

A stylized paper airplane icon in shades of blue and grey is positioned above a dashed grey line that forms a curved path, suggesting a flight trajectory. The background features large, light grey abstract shapes.

CIVIL AVIATION DIRECTIVE – 1003

# FLIGHT SIMULATION TRAINING DEVICE

CIVIL AVIATION AUTHORITY OF MALAYSIA

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## Introduction

In exercise of the powers conferred by Section 24O of the Civil Aviation Act 1969 [Act 3], the Chief Executive Officer makes this Civil Aviation Directive 1003 – Flight Simulation Training Device (“CAD 1003 – FSTD”), pursuant to Regulation(s) 68, 189, 190 and 193 of the Malaysian Civil Aviation Regulations (MCAR) 2016.

This CAD contains the Standards, requirements and procedures pertaining to the provisions personnel licensing issued by the CAAM. The Standards and requirements in this CAD are based mainly on the Standards and Recommended Practices (SARPs) contained in the International Civil Aviation Organisation (ICAO) Annex 1 to the Chicago Convention – Personnel Licensing.

This Civil Aviation Directives 1003 – Flight Simulation Training Device (“CAD 1003 – FSTD”) is published by the Chief Executive Officer under Section 24O of the Civil Aviation Act 1969 [Act 3] and come into operation on 15<sup>th</sup> November 2021.

### Non-compliance with this CAD

Any person who contravenes any provision in this CAD commits an offence and shall on conviction be liable to the punishments under Section 24O (2) of the Civil Aviation Act 1969 [Act 3] and/or under Malaysia Civil Aviation Regulation 2016.



**(Captain Chester Voo Chee Soon)**  
**Chief Executive Officer**  
Civil Aviation Authority of Malaysia

## Civil Aviation Directive components and Editorial practices

This Civil Aviation Directive is made up of the following components and are defined as follows:

**Standards:** Usually preceded by words such as “*shall*” or “*must*”, are any specification for physical characteristics, configuration, performance, personnel or procedure, where uniform application is necessary for the safety or regularity of air navigation and to which Operators must conform. In the event of impossibility of compliance, notification to the CAAM is compulsory.

**Recommended Practices:** Usually preceded by the words such as “*should*” or “*may*”, are any specification for physical characteristics, configuration, performance, personnel or procedure, where the uniform application is desirable in the interest of safety, regularity or efficiency of air navigation, and to which Operators will endeavour to conform.

**Appendices:** Material grouped separately for convenience but forms part of the Standards and Recommended Practices stipulated by the CAAM.

**Definitions:** Terms used in the Standards and Recommended Practices which are not self-explanatory in that they do not have accepted dictionary meanings. A definition does not have an independent status but is an essential part of each Standard and Recommended Practice in which the term is used, since a change in the meaning of the term would affect the specification.

**Tables and Figures:** These add to or illustrate a Standard or Recommended Practice and which are referred to therein, form part of the associated Standard or Recommended Practice and have the same status.

**Notes:** Included in the text, where appropriate, Notes give factual information or references bearing on the Standards or Recommended Practices in question but not constituting part of the Standards or Recommended Practices;

**Attachments:** Material supplementary to the Standards and Recommended Practices or included as a guide to their application.

It is to be noted that some Standards in this Civil Aviation Directive incorporates, by reference, other specifications having the status of Recommended Practices. In such cases, the text of the Recommended Practice becomes part of the Standard.

The units of measurement used in this document are in accordance with the International System of Units (SI) as specified in CAD 5. Where CAD 5 permits the use of non-SI alternative units, these are shown in parentheses following the basic units. Where two sets of units are quoted it must not be assumed that the pairs of values are equal and interchangeable. It may, however, be inferred that an equivalent level of safety is achieved when either set of units is used exclusively.

Any reference to a portion of this document, which is identified by a number and/or title, includes all subdivisions of that portion.

Throughout this Civil Aviation Directive, the use of the male gender should be understood to include male and female persons.





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# 1 General

## 1.1 Description

### 1.1.1 Citation

1.1.1.1 These Directives are the Civil Aviation Directives 1003 – Flight Simulation Training Device (CAD 1003 – FSTD), Issue 01/Revision 01, and comes into operation on 15 November 2021.

1.1.1.2 This CAD 1003 – FSTD, Issue 01/Revision 01 will remain current until withdrawn or superseded.

### 1.1.2 Applicability

1.1.2.1 This Civil Aviation Directive (CAD) is applicable to any person or organisation who offers or uses a Flight Simulation Training Device (FSTD) for:

- a) Training and tests leading to the grant of a Malaysian flight crew licence, or the grant or renewal of ratings associated with this licence; or
- b) Proficiency training and checks associated with a holder of a Malaysian Air Operator Certificate, an approved training organisation or an owner of a Malaysia registered aircraft.

1.1.2.2 An applicant for a Certificate of Qualification for an FSTD for use for the above-mentioned purposes shall meet the requirements contained in Chapter 3 of this directive before the CAAM is able to grant the applicant a Certificate of Qualification for the FSTD.

1.1.2.3 To ensure the continued validity of a Certificate of Qualification, the FSTD operator must comply with the requirements and procedures contained in this CAD.

