

European Union Aviation Safety Agency

Terms of Reference

for rulemaking task RMT.0196

Update of flight simulation training device requirements

ISSUE 4

Issue/rationale

The main purpose of this task is to incorporate in the European Union (EU) regulatory framework elements from the International Civil Aviation Organization (ICAO) Doc 9625 regarding the use of flight simulation training devices (FSTDs) in flight training. The task will also address three safety recommendations (SRs) and is aimed at including results and findings from the loss of control avoidance and recovery training (LOCART) and RMT.0581 working group results. Furthermore, harmonisation with the Federal Aviation Administration (FAA) should be considered.

The current issue of the ToR marks the start of Subtask 3. Subtask 1 has already been concluded and Subtask 2 started in 2019. The full scope of the work is summarised below.

Subtask 1:

The main objective of Work Package 1 (WP1) is to increase the fidelity of FSTDs by amending the CS-FSTD provisions to support the training up to the stall, as well as the new upset prevention and recovery training (UPRT) requirements as introduced in the EU regulatory framework through Regulation (EU) 2018/1974.

Subtask 2:

The main objective of Work Package 2 (WP2) is to review the technical requirements for training devices:

- to reflect their actual capability and technology advancement in support of introducing the 'task to tool' concept for aeroplanes and helicopters
- and to enable special conditions for other categories of aircraft.

Some activities initially foreseen for WP3 are now part of WP2. In particular, under the name 'FCS training and simulation group' (FCSTS) the aim is to incorporate new EASA Certification Specifications CS-FSTD (A) and (H) into one single document.

Subtask 3:

The main objective of Work Package (WP3) is to enhance the crediting of training for flight crew using training systems. Finally, it is aimed at developing more proportionate requirements for FSTD operators that operate only flight navigation and procedures trainers (FNPTs) and other simulation training tools, and at reviewing the initial qualification process of these FNPTs to transfer the responsibility to the training device manufacturer.

Additionally, it is intended to develop appropriate standards for new technologies, such as off-board instructor operating station (IOS) and secondary motion systems, also considering any special conditions developed in parallel to the rulemaking activity.

Domain: Systemic safety & competence of personnel

Related rules: Part-FCL, Part-ARA, Part-ORA, Part-ORO, AMC and GM to Part-FCL, Part-ORA, Part-ARA and Part-ORO,

CS-FSTD(A), CS-FSTD(H), CS-SIMD

Affected stakeholders: National Competent Authorities (CAs), air operator certificate (AOC) holders, approved training organisations

(ATOs), declared training organisations (DTOs), pilots, instructors, examiners, FSTD operators, FSTD and aircraft

original equipment manufacturers (OEMs)

 Driver:
 Safety
 Rulemaking group:
 Yes

 Impact assessment:
 Yes
 Rulemaking Procedure:
 Standard

EASA rulemaking procedure milestones

	Start Terms of Reference	Public Consultation NPA	Proposal to the Commission Opinion	Adoption by Commission Implementing /Delegated acts	Decision Certification Specifications, Acceptable Means of Compliance, Guidance Material
WP1	14.7.2016	25.7.2017 (NPA 2017- 13)	N/A	N/A	3.5.2018 (EDD 2018/006/R)
WP2	7.3.2019	16.12.2020 (NPA 2020- 15)	2022/Q4	2024/Q4	2024/Q4
WP3	2026/Q3	2027/Q3	2027/Q3	2028/Q3	2028/Q4

Why we need to amend the rules — issue/rationale 1.

