Draft Annexes I, II, III, IV, V and VI
to draft Commission Implementing Regulation (EU) …/… amending Regulations (EU) No 1178/2011 and (EU) No 965/2012 as regards the update of flight simulation training device (FSTD) requirements and the use of FSTDs for pilot training, testing and checking

ANNEX I

Amendments to Annex I (Part-FCL) to Commission Regulation (EU) No 1178/2011

Annex I is amended as follows:

(1) in point FCL.010, the definition of 'flight training device' (FTD) is replaced by the following:

'— 'Flight training device' (FTD) means a full-size replica of a specific aircraft type's instruments, equipment, panels and controls in an open flight deck area or an enclosed aircraft flight deck, including the assemblage of equipment and computer software programmes necessary to represent the aircraft in ground and flight conditions to the extent of the systems installed in the device.';

Rationale

As regards the amendment to the definition of FTD, a simplification is proposed to remove the reference to the absence of requirements for force cueing motions and visual systems (for aeroplanes only).

By nature, a definition should explain a term without making reference, in the case of FSTDs, to general requirements reported in the applicable certification specifications.

(2) point FCL.036 is inserted:

'FCL.036 Use of FSTDs for training, testing and checking

When the requirements of this Annex (Part-FCL) refer to FSTD types and levels, applicants shall be entitled to comply with these requirements by using FSTDs whose qualification certificates include FCSs, provided that all of the following apply:

(a) for each feature, the FCS indicates a fidelity level that is equal to or higher than the equivalent determined in the tables below:

(1) for aeroplanes:

FSTD type and level reference	Equivalent FCS													
	1. Flight deck layout and structure	2. Flight control forces and hardware	3. Flight control systems operation	4. Aircraft systems	5. Performance and handling on ground	6. Performance and handling in-ground effect	7. Performance and handling out-of-ground effect	8. Sound cueing	9. Vibration cueing	10. Motion cueing	11. Visual cueing	12. Navigation	13. Atmosphere and weather	14. Operating sites and terrain
FNPT I	G	G	G	N	N	N	G	N	N	N	N	R	N	N
FNPT II / FNPT II MCC	G	G	G	G	G	G	G	G	N	N	G	R	G	G
FTD 2	S	R	S	S	N	G	G	G	N	N	N	S	N	N
FSTD qualified to an equivalent standard to level B	S	R	S	S	R	R	R	G	R	R	G	S	G	G
FFS level C	S	S	S	S	S	S	S	R	R	S	R	S	S	S
FFS interim level C	S interim	S interim	S interim	S interim	S interim	S interim	S interim	S interim	S interim	S interim	S	S	S	S
FFS level D	S	S	S	S	S	S	S	S	S	S	S	S	S	S

Note: S, specific; R, representative; G, generic; N, none.;

(2) for helicopters:

FSTD type and level reference	Equivalent FCS													
	1. Flight deck layout and structure	2. Flight control forces and hardware	3. Flight control systems operation	4. Aircraft systems	5. Performance and handling on ground	6. Performance and handling in-ground effect	7. Performance and handling out-of-ground effect	8. Sound cueing	9. Vibration cueing	10. Motion cueing	11. Visual cueing	12. Navigation	13. Atmosphere and weather	14. Operating sites and terrain
FNPT I	G	G	G	N	N	N	N	N	N	N	N	R	N	N
FNPT II / FNPT II MCC	R	G	R	G	G	G	G	G	N	N	R	R	G	G
FNPT III / FNPT III MCC	R	G	R	G	G	G	G	G	N	N	R	R	G	R
FTD 2 / FTD 2 MCC	R	R	R	S	G	G	G	G	N	N	R	S	G	R
FTD 3 / FTD 3 MCC	R	R	R	S	G	R	R	G	N	N	R	S	R	R
FFS level C	S	S	S	S	S	S	S	R	R	S	R	S	S	R
FFS level D	S	S	S	S	S	S	S	S	S	S	S	S	S	S

(b) the FSTDs have:

(1) tactile hardware;

(2) primary flight controls whose forces change based on the different flight conditions for exercises involving manual flight, except in the case of FSTDs whose FCSs are below the equivalent of an FNPT II;

(3) in the case of use for MCC training, the additional capability for MCC indicated in the FSTD qualification certificate.';

Rationale

The introduction of this new implementing rule aims to allow for FSTDs whose qualification certificates include FCSs to be used in training, testing and checking by creating an equivalence between FSTDs

qualified with types and levels and FSTDs qualified with FCSs only (types and levels will no longer appear in the qualification certificates), while leaving the FSTD references to types and levels unchanged in the implementing rules.

In point (a), the method of establishing the equivalence between the FCS on the qualification certificate of an FSTD and the FCS associated with an FSTD type and level is described. If the FCS of an FSTD is equal to or higher than more than one equivalent FCS, that FSTD must be deemed equivalent to more than one FSTD type and level.

The equivalent FCSs established in the tables are the same FCSs in the table of assigned FCSs in Appendix IX to Annex VI (Part-ARA).

The equivalent FCSs for FFS level A and FFS level B are not reported in point FCL.036, since no such references are present in Part-FCL. Additionally, in the future, where reference is made to FFSs in the implementing rules, only FSTDs whose qualification certificates include FCSs equivalent to that assigned to an FFS level C or FFS level D should be used. FFS level A and FFS level B may still be used as legacy FSTDs.

The reference 'FSTD qualified to an equivalent standard to level B' is reported to reflect the provision of point 14(c) of Appendix 5 to Annex I. The equivalent FCS is that assigned to an FFS level B.

The equivalence for FTD 1 is not determined due to the impossibility of establishing a one-size-fits-all FCS for this FSTD. For the same reason, FTD 1 cannot be given an assigned FCS (see Appendix IX to Annex VI). If an organisation operating an FSTD decides to use an FTD 1 for type rating in the new system, a re-evaluation of the device in accordance with CS-FSTD Issue 1 is required. For further details, please refer to Article 10b and its rationale.

The equivalence for FFS level BG/CG/DG is not proposed, as such devices are qualified using a qualification basis older than the reference qualification basis used to establish the equivalence.

Based on the comments from the stakeholders in September 2024 on the need to clarify how to treat newly qualified FSTDs with interim qualifications, the equivalence to FFS interim level C is established exclusively due to the presence of a single reference to this FSTD type and level in point FCL.730.A.

Point (b)(1) enforces a requirement to have, in general, tactile hardware for the FSTD types and levels included in the equivalence tables. The new general standards of CS-FSTD allow for the qualification of training devices with touchscreen representations of the flight deck with generic (G) or representative (R) fidelity levels for the 'flight deck layout and structure' feature, with the aim of allowing for the use of such technology in the initial training phases of a type rating training course. The proposal in point FCL.036(b) restricts the possibility of using such training devices to type rating only. In Appendix 9 to Annex I (Part-FCL), there is no specific reference to FSTD types and levels other than FFSs. However, in accordance with point FCL.036(a), in order to establish an equivalence with an FFS, a specific (S) fidelity level for the 'flight deck layout and structure' feature is needed. According to the general standards of CS-FSTD, an FSTD with an S fidelity level for the 'flight deck layout and structure' feature can only have tactile hardware. Therefore, the restriction applies to FSTDs used for ab initio training to preserve the need to have tactile hardware devices. Opening the options to include touchscreen representations of flight decks would require an analysis of the training needs for ab-initio training, which has not been carried out, as it is not within the scope of RMT.0196.

According to the new general standards of CS-FSTD Issue 1, at the G fidelity level, the 'flight controls systems operation' feature may not have primary flight controls whose forces change based on the different flight conditions. In the current framework, for FNPTs, this is only allowed for FNPT I. Point (b)(2) proposes capturing this concept by enforcing the requirement to have primary flight controls whose forces change based on the different flight conditions whenever manual flying is needed, except in the case of FSTDs whose FCSs are below that of an FNPT II.

Point (b)(3) specifies that, for the use of FSTDs for MCC training, the devices must be qualified with the additional capability for MCC indicated in their FSTD qualification certificates. This proposal

eliminates the need for a double qualification certificate (FTD 1, FTD 2 or FTD 3 / FNPT II MCC or FNPT III MCC) for FSTDs that are used for type rating and MCC training. With the new system, an FSTD with an FCS may be used for MCC training provided that its FCS is at least equivalent to that of an FNPT II MCC or FNPT III MCC and its ESL includes all the required systems and instrumentation.

(3) point FCL.110.H LAPL(H) is amended as follows:

(a) point (a) is replaced by the following:

'(a) Applicants for the LAPL(H) shall have completed 40 hours of flight instruction in helicopters and, to the extent and under the conditions specified in point (aa), in FSTDs. The flight instruction shall include at least all of the following:

(1) 20 hours of dual flight instruction;

(2) 10 hours of supervised solo flight time, including at least 5 hours of solo cross-country flight time with at least 1 cross-country flight of at least 150 km (80 NM), during which one full stop landing at an aerodrome different from the aerodrome of departure shall be made;

(3) 35 hours of flight instruction in the same type of helicopter that is to be used for the skill test.';

(b) point (aa) is inserted after point (a) as follows:

'(aa) Of the 20 hours of dual flight instruction specified in point (a)(1), applicants may complete a maximum of 5 hours in an FSTD, provided that all of the following apply:

(1) the FSTD represents the type of helicopter that is to be used for the skill test;

(2) the training organisation has demonstrated to the competent authority that is responsible for the oversight of that training organisation the adequacy between the FSTD specifications and the LAPL(H) training programme. The training organisation shall be any of the following:

(i) an ATO;

(ii) a DTO, provided that the competent authority specified in point (2) has authorised the use of that FSTD for LAPL(H) training.';

Rationale

This proposal for amending point (a), presented to the EASA Advisory Bodies in June 2022 during the RMT.0587 focused consultations and then moved to RMT.0196, is developed based on the EASA Rotorcraft Safety Roadmap. Innovative simulation technologies, such as virtual reality, are leading to innovative and type-specific FSTDs regarding smaller helicopters, which are typically used in LAPL(H)/PPL(H) training. Through application of and compliance with the FCS framework, as developed with EASA RMT.0196, it should be possible to use such innovative and type-specific FSTDs for private helicopter pilot training to a certain extent. For the LAPL(H), no FSTD credits are provided for today, and the proposal would allow 5 hours out of the 40-hour training course to be completed in an FSTD for which adequacy between the device and the training programme has been demonstrated. For the PPL(H), the existing FSTD credits would be increased along the same lines, which would also ensure continued compliance with the relevant requirements of International Civil Aviation Organization Annex 1.

In order to keep this increased use of FSTDs in LAPL(H) and PPL(H) training within a controlled environment, it is further proposed to limit this extended FSTD training for LAPL(H) and PPL(H) to ATOs, or DTOs that have received an authorisation to make (extended) use of FSTDs.

In response to comments received during the focused consultation workshops with the EASA Advisory Bodies in June 2022 and June 2023 and based on internal reviews:

- *the introductory phrase of point (a) is revised to better fit with the introductory phrase of point (a)(3), and additional wording is inserted to clarify that FSTD training time must be used exclusively for dual instruction;*
- *in point (aa)(2)) and point (aa)(2)(ii), additional phrases are included to clarify that reference is made to the competent authority that is responsible for the training organisation (since otherwise the general meaning of 'competent authority' in terms of Part-FCL would apply, meaning the licence-issuing authority);*
- *point (aa)(2)(ii) is further revised and clarified so that it does not require the entire LAPL(H) training programme to be approved but instead requires the competent authority to authorise solely the use of the FSTD during LAPL(H) training.*

(4) point FCL.210.H PPL(H) is amended as follows:

(a) point (a) is replaced by the following:

'(a) Applicants for a PPL(H) shall have completed at least 45 hours of flight instruction in helicopters and, to the extent and under the conditions specified in point (aa), in FSTDs. The flight instruction shall include at least all of the following:

(1) 25 hours of dual flight instruction;

(2) 10 hours of supervised solo flight time, including at least 5 hours of solo cross-country flight time with at least 1 cross-country flight of at least 185 km (100 NM), with full stop landings at two aerodromes different from the aerodrome of departure;

(3) 35 hours of flight instruction in the type of helicopter that is to be used for the skill test.';

(b) point (aa) is inserted after point (a) as follows:

'(aa) Of the 25 hours of dual flight instruction specified in point (a)(1), applicants may complete the following in FSTDs:

(1) a maximum of 5 hours; or

(2) a maximum of 10 hours, provided that they comply with all of the following:

(i) they complete at least 5 of these 10 hours in an FSTD that represents the type of helicopter that is to be used for the skill test;

(ii) they complete the training course at a training organisation that, with regard to the FSTD specified in point (2)(i), has demonstrated to the competent authority that is responsible for the oversight of that training organisation the adequacy between the FSTD specifications and the PPL(H) training programme. The training organisation shall be any of the following:

(A) an ATO;

(B) a DTO, provided that the competent authority specified in point (ii) has authorised the use of that FSTD for PPL(H) training.';

Rationale

As regards the amendments to point (a), the insertion of new point (aa) and the revisions to these drafts following the focused consultation workshop with the EASA Advisory Bodies in June 2022 and June 2023, please refer to the explanations provided for the amendments to point FCL.110.H LAPL(H).

(5) in point FCL.740.H(c), point (3) is replaced by the following:

'(3) either of the following flight times as PIC in each of the other relevant types during the validity period:

(i) if they completed a proficiency check in accordance with point (a)(1)(ii), at least 2 hours;

(ii) if they completed a refresher training in accordance with point (a)(2)(ii)(B), at least 6 hours.

The proficiency check or the refresher training, as applicable, shall be performed each time on a different type. The new validity period of all type ratings revalidated in accordance with this point shall commence together with the validity period of the type rating for which the proficiency check or the refresher training is completed.';

Rationale

See also Annex II to Opinion No 05/2023, page 28, and point FCL.740.H, as amended by Commission Implementing Regulation (EU) 2024/2076.

