European Union Aviation Safety Agency	**Position paper on the use of FSTD, other than FFS, in training and checking**
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1. Issue

EASA standardisation activities revealed that there are different interpretations, among national competent authorities (NCAs) and operators, on the use of FSTDs (other than FFS) for training and checking. This, along with questions from industry stakeholders, raised the attention of the Agency on this topic.

The main question is whether an FTD can be considered a *suitable* device to fully conduct a licensing or an operator's proficiency check (LPC/OPC and ST).

With this paper, the Agency aims to establish a common criterion for interpreting the relevant regulations, thereby ensuring a level playing field within the EASA Member States.

2. Part -FCL

Appendix 9 to Annex I (Part-FCL) to Regulation (EU) No 1178/2011, third subparagraph of Section A point 1 reads as follows:

"*The training, skill test or proficiency check for class or type ratings for SPA and helicopters shall be conducted in:*

(a) an available and accessible FFS, or
(b) a ***combination of FSTD(s) and the aircraft if an FFS is not available or accessible****, or*
(c) the aircraft if no FSTD is available or accessible.

According to the above point (a), an FFS is the only device that guarantees that training and checking can be completed without the use of the real aircraft.

Point (b) provides provisions in case of unavailability or inaccessibility of an FFS, allowing the use of a device other than an FFS (such as an FTD).

In this case, the following considerations apply:

a) Appendix 9 is clear on the fact that the use of a lower qualification level device (e.g. FTD) is only allowed when in combination with an aircraft.
b) Training and checking programmes should be developed or reviewed assessing how the training/checking tasks will be covered through a combination of FSTD and aircraft.
c) The organisation should describe to its NCA which part of the training and checking is intended to be delivered in the FSTD and which part in the aircraft.
d) The task sharing description should be supported by a detailed task analysis of the training/checking elements that will be delivered in the FSTD, to demonstrate that the identified device is suitable for the proposed training and/or checking portion [ORA.ATO.135 of Annex VII(Part-ORA)].

e) Such task analysis should equally consider elements of safety and compliance, be evidence-based and supported by a risk assessment conducted under the organisation's Safety Management System.

f) The approving NCA should make its own assessment to determine whether and under which circumstances, the proposed training/checking programme can be accepted/approved.

Table 1 below contains **examples of a task analysis**, with some considerations, for an FSTD other than FFS:

Task (Appendix 9 references)	Analysis
1.5 Pre-departure checks: engine run-up (if applicable)	All checks can be completed, as per normal procedure and the associated checklist can be accomplished.
2.2 Steep turns (360° left and right at 45° bank)	When conducting the manoeuvres, the FSTD behaves as the real aircraft and the column force is properly represented, if applicable (e.g. no fly-by-wire aircraft). If the column force is not represented, the organization and the NCA should consider repeating the exercise when delivering the aircraft training.
4.2 -> 4.5 landing exercises	The FSTD is equipped with a motion system in order to provide realistic feedback of the aircraft behaviour during the approach and landing phases. The landing checklist can be completed and read. If the device is not equipped with an adequate motion system to provide such feedback, the organization and the NCA should consider repeating the exercise when delivering the aircraft training.
5.2 Simulated engine failure after take-off (single-engine aeroplanes only):	Special emphasis should be given to engine failure. The risk to conduct such manoeuvre using "only" the real aircraft could be mitigated using the available FSTD to train the student for such event. The organization and the NCA should consider repeating the exercise, simulating the malfunction, when delivering the aircraft training.

Individual Examiners

In case of LPCs (e.g., for type rating revalidation) that are completed outside of a "controlled environment" (ATO or AOC holder), the Examiner is responsible to determine if the device is

suitable to complete the test or a part of it [AMC2 FCL.1015 paragraph (p)]. In case of doubt, the Examiner should approach the NCA before any testing or checking is planned and completed.

Use of existing OSD Flight Crew content in Part-FCL

Operational Suitability Data for Flight Crew (OSD FC) are approved, as part of the aircraft Type Certificate, based on initial airworthiness requirements (Annex I (Part-21) of Regulation (EU) 748/2012) . The main references for the approval process are contained in the aircraft OSD FC certification basis, typically constituted by the CS-FCD applicable issue. However, the approval process and, in particular, the approval of the "minimum syllabus for pilot type rating" (footprint) in the non-mandatory part of the OSD FC, takes into account the provisions included in the relevant parts of Regulation (EU) No 1178/2011.

As the above-mentioned Appendix 9 to Part-FCL has evolved in time and the specific requirements discussed in this document may not have been in place at the time of the OSD FC approval of specific aircraft types, it must be understood that the content of an IR provision prevails on the footprint approved in the OSD FC and, as a consequence, that footprint may have to be adapted, to the extent necessary, to comply with the applicable revision of Appendix 9, without requiring to go through an AltMoC process [ORA/ARA.GEN.120].

3. Subpart ORO-FC

ORO.FC.230 provisions allow flexibility in the choice of which FSTD is used for recurrent training and checking purposes. Point (e) of AMC1 ORO.FC.230 provides acceptable criteria and considerations related to the "use of FSTD".

AOC holders are responsible to assess and to demonstrate to their NCAs if and to which extent a specific device is capable to carry out recurrent training / OPC relevant for their operation and to get the necessary approvals as per ORO.FC.145(c).

Should the FSTD not fully replicate the AOC holder's aircraft configuration, point (d) of ORO.FC.145 requires that the AOC holder describes the differences between the FSTD and the aircraft and address them through a briefing or training, as appropriate.

During an NCAs approval process of the training programme, the suitability of the FSTD proposed to be used by the operator is assessed. Especially in cases where no FFS is used, this assessment becomes even more important since not all training/checking tasks can be conducted in an FSTD other than an FFS.

4. FSTD Qualification certificate – training and checking considerations

The information contained in the FSTD Qualification Certificate (QC) in section L is guidance information **only**, addressing technical elements as well as elements related to Part-OPS and Part-FCL.

The final decision on how the FSTD can be used regarding training, testing and checking has to be compliant with the respective and binding regulation(s).

The user of the device is responsible to demonstrate to his competent authority that it is suitable for the intended training, testing and checking.