The European Union Aviation Safety Agency (EASA) highlighted in the European Plan for Aviation Safety (EPAS) 2020-2024¹ the importance of adapting training tools to cope with new technologies. RMT.0196 aims to address the technological changes to FSTDs since the last certification specifications (CSs) were transposed from the Joint Aviation Authorities (JAA) requirements in 2012 and relates to specific safety actions related to aviation personnel. While the fidelity of modern FSTDs has experienced a major advancement, CS-FSTD² has not encompassed this advancement. Therefore, some of the specifications have become obsolete as they do not keep pace with the technological changes that have arisen since 2012. This affects the training of pilots whose training needs, in some cases, cannot be fully addressed through FSTDs that are qualified in accordance with the existing CS-FSTD requirements and in other cases the required level of FSTD no longer fully matches the training needs. RMT.0196 will tackle this problem by amending CS-FSTD taking into account the evolution of technology and the development of the pilot's training needs.

Furthermore, the task is also driven by another major issue, namely supporting international cooperation and ICAO harmonisation. Currently, CS-FSTD provisions are neither harmonised with ICAO Doc 9625³ nor with the FAA Part 60⁴, thus impeding the potential for reciprocity of the FSTD qualifications. Not changing the EU regulatory framework, while other (non-European) States align their rules with the recent updates of ICAO Doc 9625, will likely lead to having two different standards to be followed by data suppliers, FSTD manufacturers and FSTD operators in European and non-European countries. This exposes the industry to unnecessary financial and administrative burden. The harmonisation with the elements from ICAO Doc 9625 will ensure consistent application of the relevant FSTD requirements when qualifying FSTDs. A partial alignment with FAA Part 60 is also considered to be of importance to improve the reciprocity of qualifications.

The task also responds to safety risks that are identified in the SRs recommending amendments of the rules due to some related incidents/accidents (see below). The FAA also acknowledges that low FSTD fidelity or lack of ability for an FSTD to conduct certain training tasks may have been a contributing factor in recent air carrier accidents⁵.

The task also responds to the rotorcraft safety roadmap, training device and simulators workstream that aims to support a more effective and safe training environment for light and medium helicopter types during initial licensing and type rating training as well as operator-specific training.

This RMT aims to resolve the following issues:

FAA Notice of proposed rulemaking (NPRM), 14 CFR Part 60. Flight Simulation Training Device Qualification Standards for Extended Envelope and Adverse Weather Event Training Tasks.



TE.RPRO.00037-011 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified. Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

https://www.easa.europa.eu/sites/default/files/dfu/EPAS 2020-2024.pdf

ED Decision 2012/010/R of the Executive Director of the European Aviation Safety Agency of 4 July 2012 on Certification Specifications for Aeroplane Flight Simulation Training Devices ('CS-FSTD(A)'). ED Decision 2012/011/R of the Executive Director of the European Aviation Safety Agency of 26 June 2012 on Certification Specifications for Helicopter Flight Simulation Training Devices ('CS-FSTD(H)').

Editions 3 and 4 for the qualification of FSTDs

FAA 14 CFR Part 60 as amended.

- FSTDs that do not meet the evolution of technologies due to the obsolete rules, need to be enhanced to facilitate the current and future training needs;
- Exposure to safety risks due to the fact that low FSTD fidelity or lack of ability for an FSTD to conduct certain training tasks may have contributed to incidents and accidents;
- Difficulties in acknowledgement of reciprocity of qualifications between EASA Member States (MSs) and third-country States;
- Financial burden for the industry due to two different standards to be followed by data suppliers, FSTD manufacturers and FSTD operators within the EASA MSs and third-country States.

The task is linked with:

RMT.0599 — 'Update of Subpart FC of Part-ORO (evidence-based training)';

RMT.0194 — 'Modernization and simplification of the European pilot licensing and training system and improvement of the supply of competent flight instructors;

RMT.0230 — 'Introduction of a regulatory framework for the operation of drones/VTOL';

RMT.0678 — 'Simpler, lighter and better Part-FCL requirements for general aviation'

ICAO Personnel Licensing and Training Panel (PLTP) – FSTD expert sub-group

The above tasks may forward recommendations to the RMT.0196 expert group for their further consideration. In the context of former RMT.0581, the first revision to CS-FSTD(A) facilitated the implementation of the already published acceptable means of compliance (AMC) and guidance material (GM) to Part-ORO, which require upset prevention and recovery training (UPRT) during operator recurrent and conversion training from May 2016.

