EASA
European Union Aviation Safety Agency

EU-Latin America and Caribbean Aviation Partnership Project (EU-LAC APP)

Enhancing the aviation partnership between the EU and Latin America and the Caribbean

OJT on FSTD certification processes

Basic principles of FSTD Initial Qualification / Session1

Project EU-LAC APP

20/07/2020

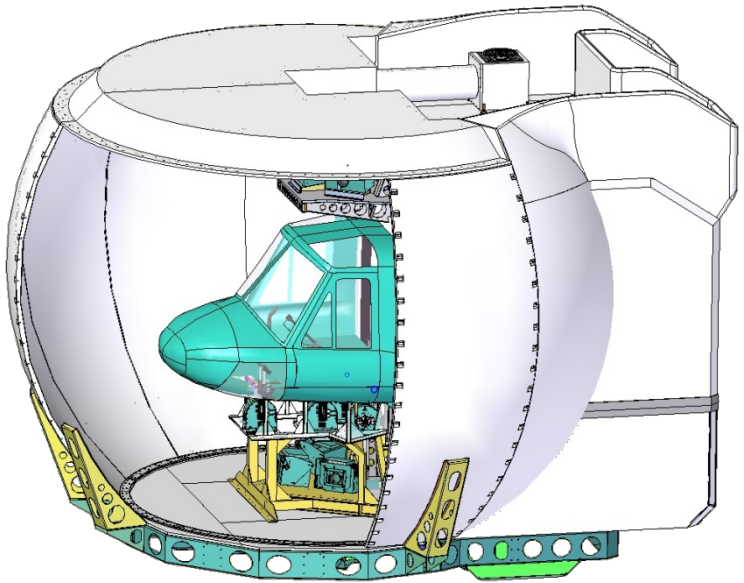
Your safety is our mission.

An Agency of the European Union

BASIC PRINCIPLES OF FSTD INITIAL QUALIFICATION

- INTRODUCTION
- APPROACH TO EASA FSTD REGULATION
- APPROACH TO AESA FSTD PROCEDURES
- REVIEW OF THE INITIAL APPLICATION FORM & DOCS
- DOCUMENT EVALUATION - MASTER QUALIFICATION TEST GUIDE
- DOCUMENT EVALUATION - OPERATOR MANAGEMENT SYSTEM
- PREPARATION OF THE AUDIT - PROPOSED WORK PLAN

