

KINGDOM OF BAHRAIN
Ministry of Transportation
and Telecommunications



مملكة البحرين
وزارة المواصلات والاتصالات

CIVIL AVIATION PUBLICATION

CAP 23

FLIGHT SYNTHETIC TRAINING DEVICES

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CAP 23

FLIGHT SYNTHETIC TRAINING DEVICES

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Bahrain CAA Publication Revisions Highlight Sheet

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TPM: __

The following pages have been revised to Revision 02 dated 22 May 2022.

Item	Paragraph number	Page(s)	Reason
1.	2.1	2	Additional additional clarity on AQP
2.	2.2	2	Amendment to approval requirement
3.	3.1	2	acceptance standards and requirement of FSTD
4.	3.2	3	Deletion & amendment to the requirement of Foreign Simulators
5.	3.3 (a)	3	Introduce of type of recognition
6.	3.3 (b)	3	Deletion of outdated approval requirements
7.	3.3 (c) & (d)	3	Deletion of non-standard procedures
8.	3.4 (a)	3	Introduce of type of recognition
9.	3.4 (b)	3	Deletion of outdated approval requirements
10.	3.4(c) & (d)	4	Deletion of non-standard procedures
11.	4.2 (a) & (f)	4	Amended to include the simulator level requirement
12.	5	5	Amendment to application requirement

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1. INTRODUCTION

1.1 Purpose

The purpose of this CAP is to provide guidance and policy information to all Bahraini operators on the use of simulators and training devices. The information in this publication will ensure compliance with the ANTRs and conformance with international standards.

Note: Owners or operators of simulators should refer to ANTR FSTD for qualification requirements.

1.2 Terminology

- (a) Flight Simulation Training Device (FSTD). A training device which is a Full Flight Simulator (FFS), a Flight Training Device (FTD), a Flight & Navigation Procedures Trainer (FNPT), or a Basic Instrument Training Device (BITD).
- (b) Full Flight Simulator (FFS). A full-size replica of a specific type or make, model and series aeroplane flight deck, including the assemblage of all equipment and computer programmes necessary to represent the aeroplane in ground and flight operations, a visual system providing an out of the flight deck view, and a force cueing motion system. It is in compliance with the minimum standards for FFS Qualification.
- (c) Flight Training Device (FTD). A full-size replica of a specific aeroplane type's instruments, equipment, panels and controls in an open flight deck area or an enclosed aeroplane flight deck, including the assemblage of equipment and computersoftware programmes necessary to represent the aeroplane in ground and flight conditions to the extent of the systems installed in the device. It does not require a force cueing motion or visual system. It is in compliance with the minimum standards for a specific FTD Level of Qualification.
- (d) Flight and Navigation Procedures Trainer (FNPT). A training device which represents the flight deck or cockpit environment including the assemblage of equipment and computer programmes necessary to represent an aeroplane or class of aeroplane in flight operations to the extent that the systems appear to function as in an aeroplane. It is in compliance with the minimum standards for a specific FNPT Level of Qualification.
- (e) Basic Instrument Training Device (BITD). A ground-based training device which represents the student pilot's station of a class of aeroplanes. It may use screen-based instrument panels and spring-loaded flight controls, providing a training platform for at least the procedural aspects of instrument flight.
- (f) Other Training Device (OTD). A training aid other than FFS, FTD, FNPT or BITD which provides for training where a complete flight deck environment is not necessary.

1.3 References

This CAP should be read in conjunction with the following references;

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- ICAO Doc. 9625
- ANTR FSTD A and H

2. FSTD POLICY

2.1 Requirement

- (a) Unless specifically authorized by the CAA, all operators of turbojet aeroplanes as well as all aircraft over 9000 kg, shall utilise simulators for transition, recurrent and upgrade training. Operators of these aircraft should have a regular FFS programme every six months. Operators authorized an Advanced Qualification Programme shall conduct training in accordance with the required intervals of training and checking.
- (b) An operator may be permitted to conduct a PPC in the aircraft instead of a FFS and usually for one occasion only within a 12 month period provided there is sufficient justification.
- (c) The FSTD used must be representative of the type aircraft and, if applicable, the particular variation of the type for which the training or check is being conducted. The CAA may permit various differences, such as engine type or model variation, upon application and SMS risk assessment.
- (d) For Bahraini based FSTDs, ANTR FSTD A/H shall be the basis of qualification.
- (e) Any FFS, FTD, FNPT, BITD or OTD used to gain a credit towards a licence or rating shall be appropriated qualified and approved by the CAA.

2.2 Approval Requirement

All FSTDs utilised by Bahraini flight crew licence holders within Bahrain or internationally, must be approved by the CAA before training and/or testing conducted in such FSTDs will be recognized by the CAA.