Related safety issues

The following SRs addressed to EASA through aircraft accident investigation reports published by the designated safety investigation authorities⁶ will be considered during this RMT. New SRs related to this task may be considered after the publication of this ToR, where appropriate.

FRAN-2012-045	The BEA recommends that EASA modifies the basis of the regulations in order to ensure better fidelity for simulators in reproducing realistic scenarios of abnormal situations.
RUSF-2013-002	IAC recommends EASA and other simulator certification authorities to consider the possibility to add into the simulator data-package the capability to simulate an unexpected or sudden aircraft stall at any stage of flight.
SPAN-2011-020	It is recommended that the EASA establish requirements for flight simulators so as to allow simulator training to cover sustained take-off stalls that reproduce situations that could exceed the flight envelope limits. (REC 20/11).

Regulation (EU) No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC (OJ L 295, 12.11.2010, p. 35) (http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1479716039678&uri=CELEX:32010R0996).



FRAN-2016-006	EASA evaluates the possibility of developing an alternative programme for complex high-performance single-pilot aeroplanes for which there is no adequate flight simulator, for example by using a flight simulator from a similar aeroplane.
AUST-2017-001	EASA should require for helicopter pilots a flight simulation training including a sufficient and dedicated training on "Loss of tail rotor effectiveness" (LTE) and recovery actions for all training, examination and proficiency check flights (on appropriate and certified simulators).

Exemptions⁷ in accordance with Article 70 'Safeguard provisions'/Article 71 'Flexibility provisions' and/or Article 76 'Agency measures' of Regulation (EU) 2018/1139⁸ (if applicable) pertinent to the scope of this RMT are:

No exemptions pertinent to the scope of this RMT.

Alternative means of compliance (AltMoC) relevant to the content of this RMT (if applicable)

Alternative means of compliance (AltMoC) having an impact on the development of this RMT content are:

No	Submitted by	subject	Regulation point	AMC
2013-00011	DGAC France	Complex high-performance aeroplanes: Training, skill tests, proficiency checks and use of simulator devices	Appendix 9 B)6), Annex I Part FCL	
2015-00022	Belgium CAA - TBC	Training course for the initial issue of a type rating MPH on FFS level B	FCL.725(a)	AMC2 FCL.725(a)(c)
2017-00028	Traficom Finland	TRI course for single-pilot aeroplanes - flight instruction	FCL.930.TRI(a)(3)	AMC1 FCL.930.TRI

ICAO and third-country references relevant to the content of this RMT (if applicable)

Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91 (OJ L 212, 22.8.2018, p. 1) (https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1536149403076&uri=CELEX:32018R1139



⁷ Exemptions having an impact on the development of this RMT content and referring to:

⁻ Article 70(1): Measures taken as an immediate reaction to a safety problem

Article 71(1): Limited in scope and duration exemptions from substantive requirements laid down in Regulation (EU) 2018/1139 and its implementing rules in the event of urgent unforeseeable affecting persons or urgent operational needs of those persons

Article 71(3): Derogation from the rule(s) implementing Regulation (EU) 2018/1139 where an equivalent level of protection to that attained by the application of the said rules can be achieved by other means

Article 76(7): Individual flight time specifications schemes deviating from the applicable certification specifications which ensure compliance with essential requirements and, as appropriate, the related implementing rules

<u>References considered for alignment</u> of the content of this RMT with ICAO Standards and Recommended Practices (SARPs), Federal Aviation Regulations (FARs), etc.

- ICAO Doc 9625, 'Manual of Criteria for the Qualification of Flight Simulation Training Devices',
 4th Edition, Volume I and Volume II, 2017;
- ICAO Doc 10011, 'Manual on Aeroplane Upset Prevention and Recovery Training', 1st Edition,
 2014; and
- Federal Aviation Administration (FAA) 14 Code of Federal Regulations (CFR) Part 60, Flight Simulation Training Device Initial and Continuing Qualification and Use, Change 2, effective as of 31 May 2016.

