



**EASA**  
European Aviation Safety Agency

# OSD in Part-21

EASA 3<sup>rd</sup> OPS Workshop – 6<sup>th</sup>-7<sup>th</sup> October 2015

**Andrea Boiardi - Chief Expert OSD**

Your safety is our mission.

EASA is an agency of the European Union





# Summary

- ◆ History and background
- ◆ Definition of OSD
- ◆ OSD regulatory framework
- ◆ Bridging certification and operations
- ◆ Relevant Certification Specifications
- ◆ The OSD “4 boxes” concept
- ◆ OSD Process for type certified in production A/C
- ◆ OSD implementation timeline
- ◆ The EASA OSD Team



# History and Background

JOEB



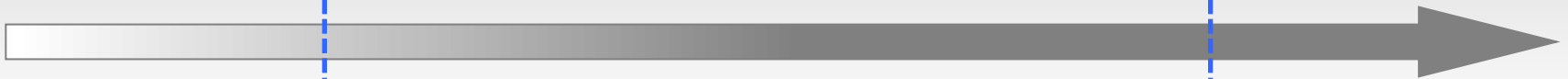
JOEB > EOEB



OSD



Evolution of the OPS/FCL evaluation into the OSD





# History and Background

## JOEB



- ◆ Voluntary for the OEMs
- ◆ Non-binding to the end user
- ◆ Limited to Flight Crew, Cabin Crew and MMEL
- ◆ Legal status unclear

## JOEB/EOEB





# History and Background



- ◆ Based on Basic Regulation and Part 21
- ◆ Required for the OEMs
- ◆ Mandatory for the end user
- ◆ Scope expanded to Maintenance Certifying Staff and Simulator Data



# Operational Suitability Data

*“Data that is considered necessary for the safe operation of an aircraft!”*





# OSD Regulatory Framework

- ◆ Regulation (EC) 216/2008 – "**Basic Regulation**" – was extended to include the elements of the operational suitability (Art. 5 – Airworthiness)
- ◆ Regulation (EU) 748/2012 – Annex I ["**Part 21**"] – has been amended to approve operational suitability data as part of the certification process (Regulation (EU) 69/2014)





## 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.





# OSD Regulatory Framework – Part-21

## 21.A.62 – Availability of operational suitability data

The holder of the type-certificate or restricted type-certificate shall make available:

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



# OSD Regulatory Framework - Overall

## **Initial Airworthiness (Part-21)**

Regulation  
(EU)  
748/2012 as  
amended by  
Commission  
Regulation  
(EU)  
69/2014

## **Continuing Airworthiness (Part 66, Part 147)**

Commission  
Regulation  
(EU) No  
1321/2014

## **Aircrew Regulation**

Commission  
Regulation  
1178/2011  
“Part-FCL”