The only amendment proposed for point FCL.740.H(c) consists of adding the phrase 'or the refresher training, as applicable' to the non-numbered paragraph at the end of point (c). Based on comments received on NPA 2020-14, the phrase 'or the refresher training, as applicable' was added to the draft amendment for point FCL.740.H(b), to ensure that applicants who seek revalidation of multiple SEP(H) type ratings complete the 'revalidation event' (proficiency check or refresher training) in another type each time. For consistency, that phrase should also have been inserted into point FCL.740.H(c), which allows for the combined revalidation of single-engine turbine SET(H) type ratings along the same lines. However, adding that phrase to point FCL.740.H(c) was overlooked when drafting Opinion No 05/2023. Hence, adding that phrase is proposed in this Opinion.

(6) in point FCL.930.TRI, point (b) is replaced by the following:

'(b) Applicants holding or having held an instructor certificate shall be fully credited towards the requirement of point (ab)(1).';

Rationale

The cross reference in point FCL.930.TRI(b) needs to be updated to reflect the amendments to point FCL.930.TRI introduced with Commission Implementing Regulation (EU) 2024/2076.

(7) in point FCL.935.TRI, the following point (c) is added:

'(c) By way of derogation from point (b), the assessment of competence:

(1) for TRIs for non-complex helicopters may be conducted in a combination of FSTD(s) and the aircraft even if an FFS is available and accessible; and

(2) for TRIs for helicopters referred to in point 1e(c) of Section A of Appendix 9 to this Annex may be conducted in accordance with points (1), (2) or (3) of point (b) above, irrespective of the availability and accessibility of an FFS or FSTD.';

Rationale

This amendment is proposed to establish consistency with amendments to point FCL.930.TRI and Part-FCL, Appendix 9, Section A, introduced with Commission Implementing Regulation (EU) 2024/2076. If training, skill test and proficiency checks for type ratings and TRIs for those particular aircraft benefit from alleviations regarding the training platform (aircraft or FSTD), the same alleviations need to apply to the TRI assessment of competence. It does not make sense to ease the TRI training but not the TRI assessment of competence. These amendments are only necessary for helicopters, since point FCL.930.TRI(b), for aeroplanes, exclusively applies to 'single-pilot high-performance complex aeroplanes', so is not in conflict with the latest alleviations included in point FCL.930.TRI and Part-FCL, Appendix 9, Section A. These amendments had been planned for the said amending Regulation but, by mistake, were not included in the final version.

(8) Appendix 9 is amended as follows:

(a) Section A is amended as follows:

(1) point 1f is replaced by the following:

'1f. If FSTDs are used during training, testing or checking, the following shall apply:

(a) an FSTD shall only be used for a particular exercise if the FSTD possesses the features and related fidelity levels to simulate the relevant aircraft, cueing and environment simulation features in that exercise to the extent necessary for the candidate to:

(i) develop the skills as necessary for the appropriate stage of training;

(ii) demonstrate the skills to safely operate the relevant aircraft during the relevant exercise for testing and checking;

(b) additionally, the suitability of the FSTDs used shall be verified against the applicable 'Table of functions and subjective tests' and the applicable 'Table of FSTD validation tests' contained in the PRD applicable to the device used.

All restrictions and limitations indicated on the device's qualification certificate or associated ESL shall be considered.';

(2) point 1g is inserted after point 1f as follows:

'1g. Where specified, OTDs may be used to perform the training tasks of a type rating training programme. However, the training time completed on such

devices shall not be counted towards the minimum FSTD training time specified in the relevant type rating training programme.';

(3) point 18 is amended as follows:

(i) the introductory phrase is replaced by the following:

'18. For the upset recovery training, 'stall event' means either an approach-to-stall or a stall. An FFS level C or level D can be used by the ATO to either train recovery from a stall or demonstrate the type-specific characteristics of a stall, or both, provided that:';

(ii) point (a) is replaced by the following:

'(a) the FFS has been qualified in accordance with the special evaluation requirements in CS-FSTD(A) Issue 2, or in accordance with the latest applicable qualification basis; and';

(b) Section B is amended as follows:

(1) in point 5, points (a) and (b) are replaced by the following:

'(a) The following symbols mean:

P = Trained as PIC or co-pilot and as PF and PM

X = An aeroplane shall not be used for this exercise

P# = The training shall be complemented by supervised aeroplane inspection'

(b) The practical training shall be conducted at least at the training equipment level shown as (P), or may be conducted on any higher level of equipment shown by the arrow (---->).

The following abbreviations are used to indicate the training equipment used:

A = aeroplane

FFS = full-flight simulator

FSTD = flight simulation training device

OTD = other training device';

(2) in point 5, the table after point (l) is replaced by the following:

TMGs AND SINGLE-PILOT AEROPLANES, EXCEPT FOR HIGH-PERFORMANCE COMPLEX AEROPLANES		**PRACTICAL TRAINING**				**CLASS OR TYPE RATING SKILL TEST/PROFICIENCY CHECK**	
Manoeuvres/procedures		**OTD**	**FSTD**	**A**	**Instructor initials when training completed**	**Tested or checked in FSTD or A**	**Examiner initials when test or check completed**
	SECTION 1						
1 1.1	Departure Pre-flight including: — documentation; — mass and balance; — weather briefing; and — NOTAM.	P					

TMGs AND SINGLE-PILOT AEROPLANES, EXCEPT FOR HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				CLASS OR TYPE RATING SKILL TEST/PROFICIENCY CHECK	
Manoeuvres/procedures		**OTD**	**FSTD**	**A**	**Instructor initials when training completed**	**Tested or checked in FSTD or A**	**Examiner initials when test or check completed**
1.2	Pre-start checks						
1.2.1	External	P#		P		M	
1.2.2	Internal	P#	P#	P		M	
1.3	Engine starting: normal malfunctions		P	---->		M	
1.4	Taxiing		P	---->		M	
1.5	Pre-departure checks: engine run-up (if applicable)		P	---->		M	
1.6	Take-off procedure: — normal with flight manual flap settings; and — crosswind (if conditions are available).		P	---->		M	
1.7	Climbing: — V_x/V_y — turns onto headings; and — level off.		P	---->		M	
1.8	ATC liaison – compliance, R/T procedures		P			M	
	SECTION 2						
2 2.1	Airwork (visual meteorological conditions (VMC)) Straight and level flight at various airspeeds including flight at critically low airspeed with and without flaps (including approach to V_{mca} when applicable)		P	---->			
2.2	Steep turns (360° left and right at 45° bank)		P	---->		M	
2.3	Stalls and recovery: (i) clean stall; (ii) approach to stall in descending turn with bank with approach configuration and power; (iii) approach to stall in landing configuration and power; and (iv) approach to stall, climbing turn with take-off flap and		P	---->		M	

TMGs AND SINGLE-PILOT AEROPLANES, EXCEPT FOR HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				CLASS OR TYPE RATING SKILL TEST/PROFICIENCY CHECK	
Manoeuvres/procedures		**OTD**	**FSTD**	**A**	**Instructor initials when training completed**	**Tested or checked in FSTD or A**	**Examiner initials when test or check completed**
	climb power (single-engine aeroplanes only).						
2.4	Handling using autopilot and flight director (may be conducted in Section 3), if applicable		P	---->		M	
2.5	ATC liaison – compliance, R/T procedures		P	---->		M	
	SECTION 3A						
3A 3A.1	En route procedures VFR (See B.5(c) and (d)) Flight plan, dead reckoning and map reading		P	---->			
3A.2	Maintenance of altitude, heading and speed		P	---->			
3A.3	Orientation, timing and revision of ETAs		P	---->			
3A.4	Use of radio navigation aids (if applicable)		P	---->			
3A.5	Flight management (flight log, routine checks including fuel, systems and icing)		P	---->			
3A.6	ATC liaison – compliance, R/T procedure		P	---->			
	SECTION 3B						
3B 3B.1*	Instrument flight Departure IFR		P	---->		M	
3B.2*	En route IFR		P	---->		M	
3B.3*	Holding procedures		P	---->		M	
3B.4*	3D operations to decision altitude/height (DA/H) of 200 ft (60 m) or to higher minima if required by the approach procedure (autopilot may be used to the final approach segment vertical path intercept)		P	---->		M	

TMGs AND SINGLE-PILOT AEROPLANES, EXCEPT FOR HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				CLASS OR TYPE RATING SKILL TEST/PROFICIENCY CHECK	
Manoeuvres/procedures		**OTD**	**FSTD**	**A**	**Instructor initials when training completed**	**Tested or checked in FSTD or A**	**Examiner initials when test or check completed**
3B.5*	2D operations to minimum descent altitude/height (MDA/H)		P	---->		M	
3B.6*	Flight exercises including simulated failure of the compass and attitude indicator: — rate 1 turns; and — recoveries from unusual attitudes.		P	---->		M	
3B.7*	Failure of localiser or glideslope		P	---->			
3B.8*	ATC liaison – compliance, R/T procedures		P	---->		M	
	Intentionally left blank						
	SECTION 4						
4 4.1	Arrival and landings Aerodrome arrival procedure		P	---->		M	
4.2	Normal landing		P	---->		M	
4.3	Flapless landing		P	---->		M	
4.4	Crosswind landing (if suitable conditions)		P	---->			
4.5	Approach and landing with idle power from up to 2 000 ft above the runway (single-engine aeroplanes only)		P	---->			
4.6	Go-around from minimum height		P	---->		M	
4.7	Night go-around and landing (if applicable)		P	---->			
4.8	ATC liaison – compliance, R/T procedures		P	---->		M	
	SECTION 5						
5	Abnormal and emergency procedures (This section may be combined with Sections 1 through 4.)						
5.1	Rejected take-off at a reasonable speed		P	---->		M	
5.2	Simulated engine failure after take-off (single-engine aeroplanes only)			P		M	

TMGs AND SINGLE-PILOT AEROPLANES, EXCEPT FOR HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				CLASS OR TYPE RATING SKILL TEST/PROFICIENCY CHECK	
Manoeuvres/procedures		**OTD**	**FSTD**	**A**	**Instructor initials when training completed**	**Tested or checked in FSTD or A**	**Examiner initials when test or check completed**
5.3	Simulated forced landing without power (single-engine aeroplanes only)			P		M	
5.4	Simulated emergencies: (i) fire or smoke in flight; and (ii) systems' malfunctions as appropriate		P	---->			
5.5	ME aeroplanes and TMG training only: engine shutdown and restart (at a safe altitude if performed in the aircraft)		P	---->			
5.6	ATC liaison – compliance, R/T procedure						
	SECTION 6						
6 6.1*MAR	Simulated asymmetric flight (This section may be combined with Sections 1 through 5.) Simulated engine failure during take-off (at a safe altitude unless carried out in an FFS or an FNPT II)		P	---->		M	
6.2*	Asymmetric approach and go-around		P	---->		M	
6.3*	Asymmetric approach and full-stop landing		P	---->		M	
6.4	ATC liaison – compliance, R/T procedures		P	---->		M	
	SECTION 7						
7	UPRT						
7.1	Flight manoeuvres and procedures						
7.1.1	Manual flight with and without flight directors (no autopilot, no autothrust/autothrottle, and at different control laws, where applicable)		P	---->			

TMGs AND SINGLE-PILOT AEROPLANES, EXCEPT FOR HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				CLASS OR TYPE RATING SKILL TEST/PROFICIENCY CHECK	
Manoeuvres/procedures		**OTD**	**FSTD**	**A**	**Instructor initials when training completed**	**Tested or checked in FSTD or A**	**Examiner initials when test or check completed**
7.1.1.1	At different speeds (including slow flight) and altitudes within the FSTD training envelope		P	---->			
7.1.1.2	Steep turns using 45° bank, 180° to 360° left and right		P	---->			
7.1.1.3	Turns with and without spoilers		P	---->			
7.1.1.4	Procedural instrument flying and manoeuvring including instrument departure and arrival, and visual approach		P	---->			
7.2 7.2.1	Upset recovery training Recovery from stall events in: — take-off configuration; — clean configuration at low altitude; — clean configuration near maximum operating altitude; and — landing configuration.		P	---->			
7.2.2	The following upset exercises: — recovery from nose-high at various bank angles; and — recovery from nose-low at various bank angles.		P	---->			
7.3	Go-around with all engines operating* from various stages during an instrument approach		P	---->			
7.4	Rejected landing with all engines operating: — from various heights below DH/MDH 15 m (50 ft) above the runway threshold; — after touchdown (baulked landing); — in aeroplanes that are not certificated as transport category aeroplanes (JAR/FAR 25) or as		P	---->			

TMGs AND SINGLE-PILOT AEROPLANES, EXCEPT FOR HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				CLASS OR TYPE RATING SKILL TEST/PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	A	Instructor initials when training completed	Tested or checked in FSTD or A	Examiner initials when test or check completed
	commuter category aeroplanes (SFAR 23), the rejected landing with all engines operating shall be initiated below MDA/H or after touchdown.						

(3) in point 6, point (a) is replaced by the following:

‘(a) The following symbols mean:

P = Trained as PIC or co-pilot and as PF and PM for the issue of a type rating as applicable.

X = An aeroplane shall not be used for this exercise.

P→ = The exercise shall be completed in a properly qualified FSTD.

P# = The training shall be complemented by supervised aeroplane inspection’;

(4) in point 6, point (b) is replaced by the following:

‘(b) The practical training shall be conducted at least at the training equipment level shown as (P), or may be conducted on any higher level of equipment shown by the arrow (---->).

