



# EASA

European Aviation Safety Agency

## OSD-MCS

# Overview and Update

**SAE – Commercial Aircraft Composite Repair Committee (CACRC)  
Meeting**

**EASA Cologne 21<sup>st</sup> September 2016**

**Guido Margiotta**

*Regulations Officer CAW/Sen. Expert MCS FS.1.2*

# Your safety is our mission.

An agency of the European Union



TE.GEN.00409-001



# Operational Suitability: what is it?

- Operational Suitability Data (OSD) are a/c **Type-related data necessary for safe operation.**
- Principle of Operational Suitability Data (OSD): a/c **manufacturers are required to establish certain data** considered important for safe operation of the aircraft type.
- OSD are approved by the Agency **under the type certificate** and is then used by operators and training organisations.
- The data consists of 5 elements/constituents:
  1. Flight Crew Data (FCD)
  2. Simulator Data (SIMD)
  3. Maintenance Certifying Staff Data (MCSD)
  4. Master MEL (MMEL)
  5. Cabin Crew Data (CCD)



## Maintenance Certifying Staff Data (MCSD)

=

- Minimum Syllabus of the Type Rating Training for Maintenance Certifying Staff
- Determination of Type Rating



# Main Goal of the OSD-MCS

## REGULATIONS

## ANNEXES

I

II

III

IV

Initial  
Airworthiness

Additional  
airworthiness  
spec.

Continuing  
Airworthiness

TCH  
Part 21

OSD-MCS

Part 66

ATO  
Part 147

OSD bridges Part 21 with Part 147...

Part-147



# Main Benefits

- **Closing the gap** between aircraft design and operations with the Manufacturer involvement:
  - Best knowledge of type design and how it should be maintained.
- **Setting a standard** for the Type Rating Trainings (Easy approval process).
- **Continued** operational suitability: Syllabus controlled during life of aircraft and making improvements when necessary.



# Regulatory Basis

**BR**

- (EC) No.216/2008 – Art. 5 “AIRWORTHINESS
- the minimum syllabus of maintenance certifying staff type rating training shall be provided.

**IR**

- (EU) No 748/2012 (amdt 69/2014) Annex I – Part 21
- A.15 (d) An application for a TC/RTC for an a/c shall include, or be supplemented with, after the initial application, the application for approval of OSD, consisting of, as applicable:
- 3. the minimum syllabus of maintenance certifying staff type rating training, including determination of type rating;



# OSD-MCS Applicability *[EU 69/2014 Part 21 Amdt]*

Obligations for a TCH to provide the OSD-MCS:

- *[Art. 1 37a1]* **Only new TCs**, applications filed **after 17 February 2014**.  
(on going certifications are not affected: ex. A320NEO, B737MAX are not affected).
  - Limited to **Group 1 a/c**. *[GM No. 1 to 21.A.15d]*
  - OSD **approval** to obtained **before EIS** of the first a/c by an EU operator or need to use OSD for preparation of such EIS. *[GM to 21.A.21f]*
- *[Art. 1 37a2]* **Catch-up** for existing TC or on-going certifications, for which the application was filed before 17 February 2014, **is voluntary**.
- *[Art. 1 37a3]* No OEB-MCS approved report exists: therefore **no Grandfathering** activity. Different background of Flight/Cabin Crew OEB-OSD.



# Group 1 aircraft [GM to 21.A.15(d)]

## Aeroplanes

- above 5700 kg MTOM; or
- more than 19 pax; or
- minimum crew 2 pilots; or
- turbojet; or
- two or more turboprops; or
- Op. Alt. > FL290; or
- fly-by-wire.

## Helicopters

- above 3175 kg MTOM; or
- more than 9 pax; or
- minimum crew 2 pilots; or
- more than one engine; or
- fly-by-wire.

## Tilt rotor aircraft

- All

*EASA can decide on OSD-MCS applicability to any a/c that could benefit from this exercise.*





TCH shall make available OSD-MCS to:

- all known EU operators of the aircraft and, on request, to:
  - Competent authorities and
  - Any person required to comply with one or more elements of this set of operational suitability data (Part-147).