AMC & GM  
to Part-FCL  
and to Part-  
ORA

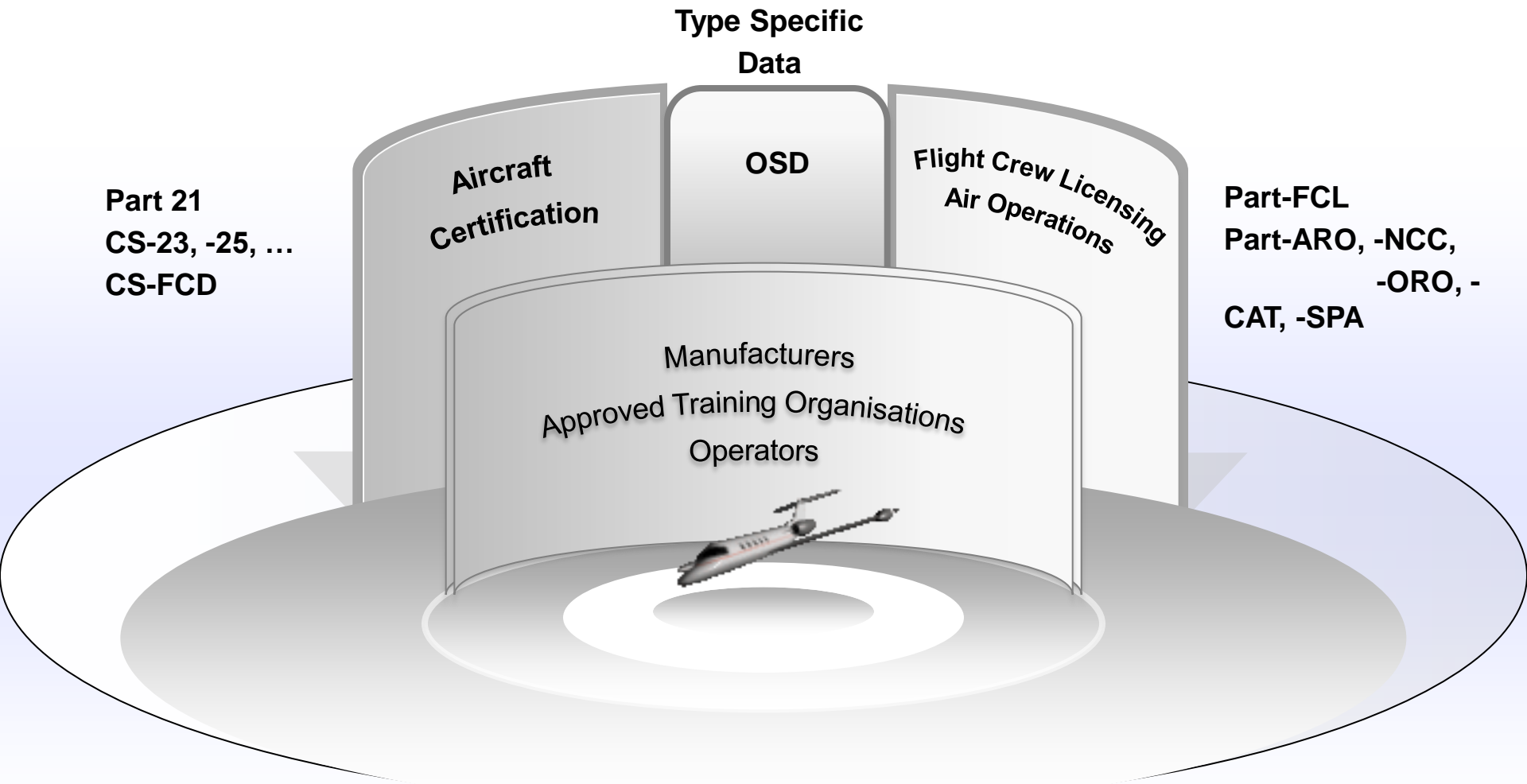
## **Air operations (Part-ARO, -ORO, Part-CAT, -SPA)**

Commission  
Regulation  
965/2012

AMC & GM  
to Part-ORO



# OSD - Bridging certification and OPS





# OSD Certification Specifications

## CSs already published

- ◆ **CS MMEL** (Annex to ED Decision 2014/004/R)
- ◆ **CS-GEN-MMEL** (Annex to ED Decision 2014/005/R)
- ◆ **CS-CCD** (Annex to ED Decision 2014/006/R)
- ◆ **CS-FCD** (Annex to ED Decision 2014/008/R)
- ◆ **CS-SIMD** (Annex to ED Decision 2014/033/R)