The following abbreviations are used to indicate the training equipment used:

A = aeroplane

FFS = full-flight simulator

FSTD = flight simulation training device

OTD = other training device’;

(5) in point 6, the table after point (j) is replaced by the following:

MULTI-PILOT AEROPLANES AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				ATPL / MPL / TYPE RATING SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	A	Instructor initials when training completed	Tested or checked in FSTD or A	Examiner initials when test or check completed
	SECTION 1						
1	Flight preparation	P					

MULTI-PILOT AEROPLANES AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				ATPL / MPL / TYPE RATING SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	A	Instructor initials when training completed	Tested or checked in FSTD or A	Examiner initials when test or check completed
1.1	Performance calculation						
1.2	Aeroplane external visual inspection; location of each item and purpose of inspection	P#	P#	P			
1.3	Cockpit inspection		P	---->			
1.4	Use of checklist prior to starting engines, starting procedures, radio and navigation equipment check, selection and setting of navigation and communication frequencies		P	---->		M	
1.5	Taxiing in compliance with ATC instructions or instructions of instructor		P	---->			
1.6	Before take-off checks		P	---->		M	
	SECTION 2						
2 2.1	Take-offs Normal take-offs with different flap settings, including expedited take-off		P	---->			
2.2*	Instrument take-off; transition to instrument flight is required during rotation or immediately after becoming airborne		P	---->			
2.3	Crosswind take-off		P	---->			
2.4	Take-off at maximum take-off mass (actual or simulated maximum take-off mass)		P	---->			
2.5 2.5.1*	Take-offs with simulated engine failure: shortly after reaching V_2		P	---->			
	(In aeroplanes which are not certificated as transport category or commuter category aeroplanes, the engine failure shall not be simulated until reaching a minimum height of 500 ft above the runway end. In aeroplanes having the same performance as a						

MULTI-PILOT AEROPLANES AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				ATPL / MPL / TYPE RATING SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	A	Instructor initials when training completed	Tested or checked in FSTD or A	Examiner initials when test or check completed
	transport category aeroplane regarding take-off mass and density altitude, the instructor may simulate the engine failure shortly after reaching V_2.)						
2.5.2*	between V_1 and V_2		P	X		M FFS only	
2.6	Rejected take-off at a reasonable speed before reaching V_1		P	---->		M	
	SECTION 3						
3 3.1	Flight manoeuvres and procedures Manual flight with and without flight directors (no autopilot, no autothrust/autothrottle, and at different control laws, where applicable)		P	---->			
3.1.1	At different speeds (including slow flight) and altitudes within the FSTD training envelope		P	---->			
3.1.2	Steep turns using 45° bank, 180° to 360° left and right		P	---->			
3.1.3	Turns with and without spoilers		P	---->			
3.1.4	Procedural instrument flying and manoeuvring including instrument departure and arrival, and visual approach		P	---->			
3.2	Tuck under and Mach buffets (if applicable), and other specific flight characteristics of the aeroplane (e.g. Dutch Roll)		P	X		FFS only	
3.3	Normal operation of systems and controls of engineer's panel (if applicable)	P	---->	---->			

MULTI-PILOT AEROPLANES AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				ATPL / MPL / TYPE RATING SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	A	Instructor initials when training completed	Tested or checked in FSTD or A	Examiner initials when test or check completed
3.4	Normal and abnormal operations of the following systems:					M	A mandatory minimum of 3 abnormal items shall be selected from 3.4.0 to 3.4.14 inclusive
3.4.0	Engine (if necessary, propeller)	P	---->	---->			
3.4.1	Pressurisation and air conditioning	P	---->	---->			
3.4.2	Pitot/static system	P	---->	---->			
3.4.3	Fuel system	P	---->	---->			
3.4.4	Electrical system	P	---->	---->			
3.4.5	Hydraulic system	P	---->	---->			
3.4.6	Flight control and trim system	P	---->	---->			
3.4.7	Anti-icing/de-icing system, glare shield heating	P	---->				
3.4.8	Autopilot/flight director	P	---->			M (single pilot only)	
3.4.9	Stall warning devices or stall avoidance devices, and stability augmentation devices	P	---->				
3.4.10	Ground proximity warning system, weather radar, radio altimeter, transponder		P				
3.4.11	Radios, navigation equipment, instruments, FMS	P	---->				
3.4.12	Landing gear and brake	P	---->	---->			
3.4.13	Slat and flap system	P	---->	---->			
3.4.14	Auxiliary power unit (APU)	P	---->	---->			
	Intentionally left blank						
3.6	Abnormal and emergency procedures:					M	A mandatory minimum of 3 items

MULTI-PILOT AEROPLANES AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				ATPL / MPL / TYPE RATING SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	A	Instructor initials when training completed	Tested or checked in FSTD or A	Examiner initials when test or check completed
							shall be selected from 3.6.1 to 3.6.9 inclusive.
3.6.1	Fire drills, e.g. engine, APU, cabin, cargo compartment, flight deck, wing and electrical fires including evacuation		P	---->			
3.6.2	Smoke control and removal		P	---->			
3.6.3	Engine failures, shutdown and restart at a safe height		P	---->			
3.6.4	Fuel dumping (simulated)		P	---->			
3.6.5	Wind shear at take-off/landing		P	X		FFS only	
3.6.6	Simulated cabin pressure failure / emergency descent		P	---->			
3.6.7	Incapacitation of flight crew member		P	---->			
3.6.8	Other emergency procedures as outlined in the appropriate aeroplane flight manual (AFM)		P	---->			
3.6.9	TCAS event	P→	---->	X		FFS only	
3.7 3.7.1	Upset recovery training Recovery from stall events in: — take-off configuration; — clean configuration at low altitude; — clean configuration near maximum operating altitude; and — landing configuration.		P FFS qualified for the training task only	X			
3.7.2	The following upset exercises: — recovery from nose-high at various bank angles; and — recovery from nose-low at various bank angles.		P FFS qualified for the training task only	X		FFS only	

MULTI-PILOT AEROPLANES AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				ATPL / MPL / TYPE RATING SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	A	Instructor initials when training completed	Tested or checked in FSTD or A	Examiner initials when test or check completed
3.8	Instrument flight procedures						
3.8.1*	Adherence to departure and arrival routes and ATC instructions		P	---->		M	
3.8.2*	Holding procedures		P	---->			
3.8.3*	3D operations to DA/H of 200 ft (60 m) or to higher minima if required by the approach procedure						
	Note: According to the AFM, RNP APCH procedures may require the use of autopilot or flight director. The procedure to be flown manually shall be chosen taking into account such limitations (e.g. by choosing an ILS for 3.8.3.1 in the case of such an AFM limitation).						
3.8.3.1*	Manually, without flight director		P	---->		M (skill test only)	
3.8.3.2*	Manually, with flight director		P	---->			
3.8.3.3*	With autopilot		P	---->			
3.8.3.4*	Manually, with one engine simulated inoperative during final approach, either until touchdown or through the complete missed approach procedure (as applicable), starting: (i) before passing 1 000 ft above aerodrome level; and (ii) after passing 1 000 ft above aerodrome level. In aeroplanes which are not certificated as transport category aeroplanes (JAR/FAR 25) or as commuter category aeroplanes (SFAR 23), the approach with simulated engine failure and the ensuing go-around shall be initiated in conjunction with the 2D approach in accordance with 3.8.4. The go-around shall be initiated when reaching the published obstacle clearance height/altitude (OCH/A); however, not		P	---->		M	

MULTI-PILOT AEROPLANES AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				ATPL / MPL / TYPE RATING SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	A	Instructor initials when training completed	Tested or checked in FSTD or A	Examiner initials when test or check completed
	later than reaching an MDA/H of 500 ft above the runway threshold elevation. In aeroplanes having the same performance as a transport category aeroplane regarding take-off mass and density altitude, the instructor may simulate the engine failure in accordance with exercise 3.8.3.4.						
3.8.4*	2D operations down to the MDA/H		P*	---->		M	
3.8.5	Circling approach under the following conditions: (a) *approach to the authorised minimum circling approach altitude at the aerodrome in question in accordance with the local instrument approach facilities in simulated instrument flight conditions; followed by: (b) circling approach to another runway at least 90° off centreline from the final approach used in item (a), at the authorised minimum circling approach altitude. *Remark:* If (a) and (b) are not possible due to ATC reasons, a simulated low visibility pattern may be performed.		P*	---->			
3.8.6	Visual approaches		P	---->			
	SECTION 4						
4	Missed approach procedures		P*	---->			
4.1.	Go-around with all engines operating* during a 3D		P*	---->			

MULTI-PILOT AEROPLANES AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				ATPL / MPL / TYPE RATING SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	A	Instructor initials when training completed	Tested or checked in FSTD or A	Examiner initials when test or check completed
	operation on reaching decision height						
4.2.	Go-around with all engines operating* from various stages during an instrument approach		P*	---->			
4.3.	Other missed approach procedures		P*	---->			
4.4*	Manual go-around with the critical engine simulated inoperative after an instrument approach on reaching DH, MDH or MAPt		P*	---->		M	
4.5.	Rejected landing with all engines operating: — from various heights below DH/MDH; — after touchdown (baulked landing). In aeroplanes which are not certificated as transport category aeroplanes (JAR/FAR 25) or as commuter category aeroplanes (SFAR 23), the rejected landing with all engines operating shall be initiated below MDA/H or after touchdown.		P	---->			
	SECTION 5						
5 5.1.	Landings Normal landings* with visual reference established when reaching DA/H following an instrument approach operation		P				
5.2.	Landing with simulated jammed horizontal stabiliser in any out-of-trim position		P	X		FFS only	
5.3.	Crosswind landings (aircraft, if practicable)		P	---->			

MULTI-PILOT AEROPLANES AND SINGLE-PILOT HIGH-PERFORMANCE COMPLEX AEROPLANES		PRACTICAL TRAINING				ATPL / MPL / TYPE RATING SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	A	Instructor initials when training completed	Tested or checked in FSTD or A	Examiner initials when test or check completed
5.4.	Traffic pattern and landing without extended or with partly extended flaps and slats		P	---->			
5.5.	Landing with critical engine simulated inoperative		P	---->		M	
5.6.	Landing with two engines inoperative: — aeroplanes with three engines: the centre engine and one outboard engine as far as practicable according to the data of the AFM; and — aeroplanes with four engines: two engines on one side.		P	X		M FFS only (skill test only)	

(c) Section C is amended as follows:

(1) point 5 is replaced by the following:

‘The following symbols mean:

P = Trained as PIC for the issue of a type rating for single-pilot helicopters (SPH) or trained as PIC or co-pilot and as PF and PM for the issue of a type rating for multi-pilot helicopters (MPH).

X = A helicopter shall not be used for this exercise.

P→ = The exercise shall be completed in a properly qualified FSTD.

P# = The training shall be complemented by supervised helicopter inspection.’;

(2) point 6 is replaced by the following:

‘The practical training shall be conducted at least at the training equipment level shown as (P), or may be conducted on any higher level of equipment shown by the arrow (---->).

The following abbreviations are used to indicate the training equipment used:

FFS = full-flight simulator

FTD = flight training device

H= helicopter

OTD= other training device';

(3) the table after point 12 is replaced by the following:

SINGLE/MULTI-PILOT HELICOPTERS		PRACTICAL TRAINING				SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	H	Instructor initials when training completed	Tested or checked in FSTD or H	Examiner initials when test or check completed
	SECTION 1 – Pre-flight preparations and checks						
1.1	Helicopter exterior visual inspection; location of each item and purpose of inspection	P#	P#	P		M (if performed in the helicopter)	
1.2	Cockpit inspection		P	---->		M	
1.3	Starting procedures, radio and navigation equipment check, selection and setting of navigation and communication frequencies		P	---->		M	
1.4	Taxiing / air taxiing in compliance with ATC instructions or with instructions of instructor		P	---->		M	
1.5	Pre-take-off procedures and checks		P	---->		M	
	SECTION 2 – Flight manoeuvres and procedures						
2.1	Take-offs (various profiles)		P	---->		M	
2.2	Sloping ground or crosswind take-offs and landings		P	---->			
2.3	Take-off at maximum take-off mass (actual or simulated maximum take-off mass)		P	---->			
2.4	Take-off with simulated engine failure shortly before reaching TDP or DPATO		P	---->		M	
2.4.1	Take-off with simulated engine failure shortly after reaching TDP or DPATO		P	---->		M	
2.5	Climbing and descending turns to specified headings		P	---->		M	
2.5.1	Turns with 30° bank, 180° to 360° left and right, by sole reference to instruments		P	---->		M	
2.6	Autorotative descent		P	---->		M	

SINGLE/MULTI-PILOT HELICOPTERS		PRACTICAL TRAINING				SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	H	Instructor initials when training completed	Tested or checked in FSTD or H	Examiner initials when test or check completed
2.6.1	For single-engine helicopters (SEH): — autorotative landing; or — power recovery, provided that applicants, in the preceding year, completed training that included an autorotative landing and that training was entered and signed in the applicants' logbooks by the instructor. For multi-engine helicopters (MEH): power recovery.		P	---->		M	
2.7	Landings, various profiles		P	---->		M	
2.7.1	Go-around or landing following simulated engine failure before LDP or DPBL		P	---->		M	
2.7.2	Landing following simulated engine failure after LDP or DPBL		P	---->		M	
	SECTION 3 – Normal and abnormal operations of the following systems and procedures						
3	Normal and abnormal operations of the following systems and procedures:					M	A mandatory minimum of 3 items shall be selected from this section
3.1	Engine	P	---->	---->			
3.2	Air conditioning (heating, ventilation)	P	---->	---->			
3.3	Pitot/static system	P	---->	---->			
3.4	Fuel system	P	---->	---->			
3.5	Electrical system	P	---->	---->			
3.6	Hydraulic system	P	---->	---->			
3.7	Flight control and trim system	P	---->	---->			
3.8	Anti-icing and de-icing system (if applicable)	P	---->	---->			
3.9	Autopilot/stability augmentation devices/flight director	P	---->	---->			

