
EASA Workshop
Requirements for Organisations and Authorities



**Qualification of
Flight Simulation Training Devices**
Organisation Requirements and Authority Requirements
Specific Requirements for
the Qualification of Flight Simulation Training Devices

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EASA



Qualification of FSTDs

Organisation and Authority Requirements
Specific Requirements for FSTDs

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★ **Introduction**

★ **Part Organisation Requirements**

➤ Subpart ATO - Approved Training Organisations

➤ Section 3 - Additional requirements for ATOs providing training in FSTDs and the Qualification of FSTDs

» Chapter 1 - Requirements for ATOs providing training in FSTDs

» Chapter 2 -Requirements for the qualification of FSTDs

★ **Part Authority Requirements**

➤ Subpart ATO – Approved Training Organisations

➤ Section 2 – FSTD Qualifications

★ **Summary**



Introduction

➤ JAR-FSTD to EASA FSTD IRs transition - 1

★ Source:

➔ JAR-FSTD(A) and (H)

- ➔ Section 1 – Requirements

- ➔ Section 2 – AMC's and Guidance Material

➔ JAA Joint Implementation Procedures for FSTDs

➔ JAA Temporary Guidance Leaflets (TGLs) for FSTDs



Introduction

➤ JAR-FSTD to EASA FSTD IRs transition - 2

★ Result:

➤ **EASA Part Organisation Requirements**

➤ Technical requirements for FSTDs

➤ **EASA Part Authority Requirements**

➤ Authority requirements for FSTDs

➤ **EASA Certification Specifications – FSTD (A)/(H)**



Introduction

➤ JAR-FSTD to EASA FSTD IRs transition - 3

**JAR-FSTD (A)/(H)
Section 1 - Requirements**

Technical Requirements for FSTDs
EASA Part Organisation Requirements

Authority Requirements for FSTDs
EASA Part Authority Requirements

Certification Specifications for FSTDs
EASA CS – FSTD(A)/(H) – Book 1



Introduction

➤ JAR-FSTD to EASA FSTD IRs transition - 4

**JAR-FSTD (A)/(H)
Section 2 – AMCs and Guidance Material**



**AMCs and GM to Technical Requirements for FSTDs
EASA Part Organisation Requirements – AMCs and GM**

**AMCs and GM to Authority Requirements for FSTDs
EASA Part Authority Requirements – AMCs and GM**

**Certification Specifications for FSTDs
EASA CS – FSTD(A)/(H) – Book 2**





Introduction

➤ JAR-FSTD to EASA FSTD IRs transition - 5

**JAA Joint Implementation Procedures
for FSTDs**

AMCs and GM to Authority Requirements for FSTDs
EASA Part Authority Requirements – AMCs and GM



Introduction

➤ JAR-FSTD to EASA FSTD IRs transition - 6

**JAA Temporary guidance Leaflets
for FSTDs**

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**AMCs and GM to Technical Requirements for FSTDs
EASA Part Organisation Requirements – AMCs and GM**

**Certification Specifications for FSTDs
EASA CS – FSTD(A)/(H) – Book 2**



Introduction

- JAR-FSTD to EASA FSTD IRs transition – 7
- ★ The Explanatory Note of NPA on Organisation Requirements and Authority Requirements contain cross/reference tables
 - ➔ From EASA Part AR and MS to JAR-FSTD
 - ➔ From JAR-FSTD to EASA Part AR and OR
- ★ Examples on the next slides !!

Cross-reference table EASA Part-OR to JAA documents – Implementing Rules		
EASA reference	Subject	JAA reference
Section 3	Additional requirements for ATOs providing training in FSTDs and the qualification of FSTDs	
Chapter 1	Requirements for ATOs providing training in FSTDs	
OR.ATO.300	General	JAR-FSTD A.001 (c) JAR-FSTD H.001 (c)
OR.ATO.305	FSTD qualification maintenance	JAR-FSTD A.030 (g) JAR-FSTD H.030 (g)
OR.ATO.310	Modifications	JAR-FSTD A.025 (b) JAR-FSTD H.025 (b)
OR.ATO.315	Installations	JAR-FSTD A.025 (c) JAR-FSTD H.025 (c)
OR.ATO.320	Additional equipment	JAR-FSTD A.025 (d) JAR-FSTD H.025 (d)
Chapter 2	Requirements for the qualification of FSTDs	
OR.ATO.350	Application for FSTD qualification	JAR-FSTD A.015 (a) and (c) JAR-FSTD H.015 (a)
OR.ATO.355	Certification specifications for FSTDs	N/A
OR.ATO.360	Qualification basis	JAR-FSTD A.001 JAR-FSTD H.001