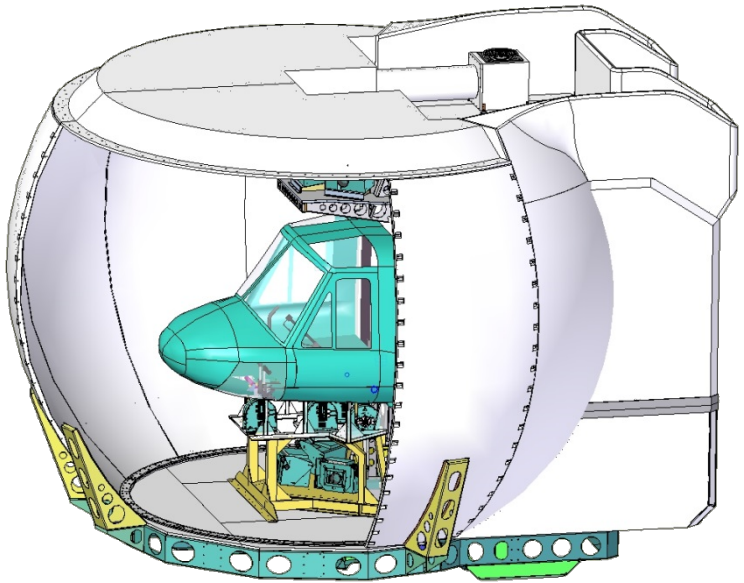
INTRODUCTION



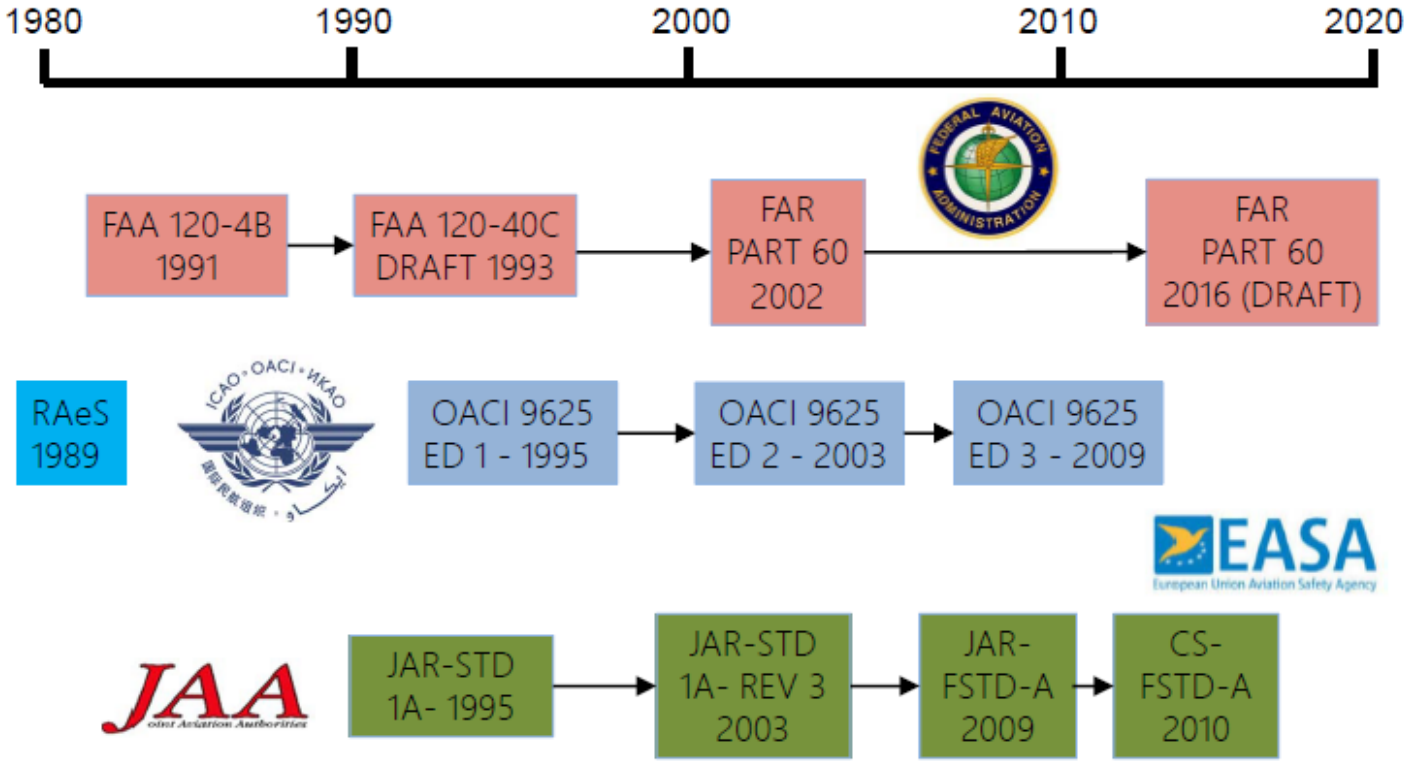
INTRODUCTION

- FSTD Background & Previous Knowledge
- FSTD Training Course expectations
- Additional Comments
- List Of Attendance

APPROACH TO EASA FSTD REGULATION



FSTD REGULATION EVOLUTION



FSTD REGULATION MAIN DIFFERENCES

Training Type, rating or licence	PPL, MPL1, CPL	IR	CR	MPL2	TR, ATPL IO, RO, RL	MPL3	TR, ATPL MPL4 RE, RO, RL IO, CQ