SINGLE/MULTI-PILOT HELICOPTERS		PRACTICAL TRAINING				SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	H	Instructor initials when training completed	Tested or checked in FSTD or H	Examiner initials when test or check completed
3.10	EGPWS/HTAWS (if applicable)	P	---->	---->			
3.11	Weather radar, radio altimeter, transponder	P	---->	---->			
3.12	Area navigation system	P	---->	---->			
3.13	Landing gear system	P	---->	---->			
3.14	APU	P	---->	---->			
3.15	Radio, navigation equipment, instruments and FMS	P	---->	---->			
	SECTION 4 – Abnormal and emergency procedures						
4	Abnormal and emergency procedures					M	A mandatory minimum of 3 items shall be selected from this section
4.1	Fire drills (including evacuation if applicable)		P	---->			
4.2	Smoke control and removal		P	---->			
4.3	Engine failures, shutdown and restart at a safe height		P	---->			
4.4	Fuel dumping (simulated, if applicable)		P	---->			
4.5	Tail rotor control failure (if applicable)		P	---->			
4.5.1	Tail rotor loss (if applicable)		P	X			
4.6	Incapacitation of crew member – only for MPH and SPH operated in multi-pilot operations		P	---->			
4.7	Transmission malfunctions		P	---->			
4.8	TCAS event (if applicable)	P→	---->	X			
4.9	Other emergency procedures as outlined in the appropriate flight manual		P	---->			
	SECTION 5 – Instrument flight procedures (to be performed in IMC or simulated IMC)						
5.1	Instrument take-off: transition to instrument flight is required as soon as possible after becoming airborne		P*	---->*			

SINGLE/MULTI-PILOT HELICOPTERS		PRACTICAL TRAINING				SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	H	Instructor initials when training completed	Tested or checked in FSTD or H	Examiner initials when test or check completed
5.1.1	Simulated engine failure during departure		P*	---->*		M*	
5.2	Adherence to departure and arrival routes and ATC instructions		P*	---->*		M*	
5.3	Holding procedures		P*	---->*			
5.4	3D operations to DA/H of 200 ft (60 m) or to higher minima if required by the approach procedure		P*	---->*			
5.4.1	Manually, without flight director *Note:* According to the AFM, RNP APCH procedures may require the use of autopilot or flight director. The procedure to be flown manually shall be chosen taken into account such limitations (e.g. by choosing an ILS for 5.4.1 in the case of such an AFM limitation).		P*	---->*		M* (unless Exercise 5.4.2 is completed)	
5.4.2	Manually, with flight director		P*	---->*		M* (unless Exercise 5.4.1 is completed)	
5.4.3	With coupled autopilot		P*	---->*			
5.4.4	Manually, with one engine simulated inoperative; engine failure has to be simulated during final approach before passing 1 000 ft above aerodrome level until touchdown or until completion of the missed approach procedure		P*	---->*		M*	
5.5	2D operations down to the MDA/H		P*	---->*		M*	
5.6	Go-around with all engines operating on reaching DA/H or MDA/MDH		P*	---->*			
5.6.1	Other missed approach procedures		P*	---->*			

SINGLE/MULTI-PILOT HELICOPTERS		PRACTICAL TRAINING				SKILL TEST OR PROFICIENCY CHECK	
Manoeuvres/procedures		OTD	FSTD	H	Instructor initials when training completed	Tested or checked in FSTD or H	Examiner initials when test or check completed
5.6.2	Go-around with one engine simulated inoperative on reaching DA/H or MDA/MDH		P*	---->*		M*	
5.7	IMC autorotation with power recovery		P*	---->*		M*	
5.8	Recovery from unusual attitudes manually and, if applicable, with auto-recovery mode		P*	---->*		M*	
	SECTION 6 – Use of optional equipment						
6	Use of optional equipment		P	---->			

Rationale

The amendment of point 1f of Section A of Appendix 9 aims to create a regulatory provision to guarantee that an FSTD with adequate features and fidelity levels is used for training, testing and checking. This requirement is valid for any FSTD (not only FSTDs with FCSs).

The point is also amended to explain that the restrictions and limitations of an FSTD will be included in the qualification certificate and ESL.

In point 1g, the legal basis for the use of OTDs in training in accordance with Appendix 9 is clarified.

For aeroplanes, power-lift aircraft and airships, OTDs for practical training are referred to in Sections B, D and E of Appendix 9 to Annex I (Part-FCL) to Regulation (EU) No 1178/2011. Furthermore, AMC3 ORA.ATO.125 refers to the use of OTDs in a helicopter type rating training programme. However, for these aircraft categories, the existing regulation does not provide any reference to OTDs in Section C.

It should also be noted that there is no reference to OTDs in Appendix 9, Section A, points 1 to 1f, where the training devices that must be used for training, testing and checking are specified. In addition, the definition of FSTD contained in Article 2 of Regulation (EU) No 1178/2011 clearly excludes OTDs. This is also consistent with the definition of OTDs in point FCL.010.

In EASA's understanding, where specified, OTDs may be used for the initial phases of the practical training, working as bridging tools between theoretical knowledge instruction and practical training on FSTDs for some specific training tasks given in Appendix 9. However, where reference is made to minimum FSTD hours in a training programme, the training time completed on such devices cannot be counted.

To fully clarify the concept, the following amendments are proposed:

(1) introduction of a new paragraph in Appendix 9, Section A (point 1g) to clearly explain what may be accomplished by using OTDs in training;
(2) introduction of a new 'OTD' column in the tables with the list of training tasks in Sections B and C;
(3) deletion of 'OTD' from the lists of symbols in points 5(a) and 6(a) of Section B;

(4) introduction of 'OTD' in the lists of abbreviations in points 5(b) and 6(b) of Section B and in point 6 of Section C.

Where training can be performed in an OTD, a 'P' has been added in the 'OTD' column.

In Section A, point 18 is modified to clearly state the applicability of the UPRT requirements for FFS level C and level D, in accordance with CS-FSTD(A) Issue 2.

In Section B, minor changes have been applied to the tables of aeroplane training tasks to align the use of the symbol '---->' with the use in the tables of training tasks for helicopters, power-lift aircraft and airships.

One typo in aeroplane training task 2.1 has been corrected in the list of training tasks for TMGs and single-pilot aeroplanes, except for high-performance complex aeroplanes.

For training task 7.2.2 in the list of training tasks for TMGs and single-pilot aeroplanes, except for high-performance complex aeroplanes, the symbol '---->' has been added to allow for the use of aeroplanes. The new meaning of symbol 'X' would not allow the use of an aircraft.

The new symbol 'P→' has been introduced specifically for the TCAS event training task for aeroplanes and helicopters to indicate that the task must be completed in an FSTD.

In Section C, in order to allow for more training flexibility, such as the use of virtual reality visors, training task 1.1 may be performed with the support of an OTD as for aeroplanes, but the task must be complemented by supervised helicopter inspection. For this reason, the symbol 'P#' has been introduced in point 5 of Section C and included in the 'OTD' column of the table with the list of helicopter training tasks.

Following a proposal from the helicopters' training experts of the rulemaking group, the list of training tasks for helicopters is expanded to include the following new training manoeuvres/procedures:

- *EGPWS/HTWAS, if applicable;*
- *TCAS event, if applicable.*

The stability augmentation device training is proposed to be moved from training task 3.10 to training task 3.9 due to its nature. In the helicopter domain, reference is normally made to autopilot/stability augmentation devices.

Additionally, the training for anti-icing and de-icing system operations, fuel dumping procedures and the use of flight director is only required if applicable to the type of helicopter being simulated, given the low number of helicopters that have such systems.

Training on the recovery from unusual attitudes should be undertaken with and without auto-recovery mode, as applicable.

A clarification has been made regarding task 4.6 to include the pilot incapacitation training for single-pilot-certified helicopters operated in multi-pilot operations.

Finally, it is specified that the training on the recovery from unusual attitudes must be undertaken both manually and with the use of auto-recovery mode, if applicable to the relevant type of helicopter.

In Sections B and C, in order to facilitate the understanding of the list of training tasks, avoid misunderstandings and have a common approach between aeroplanes and helicopters, the meaning of the symbol 'X' is changed to express the restriction from using an aeroplane or a helicopter for specific training tasks. Where the regulation mandates the use of an FFS for a skill test or proficiency check, 'FFS only' is written in the relevant column.

ANNEX II

Amendments to Annex VI (Part-ARA) to Commission Regulation (EU) No 1178/2011

Annex VI is amended as follows:

(1) point ARA.FSTD.100 is replaced by the following:

'ARA.FSTD.100 Evaluation procedure

(a) Upon receiving an application for an FSTD qualification certificate, the competent authority shall:

(1) verify that the organisation operating the FSTD is in compliance with the applicable requirements;

(2) assess whether the chosen validation data is suitable to support each objective test;

(3) review the ESL for compliance with the applicable requirements;

(4) evaluate whether the FSTD complies with the applicable qualification basis by conducting objective, functions and subjective tests;

(5) assess the FSTD in those areas that are essential to completing the flight crew member training, testing and checking process, as applicable.

(b) The competent authority shall perform the tasks under points (3), (4) and (5) of point (a) in the event of recurrent evaluation of an FSTD.

(c) In the event of a major modification to an FSTD, the competent authority shall perform those tasks from the ones listed in point (a) that it deems relevant, taking into consideration the nature of the modification.

(d) The competent authority shall provide a report and notify the organisation operating the FSTD of the results of the evaluation.

(e) If, during an evaluation or by any other means, evidence is found by the competent authority that the FSTD does not perform in accordance with its qualification basis or that the ESL contains inaccurate information about the FSTD, the competent authority shall raise an item, record it and communicate it to the organisation operating the FSTD in writing. The competent authority shall, unless the nature of the item requires the application of enforcement measures in accordance with point ARA.FSTD.135(b), do all of the following:

(1) grant the organisation a corrective action implementation period appropriate to the nature of the item that, in any case, shall not be more than 30 days. At the end of this period, and subject to the nature of the item, the competent authority may extend the implementation period subject to a satisfactory corrective action plan agreed by the competent authority;

(2) assess whether the corrective action plan proposed by the organisation addresses the item;

(3) assess whether the implementation of the corrective action plan addresses the item.

(f) The QTG resulting from the initial evaluation shall be approved by the competent authority only after all items have been addressed to the satisfaction of the competent authority. After such approval, it shall be referred to as the master qualification test guide (MQTG) and shall be the basis for the FSTD qualification and recurrent FSTD evaluations.

(g) The competent authority shall qualify the FSTD only after having validated that, in accordance with point ORA.FSTD.120(d), the additional equipment of the FSTD, if applicable, has no adverse effect on the training capability of the FSTD.

(h) Qualification basis and special conditions

(1) The competent authority may prescribe special conditions for the FSTD qualification basis when the requirements of point ORA.FSTD.210(a) are met and when it is demonstrated that the special conditions ensure an equivalent level of safety to that established in the applicable certification specification.

(2) When the competent authority, if other than the Agency, has established special conditions for the qualification basis of an FSTD, it shall without undue delay notify the Agency thereof. The notification shall be accompanied by a full description of the special conditions prescribed and a safety assessment demonstrating that an equivalent level of safety to that established in the applicable certification specification is met.';

Rationale

The title is changed to cover any evaluation procedure performed by the competent authority (initial, recurrent, special evaluation). Definitions of the different types of evaluation are added to Article 2 of Regulation (EU) No 1178/2011 in order to provide clarity. Point ARA.FSTD.100 has been modified to clarify the tasks that the competent authority has to perform in recurrent and special evaluations.

The new point (a)(2) is added to clarify the obligation of the authority to assess the chosen validation data's suitability to support the objective tests. This point is developed to establish a link with point ORA.FSTD.200, in accordance with which the organisation operating the FSTD must include in Part A of the application form a table with the chosen validation data, which is selected by the training device manufacturer from the original equipment manufacturer's validation data roadmap. An assessment of the suitability of the chosen data should already be done as part of the OSD process. Therefore, the competent authority reviews (assesses) this choice with regard to the recommended validation data from the OEM. The type of validation data is explained in the new CS-FSTD (e.g. flight test data, engineering data, alternative flight test data).

The obligation for the authority to assess the suitability of the chosen validation data, however, is not new. Similar requirements already exist in CS-FSTD(A)/CS-FSTD(H), specifying that the authority approves the data in the validation data roadmap, which is used as validation material for the QTG. In the new FCS framework, the data has a significant influence on the fidelity level and consequently on the FCS and the qualification of the FSTD. Considering the increased significance of validation data and that the validation data is a main driver of the fidelity level, this requirement is added to Regulation (EU) No 1178/2011.

The existing point (a)(3) is merged with the wording in point (a)(4) by clarifying that the evaluation of the FSTD is done by conducting objective, functions and subjective tests. The rationale is to provide clarity and avoid duplication.

A new requirement has been added in the new point (a)(3) to specify the obligation of the authority to review the ESL in the process of the FSTD evaluations. This review aims to involve performing spot checks of whether an ESL contains accurate and comprehensive information regarding the FSTD qualification and its qualification basis, installed equipment, capabilities and specifications (an obligation under point ORA.FSTD.120).

In the existing point (a)(4), proposed as (a)(1), the reference to BITDs has been deleted, as they are no longer within the scope of the CS-FSTD for initial qualification.

Provisions clarifying the scope of activities in the context of recurrent evaluation are developed. No new requirements are added to the scope of the recurrent evaluation for the competent authority.

Although the ESL is a new document developed under the FCS framework, the obligation of the authority to verify it is not entirely new. A similar task is performed by the authority in recurrent evaluations of the FSTD and when verifying that the FSTD complies with the qualification standards (the ESL considers the existing section 'Guidance information for training, testing and checking considerations' of the qualification certificate).

