

A low-angle, close-up shot of the nose and cockpit of a blue Airbus A350-900 aircraft. The aircraft is positioned on the right side of the frame, with its nose pointing towards the top right. The cockpit windows and various sensors are visible on the nose. The left wing and engine are partially visible on the left side of the frame. The background is a bright blue sky with wispy white clouds, and the sun is visible on the left, creating a lens flare effect.

**EASA OSD WORKSHOP**

# **A350XWB Cabin Operational Evaluation Board Process**

From OEB to OSD

Presented by Regine Vadrot  
Head of Training & Operational Certification



# ***A350XWB OEB Kick Off meeting Toulouse, 30<sup>th</sup> September & 1<sup>st</sup> October 2010***



***In 2013 the question was:  
can the A350XWB be a pilot project for OSD?***

# A350 OSD pilot case

## A350 In Focus



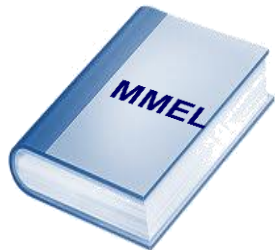
### Flight Crew:

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

### A350 FSTD Validation Source Data

### Cabin Crew:

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



MMEL



EASA – FAA joint process



Electronic  
Flight Bag  
Head-up-  
Display



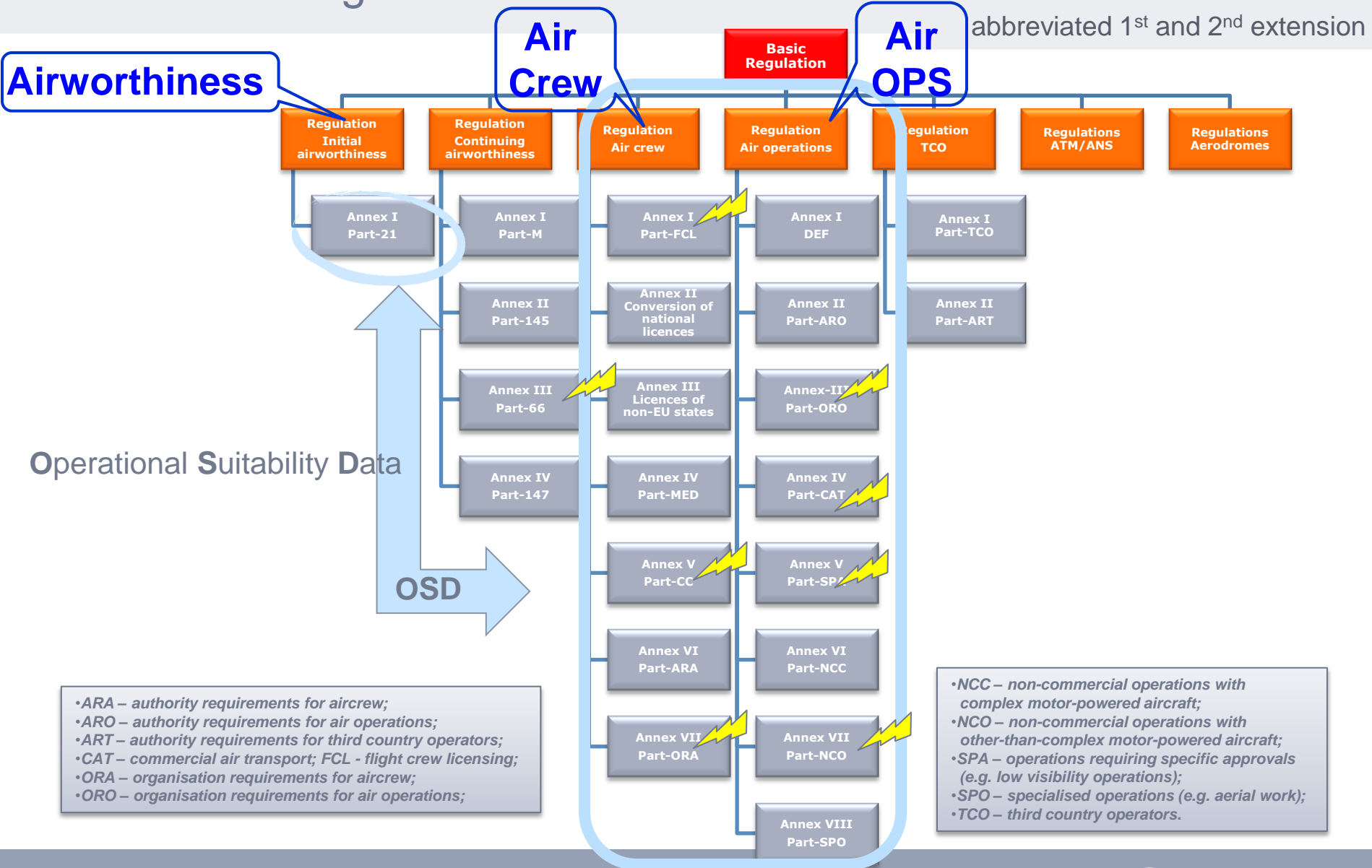


# ***A350 Operational Evaluation Board***

***Cabin Crew***

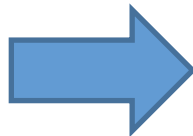
***From OEB to OSD***

# Overview of Regulations and Parts



## Relevant data ? Operational Suitability Data

**But what are the relevant data established in accordance with Commission Regulation (EC) No 1702/2003 for the relevant aircraft type or variant?**



**O**perational **S**uitability **D**ata

## Part 21 – 21A.15 Application - Opinion

21A.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 training;
5. the master minimum equipment list and,
6. other type related suitability elements.

# Application of DRAFT CS-CCD





# Certification Specification for Cabin Crew

## Subpart A – General

- CS CCD.050 Scope
- CS CCD.100 Applicability
- CS CCD.105 Definitions
- CS CCD.110 OSD box concept – Status of provided data