FAA	FTD L2/L3 + Visual			FTD L3/L5 + Visual	FTD L6 + Visual		Level D(+)
EASA	FNPT I,II			FNPT II MCC	FTD LII + Visual		Level D(+)
ICAO	Type I	Type II	Type III	Type IV	Type V	Type VI	Type VII

Training (T)

Proficiency (TP)

EASA REGULATION

Navigate through the regulation structure by area of implementation.

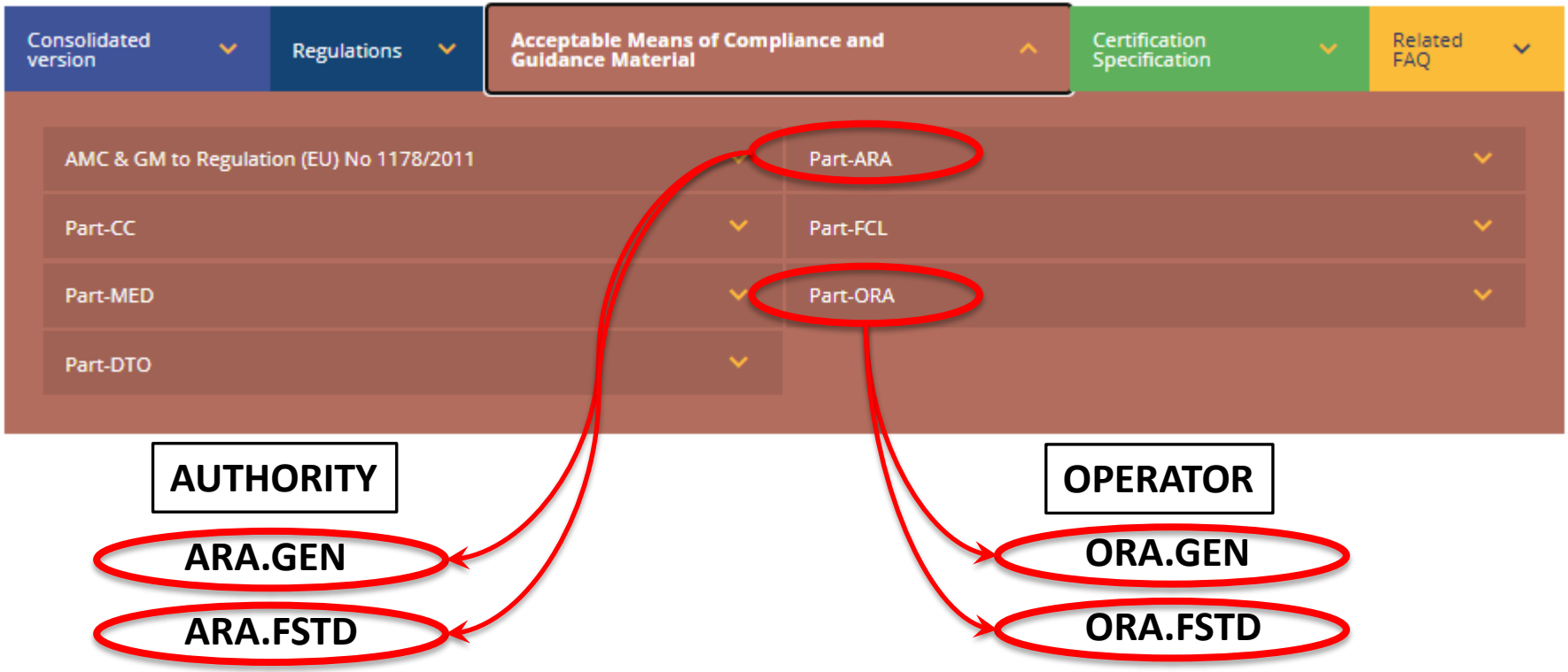
When available the corresponding AMC & GM are offered on this same view to facilitate your reading.