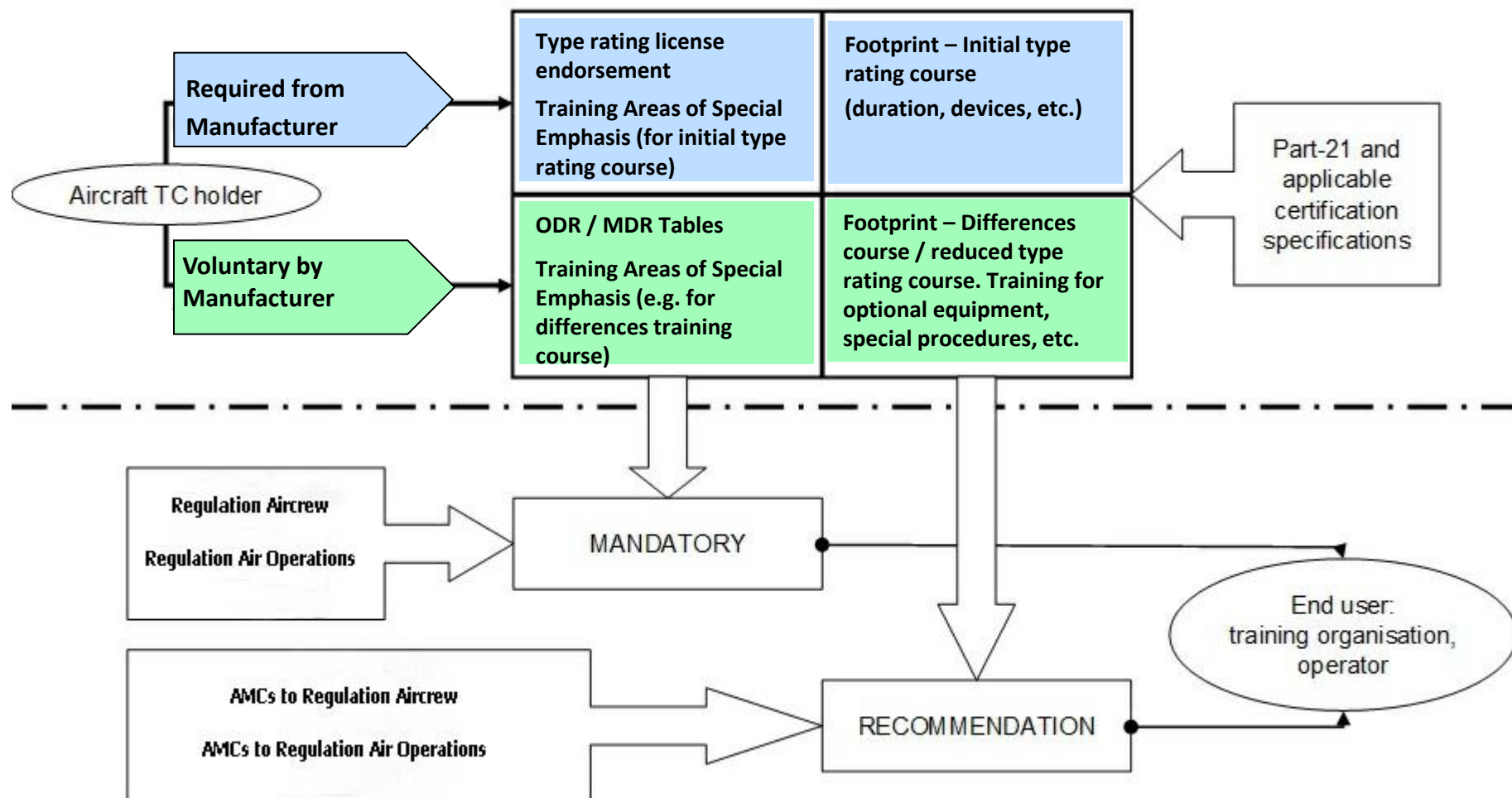
## CSs still in progress

- ◆ **CS-MCSD** (RMT.0106, NPA 1st quarter 2018 – interim period to be covered through draft CM-MCSD-001)



# The OSD “4 boxes” concept

*“OSD contain mandatory and non-mandatory elements”  
(Example based on CS-FCD)*





# OSD Process for type certified in production A/C

EASA OWNED



Grandfathering



TCH OWNED



"Catch-up" process





# OSD implementation timeline



OSD  
Implementation

18 Jun  
2014

Deadline for  
OSD approval  
(and extension  
of DOA scope)