## Subpart B – Determination of a new Type and variant

- CS CCD.200 Determination process
- CS CCD.205 Determination elements
- CS CCD.210 Determination of a new type
- CS CCD.215 Determination of a variant

## Subpart C - Type specific data for cabin crew

- CS CCD.300 Data required from the applicant
- CS CCD.305 Supplementary data provided at the request of the applicant
- CS CCD.310 Type specific data content
- Appendix1 to CS CCD.310 Type Specific data Content

## Subpart D – Cabin aspects of special emphasis

- CS- CCD.400 Cabin aspects of special emphasis

## Subpart B - Determination of a new Type and variant

### CS CCD.200 Determination process

The candidate aircraft is determined as a new type or a variant of the base aircraft following the determination process conducted by the Agency. For this purpose the applicant:

- (a) identifies differences by comparing the type specific elements specified in CS CCD.205; and
- (b) completes an aircraft difference table using:
  - (1) the form specified in Appendix 1 to CS CCD.200(b)(1); or
  - (2) the applicant's form provided it contains the elements specified in Appendix 1 to CS CCD.200(b)(1) as applicable to the candidate aircraft, and the form is acceptable to the Agency.

# Outcome of Proposed Process for Cabin Crew: ADT

**AIRBUS**

ODR TABLE  
"BASE AIRCRAFT" to "CANDIDATE AIRCRAFT"  
DOMAIN: CABIN CREW

Internal Airbus Date field

**1 ODR TABLE: AIRCRAFT CONFIGURATION**

BASE AIRCRAFT Reference: "A3XX-XXXXXX\_MSN XXXXX"  
CANDIDATE AIRCRAFT Reference: "A3XX-XXXXXX\_MSN XXXXX"

N°	DESIGN	DIFFERENCE	DIFFERENCE LEVELS			
			Impact on DESC	Impact on OPS	TRNG	CHECK
1	General	Both A330-200 and A350-900 are long to very long range civil transport aircraft - Approximate range at max pax: • A330-200: 6600 NM • A350-900: 7800 NM	YES	NO	1	NO
2	Dimensions					
3	Cockpit		"Yes/No"	"Yes/No"	"1->3"	"1->3"
4	Cabin		"Yes/No"	"Yes/No"	"1->3"	"1->3"
5	Cargo		"Yes/No"	"Yes/No"	"1->3"	"1->3"
Etc	Etc...	Etc...	Etc...	Etc...	Etc...	Etc...