- Basic Regulation
- Initial Airworthiness
- Additional airworthiness specifications
- Continuing Airworthiness
- Aircrew
- Air Operations
- Balloons
- Sailplanes
- TCO - Third Country Operators
- ATM/ANS provision of services - Air Traffic Management/Air Navigation Services
- ATM/ANS interoperability - Air Traffic Management/Air Navigation Services
- ATCO - Air Traffic Controllers
- AUR - Airspace Usage Requirements (ACAS II)
- AUR - Airspace Usage Requirements (PBN)
- SERA - Standardised European Rules of the Air
- ADR - Aerodromes
- UAS - Unmanned Aircraft Systems
- Board of Appeal
- Fees and charges
- Fines and penalties
- Standardisation inspections
- SKPI - Safety Key Performance Indicators
- Other

EASA REGULATION

EASA REGULATION CE 290/2012

EASA REGULATION CE 290/2012



EASA REGULATION CE 0290/2012

AUTHORITY

ARA.GEN
SECTION I – GENERAL
SECTION II – MANAGEMENT
SECTION III – OVERSIGHT, CERTIFICATION AND ENFORCEMENT

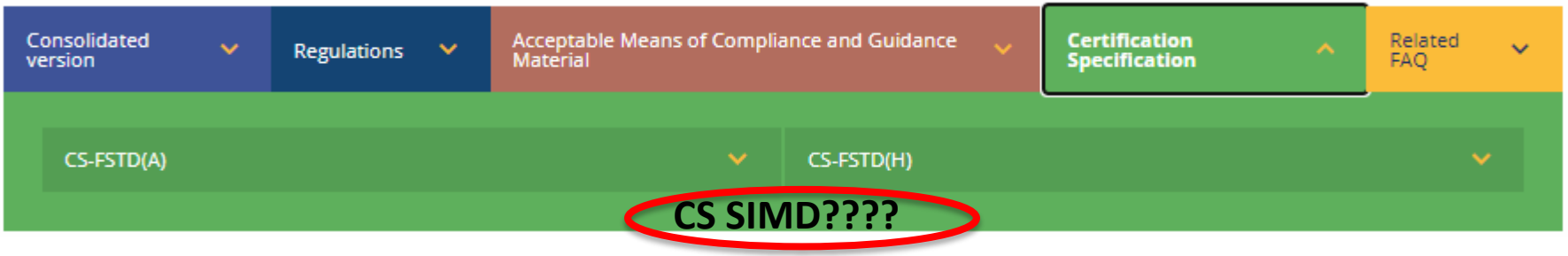
ARA.FSTD
SECTION I – GENERAL

OPERATOR

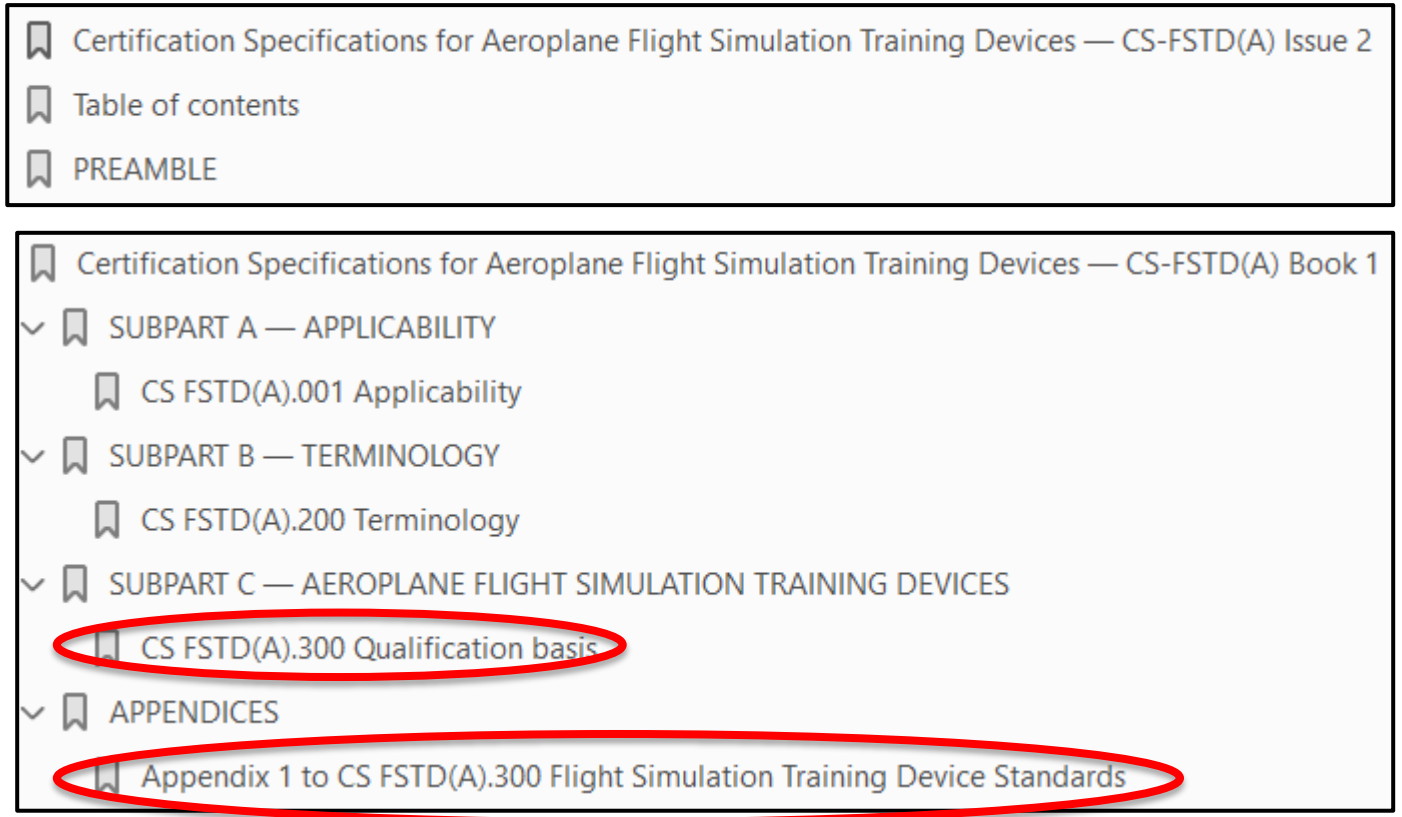
ORA.GEN
SECTION I – GENERAL
SECTION II – MANAGEMENT

ORA.FSTD
SECTION I – REQUIREMENTS FOR ORGANISATIONS OPERATING FSTDS
SECTION II – REQUIREMENTS FOR THE QUALIFICATION OF FSTDS