19 Dec  
2016



17 Feb  
2014



OEMs to  
propose M vs  
NM elements  
for  
grandfathering



18 Dec  
2015 or EIS



Deadline for  
STC and  
changes





# EASA

European Aviation Safety Agency

# The OSD Team



**BOIARDI Andrea** - ABOI

Chief Expert - OSD

[andrea.boiardi@easa.europa.eu](mailto:andrea.boiardi@easa.europa.eu)

+49 221 89990 4361



**MEYER Herbert** - HME

Flight Crew Training Section Manager & Senior Expert

[herbert.meyer@easa.europa.eu](mailto:herbert.meyer@easa.europa.eu)

+49 221 89990 4311



**HERESCU Luana** - LHE

Senior Expert Cabin Crew Training

[luana.herescu@easa.europa.eu](mailto:luana.herescu@easa.europa.eu)

+49 221 89990 4174



**KRUEGER Jens** - JKRU

Senior Expert Flight Simulation Training Devices

[jens.krueger@easa.europa.eu](mailto:jens.krueger@easa.europa.eu)

+49 221 89990 4058



**VANDENDORPE Thierry** - TVA

Senior Expert Master Minimum Equipment List

[thierry.vandendorpe@easa.europa.eu](mailto:thierry.vandendorpe@easa.europa.eu)

+49 221 89990 4186



**MARGIOTTA Guido** - GMAR

Senior Expert Maintenance Certifying Staff

[guido.margiotta@easa.europa.eu](mailto:guido.margiotta@easa.europa.eu)