# OSD-MCS Certification Basis

- Rulemaking Task RMT.106 is in progress to develop the CS-MCSD in 2018.
  - Different opinions on the definition of the Minimum Syllabus and the role of the TCH slow down the RMT.
- To cover the transition phase, the Certification Memorandum **CM-MCSD-001** provides guidance to establish, case by case, requirement and content of the OSD.



# OSD Content (CM-MCSD-001)

**Box 1:** TCH shall provide and ATO shall include in their training course:

- TR Determination
- Maintenance Configuration ATA-sub ATA of the “Base” Aircraft
- MASE - *Any element considered by the applicant as having a degree of novelty, specificity or uniqueness relevant to the maintenance of his product. This could be a technical or operational feature that maintenance personnel needs to be aware of and take into consideration.*

**Box 3:** TCH could provide and ATO shall include in their training course:

- Optional Systems
- Delta training between two TRs.

**Box 2:** TCH shall provide and ATO could include in their training course:

- Student Prerequisites (e.g. previous exposure to a/c **composite** parts repair and bonding, appropriate knowledge, experience, and awareness in accordance with AMC 20-29, SAE AIR 5719)
- Logical Sequence for Training

**Box 4:** TCH could provide and ATO could include in their training course:

- Learning Objectives
- Use of Simulators (MTSD)
- Course Duration
- Supplemental Courses (Eng. Run up, advanced T/S, **Composite** Repairs, etc...)
- Other Recommendations...

**Mandatory  
Elements**

**Not Mandatory  
Elements (Recommendations)**



# Current Projects Status

TC holder	Model	Commercial designation	Part-66 Type rating endorsement	OSD approval date
CESSNA AIRCRAFT Company	700		Cessna 700 (Honeywell HTF7000)	*
<b>DASSAULT AVIATION</b>	<b>Falcon 2000EX</b>		<b>Falcon 2000EX (PWC PW308)</b>	<b>Nov. 2015</b>
	<b>Falcon 2000EX</b>	<b>Falcon 2000EX EASy Falcon 2000DX Falcon 2000LX Falcon 2000LXS Falcon 2000S</b>	<b>Falcon 2000EX EASy (PWC PW308C)</b>	<b>Nov. 2015</b>
	Falcon 5X		Tbd	*
	<b>Falcon 7X Falcon 8X</b>	<b>Falcon 7X Falcon 8X</b>	<b>Falcon 7X (PW 307)</b>	<b>Jun. 2016</b>
EVEKTOR	EV-55	Outback	Tbd	*
Gulfstream	GVII	Tbd	Tbd	*
KAMAN AEROSPACE CORPORATION	K-1200		Tbd	*
Mitsubishi	MRJ-200	MRJ-90	MRJ-200 (PP-PW1217G)	*
VIKING AIR Limited	DHC-6 Series 400	Twin Otter	De Havilland DHC-6 (PWC PT6)	*

\* Currently in progress



# Acronyms

ALS	Airworthiness Limitation Section	OSD	Operational Suitability Data
AMO	Approved Maintenance Organization	OSDm	Operational Suitability Data maintenance
ATO	Approved Training Organization	RMT	Rulemaking Task
CAW	Continuous Airworthiness	SC	Special Condition
CDCCL	Critical Design Configuration Control Limitation	STC	Supplemental Type Certificate
CM	Certification Memoranda	TCH	Type Certificate Holder
CMR	Certification Maintenance Requirement	TRT	Type Rating Training
CRI	Certification Review Item		
CRS	Certificate of Release to Service		
CS	Certification Specification		
EIS	Entry Into Service		
FRM	Flammability Reduction Means		
ICA	Instructions for Continued Airworthiness		
MASE	Maintenance Area of Special Emphasis		
MCSD	Maintenance Certifying Staff Data		
MRBR	Maintenance Review Board Report		
NAA	National Aviation Authority		
NDT	Non Destructive Test		
OEB	Operational Evaluation Board		



**EASA**  
European Aviation Safety Agency

# End of the Presentation

# Thank you for your attention !

**Your safety is our mission.**

An agency of the European Union 