**2 ODR TABLE: SYSTEMS/OPERATIONS (PER ATA ORDER)**

Internal Airbus ODR Table Reference

Page 2 of 6

CS-CCD - BOX 1

MANDATORY

**AIRBUS**  
**A350**

**OSD**  
**Cabin Crew**  
**ODR**

The OS...  
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FRANCE

REFERENCE: AIR-CCOM ISSUE DATE: 29 APR 11

Note: CC ODR is the Airbus equivalent to Cabin Crew ADT Aircraft Difference table from CS-CCD.200

## Subpart C - Type Specific data for Cabin Crew

### CS CCD.310 Type specific data content

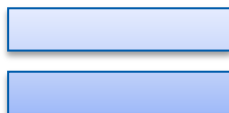
The applicant includes in the type specific data for cabin crew at least the following elements in accordance with Appendix 1 to CS CCD.310, as applicable:

- (a) aircraft description, including:
  - (1) general;
  - (2) flight crew compartment;
  - (3) cabin compartment; and
- (b) aircraft systems including associated equipment.

# Airbus OSD and Airbus CCOM

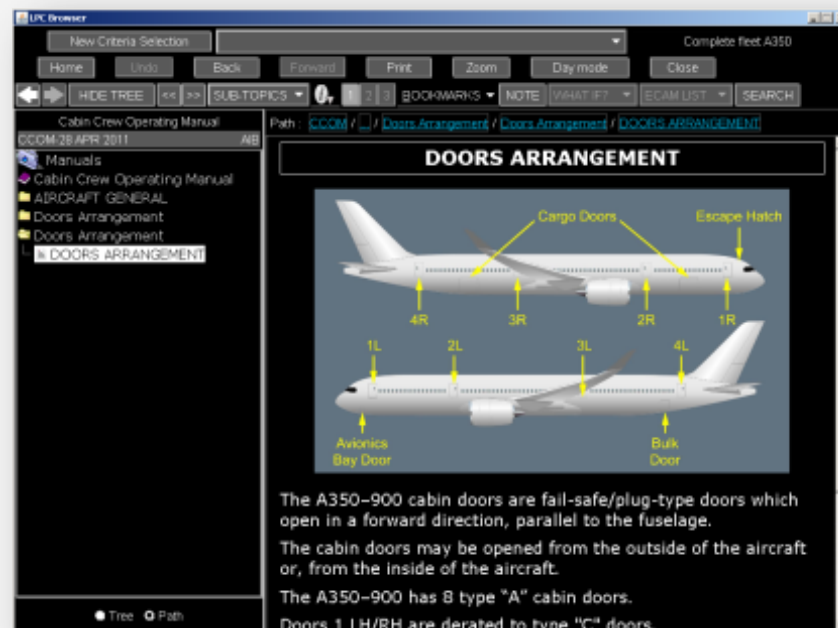
# OSD

Type specific Data



## Airbus Recommended Procedures

Including description and  
operation of specific  
customized cabin items





# Airbus OSD and Airbus 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: Security Sensitive Information

### 17: Cabin Crew Bulletins (CCB)

**OSD are only applicable to System description and Operational instructions.**

# Link between CCOM and OSD at Airbus

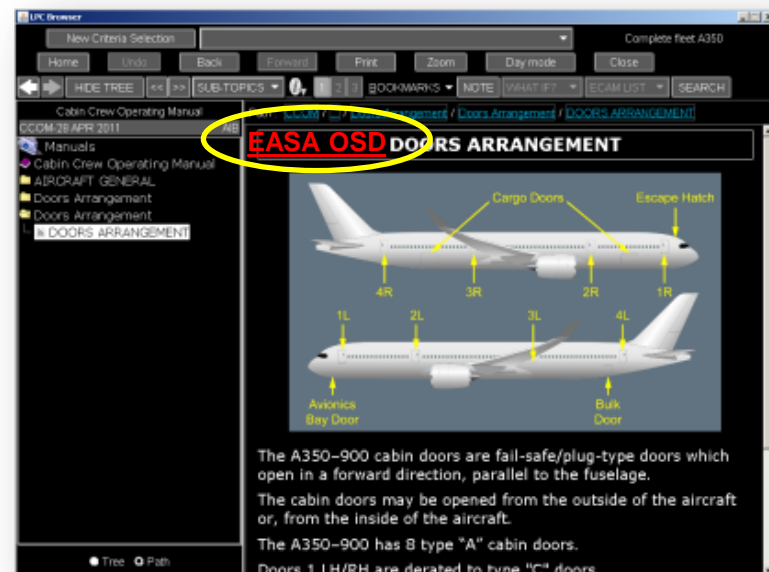
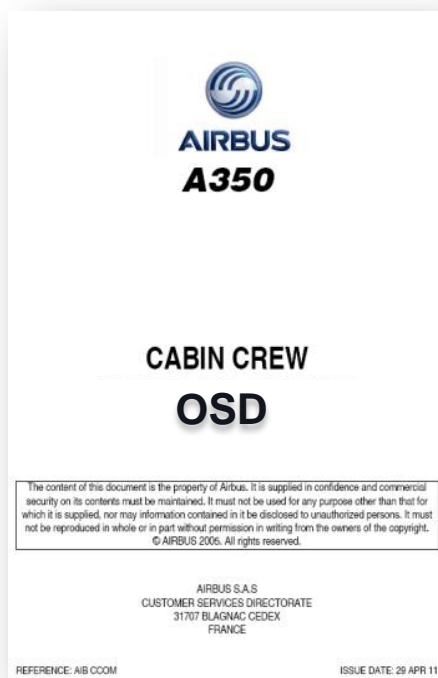
CCOM

EASA OSD



**OSD contained in CCOM  
will be identified during the  
authoring phase**

