



FTD in Recurrent Training

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VIDEO



- ICAO DOC 9625 - Summary Matrix
- Definition of FSTD - EU 965/2012 Annex 1 (50)
- FSTD Rule & AMC - ORO.FC.145 & AMC
- ORO.FC use of FTD - AMC2 ORO.FC.240 – Type/Variant
- FTD in ORO.FC.230(f) - Training Potential

ICAO DOC 9625

Table B-1. FSTD Summary Matrix

Licence or type of training	ICAO FSTD	T/TP	Cockpit Layout and Structure	Flight model (Aero and engine)	Ground Handling	A/C Systems	Flight controls and forces	Sound Cue	Visual Cue	Motion Cue	Environment — ATC	Environment — Navigation	Environment — Weather	Environment — Aerodromes and Terrain
MPL4 — Advanced	VII	T+TP	S	S	S	S	S	R	S	R	S	S	R	R
TR / ATPL		TP	S	S	S	S	S	R	S	R	S	S	R	R
Re		T	S	S	S	S	S	R	S	R	N	S	R	R
RL / RO / IO / CQ		TP	S	S	S	S	S	R	S	R	S	S	R	R
TR / ATPL / RL / RO / IO	V	T	S	S	S	S	S	R	R	N	G	S	R	R

- Recurrent Licence (RL) and Recurrent Operator (RO) Training



- Definition of FSTD in 965/2012

ANNEX I

Definitions for terms used in Annexes II to VIII

For the purpose of this Regulation, the following definitions shall apply:

- (50) 'flight simulation training device (FSTD)' means a training device which is:
- (a) in the case of aeroplanes, a full flight simulator (FFS), a flight training device (FTD), a flight and navigation procedures trainer (FNPT), or a basic instrument training device (BITD);
 - (b) in the case of helicopters, a full flight simulator (FFS), a flight training device (FTD) or a flight and navigation procedures trainer (FNPT);

- ORO.FC.145 Provision of Training

ORO.FC.145 Provision of training

- (a) All the training required in this Subpart shall be conducted:
 - (1) in accordance with the training programmes and syllabi established by the operator in the operations manual;
 - (2) by appropriately qualified personnel. In the case of flight and flight simulation training and checking, the personnel providing the training and conducting the checks shall be qualified in accordance with Annex I (Part-FCL) to Regulation (EU) No 1178/2011.
- (e) The operator shall establish a system to adequately monitor changes to the FSTD and to ensure that those changes do not affect the adequacy of the training programmes.
- (c) In the case of CAT operations, training and checking programmes, including syllabi and use of individual flight simulation training devices (FSTDs), shall be approved by the competent authority.
- (d) The FSTD shall replicate the aircraft used by the operator, as far as practicable. Differences between the FSTD and the aircraft shall be described and addressed through a briefing or training, as appropriate.
- (e) The operator shall establish a system to adequately monitor changes to the FSTD and to ensure that those changes do not affect the adequacy of the training programmes.

- ORO.FC.230

(f) Each flight crew member shall receive flight training in an FSTD or an aircraft, or a combination of both, at least once every 12 calendar months.

- AMC1 ORO.FC.230

(4) Aircraft/FSTD training shall be conducted in a way that all crew members will have been exposed to the following:

- (i) General
- (A) Training shall be conducted in a way that all crew members will have been exposed to the following:
- (B) When operating a multi-engine aircraft, the engine failure procedure shall be included in the training.
- (C) Aircraft/FSTD training shall include a proficiency check.

(e) Use of FSTD

(1) Training and checking shall include the practice of abnormal/emergency procedures that rarely arise in normal operations and should be part of a structured programme of recurrent training. This should be carried out in an FSTD whenever possible.

AMC1 ORO.FC.145(d) Provision of training

FULL FLIGHT SIMULATORS (FFS)

The operator should classify any differences between the aircraft and FFS in accordance with the Air Transport Association (ATA) chapters as follows:

- FFS only
- No mention or discussion of FTD, FNPT or BITD
- Definition and Rule ignored in AMC
- “Expectation” that FFS is only acceptable FSTD



AMC2 ORO.FC.240 Operation on more than one type or variant

- (2) Difference levels are summarised in the table below regarding training, checking, and currency.

DIFFERENCE LEVEL	TRAINING	CHECKING	CURRENCY
A	<ul style="list-style-type: none"> Self-instruction 	Not applicable or integrated with next proficiency check	Not applicable
B	<ul style="list-style-type: none"> Aided instruction 	Task or system check	Self-review
C	<ul style="list-style-type: none"> System devices 	Partial proficiency check using qualified device	Designated system
D	Manoeuvre Training Devices ¹ or aircraft to accomplish specific manoeuvres	Partial proficiency check using qualified device ¹	Designated manoeuvre(s) ¹
E	FSTDs ² or aircraft	Proficiency check using FSTDs ² or aircraft	As per regulation, using FSTDs ² or aircraft

Footnote (1):

- Aeroplane: FTD Level 2, or FFS, or aeroplane
- Helicopter: FTD Level 2 and 3, or FFS, or helicopter

Footnote (2):

- Aeroplane: FFS Level C or D, or aeroplane
- Helicopter: FSTD'S having dual qualification: FFS Level B and FTD Level 3, or FFS Level C or D, or helicopter

Training Levels A and B require familiarisation training, levels C and D require differences training. Training Level E means that differences are such that type rating training is required.

- EU 965 Annex 1 defines FTD as FSTD
- EU 965 ORO.FC.145 only refers to FSTD
 - EU 965 Hard Law permits use of FTD
- ORO.FC.230 only refers to use of FSTD
- FFS is only referenced in Aircraft/FSTD Differences AMC
- ORO.FC.240 permits training and partial checking in FTD 2
- No reason why FTD cannot be used NOW in ORO.FC.230
- Solution?
 - Revise AMC 1 ORO.FC.145(d) to include all FSTDs
 - Respect the FSTD definition and ORO.FC.145 rule

FTD in Standard ORO.FC.230

Day 1

FTD Training

- Systems
- Designated Manoeuvres
- Competencies
 - Situation Awareness
 - Leadership & Teamwork
 - Decision Making
 - Workload Management
 - Application of Procedures
 - Application of Knowledge

Day 2

FFS

- LPC/OPC

GM1 ORO.FC.230(a);(b);(f) Recurrent training and checking

Evaluation Phase (Day 1)

Day 1 (FFS)

Evaluation Phase

- Part-FCL Appendix 9 requirements
- Scenarios approved by Competent Authority
- IFR conditions

Maneuver Validation

- Manoeuvres in this context are not part of line-oriented flight scenario
- All remaining items listed in Part-FCL Appendix 9, and not included in the evaluation phase.

Training Days (Day 2/3)

Day (4hrs) 2

FTD 2

Scenario Based Training

- Day 1 Evaluation Trg
- F/P Management Auto
 - Selected Manoeuvres
- Competencies
 - Situation Awareness
 - Leadership & Teamwork
 - Decision Making
 - Workload Mgt
 - Application of Pro
 - Application of Knowledge

Day (5hrs) 3

FFS

Manoeuvre Training

- FPM Manual
- UPRT
- In-Seat Instruction
- SMS
 - G/A Training
 - Energy Management
 - Rwy Excursion
- Competencies

OPC Period (Day)

1 Day (5hrs) FFS

OPC

EBT

Evaluation Phase

- ORO.FC.230
- GM1.ORO.FC.230

Maneuver Validation

- Manoeuvres in this context are not part of line-oriented flight scenario

Scenario Based Training

- EBT LOFT

Maneuver Training

- Manoeuvres training phase