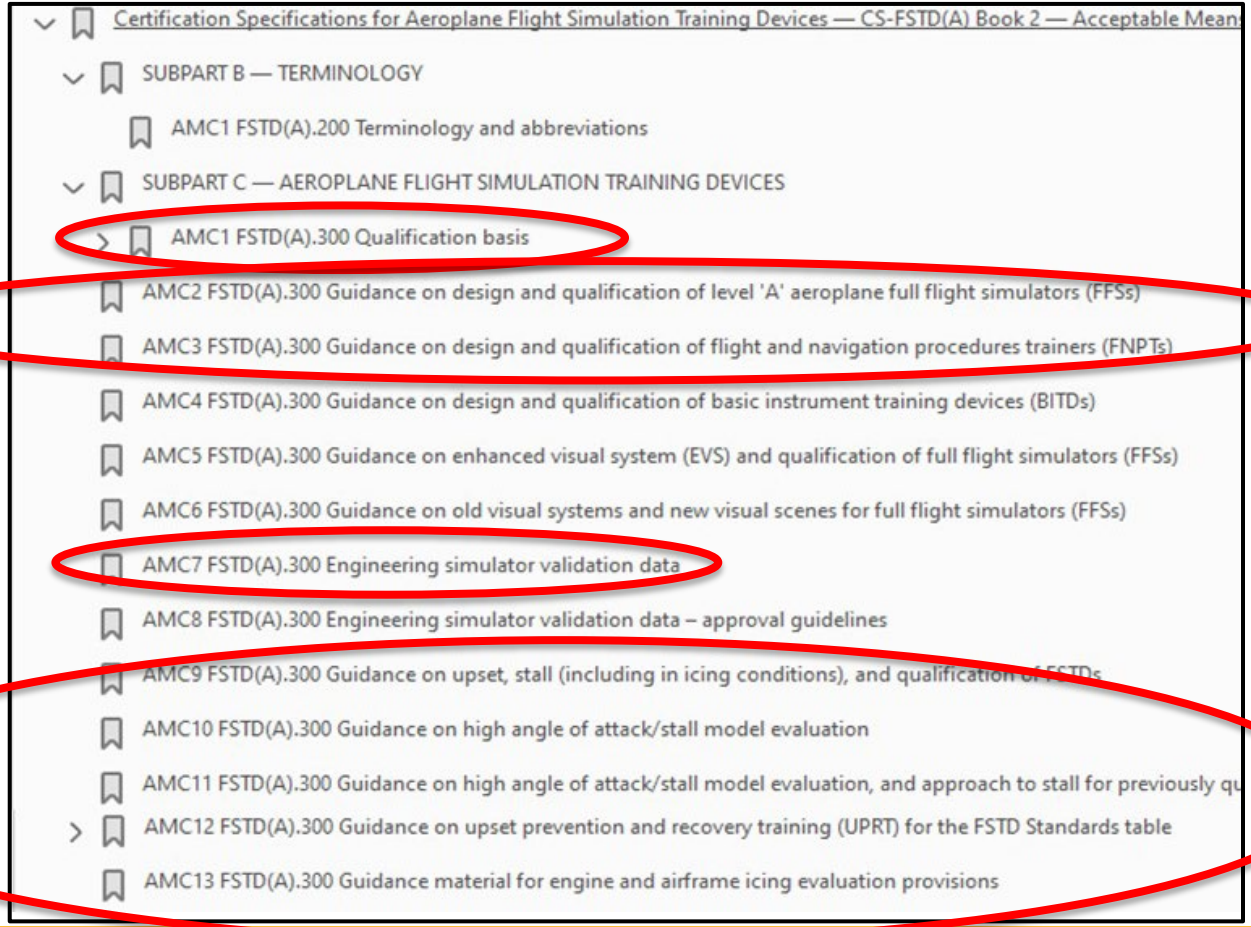
EASA REGULATION CS FSTD & CS SIMD



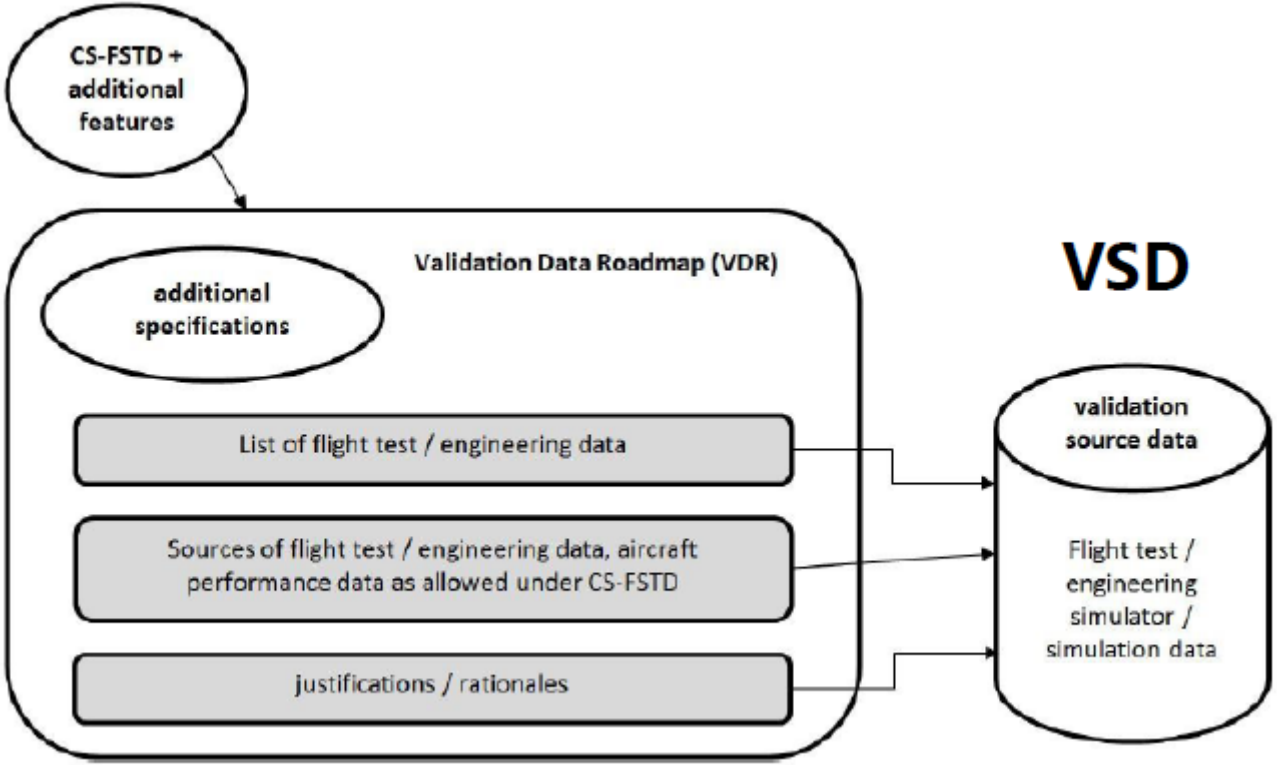
EASA REGULATION CS FSTD (A)



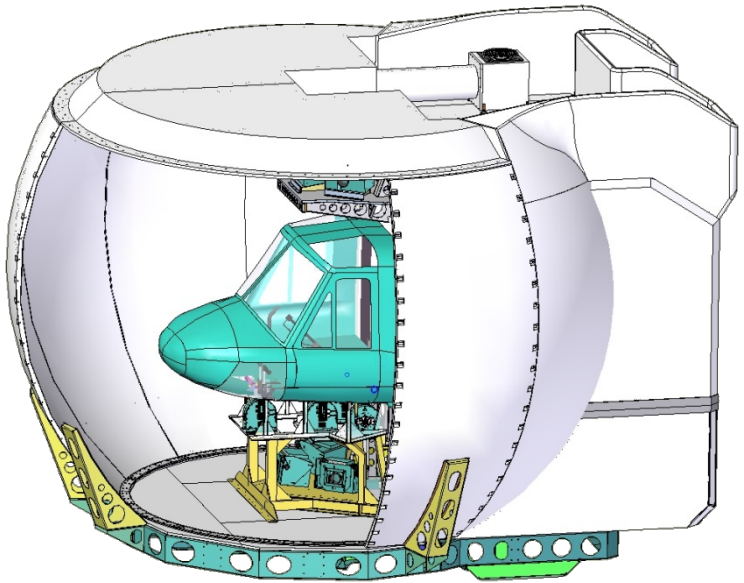
EASA REGULATION CS FSTD (A)