<u>References to differences</u> between the content of this RMT and ICAO SARPs, FARs, etc. (if applicable) No relevant references to differences.

<u>EU requirement not having yet relevant reference</u> — stemming from a comparison between the intended content of this RMT with ICAO SARPs, FARs, etc.

No relevant requirements.

2. What we want to achieve — objective

The overall objectives of the EASA system are defined in Article 1 of Regulation (EU) 2018/1139. This project will contribute to the achievement of the overall objectives by addressing the issues outlined in Section 1.

With the first revision of CS-FSTD(A), the following objective has been achieved:

alignment of CS-FSTD with the outcome of RMT.0581 'Loss of control prevention and recovery training.

- (1) The specific objectives of the follow-up activities are to:ensure that FSTDs better facilitate current and future training needs by establishing the necessary simulation fidelity levels required to support training tasks for aeroplanes, and VTOL aircraft, including helicopters, tilt rotor, powerlift and gyroplanes;
- (2) evaluate the training needs/objectives in order to determine the FSTD capability needs;
- (3) introduce the blended learning method⁹ to complement the 'task to tool' concept;
- (4) ensure that CS-FSTD paves the way for new technologies and new categories of aircraft;
- (5) reinforce the level of safety by addressing the low FSTD fidelity or lack of ability for an FSTD to conduct certain training tasks that may have been a contribution to incidents and accidents;
- (6) harmonise CS-FSTD with elements of the latest revision of ICAO Doc 9625, as appropriate;
- (7) ensure consistent application of the relevant FSTD requirements when qualifying FSTDs;
- (8) enable the introduction of new training devices/tools in training, to allow crediting of hours;
- (9) review the requirements for the initial qualification and operation of FNPTs to make them simpler, lighter, and better proportionate.

⁹ Developed under RMT.0599



_

3. How we want to achieve it

In order to meet the above-mentioned objectives, the activities have been split in three work packages (WPs). For each WP, a ToR has been developed. The ToR for WP1 was published on 14 July 2016. The one for WP2 was published on 7 March 2019. Some activities that were foreseen in the ToR Issue 1 and Issue 2 have changed priority and have been moved to a different WP or have been amended. The output of each WP will be an EASA Decision and, where applicable, an EASA Opinion.

The applicable expert groups will develop guidance on the capability of each FSTD and new technologies to define their appropriate use in training in support of the changes to Appendix 9 to Part-FCL of Regulation (EU) No 1178/2011¹⁰ as per Regulation (EU) 2018/1974¹¹, which became applicable on 20 December 2019. The group will also consider the need for further amendments to Regulation (EU) No 1178/2011 and to Regulation (EU) No 965/2012¹², as well as any other emerging training matters resulting from RMT.0196 or other sources in the context of the use of training devices/tools.

For the already completed Work Package 1 (WP1), the following activities were considered:

- To determine the appropriateness of the capability of Full Flight Simulators (FFS) to facilitate UPRT.
- To develop a definition for the term 'validated training envelope (VTE)'.
- To specify requirements for IOS feedback tools such as on the interpretation of the V-n and alpha/beta diagram.
- To review the inspector competency framework.
- To ensure that the gap analysis between ICAO Doc 9625 Edition 4 and CS-FSTD(A) Initial issue is performed.
- In coordination with the RMT.0379 'All-weather operations', to determine the amendments to
 CS-FSTD that are needed to facilitate the training needs for all-weather operations.
- To develop guidance on the use of each device qualification level. For this activity, a Task Force will be designated.

For Work Package 2 (WP2), the following activities are being considered:

- Training matrix and methodology development to:
 - develop training matrices limited to aeroplane and helicopter type ratings and associated air operator trainings only;

¹² Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1) (https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1600676031825&uri=CELEX:32012R0965).



Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 311, 25.11.2011, p. 1) (https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1600675818539&uri=CELEX:32011R1178).

¹¹ Commission Implementing Regulation (EU) 2018/1974 of 14 December 2018 amending Regulation (EU) No 1178/2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council (OJ L 326, 20.12.2018, p. 1) (https://eurlex.europa.eu/legal-content/EN/TXT/?qid=1600675916082&uri=CELEX:32018R1974).

- ensure consistency between the content of the training matrix and criteria defined in CS-FSTD;
- review and align the AMC to ORA.ATO.125 type rating training courses with the training matrices;
- address possible inconsistencies between the proposal and the OSD requirements set by the aeroplane OEMs through the application of CS-FCD; and
- enable the introduction of new technologies in training for the various aircraft categories (fixed wing and rotary wing) based on the concept paper on aviation blended learning. environments (ABLE) developed by RMT.0599, provisions of Regulation (EU) 2018/1139, and ICAO Doc 9625 rev 4 Part II, Appendix D.
- Merge CS-FSTD(A) Issue 2 and CS-FSTD(H) Issue 1 into CS-FSTD Issue 1
- Define the scope of the ICAO 9625, Volume I, Edition 4, 2015, Part III transfer into the EU regulatory framework that is, whether to transfer all Part III material or limit the transfer to the recurrent training tasks defined in the points above. The transfer will need to consider at least the following:
 - Part-ARA Develop an additional qualification certificate application detail and format, evaluation report and format and make the detailed FCS¹³ information available for users and authorities who might need to see and/or use it (the existing qualification certificate is kept for non-type specific devices). An equipment specification list (ESL) also needs to be developed. Associated AMC and GM may need to be developed.
 - Part-ORA Qualification certificate application detail and format, guidance on the process of determining fidelity levels and qualification criteria for the construct of a qualification test guide (QTG). Associated AMC and GM may need to be developed. In addition, possible declaration by FSTD operator to be considered regarding additional capabilities.
 - CS-FSTD General Requirements to be amended, to include statements of compliance (SOCs), objective test requirements and functions and subjective checklist requirements. Associated AMC and GM may need to be developed.
 - Develop transition provisions to:
 - ensure appropriate grandfathering;
 - support both authorities and operators in how to re-categorise an existing FSTD against the new requirements in order to maximise its potential usage based on its real capabilities;
 - ensure training credits for lower level devices not eligible to type ratings or type
 specific air operator trainings remain unchanged; and
 - o determine the use of other FSTDs for complex high-performance single-pilotaeroplane type rating training and checking, when no FFS is qualified in accordance with CS-FSTD exists for that type or is not readily available and/or accessible.

¹³ Refers to FSTD capability signature.



-

- To review the validation data roadmap (VDR) requirements for suitability.
- To align the CS-FSTD elements already present in CS-SIMD as one constituent of operational suitability data (OSD) to avoid duplication of information.
- To assess the requirements and impact on the training for ARINC 610 compliance with avionics software.
- To review the functional/subjective testing requirements to better represent the modern-day aircraft and operating environment.
- To review and consolidate visual requirements in CS-FSTD.
- To develop requirements related to industry advancements in visual technologies.
- To review regulatory oversight issues with the management of visual databases.
- To develop guidance on multi-configuration devices and their master (M) QTG requirements.
- To review the requirements for the update of databases, such as FMS, GPS and EGPWS databases.
- To review the gap analysis between ICAO Doc 9625 Edition 4 and CS-FSTD(A) Initial issue, whilst considering FAA Part 60 Change 2, and consider the elements for incorporation into CS-FSTD (to be continued in WP3).