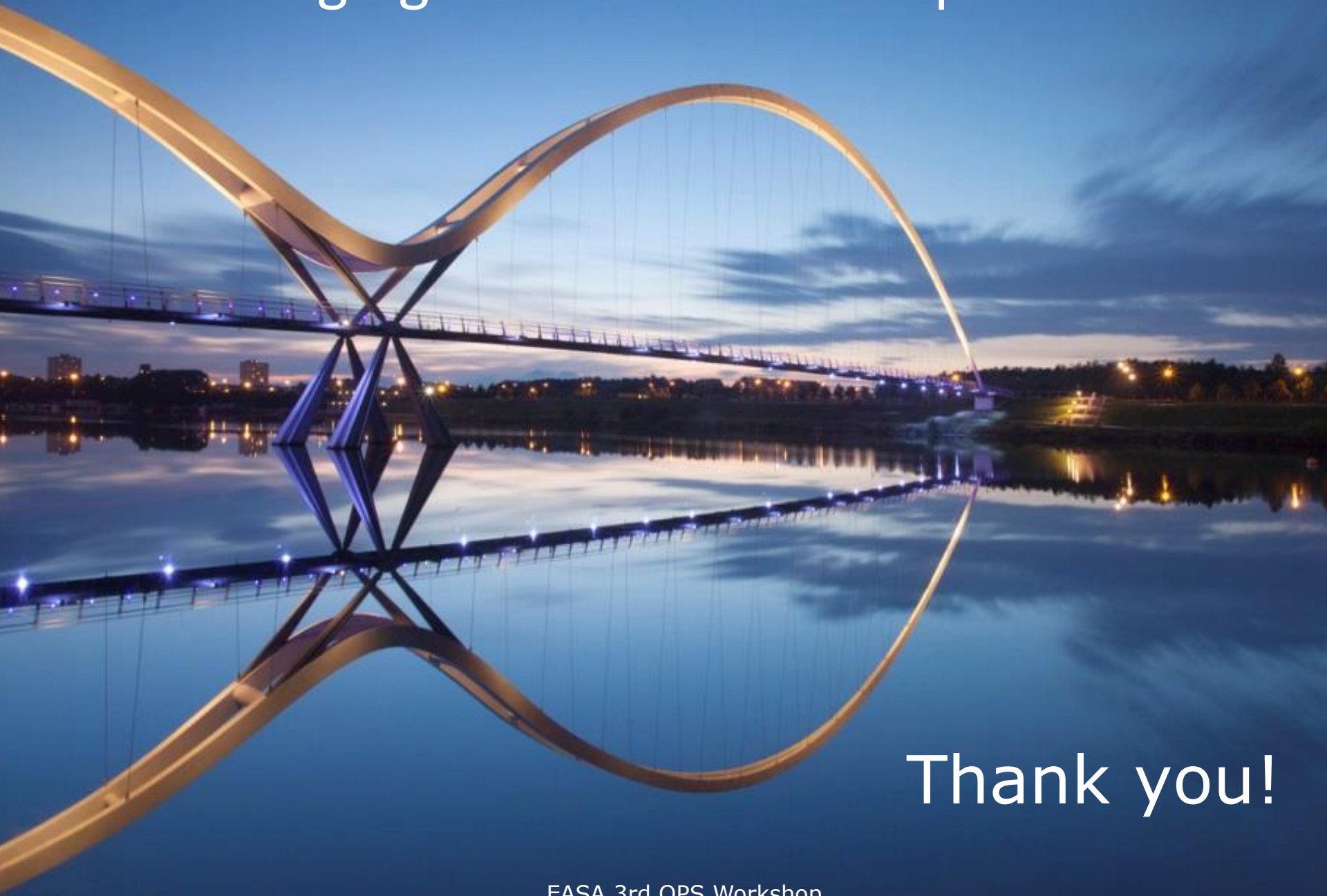
+49 221 89990 4367

## Your safety is our mission.

EASA is an agency of the European Union



# OSD: Bridging certification and operations.



## Thank you!



# References in Part 21

## Article 7a – Operational Suitability Data

- 1.The holder of an aircraft type-certificate issued before 17 February 2014 intending to deliver a new aircraft to an EU operator on or after 17 February 2014 shall obtain approval in accordance with point 21.A.21(e) of Annex I (Part 21) except for the minimum syllabus of maintenance certifying staff type rating training and except for aircraft validation source data to support the objective qualification of simulator(s). The approval shall be obtained not later than 18 December 2015 or before the aircraft is operated by an EU operator, whichever is the latest. The operational suitability data may be limited to the model which is delivered.
- 2.The applicant for an aircraft type-certificate for which the application was filed before 17 February 2014 and for which a type-certificate is not issued before 17 February 2014 shall obtain approval in accordance with point 21.A.21(e) of Annex I (Part 21) except for the minimum syllabus of maintenance certifying staff type rating training and for aircraft validation source data to support the objective qualification of simulator(s). The approval shall be obtained not later than 18 December 2015 or before the aircraft is operated by an EU operator, whichever is the latest. Compliance findings made by the authorities in Operational Evaluation Board processes conducted under the responsibility of the JAA or the Agency before the entry into force of this Regulation shall be accepted by the Agency without further verification.
- 3.Operational Evaluation Board reports and master minimum equipment lists issued in accordance with JAA procedures or by the Agency before the entry into force of this Regulation shall be deemed to constitute the operational suitability data approved in accordance with point 21.A.21(e) of Annex I (Part 21) and shall be included in the relevant type-certificate. Before 18 June 2014 the relevant type-certificate holders shall propose the Agency a division of the operational suitability data in mandatory data and non-mandatory data.
- 4.Holders of a type-certificate including operational suitability data shall be required to obtain approval of an extension of the scope of their design organisation approval or procedures alternative to design organisation approval, as applicable, to include operational suitability aspects before 18 December 2015.’ ;



### **21.A.17B – Operational suitability data certification basis**

(a) The Agency shall notify to the applicant the operational suitability data certification basis. It shall consist of:

1. The applicable certification specifications for operational suitability data issued in accordance with point 21.A.16A that are effective on the date of application or application supplement, unless:

(i) The Agency accepts other means to demonstrate compliance with the relevant essential requirements of Annexes I, III and IV to Regulation (EC) 216/2008; or

(ii) Compliance with certification specifications of later effective amendments is chosen by the applicant.

2. Any special condition prescribed in accordance with point 21.A.16B(a).

(b) If an applicant chooses to comply with a certification specification of an amendment to the certification specifications that are effective after the filing of the application for a type-certificate, the applicant shall also comply with any other certification specification that the Agency finds is directly related.