EASA REGULATION CS SIMD



APPROACH TO AESA FSTD PROCEDURES



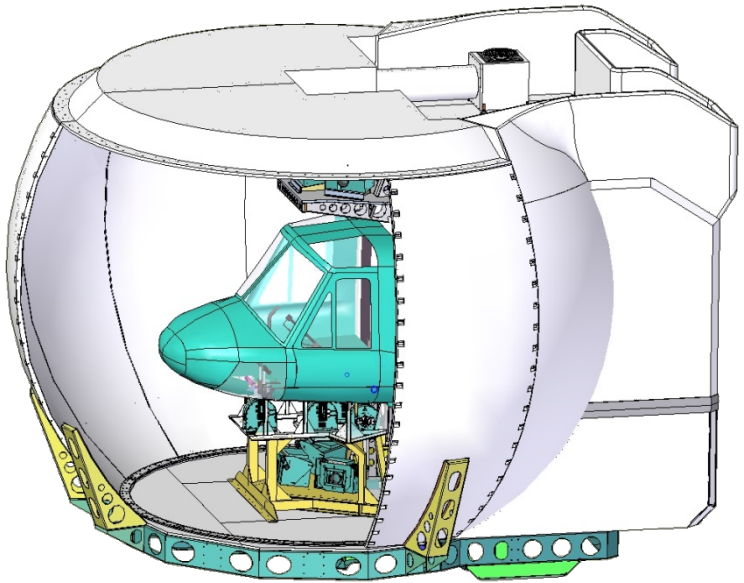
AESA FSTD PROCEDURE

- MAIN FSTD PROCEDURE
  - Comply with Spanish Administrative Regulation
  - Define FSTD process (Initial evaluation, Recurrent evaluations, Extended Evaluation Period, Major changes…)
  - Define inspectors requirements
  - Define Enforced measures (Suspension, limitation…)
- INSPECTORS GUIDANCE MATERIAL
- FORMS
- TECHNICAL INSTRUCTION

AESA FSTD PROCEDURE

REVIEW AESA DOCUMENTATION

REVIEW OF THE INITIAL APPLICATION FORM & DOCS



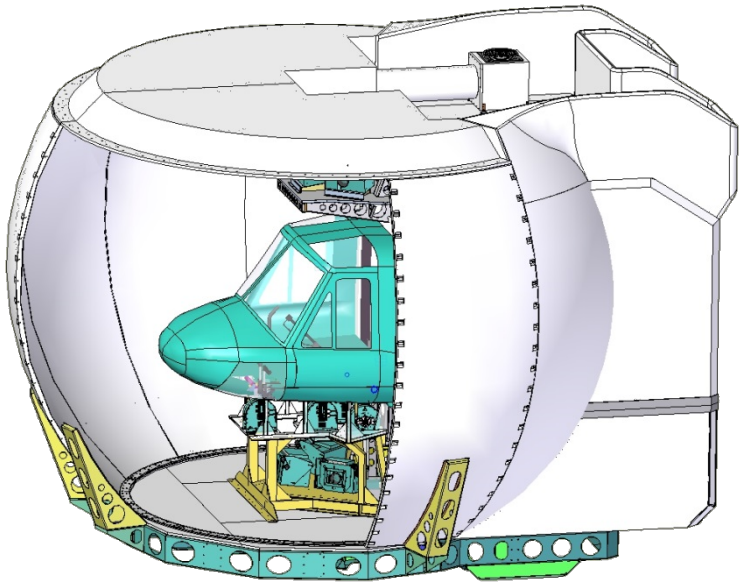
REVIEW OF THE INITIAL APPLICATION FORM & DOCS

- → OBJECTIVE OF THE FORMS
  - → Comprehensive Information
  - → Operator has taken into account all Regulations requirements
  - → Facilitate the evaluation to the inspectors
- → INITIAL APPLICATION FORM FSTD
  - → Focused on FSTD requirements
  - → All technical data needed for a better evaluation
- → INITIAL APPLICATION FORM CMS
  - → Focused in Operator Management System requirements

