

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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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 03 dated 17 September 2023.

Item	Paragraph number	Page(s)	Reason
1	Index	i	Title correction
2	Revision Highlights	ii	Amended to indicate the current revision highlights
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7	2.2	2	Amendment to the scope of BCAA
8	3	2-3	Amendment to the scope of Approval
9	3.1	3	Standardizing the inspection requirement
10	3.2	3	Introduction of Examiner requirement
11	3.3	3	Introduction of Training requirement and deletion of authority specific FSTD requirement
12	5	4	Amendment to Application Requirement and deletion of authority specific FSTD requirement

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1. INTRODUCTION

1.1 Purpose

The purpose of this CAP is to provide guidance and policy information to all 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 computer software 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, as applicable

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 subject to the condition that the FSTD with the desired variants bears the qualification certification from the respective qualifying authority / agency to that effect.
- (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 BCAA before training and/or testing conducted in such FSTDs.

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

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

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The BCAA approval will normally be the same as the qualification date of validity or in the case where unlimited validity / perpetual validity, the approval validated will be limited to 2 years, 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.

The validity period of two years as granted by BCAA is subject to the condition that the qualification certification and the continued qualification validity requirement of the respective qualifying agency / authority is maintained.

The operator intends to use the FSTD must ensure the conditions mentioned here before carrying out checks / training for their flight crew.

This approval is for the purpose of only recognising the certification qualification by the qualifying authority / agency, and to confirm FSTD configuration matches with the aircraft type requiring training / checks, whereas the operator's training programme requires separate approval by BCAA as per the regulation in vogue.

3.1 Inspection Requirement for Simulators

Bahraini based foreign FSTD may not be utilised for any training or checking of Bahraini licensed flight crew unless it has been inspected by the BCAA within the previous two years.

This inspection is to determine if the simulator replicates the operator's aircraft specification / configuration and can be continued to be approved in the training programme.

3.2 Examiners:

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

3.3 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 BCAA 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.

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- (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.

5. APPLICATION

An application shall be made on form ALD/OPS/F117. The application be submitted ~~either~~ giving at least 15 days' notice. In the case of foreign location, the expense of the BCAA inspection shall be borne by the aircraft operator.