For Work Package 3 (WP3), the following activities should be considered:

- To develop multi-crew cooperation (MCC) device requirements for helicopters.
- To mitigate the requirements for FSTDs for helicopters certified before January 1992.
- To develop guidance in relation to closed loop controllers¹⁴.
- To develop guidance for using FSTDs with a temporary degradation of systems
- To integrate risk and performance-based oversight of FSTD organisation (FSTDO) and FSTD.
- To enhance loss of tail-rotor effectiveness (LTE) simulation aspects on helicopter FSTDs.
- To develop more proportionate requirements for FSTD operators that operate only FNPTs and/or similar devices, as well as the requirements for initial and recurrent evaluations of FNPTs.
- To develop guidance on what is required for QTG.
- Any other relevant and appropriate emerging issues relevant to CS-FSTD.

<u>Note 1</u>: In parallel to the above-mentioned activities, special conditions for FSTDs are being developed by industry in consultation with EASA/national competent authorities (NCAs) to:

¹⁴ It is proposed that manufacturers using terms not explained in CS-FSTD describe them, for example, in the QTG definition.



-

- facilitate training for aircraft categories other than aeroplane and helicopter (i.e. eVTOL/Airships) as well.
- enable the use of technological innovations for existing FSTDs (i.e., off-board instructor station/VR with motion platform).

EASA may decide to incorporate any final and published FSTD Special Conditions during the course of this activity, as appropriate.

<u>Note 2</u>: The comments received during consultation of NPA 2020-15 will be considered in a way that enables the achievement of WP2 and WP3 in an optimised manner.

4. What are the deliverables

For Work Package 1 (WP1):

- A notice of proposed amendment (NPA) on CS-FSTD(A) (2017/Q2); (NPA 2017-013 published on 25 July 2017);
- An ED Decision amending CS-FSTD(A) (2018/Q1); (ED Decision 2018/006/R published on 3 May 2018).

For Work Package 2 (WP2 – FCS Training and Simulation Expert Group):

- An NPA on CS-FSTD(A) (NPA 2020-015 published on 15 December 2020 and consulted until 21 April 2021);
- A focused consultation on the newly merged CS-FSTD issue 1, and on proposed amendments to Part-FCL, Part-ORA, Part-ARA, and Part-ORO and their associated AMC and CM, as applicable (2022/Q3);
- An Opinion proposing amendments to Part-FCL, Part-ORA, Part-ARA, and Part-ORO (2022/Q4);
 Additional focused consultation(s) in 2023 on AMC/GM to Part FCL, Part-ORA, Part-ARA, and Part-ORO and the new CS FSTD issue 1.
 - An ED Decision (2023/Q4) on the AMC & GM to Part-FCL, Part-ORA, Part-ARA, and Part-ORO (2023/Q4);
 - the new CS-FSDT issue 1.

For Work Package 3 (WP3):

- An NPA proposing amendments to Part -FCL, Part-ORA, Part-ARA, and Part-ORO (2026/Q3);
- An Opinion proposing amendments to Part-FCL, Part-ORA, Part-ARA, and Part-ORO (2027/Q3);
 An ED Decision amending CS-FSTD issue 1, AMC & GM to Part-FCL, Part-ORA, Part-ARA, and Part-ORO (2028/Q3.

5. How we consult

A public consultation will take place through an NPA in accordance with Article 7 of the Rulemaking Procedure¹⁶.

6. Interface issues

ED Decision 2015/012/R of the Executive Director of the European Aviation Safety Agency of 4 May 2015 amending the Acceptable Means of Compliance and Guidance Material to Part-Definitions and Part-ORO of Regulation (EU) No 965/2012 ('Upset prevention and recovery training (UPRT) provisions');

EASA Opinion No 03-2015 — Revision of operational approval criteria for Performance-Based Navigation (PBN);

EASA Opinion No 05-2017 — Update of Part-FCL;

EASA Opinion No 06-2017 — Upset Prevention and Recovery Training (UPRT);

EASA Opinion No 08-2019 — EBT;

RMT.0599 - Update of ORO.FC, including EBT;

RMT.0379 – All-weather operations;

RMT.0587 — Regular update of Regulations (EU) No 1178/2011 and (EU) No 965/2012 regarding pilot training and licensing and the related oversight;

RMT.0194 — Modernisation and simplification of the European pilot licensing and training system and improvement of the supply of competent flight instructors;

EASA Rotorcraft Safety Roadmap;

eVTOL sub-group of the electrical and hybrid aviation (EHAP) project;

RMT.230 — VTOL/drones;

Cabin Crew Training TF.