# Link between CCOM and OSD at Airbus



**OSD will be directly identified in the CCOM and highlighted accordingly**

**The Customer can meet the EASA requirements and justify the applicability / relevance.**

**National Aviations Authorities**

## Subpart D - Cabin aspects of special emphasis

### CS CCD.400 Cabin aspects of special emphasis

the applicant includes, as applicable, any information relevant to the aircraft that cabin crew and training providers should be aware of. Such information can include, but is not limited to:

- (a) information identified during emergency evacuation demonstration required by CS 25.803, such as:
  - (1) passenger movement during evacuation including exit overload,
  - (2) dried up exit and subsequent re-direction,
  - (3) exit by-pass recommendations,
  - (4) general crowd control,
  - (5) seating location of cabin crew members,
- (b) other unique elements identified during the certification process, e.g. direct view, trolley lift barrier, external viewing means, remote cabin areas, etc.

# A350 Cabin Aspects of Special Emphasis

**A350 CASE will be identified throughout the A350 Cabin Certification process, and will then be captured and expanded into the OSD Cabin Document.**

Example from A380 OEB report:

- Use of stairs
- Aft trolley lift barrier
- Smoke barriers
- External viewing means – Fresnel lens





# A350 Cabin Aspects of Special Emphasis

**A350 CASE will be identified throughout the A350 Cabin Certification process, and will then be captured and expanded into the OSD Cabin Document.**