As regards the special evaluation, it has been specified that, depending on the scope of the modifications of the FSTD, the activities performed by the authorities may include the relevant activities under point (a). No new requirements are added to the scope of the special evaluation for the competent authority.

Furthermore, a legal reference has been added to the evaluation report and the obligation of the authority to notify the organisation operating the FSTD of the results of the evaluation. Such a reference was missing and is deemed necessary in order to enable the authorities to request further actions, when necessary, after an evaluation by the organisations operating the FSTD.

The new point (e) is proposed due to comments and conclusions that the rules must specify the obligations of the authority in the event of detected non-compliance of an FSTD with its qualification basis or when the ESL contains inaccurate information about the FSTD. In such situations, the competent authority must raise a non-compliance item, record it and communicate it to the organisation operating the FSTD, giving the organisation an opportunity to correct the non-compliance within a defined period. The proposed 30-day period (point (e)(1)) is based on current practice (AMC1 ARA.FSTD.135 and AMC2 ARA.FSTD.100(a)(1), point (b)). The rationale for creating this new point is to ensure alignment with new point ORA.FSTD.100(c), but also to fill the gap in the rules regarding the possibility of the authority raising an item after an evaluation of an FSTD and requesting that an organisation take corrective actions. This concept currently exists only in the AMC to point ARA.FSTD.100. However, considering the comments, including a clear requirement in the regulation is proposed to ensure legal certainty. The proposed text follows the concept of point ARA.GEN.350(d) regarding when an authority raises a finding due to the non-compliance of the organisation with respect to the applicable requirements.

Point (f) is based on the existing point (b), redrafted to ensure clarity regarding the approval of the MQTG being the basis for the FSTD qualification and recurrent FSTD evaluations.

Point (g) clarifies that the competent authority must validate whether the additional equipment of the FSTD, if applicable, has no adverse effect on the training capability of the FSTD, based on an assessment by the organisation operating the FSTD. A similar requirement exists under point ORA.FSTD.120 and is added here due to the nature of the requirement.

(2) point ARA.FSTD.110 is replaced by the following:

'ARA.FSTD.110 Issue of an FSTD qualification certificate

The competent authority shall issue an FSTD qualification certificate of unlimited duration, using the form as established in Appendix IV to this Part, only after having completed the evaluation of the FSTD in accordance with point ARA.FSTD.100 and having verified that:

(a) the organisation operating the FSTD meets the applicable requirements of Annex VII (Part-ORA);

(b) the FSTD meets the applicable qualification basis in accordance with point ORA.FSTD.210.';

Rationale

The text has been redrafted for greater clarity. More specifically, it has been clarified that the organisation operating the FSTD must meet the applicable requirements of Part-ORA.

(3) point ARA.FSTD.115 is replaced by the following:
'ARA.FSTD.115 Interim FSTD qualification

(a) In the case of the introduction of new aircraft programmes, when compliance with the requirements established in this Subpart for FSTD qualification is not possible, the competent authority may issue a qualification certificate with an interim FSTD qualification.

(b) This interim qualification shall remain valid for no longer than 3 years.';

Rationale

The amendments clarify that, for new aircraft programmes, an interim qualification may be applicable. The previous levels A, B, C and D for FFSs are no longer applicable to initial evaluation under the CS-FSTD. It is clarified that, in the event of the introduction of a new aircraft programme, the FSTD may receive an interim FSTD qualification. It is not an interim FCS or an interim FSTD qualification certificate. The certificate as mentioned in Appendix IV to Annex VI does not have a limited duration. In the case of an interim FSTD qualification, it would be mentioned in the qualification certificate (see the details in the instructions for the FSTD certificate).

(4) in point ARA.FSTD.120(a), point (1) is replaced by the following:
'(1) the complete set of tests in the MQTG is rerun progressively in accordance with the requirements as specified in points ORA.FSTD.105(a)(2) and (a)(3);';

Rationale

The reference to a 12-month period in point (a)(1) of point ARA.FSTD.120 is not any longer valid, taking into consideration the changes proposed in point ORA.FSTD.105. While the complete set of objective tests contained in the MQTG is rerun by the organisation operating the FSTD progressively over a 12-month cycle, the complete set of functions and subjective tests contained in the MQTG is rerun progressively over a 24-month cycle. Therefore, for consistency reasons, point (a)(1) of point ARA.FSTD.120 is amended to refer to the updated requirements in point ORA.FSTD.105.

(5) in point ARA.FSTD.120, point (b) is replaced by the following:

'(b) The competent authority shall conduct recurrent evaluations of the FSTD in accordance with the procedures detailed in point ARA.FSTD.100. Those evaluations shall take place every year. The start for each recurrent 12-month period is the end of the month of the initial qualification unless another date is agreed between the competent authority and the organisation operating the FSTD. Each FSTD recurrent evaluation shall take place within a period of 60 days before and 30 days after the start of each recurrent 12-month period.';

Rationale

The references to FSTD types, except in the case of a legacy FSTD, are deleted, as they are not retained in the new FCS framework.

References to BITDs have been deleted, as they are no longer within the scope of the new CS-FSTD for initial qualification. However, the requirement for the recurrent evaluation of BITDs every 3 years is kept in the transitional provisions in Article 10b of Regulation (EU) No 1178/2011.

(6) in point ARA.FSTD.120, the introductory sentence of point (c) is replaced by the following:

'(c) The competent authority may extend the recurrent evaluation period of an FSTD specified in point ARA.FSTD.120(b) to a maximum of 36 months, provided that all of the following apply:';

Rationale

In point (c), the reference to point ARA.FSTD.120(b)(1) is amended to read ARA.FSTD.120(b), as point ARA.FSTD.120(b)(1) does not exist any longer.

(7) the following point ARA.FSTD.125 is inserted after point ARA.FSTD.120:

'ARA.FSTD.125 Transfer of an FSTD

(a) When being notified of a transfer of an FSTD from one organisation to another in accordance with point ORA.FSTD.235, the competent authority may decide to conduct a special evaluation in accordance with the original qualification basis of the FSTD, unless the FSTD qualification certificate is surrendered or revoked.

(b) The competent authority shall verify that the receiving organisation complies with the applicable requirements of Annex VII (Part-ORA).

(c) When the transfer of an FSTD in accordance with point ORA.FSTD.235 involves two competent authorities, those authorities shall coordinate the transfer.';

Rationale

Point (a) in the new point ARA.FSTD.125 clarifies the responsibilities of the authority in the event of a transfer of an FSTD. Currently, the obligation of the authority is set out in point ORA.FSTD.235(b), but it is moved to this new point ARA.FSTD.125 due to the nature and content of this provision.

Point (b) in the new point ARA.FSTD.125 specifies the obligation of the authority to verify that the organisation operating the FSTD complies with the applicable requirements in Part-ORA.

The new point (c) is created as a result of the focused consultation in June 2023 to ensure that the receiving authority is informed of the transfer and issues a new qualification certificate to the receiving operator.

(8) point ARA.FSTD.130 is replaced by the following:

'ARA.FSTD.130 Modifications

(a) Upon receiving an application for approval of a major modification of the FSTD as specified in point ORA.FSTD.110(a), the competent authority shall verify the compliance

of that major modification with the FSTD's qualification basis. If deemed necessary by the competent authority, such verification may include a special evaluation of the FSTD. When satisfied that the major modification of the FSTD is in compliance with its qualification basis, the competent authority shall approve the modification, unless the organisation operating the FSTD is acting in accordance with point ORA.FSTD.110(b)(2).

(b) Upon receiving an application from an organisation operating the FSTD, the competent authority may approve a procedure for that organisation to implement major modifications, provided that:

(1) the procedure complies with point ORA.FSTD.110(b)(2);

(2) during the preceding 36 months, the organisation operating that FSTD has demonstrated that it has managed changes in accordance with point ORA.GEN.200(a)(3).

(c) When the competent authority detects non-compliance of a major modification with the qualification basis, it shall act in accordance with point ARA.FSTD.100(e).

(d) Where a modification of an FSTD requires the use of a qualification basis that is different from the original qualification basis, the competent authority shall document the qualification of such changes, and the certification specification used.

(e) When a legacy FSTD or an FSTD with an assigned FCS in accordance with Appendix IX to Annex VI (Part-ARA) is to be qualified for UPRT, the special evaluation shall be conducted using CS-FSTD(A) Issue 2.';

Rationale

The text in point ARA.FSTD.130 has been substantially changed to enable modifications of the FSTD in the context of the FCS approach. The current terms 'update' and 'upgrade' of the FSTD have been replaced by the common term 'modification'. In the context of the FCS approach and considering that FSTD levels are no longer used, unless for legacy FSTDs, the term 'upgrade' in relation to an FSTD has lost its relevance. Therefore, the new term 'modification' has been introduced systematically in Part-ARA, Subpart FSTD, and Part-ORA, Subpart FSTD.

The term 'major modification' has been established to cater for a distinction between modifications where the competent authority has to verify compliance with the qualification basis (e.g. major modifications) and any other modifications, which are not classified as major (e.g. minor modifications).

As a general principle, it is established that major modifications (please refer to point ORA.FSTD.110) are subject to approval by the authorities, unless the organisation operating the FSTD has developed a procedure for managing major modifications that is approved by the competent authority. In the latter case, a major modification does not require approval by the authority. In both cases (modifications with approval and modifications without approval), the competent authority must verify the compliance of that major modification with the qualification basis and, if deemed necessary, conduct a special evaluation. The difference is that, when the modification requires approval, the modification must be implemented only after receiving approval by the authority, whereas, for a modification without approval, the organisation operating the FSTD may implement it based on the approved procedure for implementing major modifications. In the latter case, the organisation must notify the authority and is allowed to perform the modification based on the approved procedure and while complying with the conditions set in point ORA.FSTD.110(b).

In the event of major changes to the ESL, the authority must follow the same requirements mentioned in point ARA.FSTD.130(a), such as verifying the compliance of the major modification proposed in the ESL with its qualification basis. When satisfied that the modification to the ESL is in compliance with its qualification basis, the competent authority must approve the modification, unless the organisation

is acting in accordance with point ORA.FSTD.110(b)(2). It is not expected that every change in the ESL will require verification and approval by the authority. Examples of which changes are considered major and minor are provided in the supporting AMC and GM.

The conditions for managing major modifications without approval are specified in point (b). In addition to developing a procedure with a scope specified in ORA.FSTD.100(b)(2), the organisation is required to have at least 3 years of experience in managing changes in accordance with point ORA.GEN.200(a)(3).

In point (c), a new provision is proposed to specify how an authority must act if it detects non-compliance of the major modification.

The proposed new point (d) specifies the obligation of the authority to track and document the relevant qualification basis when a modification of an FSTD requires the use of a different qualification basis from the original.

The new point (e) determines the possibility for a legacy FSTD or an FSTD with an assigned FCS to be qualified with UPRT capabilities. In such cases, the competent authority performs a special evaluation using CS-FSTD(A) Issue 2. The rationale for specifying CS-FSTD(A) Issue 2 as a qualification basis is to ensure the continuity of the applicability of CS-FSTD(A) Issue 2, despite the entry into force of CS-FSTD Issue 1, and ensure a level playing field for legacy FSTDs and FSTDs with assigned FCSs.

It is worth mentioning that the amendments in this provision will be applicable to any FSTD (legacy FSTD, FSTD moved to the FCS framework or newly qualified FSTD with an FCS in accordance with CS-FSTD) modified.

Finally, the existing provisions in points (b) and (c) are deleted, with the rationale being that they are not applicable any longer, as there are now no 'upgrades' or 'higher qualification levels'. The proposed provision in point (a) provides flexibility for the authority to decide when a special evaluation is necessary in the event of a major modification to an FSTD.

(9) point ARA.FSTD.135 is replaced by the following:

'ARA.FSTD.135 FSTD qualification certificate – limitation, suspension and revocation

(a) The competent authority shall limit, suspend or revoke, as applicable, an FSTD qualification certificate in accordance with point ARA.GEN.350 in but not limited to the following circumstances:

(1) the FSTD qualification certificate was obtained through the falsification of submitted documentary evidence;

(2) the organisation operating the FSTD no longer complies with the applicable requirements of Annex VII (Part-ORA).

(b) The competent authority shall limit, suspend or revoke, as applicable, an FSTD qualification certificate after raising an item in accordance with point ARA.FSTD.100(e) and detecting that:

(1) the FSTD fails to comply with its qualification basis and the non-compliance adversely affects training, testing or checking;

(2) an organisation operating the FSTD fails to submit an acceptable corrective action plan to address item(s) raised during an evaluation or by any other means, or to perform the corrective action to the satisfaction of and within the period agreed by the competent authority in accordance with point ARA.FSTD.100(e).';

Rationale

The title of point ARA.FSTD.135 has been changed to reflect the content of the provision.

The provision is restructured, based on the comments from the Advisory Bodies and conclusions that the rule should clarify how the authority reacts to the non-compliance of the organisation operating the FSTD and the non-compliance of the FSTD. Therefore, point ARA.FSTD.135 is split into two points, (a) and (b), addressing enforcement measures:

(1) when the organisation operating the FSTD is not in compliance with the requirements (point a); and

(2) in case of non-compliance of an FSTD (point b).

The current point (a) specifies the circumstances in which the authority must limit, suspend or revoke an FSTD certificate when the organisation operating the FSTD does not comply with the applicable requirements. The existing points (a) and (c) now become points (1) and (2). Under the circumstances mentioned in points (a)(1) and (a)(2), the authority follows the process established in point ARA.GEN.350 and limits, suspends or revokes the qualification certificate, as applicable.

