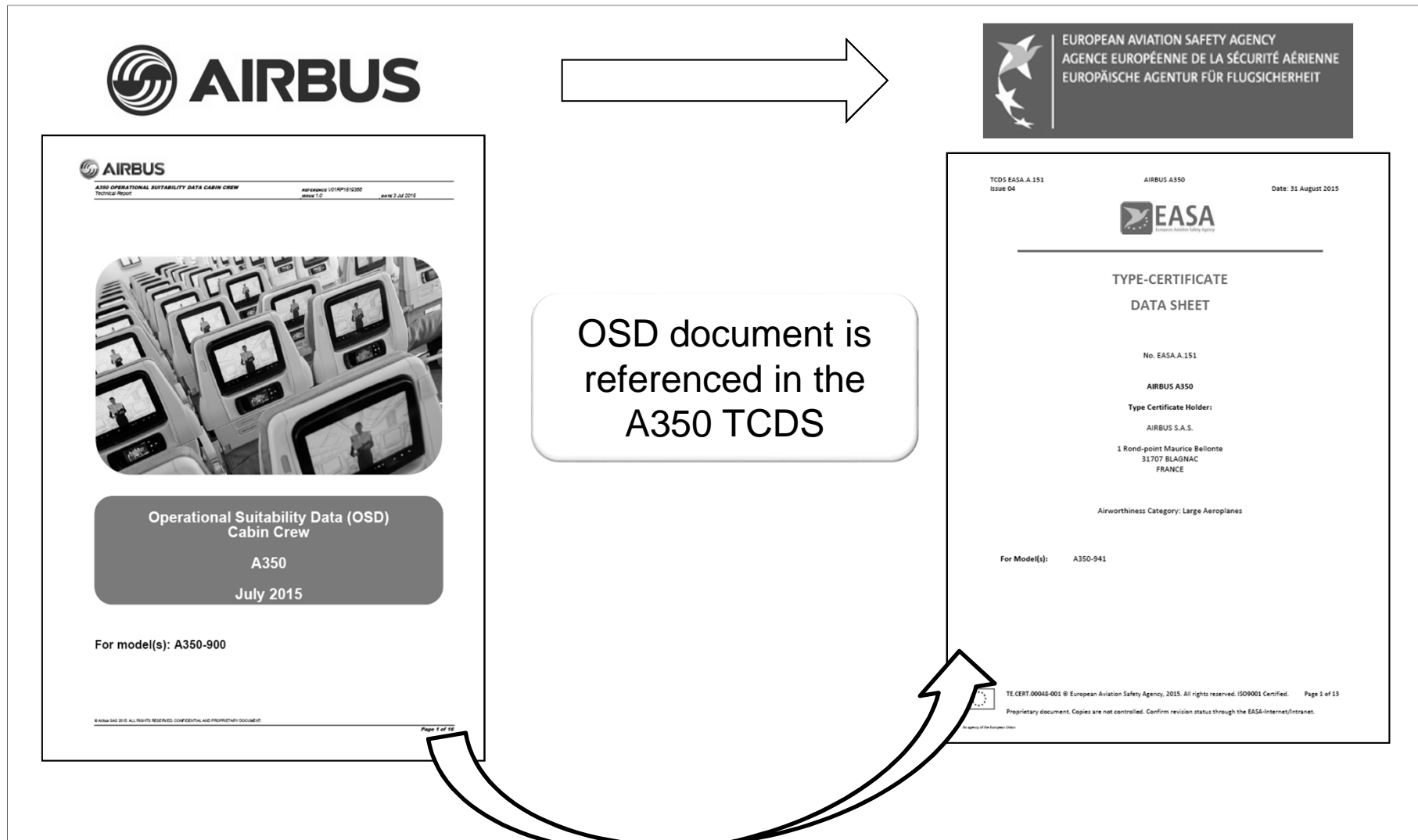
Date of issue: 22 July 2015


for Alain Leroy
Head of Large Aeroplanes Department

10028897
Operational Suitability Data Approval – 10053878/0010028897 – AIRBUS SAS

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Link between OSD and TCDS



A350 TCDS and OSD

V. OPERATIONAL SUITABILITY DATA (OSD)

The Operational Suitability Data elements listed below are approved by the European Aviation Safety Agency under the EASA Type Certificate [original TC number] as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014.

1. Master Minimum Equipment List

...

2. Flight Crew Data

...

3. Cabin Crew Data

a. The Cabin Crew data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in “A350 Operational Suitability Data Cabin Crew, Issue 1.0. (Ref: Airbus V01RP1519368 dated 03 July 2015)”, or later approved revisions.

b. Required for entry into service by EU operator.

c. The A350-900 aircraft model is determined to be a variant to the A330-200/-300 aircraft model(s).



Conclusion

OSD: Bridging certification and operations

Discussion

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