Cross-reference table JAR-FSTD(A) to EASA Part-AR and OR		
JAA reference	Subject	EASA reference
	SECTION 1 - REQUIREMENTS	
SUBPART A	APPLICABILITY	
JAR-FSTD A.001	Applicability	CS-FSTD(A).001 OR.ATO.300(a)(2)
SUBPART B	GENERAL	
JAR-FSTD A.005	Terminology	CS-FSTD(A).200 OR.ATO.005
JAR-FSTD A.010	Implementation	N/A
SUBPART C	AEROPLANE FLIGHT SIMULATION TRAINING DEVICES	
JAR-FSTD A.015	Application for FSTD Qualification	AR.ATO.200 AR.ATO.205 AMC to AR.ATO.205 OR.ATO.365
JAR-FSTD A.020(c)	Validity FSTD Qualification	OR.ATO.375
JAR-FSTD A.025	Rules governing FSTD Operators	OR.ATO.200
JAR-FSTD A.030	Requirements for FSTDs qualified on or after 1 August 2008	CS-FSTD(A).300
JAR-FSTD A.031	Requirements for FFSs qualified on or after 1 April 1998 and before 1 August 2008	Cover Regulation Part-OR

Cross-reference table JAR-FSTD(A) to EASA Part-AR and OR

JAA reference	Subject	EASA reference
	TEMPORARY GUIDANCE LEAFLETS - FSTD	
Leaflet No. 3	Integrated testing	AMC No. 1 to CS-FSTD(A).300
Leaflet No. 8	Applicability of JAR-STD 1A Amendments to simulator data packages for existing aeroplanes	Appendix 7 to AMC No. 1 to CS-FSTD(A).300
Leaflet No. 9	Additional guidance on quality systems for operators of synthetic training devices	GM to OR.ATO.300 Appendix 3 to Subpart ATO Appendix 4 to Subpart ATO
Leaflet No. 10	Updating and upgrading existing FSTDs	AMC to OR.ATO.380(b)
Leaflet No. 11	Use of footprint tests in JAR-STD 1A qualification test submissions	GM to OR.ATO.350
Leaflet No. 12	Guidance for Enhanced Vision System (EVS) simulator qualification	AMC No. 6 to CS-FSTD(A).300
Leaflet No. 13	Old visual systems and new visual scenes for FSTDs	AMC No. 7 to CS-FSTD(A).300
Leaflet No. 14	Guidance on evaluations of electrical motion systems for FSTDs	AMC No. 5 to CS-FSTD(A).300



★ **Requirements for the Organisation**

→ Chapter 1 - Requirements for ATOs
providing training in FSTDs

★ **Requirements related to the qualification
of a FSTD**

→ Chapter 2 - Requirements for the
qualification of FSTDs



★ **Requirements for the Organisation**

→ Chapter 1 - Requirements for ATOs
providing training in FSTDs

- General
- FSTD qualification maintenance
- Modifications
- Installations
- Additional equipment



★ Requirements for the Organisation

→ Chapter 1 - Requirements for ATOs providing training in FSTDs

→ General

- (a) An ATO shall only provide training in FSTDs, when it demonstrates to the competent authority:
 - (1) that it has, directly or through contract, the capability to maintain the performance, functions and other characteristics specified for the FSTD qualification level and to control the installation of the FSTD;
 - (2) the adequacy between the FSTD specifications and the related training programme.
- (b) The FSTD specifications shall be detailed in the terms of the approval.



★ Requirements for the Organisation

→ Chapter 1 - Requirements for ATOs providing training in FSTDs

→ FSTD qualification maintenance

- (a) In order to maintain the qualification of the FSTD, the complete master QTG shall be run progressively between each annual evaluation conducted by the competent authority.
- (b) The results shall be dated and retained in order to demonstrate that the FSTD standards are being maintained.
- (c) A configuration control system shall be established to ensure the continued integrity of the hardware and software of the qualified FSTD.



★ Requirements for the Organisation

→ Chapter 1 - Requirements for ATOs providing training in FSTDs

→ Installations

(a) The ATO shall ensure that:

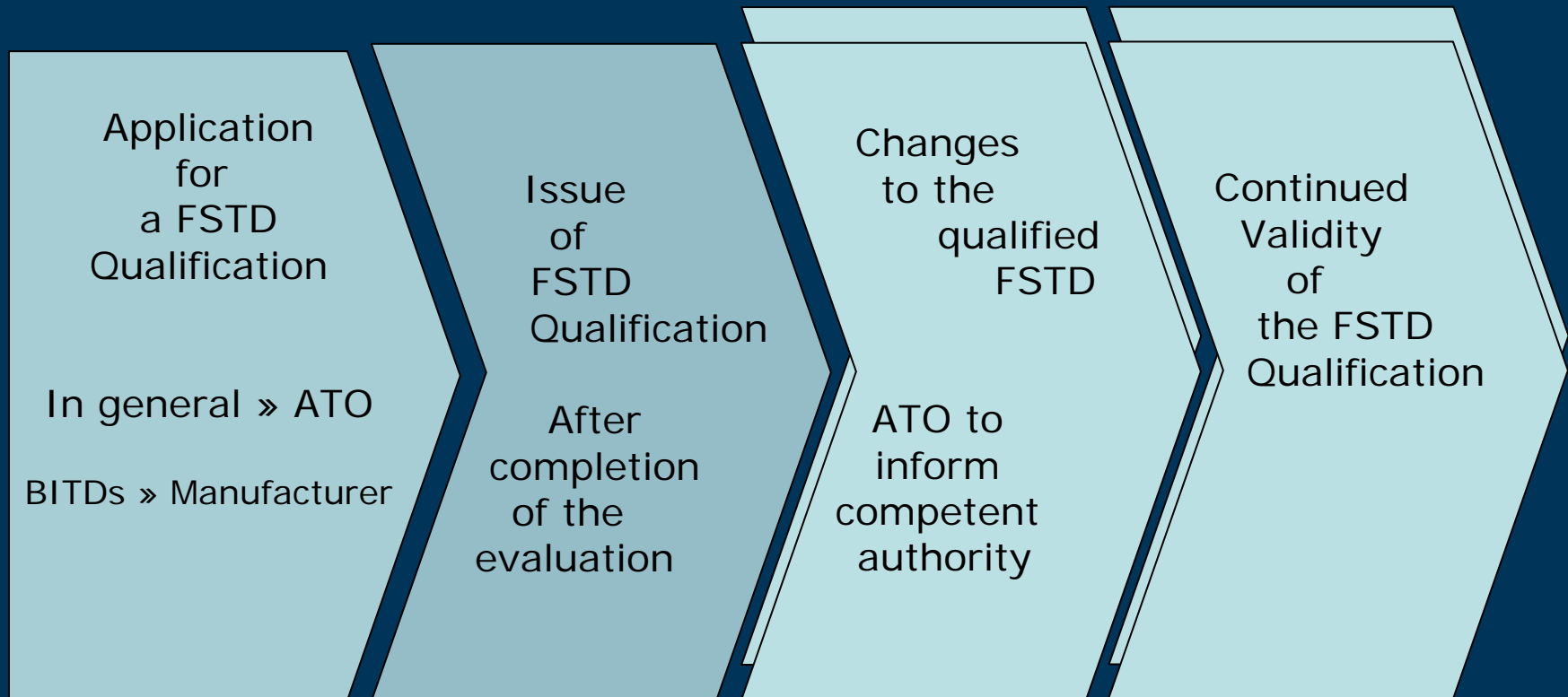
- (1) the FSTD is housed in a suitable environment that supports safe and reliable operation;
- (2) all FSTD occupants and maintenance personnel are briefed on FSTD safety to ensure that they are aware of all safety equipment and procedures in the FSTD in case of emergency.

(b) The FSTD safety features, such as emergency stops and emergency lighting, shall be checked at least annually and recorded.



★ **Requirements related to the qualification of a FSTD**

- Chapter 2 - Requirements for the qualification of FSTDs
 - Application for FSTD qualification
 - Certification specifications for FSTDs
 - Qualification basis
 - Issue of an FSTD qualification
 - Interim FSTD Qualification
 - Duration and continued validity
 - Changes to the qualified FSTD
 - Transferability of an FSTD qualification





★ **Requirements related to the qualification of a FSTD**

➔ Chapter 2 - Requirements for the qualification of FSTDs

- ➔ Certification specifications for FSTDs
 - » CS-FSTD(A) and CS-FSTD(H)



★ Requirements related to the qualification of a FSTD

→ Chapter 2 - Requirements for the qualification of FSTDs

→ Qualification basis

- (a) The qualification basis for the issuance of an FSTD qualification shall consist of the applicable ***certification specifications established by the Agency that are effective on the date of the application for the initial qualification***, and any special conditions prescribed by the competent authority
- (b) The qualification basis shall be applicable for future recurrent qualification of the FSTD, unless re-categorised.



Qualification of FSTDs

Organisation Requirements and Authority Requirements
Specific Requirements for FSTDs

➤ Part Authority Requirements

★ **Subpart ATO – Approved Training Organisations**

➤ Section 2 – FSTD Qualifications

- Initial evaluation procedure
- Issue of a FSTD qualification certificate
- Continuation of a FSTD qualification
- Changes



Qualification of FSTDs

Organisation Requirements and Authority Requirements
Specific Requirements for FSTDs

★ **Summary**

- EASA IRs based on
 - JAR-FSTD(A) and (H), and
 - associated joint implementation procedures
- Split in organisation and qualification requirements
- introduction of continued validity concept for FSTD qualifications
- transition measures will be part of the OR cover regulation.