7. Profile and contribution of the rulemaking group

The profile of the rulemaking group and its members:

Training Experts

- Knowledge of the latest editions of ICAO Doc 9625, in particular the 'task to tool' concept;
- Experience with delivering training within an FSTD and/or through other training tools, such as AR/VR;
- Pilot/Instructor training (or test pilot) experience with VTOL, including helicopters and power lift;
- Experience with approved and/or declared training organisations (DTOs) as well as air operator training provision.

FSTD Technical Experts

- Subject matter experts (SMEs) for FSTD evaluations;
- Experience in FSTD organisations operations;
- Experience with FSTD manufacturing;
- Extensive knowledge of EASA CS-FSTD(A) Issue 2 and CS-FSTD(H);
- Extensive knowledge of Edition 4 of ICAO Doc 9625, in particular the 'task to tool' concept;
- Extensive knowledge of the FAA Part 60 Change 2.

Note: The final group composition (GC) will consist of appropriately balanced expertise.

8. Reference documents

8.1. Related regulations

- Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council
- Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council

8.2. Related decisions

- ED Decision 2012/010/R of the Executive Director of the European Aviation Safety Agency of 4 July 2012 on Certification Specifications for Aeroplane Flight Simulation Training Devices ('CS-FSTD(A)')
- ED Decision 2012/011/R of the Executive Director of the European Aviation Safety Agency of 26 June 2012 on Certification Specifications for Helicopter Flight Simulation Training Devices ('CS-FSTD(H)')
- ED Decision 2014/033/R of the Executive Direction of the European Aviation Safety Agency of 2nd December 2014 adopting Certification Specifications for Simulator Data ('CS-SIMD')
- Decision No 2011/016/R of the Executive Director of the European Aviation Safety Agency of 15 December 2011 on Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council ('Acceptable Means of Compliance and Guidance Material to Part-FCL')
- Decision No 2012/007/R of the Executive Director of the Agency of 19 April 2012 on Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council ('Acceptable Means of Compliance and Guidance Material to Part-ORA')
- Decision No 2012/006/R of the Executive Director of the Agency of 19 April 2012 on Acceptable
 Means of Compliance and Guidance Material to Commission Regulation (EU) No 1178/2011 of

- 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council ('Acceptable Means of Compliance and Guidance Material to Part-ARA')
- Decision No 2012/017/R of the Executive Director of the Agency of 24 October 2012 on Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council ('Acceptable Means of Compliance and Guidance Material to Part-ORO')
- BASA¹⁵Annex 4.

The Decisions are available at http://www.easa.europa.eu/document-library/agency-decisions.

8.3. Reference documents

- Regulation (EU) 2018/1139
- ICAO Doc 9625 rev 4
- ICAO Doc 10011 first edition
- FAA Part 60, as amended
- Safety Recommendation FRAN-2012-045 (BEA): AIRBUS A330 F-GZCP 01/06/2009 en route between Rio de Janeiro and Paris
- Safety Recommendation RUSF-2013-002 (AIB): ATR ATR72 VP-BYZ 02/04/2012 Roschino (Tyumen) Airport
- Safety Recommendation SPAN-2011-020 (CIAIAC): DOUGLAS DC9 EC-HFP 20/08/2008
 Madrid-Barajas Airport
- Safety Recommendation FRAN-2016-006 (PIPER PA31 OE-FKG)
- Safety Recommendation AUST-2017-001

Council Decision of 7 March 2011 concerning the conclusion of the Agreement between the United States of America and the European Community on cooperation in the regulation of civil aviation safety.



_