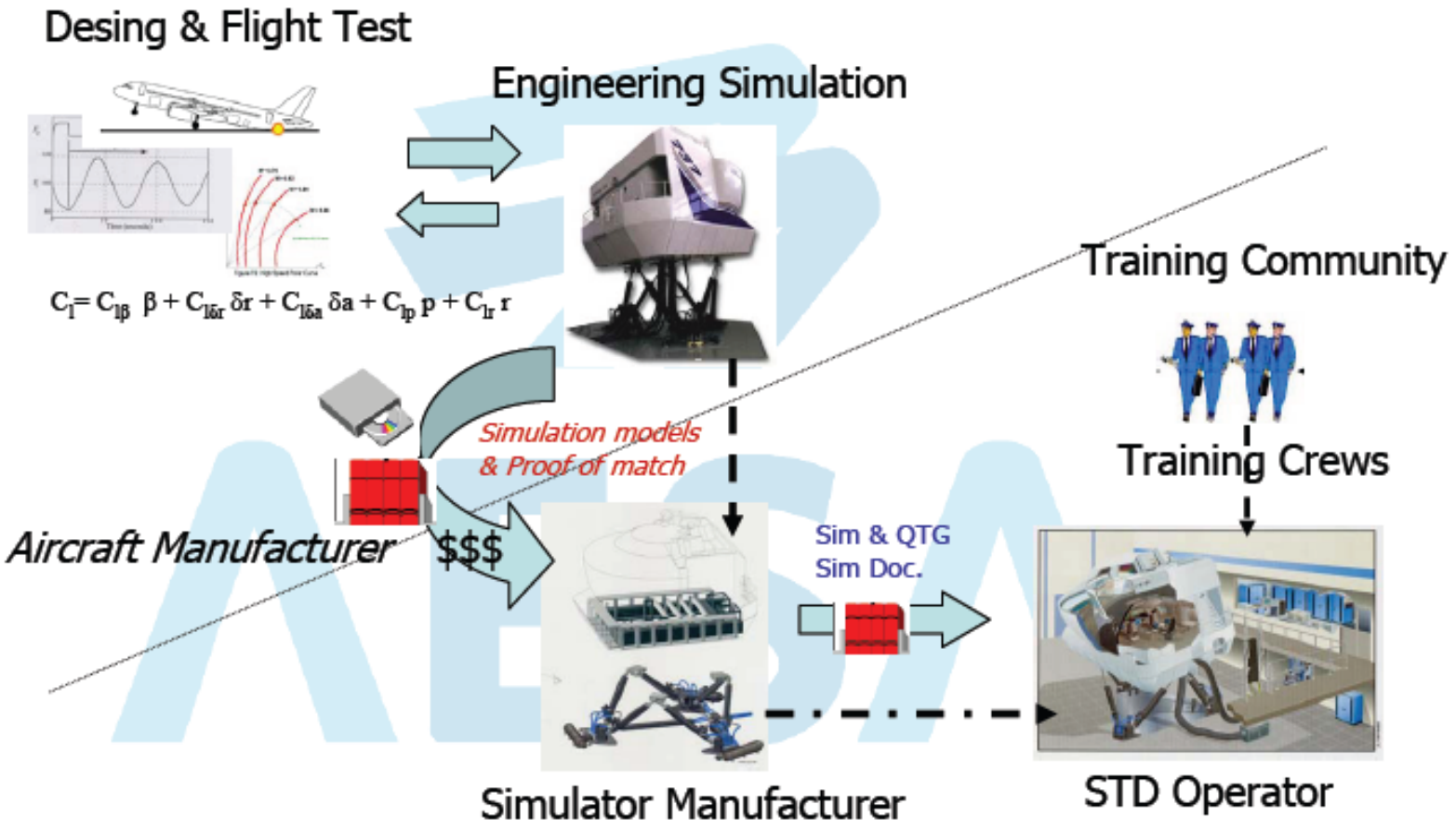
AESA FSTD PROCEDURE

Review Initial Application Form & Docs

DOCUMENT EVALUATION - MASTER QUALIFICATION TEST GUIDE



DOCUMENT EVALUATION - MASTER QUALIFICATION TEST GUIDE



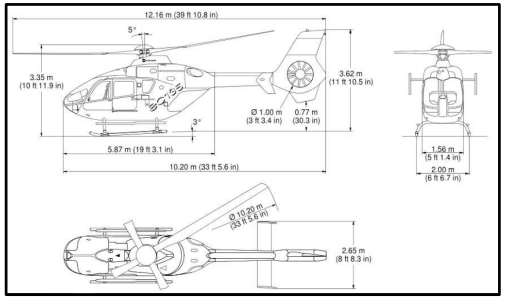
DOCUMENT EVALUATION - MASTER QUALIFICATION TEST GUIDE

$$\vec{F} = \frac{d}{dt}(m \cdot \vec{V}) \qquad \vec{M} = \frac{d}{dt}(\bar{\bar{I}} \cdot \vec{\omega})$$

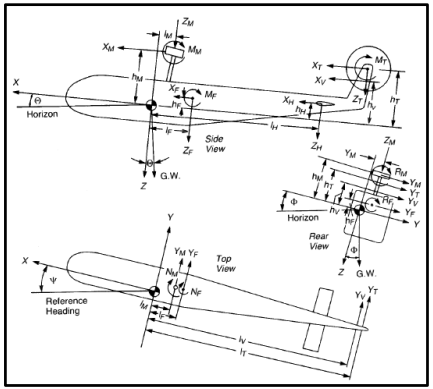
$$\vec{F} = \begin{bmatrix} X \\ Y \\ Z \end{bmatrix} = m \cdot \left(\dot{\vec{V}}\Big|_B + \vec{\omega} \wedge \vec{V} \right) + \dot{m} \cdot \vec{V}$$

$$\vec{M} = \begin{bmatrix} L \\ M \\ N \end{bmatrix} = \bar{\bar{I}} \cdot \left(\dot{\vec{\omega}}\Big|_B + \vec{\omega} \wedge (\bar{\bar{I}} \cdot \vec{\omega}) \right) + \dot{\bar{\bar{I}}} \cdot \vec{\omega}$$