Point (b) specifies the circumstances in which the authority must limit, suspend or revoke an FSTD certificate when an item of the FSTD is raised by the authority following the process in point ARA.FSTD.100(e) and detecting that:

(1) the FSTD fails to comply with its qualification basis and the non-compliance adversely affects the use of the FSTD (similar to former point (c) of that provision), with the intention being that there should be evidence of the non-compliance of the FSTD negatively affecting the training, testing, checking;

(2) an FSTD non-compliance item is not addressed, because the organisation either fails to submit an acceptable corrective action plan or has not implemented the corrective action plan to the satisfaction of the authority and within the period agreed.

(10) point ARA.FSTD.140 is replaced by the following:

‘ARA.FSTD.140 Record-keeping

In addition to the records required in point ARA.GEN.220, the competent authority shall keep and update:

(a) the documentation related to the initial, recurrent or special evaluations of the qualified FSTDs under its oversight, including the planning, execution and outcome of these evaluations; and

(b) the ESL.’;

Rationale

A new requirement that the authority has to keep the ESL in its records is added to ensure that the authorities have access to and records of the initial/latest ESL issued by the organisation operating the FSTD.

In addition, the current obligation for the authority to keep a list of the qualified FSTDs and the dates when evaluations are due and carried out is replaced with more comprehensive text specifying that the authority must keep records of the documentation related to the planning and implementation of the evaluations for FSTDs under its supervision. This amendment does not introduce a new requirement,

but specifies the scope of the records. Finally, the text 'a list of the qualified FSTDs under its supervision' is deleted, as the same text is included in point ARA.GEN.220(b).

(11) Appendix IV to Annex VI (Part-ARA) is replaced by the following:

‘Appendix IV to ANNEX VI (Part-ARA) — Flight simulation training device qualification certificate

European Union (*)

[Competent authority]

FLIGHT SIMULATION TRAINING DEVICE (FSTD) QUALIFICATION CERTIFICATE

Pursuant to Commission Regulation (EU) No 1178/2011 and subject to the conditions specified below, the [competent authority] hereby certifies that

FSTD [IDENTIFICATION]
[FSTD MANUFACTURER AND SERIAL NUMBER]
located at
[LOCATION OF THE DEVICE]
operated by
[HOLDER OF THE QUALIFICATION CERTIFICATE]

has satisfied the qualification requirements in accordance with the applicable primary reference document of the device and Annex VII (Part-ORA) to Commission Regulation (EU) No 1178/2011, subject to the conditions of the attached FSTD specifications.

This qualification certificate shall remain valid subject to the FSTD’s compliance with the applicable requirements of the qualification basis and the holder of the qualification certificate remaining in compliance with the applicable requirements of Part-ORA, unless it has been surrendered, superseded, suspended or revoked.

Date of initial issue: ~~……~~
Revision:
Date of revision:
For the [competent authority]
Signature: ~~……~~

(*) ‘European Union’ to be deleted for non-EU Member States or EASA
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FSTD QUALIFICATION CERTIFICATE: [Reference]

FSTD SPECIFICATION

A.	Primary reference document (PRD)	
B.	(For legacy FSTDs only) FSTD type and level Group of aircraft/type/type and variant	
C.	Additional capabilities:	
D.	Limitations:	
E.	Remarks:	

FSTD CAPABILITY SIGNATURE (FCS)

F.	**FSTD FEATURE**	**FIDELITY LEVEL**	**SIMULATED AIRCRAFT**
1.	Flight deck layout and structure (FDK)		
2.	Flight control forces and hardware (CLH)		
3.	Flight control systems operation (CLO)		
4.	Aircraft systems (SYS)		
5.	Performance and handling on ground (GND)		
6.	Performance and handling in-ground effect (IGE)		
7.	Performance and handling out-of-ground effect (OGE)		
8.	Sound cueing (SND)		
9.	Vibration cueing (VIB)		
10	Motion cueing (MTN)		
11	Visual cueing (VIS)		
12	Navigation (NAV)		
13	Atmosphere and weather (ATM)		
14	Operating sites and terrain (OST)		

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Instructions for the issue of the FSTD qualification certificate.

(a) EASA Form 145 shall be used for the FSTD qualification certificate.

This document shall contain the FSTD specification and the FCS, where applicable, including any limitation(s) as appropriate to the FSTD concerned.

(b) The qualification certificate shall be printed in English and in any other language(s) determined by the competent authority.

(c) Separate qualification certificates shall be issued for:

(1) each FSTD capability signature;

(2) each combination of flight deck and platform in the case of major interchangeable assemblies;

(3) each flight deck to be used as an FSTD in the case of major interchangeable assemblies.

The FSTD qualification certificate shall specify the serial number of the flight deck.

(d) The identification of each flight deck and platform shall be established by using serial number placards and each flight deck and platform combination shall have a qualification certificate with a single FSTD serial number that contains the identification/serial number of the flight deck and platform.

(e) Different engine fits and alternate thrust ratings on one FSTD shall not require separate qualification certificates as long as the FCS is not changed.

(f) Different equipment, such as avionics fits, included in one FSTD shall not require separate qualification certificates. However, major differences in avionics may result in aircraft variants, which may require separate software loads. In such cases, separate FSTD qualification certificates shall be issued.

(g) The FSTD indicated on the qualification certificate shall carry a serial number prefixed by a code in letters. The letter code shall be specific to the issuing competent authority.

(h) In the table ‘FSTD specification’, the FSTD shall be defined by the PRD, which is defined in the MQTG and indicates any limitations of the FSTD, if applicable. In the case of a legacy FSTD, the FSTD specification table shall specify:

(1) the FSTD type and level; and

(2) the simulated aircraft type or type and variant or group of aircraft (e.g. aircraft category, engine configuration, wake turbulence category, as applicable).

(i) The competent authority shall specify in the table ‘FSTD specification’ under ‘Additional capabilities’ that an FSTD with an FCS is qualified for MCC when:

(1) the FSTD meets the requirements for MCC as specified in the applicable PRD; and

(2) the FSTD has an FCS that is equal to or higher than those in the following table:

	1. Flight deck layout and structure	2. Flight control forces and hardware	3. Flight control systems operation	4. Aircraft systems	5. Performance and handling on ground	6. Performance and handling in-ground effect	7. Performance and handling out-of-ground effect	8. Sound cueing	9. Vibration cueing	10. Motion cueing	11. Visual cueing	12. Navigation	13. Atmosphere and weather	14. Operating sites and terrain
Aeroplane FSTD	G	G	G	G	G	G	G	G	N	N	G	R	G	G
Helicopter FSTD	R	G	R	G	G	G	G	G	N	N	R	R	G	G

(j) The competent authority shall specify, in the table 'FSTD specification' under 'additional capabilities' that an aeroplane FSTD is qualified for UPRT and indicate whether it is 'approach to stall' or 'full stall'.

(k) In the table 'FSTD capability signature (FCS)', the FSTD shall be defined by its FCS, unless it is a legacy FSTD. In the case of an FSTD that falls under points (2)(a)(i)(A) and (2)(a)(ii)(A) of Article 10b of this Regulation, the table 'FSTD capability signature (FCS)' shall be filled in with the assigned FCS in accordance with Appendix IX to Annex VI (Part-ARA).

(l) Completion of the qualification certificate for FSTDs with FCSs.

(1) When the FSTD qualification process validates the FCS declared in the application, the relevant FSTD feature fidelity levels (N, G, R or S) shall be entered on the FSTD qualification certificate in the 'fidelity level' column of the 'FSTD capability signature (FCS)' table for each feature in turn. The fidelity levels are defined as follows:

(i) specific (S) is the highest level of fidelity for a given FSTD feature;

(ii) representative (R) is the intermediate level of fidelity for a given FSTD feature;

(iii) generic (G) is the lowest level of fidelity for a given FSTD feature;

(iv) none (N) means either of the following:

(A) the FSTD feature is not installed, functional or available for use in training; or

(B) a feature is installed but is not required and, in this case, it shall not be distracting or detracting from the other features for the intended use of the device.

(2) Where an FCS feature is either not applicable or not available for the FSTD being qualified, the fidelity level 'N' shall be entered in the 'fidelity level' column.

(3) Where the FSTD feature 'aircraft systems' reflects different aircraft systems that are at different fidelity levels, the highest fidelity level shall be entered and marked with an asterisk (*). The simulated aircraft systems and the related fidelity level shall be specified on the ESL. In this case, the following statement shall be made in the 'remarks' column: 'Not all aircraft systems are simulated and/or at the same fidelity level. Please refer to the ESL.'

(4) Where the FSTD feature 'flight control forces and hardware' reflects flight controls that are at different fidelity levels, the highest fidelity level shall be entered and marked with an asterisk (*). The simulated flight control forces and hardware and the related fidelity level shall be specified on the ESL. In this case, the following statement shall be made in the 'remarks' column: 'Not all flight control forces and hardware are simulated and/or at the same fidelity level. Please refer to the ESL.'

(5) In the case of an interim qualification in accordance with point ARA.FSTD.115, the qualification certificate shall indicate the fidelity level and include 'interim' in the column 'fidelity level' for the applicable features in the table 'FSTD capability signature (FCS)'.

(6) For the aircraft simulation features (1–7) and/or the cueing features (8–9), the simulated aircraft shall be entered on the FSTD qualification certificate in the 'simulated aircraft' column of the table 'FSTD capability signature (FCS)'. For each feature, the simulated aircraft shall be specified as follows:

(i) if the fidelity level is 'S', an aircraft type and variant (make, model and series);

(ii) if the fidelity level is 'R', an aircraft type (make and model);

(iii) if the fidelity level is 'G', a group of aircraft by indicating:

(A) the aircraft category; and

(B) the engine configuration; and

(C) the wake turbulence category for the features, where it is applicable.';

Rationale

A new template for the qualification certificate is developed to ensure alignment with the FCS concept. Instructions on filling in the new template are provided.

Based on the input from the Advisory Bodies at the focused consultation in June 2023, on the first page of the qualification certificate, references to the FSTD FCS and ESL are deleted, as they were found to be obsolete. The FSTD FCS would be displayed on page 2 of the qualification certificate and therefore the reference is redundant. As regards the reference to the ESL, it was also found to be redundant because, by issuing the qualification certificate, the authority confirms that the organisation operating the FSTD has satisfied the qualification requirements in accordance with the applicable PRD and Part-ORA. Additionally, it is clarified that the date of issue refers to the date of initial issue; new text is added for the date of revision and the revision number.

Updates from the focused consultations in March 2024 and September 2024 are as follows.

(1) A new row, 'additional capabilities', is added to the FSTD template to identify whether the FSTD is qualified for MCC or UPRT training. The reason for adding this column to the qualification certificate is that MCC and UPRT can be seen as additional capabilities of an FSTD that must be granted by the authority during the FSTD qualification process.

(2) In the instructions on how to complete the certificate, it is clarified that:

- *the qualification certificate must reflect whether the FSTD has an additional capability for MCC when the FSTD meets the requirements for MCC as specified in the applicable PRD, and has an FCS that is equal to or higher than the FCS for FNPT II MCC in accordance with point FCL.036(a)(1) for aeroplanes and point FCL.036(a)(2) for helicopters;*
- *the qualification certificate must reflect whether the FSTD has an additional capability for UPRT.*

(3) The FSTD feature 'flight controls forces and hardware', similarly to the feature 'aircraft systems' may be marked with an asterisk (*) on the qualification certificate. The reason for this

is that flight controls may be at different fidelity levels and thus the certificate must reflect the highest fidelity level, with the asterisk highlighting the need to pay attention to the difference in the fidelity levels of some flight control systems or aircraft systems. Such differences must be specified in the ESL.

(4) For FSTDs with interim qualifications, it is proposed that, when the certificate indicates the fidelity level, the wording 'interim' should be added in the column 'fidelity level' for the applicable features in the table 'FSTD capability signature (FCS)'.

(5) The instructions are amended to provide clarity on how to describe an FSTD with a G fidelity level. The provision aims to establish a standard approach to describing such FSTDs.

(12) in Annex VI (Part-ARA), the following Appendix IX (Assigned FCS for FSTDs) is added after Appendix VIII:

'*Appendix IX to ANNEX VI (Part-ARA)*

Assigned FCSs for FSTDs

When Article 10b refers to this Appendix, competent authorities, when reissuing FSTD qualification certificates, shall assign an FCS in accordance with the table below. When an FSTD that is listed in column (A) meets the requirements in accordance with the PRD specified in column (B) of the same row and does not present any limitation, it shall receive an assigned FCS as specified in column (C) of that row.