The CAA may grant approval for simulator/training device credits and such credits would normally be based on the ANTR FCL 1 or 2, as applicable.

The approval of a simulator in of itself is not the same as approval to use the device in the operators approved training programme. In some instances, the simulator is fully approved but is so different from the operator's actual aircraft it cannot be included.

3. FSTD APPROVAL

3.1 Bahraini Based Simulators

To be approved by the CAA, all Bahraini based FSTDs must be firstly qualified by a recognized foreign authority capable of this task, such as the UK CAA, FAA or EASA. The CAA will then approve the operator to use the FSTD and stipulate the privileges or limitations in the letter of approval. The privileges and limitations will be identical to that granted by the foreign authority under its basis of qualification.

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The CAA approval will normally be the same as the qualification date of validity, although an extension of validity of up to 60 days may be approved with sufficient justification and with the agreement of the foreign authority that conducted the qualification.

3.2 Foreign Simulators

Except as specified below, a foreign FSTD may not be utilised for any training or checking of Bahraini licensed flight crew unless it has been inspected and approved by the CAA within the previous two years. The annual evaluation of the host CAA will be accepted for the base simulator approval. The BCAA two-year inspection is for the continued approval of the device in the approved training program.

3.3 FAR 142 Organizations

(a) Recognition.

The CAA will approve a valid FAA simulator upon application, together with the approved FSTDs located at the facility.

(b) Inspection.

All simulators at FAA 142 Training Centres will be evaluated by the BCAA every two years. The base evaluation of the FAA simulator is accepted. This inspection is to determine if the simulator replicates the operator's aircraft and can be continued to be approved in the training programme.

(c) Examiners.

The BCAA will authorize the use of FAA Examiners on a case-by-case basis.

(d) Training and Checking.

All training and checking should be to ANTR-OPS 1/3 or ANTR FCL 1/2 standards.

3.4 EASA FCL Organizations

(a) Recognition.

The CAA will approve a valid EASA FCL Type Rating Training Organisation simulator. This is only for the base simulator. Approval into the operator's training programme is determined by the BCAA.

(b) Inspection.

All EASA simulators will be inspected by the BCAA once every two years. This is not an inspection of the base simulator. This is an inspector to determine if the simulator can continue to be approved in the operators training programme.

(c) Examiners.

The BCAA will authorize EASA Examiners on a case-by-case basis.

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- (d) Training and Checking.

All training and checking should be to ANTR-OPS 1/3 or ANTR FCL 1/2 standards.

4. CONSIDERATIONS

4.1 Type Rating Privileges

Applicants should contact the CAA to determine the base check requirements for a particular aircraft type. The applicable ANTR- FCL Performance Test Standards will be used to determine credits for those FSTDs.

4.2 Zero Flight Time (ZFT)

Unless a simulator has been specifically approved for ZFT, all base checks for type rating purposes shall be conducted in the aircraft. The general requirements are:

- (a) The simulator maintains an ANTR FSTD A/H Level C or D qualification.
- (b) The simulator is specifically approved for ZFT.
- (c) The performance data must not be predictive.
- (d) The simulator must be serviceable with all required systems operative.
- (e) A mechanism must be established to ensure all instructors/check airmen are aware of the simulator requirements and consequences.
- (f) ZFT only applies to pilots with previous experience.
- (g) In accordance with ANTR-OPS 1.945 a pilot, undertaking a ZFTT course, shall:
 - (1) Commence Line Flying Under Supervision as soon as possible within 21 days after completion of the skill test.
 - (2) Complete the six take-offs and landings required in Appendix 1 ANTR-FCL 1.261(c)(2) in a flight simulator, qualified in accordance with ANTR-FSTD A and user approved by the Authority, not later than 21 days after the completion of the skill test.
 - (3) Conduct the first four take-offs and landings of the Line Flying Under Supervision in the aeroplane under the supervision of a TRI(A) occupying a pilot's seat.

4.3 Specific Functions

Operators, which require recency or recurrent training for specific functions, such as All-Weather Operations (AWO), Head Up Display (HUD) or ZFT, shall ensure that the simulator is approved for that function and fitted with the necessary hard/software to support that function.

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5. APPLICATION

An application shall be made on form ALD/OPS/F117

(a) Bahraini Based FSTD

An operator of Bahraini aircraft, which desires to use an approved Bahraini based FSTD or Training Centre shall apply to the CAA giving at least 14 days notice.

(b) Foreign FSTD

An operator of Bahraini aircraft, which desires to use a foreign FSTD or Training Centre shall apply to the CAA giving at least 14 days notice. The expense of the BCAA inspection shall be paid by the operator.