**Inflatable Free Aisle Restrictor (IFAR)**

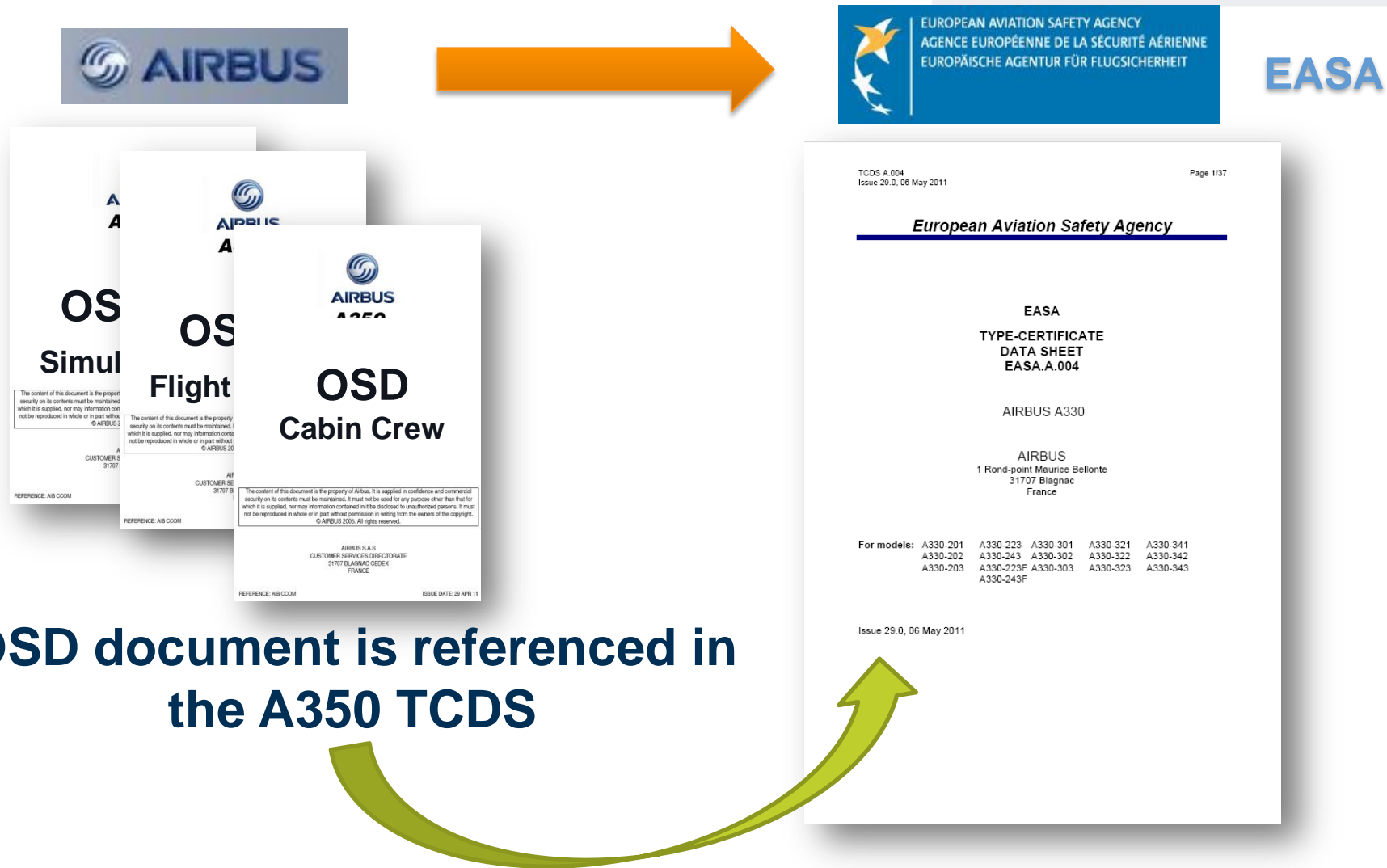


## A350 Potential candidate



**Emergency evacuation system:** Due to the fact that the door opening is identical between Type C and Type A door, it must be ensured that when a single lane slide is installed, the exit width is reduced. The inflatable Free Aisle Restrictor (IFAR) will ensure this exit width reduction.

# Link between OSD and TCDS







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