	(A)	(B)	(C)													
			ASSIGNED FCS													
	FSTD level	PRD	1. Flight deck layout and structure	2. Flight control forces and hardware	3. Flight control systems operation	4. Aircraft systems	5. Performance and handling on ground	6. Performance and handling in-ground effect	7. Performance and handling out-of-ground effect	8. Sound cueing	9. Vibration cueing	10. Motion cueing	11. Visual cueing	12. Navigation	13. Atmosphere and weather	14. Operating sites and terrain
(1)	FFS level D	JAR-STD 1A amendment 3 or later with UPRT qualification under CS-FSTD(A) Issue 2	S	S	S	S	S	S	S	S	S	S	S	S	S	S
(2)	FFS level D	JAR-STD 1A amendment 3 or later	S	S	S	S	S	S	S	S	S	S	S	S	S	S
			With limitation of no UPRT training, testing and checking													
(3)	FFS level C	JAR-STD 1A amendment 3 or later with UPRT qualification under CS-FSTD(A) Issue 2	S	S	S	S	S	S	S	R	R	S	R	S	S	S
(4)	FFS level C	JAR-STD 1A amendment 3 or later	S	S	S	S	S	S	S	R	R	S	R	S	S	S
			With limitation of no UPRT training, testing and checking													
(5)	FFS level B	JAR-STD 1A amendment 3 or later	S	R	S	S	R	R	R	G	R	R	G	S	G	G
(6)	FFS level A	JAR-STD 1A amendment 3 or later	S	R	S	S	G	G	G	G	G	G	G	S	G	G
(7)	FTD level 2	JAR-STD 2A initial issue or later	S	R	S	S	N	G	G	G	N	N	N	S	N	N
(8)	FNPT level II MCC	JAR-STD 3A change 1 or later	G	G	G	G	G	G	G	G	N	N	G	R	G	G

(9)	FNPT level II	JAR-STD 3A change 1 or later	G	G	G	G	G	G	G	G	N	N	G	R	G	G
(10)	FNPT level I	JAR-STD 3A change 1 or later	G	G	G	N	N	N	G	N	N	N	N	R	N	N
(11)	FFS level D	JAR-STD 1H initial issue or later	S	S	S	S	S	S	S	S	S	S	S	S	S	S
(12)	FFS level C	JAR-STD 1H initial issue or later	S	S	S	S	S	S	S	R	R	S	R	S	S	R
(13)	FFS level B	JAR-STD 1H initial issue or later	S	S	S	S	R	R	R	G	R	R	G	S	G	R
(14)	FFS level A	JAR-STD 1H initial issue or later	S	R	S	S	G	G	G	G	G	G	G	S	G	G
(15)	FTD level 3 MCC	JAR-STD 2H initial issue or later	R	R	R	S	G	R	R	G	N	N	R	S	R	R
(16)	FTD level 3	JAR STD 2H initial issue or later	R	R	R	S	G	R	R	G	N	N	R	S	R	R
(17)	FTD level 2 MCC	JAR STD 2H initial issue or later	R	R	R	S	G	G	G	G	N	N	R	S	G	R
(18)	FTD level 2	JAR STD 2H initial issue or later	R	R	R	S	G	G	G	G	N	N	R	S	G	R
(19)	FNPT level III MCC	JAR-STD 3H initial issue or later	R	G	R	G	G	G	G	G	N	N	R	R	G	R
(20)	FNPT level III	JAR-STD 3H initial issue or later	R	G	R	G	G	G	G	G	N	N	R	R	G	R
(21)	FNPT level II MCC	JAR-STD 3H initial issue or later	R	G	R	G	G	G	G	G	N	N	R	R	G	G
(22)	FNPT level II	JAR-STD 3H initial issue or later	R	G	R	G	G	G	G	G	N	N	R	R	G	G
(23)	FNPT level I	JAR-STD 3H initial issue or later	G	G	G	N	N	N	N	N	N	N	N	R	N	N

Rationale

A new appendix to Annex VI is created to list the assigned FCSs for existing devices whose PRDs are expressed in column (B). This table is to be used for the sake of assigning FCSs in accordance with the procedures established in Article 10b.

The assigned FCSs are determined by comparing the general requirements in the qualification basis of the PRDs in column (B) with the applicable general requirements for aeroplanes or helicopters, as proposed in Subpart B of the draft CS-FSTD Issue 1.

ANNEX III

Amendments to Annex VII (Part-ORA) to Commission Regulation (EU) No 1178/2011

Annex VII is amended as follows:

(1) in point ORA.ATO.135(b), point (1) is replaced by the following:

'(1) the adequacy of the FSTD specifications for the related training programme, on the basis of the FSTD qualification certificate and the ESL;';

Rationale

The addition to point (b)(1) ensures that the ATO uses the FSTD qualification certificate and the ESL when assessing the suitability of the FSTD in the training. By doing so, a clear link is established between the FSTD qualification certificate and the ESL, as both documents provide exhaustive information about the FSTD's capabilities to support the assessment of the adequacy of the FSTD in a training programme.

(2) point ORA.FSTD.100 is replaced by the following:

'ORA.FSTD.100 General

(a) The organisation operating the FSTD shall demonstrate to the competent authority that it has established a management system in accordance with Subpart GEN, Section II of this Part. This demonstration shall ensure that the applicant has, directly or through contract, the capability to maintain the performance, functions and other characteristics specified in the applicable qualification basis for the FSTD and to control the installations of the FSTD.

(b) The organisation operating the FSTD shall provide the competent authority with documentation demonstrating how it complies with the requirements established in this Regulation. Such documentation shall include a procedure describing how the ESL is established and maintained.

(c) If the organisation operating the FSTD is notified by the competent authority of non-compliance of the FSTD with its qualification basis in accordance with point ARA.FSTD.100(e), the organisation shall:

(1) draw up a corrective action plan addressing all the items and, in the case of recurring, systemic or critical items, identify the root cause of the non-compliance(s);

(2) submit the corrective action plan, which shall be implemented to the satisfaction of the competent authority and within the period specified in point ARA.FSTD.100(e)(1);

(3) demonstrate corrective action implementation to the satisfaction of the competent authority by providing the associated evidence.

(d) Every year, the organisation operating the FSTD shall provide the competent authority with FSTD metrics to demonstrate the FSTD performance, use and other characteristics.';

Rationale

In the current point (a), editorial changes are introduced and the reference to FSTD qualification levels is deleted to cater for alignment with the FCS framework. The reference to the applicant for an FSTD

qualification is replaced with a reference to the organisation operating the FSTD, with the rationale being that it is an organisation's responsibility to demonstrate to the authority the establishment of the management system.

The current point (b) is deleted as it is not relevant to Subpart FSTD in Part-ORA. In addition, in the new point (b), it is stipulated that the organisation operating the FSTD provides the authority with documentation demonstrating how it complies with the applicable requirements, including developing a procedure for establishing and maintaining an ESL. The reference to the ESL procedure is considered necessary in order to set out the obligation of the organisation as regards the ESL. In addition, this point is relevant in cases where the organisation operating the FSTD moves to the new framework with either a legacy FSTD or an FSTD opting for an FCS. In all cases, the organisation must develop the ESL and provide it to the authority. The rule does not specify when the information on this procedure should be provided to the authority. When the organisation implements the transitional provisions (Article 10b), it is expected that such a procedure will be developed and the organisation operating the FSTD will declare this with the statement that it has established the FSTD's compliance with the amendments to Part-ORA, Subpart FSTD (Article 10b, point (5)).

Furthermore, the new point (c) is established, similar to point ORA.GEN.150, to ensure that the organisation operating the FSTD must take certain actions upon notification by the competent authority of the non-compliance of the FSTD in respect of its qualification basis.

The new point (d) is established to require the organisation operating the FSTD to provide information on the FSTD performance, use and other characteristics. This is already specified in AMC2 ORA.FSTD.100. It is proposed to move it into hard law to ensure legal clarity and certainty. In addition, it follows on the implementation of risk-based oversight by the authorities by allowing them to receive annual information on the FSTD performance, which will support the development of the oversight programme.

(3) point ORA.FSTD.105 is replaced by the following:

'ORA.FSTD.105 Maintaining the FSTD qualification

(a) The organisation operating the FSTD shall perform all of the following to maintain the FSTD qualification:

(1) maintain the FSTD in a condition in which it consistently performs in accordance with the qualification basis, including by conducting functional pre-flight checks within the 24 hours preceding the use of the FSTD for training, testing or checking;

(2) conduct the complete set of objective tests contained in the MQTG progressively over a 12-month cycle. Results from these tests shall be evaluated, dated, marked as analysed and retained in accordance with point ORA.FSTD.240 in order to demonstrate that compliance with the FSTD qualification basis is being maintained;

(3) conduct the complete set of functions and subjective tests contained in the MQTG progressively over a 24-month cycle. The results of each fly-out shall:

(i) be accompanied by a declaration that the FSTD has been tested;

(ii) demonstrate that the compliance with the FSTD qualification basis is being maintained; and

(iii) be retained in accordance with point ORA.FSTD.240;

(4) preserve the integrity of the hardware and software of the FSTD and establish and maintain a configuration control system, including database management.

(b) If non-compliance is identified during the tests referred to in points (a)(2) and (3), the organisation shall implement corrective actions to address the non-compliance. The evidence of the implemented corrective actions shall be retained in accordance with point ORA.FSTD.240.

(c) If an organisation plans to remove an FSTD from active status for a prolonged period, the organisation shall:

(1) notify the competent authority; and

(2) establish suitable controls for the period during which the FSTD is inactive.

The organisation shall agree with the competent authority a plan for the deactivation, storage and reactivation to ensure that the FSTD can be restored to active status at its original qualification.';

Rationale

The whole provision is redrafted to address the feedback from the Advisory Bodies during consultations in March and September 2024. Point (a) specifies the main objective when maintaining the FSTD (i.e. that the FSTD performs consistently in accordance with the qualification basis). In addition, it specifies that the organisation must perform pre-flight checks within the 24 hours preceding the use of the FSTD. Such an obligation is currently included in CS-FSTD(A) Issue 2 / CS-FSTD(H) and is moved into this point because CS-FSTD does/should not set out the obligations of the organisations operating FSTDs.

The current text of points ORA.FSTD.105(a) and (b) is moved to point (a)(2).

Taking into consideration the feedback from the Advisory Bodies during the workshop on the draft CS-FSTD Issue 1 in September 2024, EASA proposes that the functions and subjective tests contained in the MQTG be conducted progressively over a 24-month cycle (i.e. over a different cycle from that proposed for the objective tests). The proposed change is justified by the fact that, currently, such tests are done with a frequency that has been shown to be unproductive (four fly-outs over a 12-month cycle) and deemed to add minimal value for both the operator and the competent authority. The number of such tests performed on a quarterly basis has been shown to lead to unnecessary FSTD resource utilisation. In addition to the introduction of a different frequency, the process for marking and evaluating the results of the functions and subjective tests is strengthened, with the rationale being to provide value for the organisation operating the FSTD. In this regard, it is proposed that the results of the fly-out must be accompanied by a declaration that the FSTD has been tested to demonstrate that the FSTD technical standards are being maintained.

The current point (c) becomes point (a)(4), clarifying the obligation of the organisation to establish and maintain database management as part of the configuration management process.

Following questions from stakeholders, the provisions are amended to establish a legal obligation for the organisation operating the FSTD to address any non-compliance identified during the conduct of the tests by taking corrective action(s) and to keep records of the action(s) in its system. This obligation is established to provide traceability and legal clarity.

The new point (c) is based on point ORA.FSTD.230(d), which is moved here as it refers to the obligation of the organisation to ensure the continuation of the FSTD qualification in the event of the deactivation/reactivation of the FSTD.

(4) point ORA.FSTD.110 is replaced by the following:

'ORA.FSTD.110 Management of modifications

(a) A modification of the FSTD affecting any of the following shall be considered a major modification and shall be implemented in accordance with point (b):

(1) the FSTD qualification certificate;

(2) any modification to the FSTD qualification, affecting training, testing or checking.

(b) The organisation operating the FSTD shall implement a major modification of an FSTD only if:

(1) it obtains approval of the modification from the competent authority in accordance with point ARA.FSTD.130(a); or

(2) it is managing the modification in accordance with a procedure approved by the competent authority in accordance with point ARA.FSTD.130(b). The procedure shall include all of the following:

(i) the scope of each major modification;

(ii) the management of the modification;

(iii) the notification of the competent authority.

(c) In the event of a major modification to the FSTD, the organisation operating the FSTD shall do all of the following:

(1) prepare and evaluate any modification, including all applicable objective, functions and subjective tests, to determine the impact on the original qualification criteria;

(2) apply for prior approval and submit the documentation related to the activities specified in point (c)(1) and any other relevant documentation to the competent authority, unless the organisation operating the FSTD is entitled to act in accordance with point (b)(2);

(3) manage any modifications to the FSTD in compliance with its organisation management system;

(4) declare to the competent authority that the FSTD complies with its qualification basis when the modification is implemented.

(d) The organisation operating the FSTD shall establish and maintain a system to identify, assess and incorporate any modifications into the FSTD it operates, especially:

(1) aircraft modifications that are essential for training, testing and checking, whether or not they are enforced by an airworthiness directive;

(2) modifications of an FSTD that affect the FCS, the qualification certificate, the ESL, the MQTG or the FSTD hardware and/or software, including the motion and visual system, handling, performance and systems operations; or

(3) any other modifications of the FSTD essential for training, testing and checking.

(e) The organisation operating the FSTD shall validate:

(1) any modification to the MQTG and, in the case of major modifications, inform the competent authority;

(2) any modification to the ESL and, in the case of major modifications that affect the ESL, submit the updated ESL to the competent authority.

(f) In the event of a modification to the FSTD that is managed in accordance with point (b)(2) and affects the qualification certificate, the organisation operating the FSTD shall apply to the competent authority for the issue of a new qualification certificate.';

Rationale

The text in point ORA.FSTD.110 has been substantially changed in the context of the proposed changes to point ARA.FSTD.130 to enable modifications of FSTDs following the FCS approach. When implementing modifications, the organisations operating the FSTD must first determine whether the

modification is classified as major or minor. The criteria for determining which modifications are major are established in hard law (point (a)). These criteria were redrafted as a result of the focused consultation in June 2023, where the Advisory Bodies voiced the need to establish a demarcation line between major and non-major modification. In the earlier version, EASA had proposed a list of major modifications, but these were considered too broad by the Advisory Bodies and it was felt that almost every modification could be considered a major one. This issue is resolved with the proposed new criteria in point (a).

Furthermore, it is specified that these modifications must be implemented through one of two approaches (new point (b)). The organisation must implement a major modification by obtaining prior approval from the competent authority or by following the procedure approved by the competent authority in accordance with point ARA.FSTD.130(b). In the latter case, the rules clearly stipulate the minimum content of such a procedure (point (b)(2)(i)–(iii)). This option is provided to organisations operating FSTDs to enable recurrent major modifications to be carried out through the path of 'modification without prior approval' of the competent authority.