MASA & GEOMETRÍA



COEF. AERODINÁMICOS



ECUACIONES MOVIMIENTO

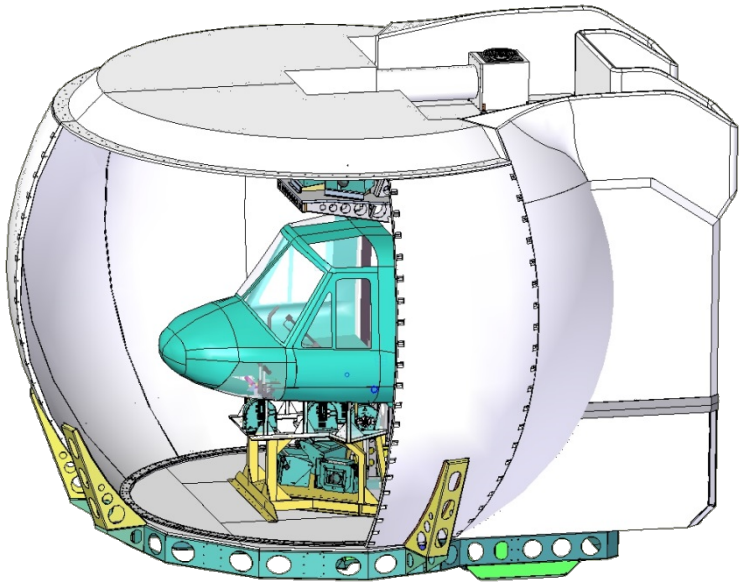
MODELO MOTOR

DOCUMENT EVALUATION - MASTER QUALIFICATION TEST GUIDE

Review AESA GUIDANCE QTG EVALUATION

Review CS FSTD (A)

DOCUMENT EVALUATION - OPERATOR MANAGEMENT SYSTEM



DOCUMENT EVALUATION - OPERATOR MANAGEMENT SYSTEM

→ MANAGEMENT SYSTEM

- → Policies and comply with ORA.GEN & ORA.FSTD
- → Reviews and evaluations of the CMS
- → Material and human resources
- → Staff training
- → Subcontracting of responsibilities

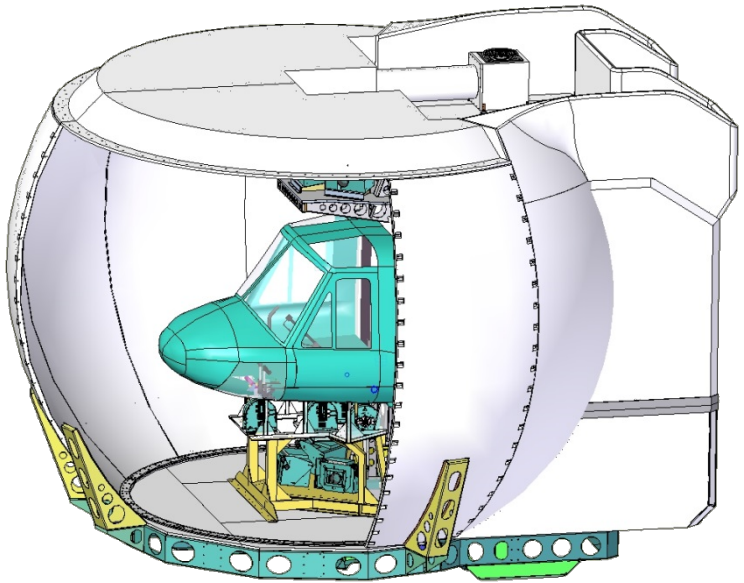
DOCUMENT EVALUATION - OPERATOR MANAGEMENT SYSTEM

- CONFORMITY CONTROL SYSTEM
  - Basic elements of a compliance program focused on the FSTD operation
- SPECIFIC OPERATING PROCEDURES OF THE FSTD
  - Day to day operation
  - FSTD maintenance system
  - FSTD configuration control system
  - FSTD operator compliance indicators

DOCUMENT EVALUATION - OPERATOR MANAGEMENT SYSTEM

Review CMS Initial Evaluation Guidance

PREPARATION OF THE AUDIT - PROPOSED WORK PLAN



PREPARATION OF THE AUDIT - PROPOSED WORK PLAN

- → OBJECTIVE OF THE FORM
  - → Cover all the Audit domains
  - → Optimize process & Save time
- → FOR THE OPERATOR IN ORDER TO
  - → Coordinate with the manufacturer
  - → Reserve the personnel for the audit

PREPARATION OF THE AUDIT - PROPOSED WORK PLAN

Review FORM

EASA
European Union Aviation Safety Agency

EU-Latin America and Caribbean Aviation Partnership Project (EU-LAC APP)

Enhancing the aviation partnership between the EU and Latin America and the Caribbean

Muchas gracias

www.eu-lac-app.org

This project is funded by the European Union and implemented by the European Aviation Safety Agency

easa.europa.eu/connect

Your safety is our mission.

An Agency of the European Union