The new point (c) determines the tasks that an organisation operating an FSTD must perform in the event of a major modification, regardless of the way the organisation implements the modification (i.e. with prior approval or without prior approval). The organisation must assess the FSTD with regard to the applicable qualification basis, prepare amendments to affected objective tests and submit the documentation to the competent authority (if applying for approval). The new point (c) is developed based on the existing requirements applying to the organisation that are currently in points (b) and (c).

The existing point (a) becomes the new point (d) and is amended to align with the FCS framework.

The new point (e) is established to set out the obligations of the organisation to validate modifications of the MQTG and ESL and inform the authority under certain conditions.

Although a major modification can be implemented without prior approval, the organisation has to apply for a new FSTD qualification certificate if the modification leads to a change to the certificate (new point (f)).

(5) point ORA.FSTD.115 is replaced by the following:

'ORA.FSTD.115 Installations

(a) The organisation operating the FSTD 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 an emergency;

(3) the FSTD and its installations comply with the local regulations for health and safety;

(4) the qualification certificate and ESL are displayed and accessible to all FSTD users and authorities.

(b) The assessment of FSTD safety features, such as emergency stops and emergency lighting, shall be part of the organisation management system and checked at least annually and recorded to ensure safe operations.';

Rationale

A new requirement in point (a)(4) is added as regards the obligation of the organisation operating the FSTD to ensure the accessibility of the qualification certificate and ESL to all relevant FSTD

users/authorities. This will ensure that both documents are equally accessible and transparent to the relevant users.

A change in point (b) is initiated to clarify that the assessment of FSTD safety features, such as emergency stops and emergency lighting, is part of the organisation management system. This insertion aims to improve the interface among the safety assessment of FSTD installations, safety features and safety management system of the organisation.

(6) point ORA.FSTD.120 is replaced by the following:

'ORA.FSTD.120 ESL

(a) The organisation operating the FSTD shall develop and maintain an ESL for each FSTD qualification certificate.

(b) The ESL shall include accurate and comprehensive information regarding the FSTD qualification and its qualification basis, installed equipment, capabilities and specifications and shall be designed to allow for all of the following:

(1) assessment of the suitability of the FSTD for its intended use;

(2) evaluations of the FSTD in accordance with point ARA.FSTD.100;

(3) maintenance of the FSTD qualification in accordance with point ORA.FSTD.105.

(c) The organisation operating the FSTD shall validate and verify that the information in the ESL as referred to in point (b) is accurate and comprehensive.

(d) The organisation operating the FSTD shall add, to the FSTD, additional equipment for which qualification is not required only if, after an assessment, it concludes that such equipment does not adversely affect the training.';

Rationale

The title of point ORA.FSTD.120 is modified to accommodate the introduction of the ESL together with the existing provisions on additional equipment.

The new points (a), (b) and (c) set the requirements for an organisation operating an FSTD to develop and maintain the ESL. The minimum content of the ESL is determined in point (b), which also introduces the objective of the ESL. In point (c), the responsibilities of the organisation operating the FSTD are specified. Definitions of the terms 'verification' and 'validation' are added to Article 2 of Regulation (EU) No 1178/2011.

Finally, the existing text of point ORA.FSTD.120 is redrafted as new point (d) for greater clarity.

(7) point ORA.FSTD.200 is replaced by the following:

'ORA.FSTD.200 Application for an FSTD qualification certificate

The application for an FSTD qualification certificate shall be made by the organisation operating the FSTD in a form and manner established by the competent authority. It shall include all of the following:

(a) the initial application form, together with:

(1) a table of chosen validation data, specifying the unique data source for each objective test; and

(2) an ESL;

(b) a declaration that the organisation operating the FSTD has performed all required objective tests of the FSTD and meets the criteria in the applicable qualification basis, together with the QTG, including the validation data roadmap and the engineering report;

(c) a declaration indicating that:

(1) all objective tests, functions and subjective tests have been completed and the general requirements for the requested FCS have been met; and

(2) the FSTD complies with the applicable requirements and with the simulated aircraft or group of aircraft as appropriate for each FSTD feature.';

Rationale

The title of the point is changed to clarify that the application is for an FSTD qualification certificate.

The whole point is revised to clarify the contents of the application form and attached documents in support of each application phase, following the FCS concept. The proposal follows the current practice of an application form in three parts:

- *Part A, specified under point (a), is the initial application form, together with the documents specified in points (a)(1) and (2). Taking into consideration the comments from the stakeholders, the point is changed to clarify that the organisation operating the FSTD must provide only a table of chosen validation data and not the entire validation data roadmap. The intention is to request a summary (matrix) of the validation data that is used for each objective test with the initial application form.*
- *Part B, which is specified in point (b), requires a declaration that the organisation performed all objective tests, together with the QTG, including the validation data roadmap and engineering report.*
- *Part C, specified under point (c), is a declaration that all objective, functions and subjective tests are completed and the FSTD complies with the applicable requirements and the simulated aircraft type or group of aircraft as appropriate for each feature.*

The text of the proposed provision is redrafted, following the focused consultation in September 2024 with the Advisory Bodies, to align with the new (draft) CS-FSTD, mainly regarding the certification specifications for the validation data roadmap, engineering report and validation data. According to the new CS-FSTD, the validation data, validation data roadmap and engineering report (ER) will be required for every newly qualified FSTD.

Finally, the references to BITDs have been deleted, as they are no longer within the scope of the CS-FSTD Issue 1 for initial qualification.

(8) in point ORA.FSTD.210, point (b) is replaced by the following:

'(b) The qualification basis shall be applicable for recurrent evaluations of the FSTD unless a modification of the FSTD requires the use of a different qualification basis.';

Rationale

In point (b), the change is made in order to align the provision with the FCS approach. Until now, the re-categorisation was meant to be in the context of upgrading the device and achieving a higher qualification level and type, which is no longer relevant in the context of FCS.

Following a focused consultation with the Advisory Bodies in June 2023, it is clarified that the original qualification basis continues to be applicable in recurrent evaluations unless there is a major change that requires the use of a different qualification basis.

(9) in point ORA.FSTD.225, the introductory sentence in point (b) is replaced by the following:

'(b) If the competent authority has extended the recurrent evaluation period for an FSTD in accordance with point ARA.FSTD.120(c) of Annex VI (Part-ARA), the organisation shall assign a person or group of persons with adequate experience who shall do all of the following within a period of 60 days before and 30 days after the start of each recurrent 12-month period in accordance with point ARA.FSTD.120(b) of Annex VI:';

Rationale

In point (b), the reference to point ARA.FSTD.120(b)(1) is deleted, as the point does not exist any longer.

(10) in point ORA.FSTD.225, point (c) is deleted;

Rationale

The reference to BITDs has been deleted, as they are no longer within the scope of CS-FSTD Issue 1. However, the transitional provisions stipulated in Article 10b retain the reference to the period of recurrent evaluation for existing BITDs.

(11) point ORA.FSTD.230 is deleted;

Rationale

After a review of the hard law amendments, it is proposed that the entire point ORA.FSTD.235 be deleted, as the changes proposed in point ORA.FSTD.110 are considered comprehensive for the management of modifications of an FSTD. Therefore, this point is deemed redundant.

The current point (a) is deleted, as it becomes repetitive in the context of the new proposals in point ORA.FSTD.110. According to the proposed point ORA.FSTD.110(a), a change to the FSTD qualification certificate is a major modification, which includes the relocation or deactivation of the FSTD.

The current point (b) is deleted, as the term 'upgrade' in relation to an FSTD became obsolete in the context of the FCS framework.

Point (c) is proposed to be deleted from hard law. The rationale is that the relocation of an FSTD is a major modification and point ORA.FSTD.110 sets up the framework for managing such modifications. If the FSTD is relocated, the organisation must apply to the competent authority for approval and perform the relocation after obtaining such approval, unless the organisation is entitled to manage the modification in accordance with a procedure approved by the competent authority in accordance with point ARA.FSTD.130(b). The current text stating that the organisation is to perform at least one third of the objective, functions and subjective tests is to be included in the supporting AMC to this point.

The possibility in the current point (c) for the competent authority to perform an evaluation of the FSTD after the relocation is provided for in point ARA.FSTD.125. ARA.FSTD.125 also envisages that the evaluation must be undertaken in accordance with the original qualification basis of the FSTD.

The current point (d) is moved to point ORA.FSTD.105, as it refers to the obligation of the organisation to ensure the continuation of the FSTD qualification in the event of the deactivation/reactivation of the FSTD.

(12) point ORA.FSTD.235 is replaced by the following:

'ORA.FSTD.235 Transfer of an FSTD

(a) When there is a change of the organisation operating the FSTD:

(1) the receiving organisation shall notify the competent authority in advance in order to agree upon a plan for the transfer of the FSTD;

(2) the transferring organisation shall inform the competent authority before the transfer and upon surrendering the FSTD qualification certificate.

(b) When the FSTD no longer complies with its qualification basis, the organisation shall apply for a new FSTD qualification certificate.';

Rationale

The title of the provision is changed to align with the definition of FSTD qualification. The provision establishes the framework for the (physical) transfer of an FSTD and not a transfer of the FSTD technical capabilities.

Following the focused consultation in June 2023, a new sentence is added to point (a) to ensure that the authority of the former organisation knows about the change of the organisation operating the FSTD.

The provision that an authority may perform an evaluation is moved to point ARA.FSTD.125(a) due to the nature of the provision.

(13) point ORA.FSTD.240 is replaced by the following:

'ORA.FSTD.240 Record-keeping

The holder of an FSTD qualification certificate shall keep records of:

(a) all documents describing and proving the qualification basis and level of the FSTD, including the FCS, if applicable, and the initial ESL of the FSTD for the duration of the FSTD's lifetime;

(b) superseded versions of the MQTG and ESL for the duration of the FSTD's lifetime; and

(c) any recurrent documents and reports related to each FSTD and compliance monitoring activities for a period of at least 5 years.'.

Rationale

A new requirement is added so that the organisation has to keep records of the initial ESL, together with the superseded versions of the MQTG and ESL, for the duration of the FSTD's lifetime.

ANNEX IV

Amendments to Annex VIII (Part-DTO) to Commission Regulation (EU) No 1178/2011

Annex VIII is amended as follows:

In point DTO.GEN.240, the following point (aa) is inserted after point (a):

‘(aa) The DTO shall use FSTDs in accordance with point (a) only when it demonstrates to the competent authority the adequacy of the FSTD specifications for the related training programme, on the basis of the FSTD qualification certificate and the ESL.’.

Rationale

The new point ensures that DTOs use the FSTD qualification certificate and the ESL when assessing the suitability of the FSTD in the training. By doing so, a clear link is established between the FSTD qualification certificate and the ESL, as both documents provide exhaustive information about the FSTD capabilities to support the assessment of the adequacy of the FSTD in a training programme.

ANNEX V

Amendments to Annex I (Definitions) to Commission Regulation (EU) No 965/2012

Annex I is amended as follows:

(1) Definition (50) is replaced by the following:

‘(50) ‘flight simulation training device (FSTD)’ means a device for pilot training, testing and checking whose qualification certificate includes an FSTD capability signature (FCS) or, in the case of a legacy FSTD:

(a) for aeroplanes, is a full flight simulator (FFS), a flight training device (FTD), a flight and navigation procedures trainer (FNPT) or a basic instrument training device (BITD); or

(b) for helicopters, is a full flight simulator (FFS), a flight training device (FTD) or a flight and navigation procedures trainer (FNPT);’;

(2) the following definitions (130) and (131) are added after definition (129):

‘(130) ‘legacy FSTD’ means an FSTD whose qualification certificate does not include an FCS or assigned FCS;

(131) ‘equipment specification list (ESL)’ means a list which is part of the FSTD qualification and provides accurate and comprehensive information regarding the device qualification and its qualification basis, installed equipment, capabilities and specifications.’.

Rationale

See the rationale for Article 2 of Annex I (Part-FCL) to Commission Regulation (EU) No 1178/2011.

ANNEX VI

Amendments to Annex III (Part-ORO) to Commission Regulation (EU) No 965/2012

Annex III is amended as follows:

In point ORO.FC.145, point (d) is replaced by the following:

‘(d) The operator shall use a suitable FSTD that complies with all of the following requirements:

(1) it is qualified in accordance with Commission Regulation (EU) No 1178/2011;

(2) it replicates the aircraft used by the operator, as far as practicable;

(3) it is used for a particular exercise only if the FSTD possesses the features and related fidelity levels to simulate the relevant aircraft in that exercise to the extent necessary for the flight crew member to develop or maintain the competence required for the safe, effective and efficient operation of aircraft.

The operator shall verify the suitability of an FSTD for the intended use on the basis of the FSTD qualification certificate and ESL.

When the requirements of this Regulation refer to particular FSTD types and levels, the operator may use FSTDs in accordance with point FCL.036 of Annex I (Part-FCL) to Commission Regulation (EU) No 1178/2011.

Differences between the FSTD and the aircraft shall be described and addressed through a briefing or training, as appropriate.’

Rationale

Proposed new point ORO.FC.145(d)(3) enables the use of the FCS framework in operator recurrent training under Commission Regulation (EU) No 965/2012. The word ‘competence’ is used to refer to point ORO.FC.130. The intention of new proposed point (d)(3) is to ensure that operators use an FSTD that is appropriate for the items (exercises/manoeuvres) to be covered in accordance with the relevant training and checking programme or syllabus.

New point FCL.036 of Annex I (Part-FCL) to Commission Regulation (EU) No 1178/2011 outlines the usability of FSTDs with FCSs in the context of the Part-FCL requirements that still refer to particular FSTD types and levels. The arrangements of point FCL.036 should also apply in the context of the requirements of Commission Regulation (EU) No 965/2012 that contain such FSTD references. Hence, it is proposed that a reference to point FCL.036 be added to point ORO.FC.145(d).

Finally, the proposal adds a reference to / link between the FSTD qualification certificate and ESL, which supports the assessment of the suitability of the FSTD for the intended use.