1.1.2.4 A person who intends to use the FSTD to conduct a test or a course of flight training or instruction in the FSTD must meet the requirements contained in Chapter 4 of this CAD, and seek the CAAM's Approval to Use before he is allowed to use a qualified or recognised FSTD for such purposes

### 1.1.3 Revocation

1.1.3.1 *RESERVED*

## 1.2 Definitions

**Checking, (in the context of pilot proficiency)** means the comparison of the knowledge about a task, or the skill or ability to perform a task, against an established set of criteria to determine that the knowledge, skill or ability observed meets or exceeds, or does not meet, those criteria.

**FSTD operator** means that organisation directly responsible to the competent authority for requesting and maintaining the qualification of a particular FSTD.

**Recognised FSTD** means a foreign FSTD, qualified by a foreign CAA, that is deemed acceptable to CAAM.

**Master qualification test guide (MQTG)** means the competent authority approved QTG which incorporates the results of tests witnessed by the competent authority. The MQTG serves as the reference for future evaluations.

**Qualification test guide (QTG)** means the primary reference document used for the evaluation of an FSTD. It contains test results, statements of compliance and the other information to enable the evaluator to assess if the FSTD meets the test criteria described in this CAD.

**Testing (in relation to pilot proficiency)** means the comparison of the knowledge about a task, or the skill or ability to perform a task, against an established set of criteria to determine that the knowledge, skill or ability observed meets or exceed, or does not meet, those criteria.

**Validation test** means a test by which FSTD parameters can be compared with the relevant validation data

### 1.2.1 Abbreviations

A	=	aeroplane
BITD	=	basic instrument training device
CAAM	=	Civil Aviation Authority of Malaysia
CS	=	certification specification
CS-FSTD(A)	=	certification specifications for flight simulation training device (Aeroplane)
CS-FSTD(H)	=	certification specifications for flight simulation training device (Helicopter)
COQ	=	certificate of qualification
FFS	=	full flight simulator
FSTD	=	flight simulation training device
FNPT	=	flight and navigation procedures trainer
FTD	=	flight training device
MCAR	=	Malaysia Civil Aviation Regulations
MQTG	=	master qualification test guide
QTG	=	qualification test guide
UAC	=	user approval certificate

## 2 Organisational Requirements To Operate FSTDs

### 2.1 General

2.1.1 The 2 types of approval certificates given under these Directives are as follows:

- a) COQ – given to the operator of FSTD seeking to qualify his simulator for usage for determined purposes under stipulated requirements.
- b) UAC
  - 1) Local FSTD – given to the air operator or ATO seeking qualification of a local FSTD for the purpose of training and testing of pilots.
  - 2) Foreign FSTD – given to the air operator, ATO or an aircraft owner seeking qualification of a foreign FSTD for the purpose of training and testing of pilots.

*Note. – An aircraft owner as mentioned in paragraph 2.1.1 b) 2) constitutes individual pilots who do are not flying for an air operator, ATO and/or Flying Club.*

2.1.2 The applicant for a COQ and UAC shall demonstrate to the CAAM that it has established management system in accordance with CAD 1011 – ATO and CAD 6004 – AOC. This demonstration shall ensure that the applicant has, directly or through contract, the capability to maintain the performance, functions and other characteristics specified for the FSTDs qualification level and to control the installation of the FSTD.

2.1.3 The FSTD specifications shall be attached to the COQ and UAC. Sample of the COQ, FSTD specifications and UAC are as per Attachment C, Attachment D and Attachment E.

2.1.4 The two aspects of FSTD requirement can be outlined as follows:

Aspect	Covered by	Organisation covered
Fit for use	The “ <b>qualification</b> ” of the <b>device</b>	FSTD Operator
Fit for purpose	The “ <b>user approval</b> ” of the <b>device</b> for given <b>training objectives</b>	FSTD User

2.1.5 **FSTD Operator:** The organisation will have to fulfill the relevant qualification requirements to qualify the FSTDs before they can be used for training.

2.1.6 **FSTD User:** The organisation will have to fulfil the relevant approval requirements to obtain a user approval before providing any training using a given qualified FSTD for a given course.

2.1.7 Some FSTD Operators do not provide any flight crew training. When an organisation is using its own FSTDs to provide training it is regarded as both the FSTD Operator and FSTD User (e.g. an ATO).

2.1.8 ATOs utilising their own FSTD for training shall have the user approval as part of the ATO Certificate of Approval. Each FSTD approved for a given course will be entered on the ATO training specifications as part of the ATOs privileges in the list of approved training course. The user approval entered in the Training Specifications may be renewed during the FSTD COQ renewal.

## **2.2 Maintaining the FSTD qualification**

2.2.1 A holder of COQ shall run the complete set of tests contained within the MQTG and functions and subjective test. As a minimum, the QTG tests shall be run progressively in at least three-monthly blocks on an annual cycle. Each block of QTG tests must be chosen to provide coverage of the different types of validation test and functions & subjective tests.

2.2.2 Results shall be dated and retained in accordance with paragraph 2.8 in order to satisfy both the FSTD operator as well as the CAAM that the FSTD standards are being maintained. It is not acceptable that the complete QTG is run just prior to the annual evaluation

2.2.3 A configuration control system shall be established to ensure the continued integrity of the hardware and software of the qualified FSTD.

## **2.3 Modifications**

2.3.1 The holder of COQ shall establish and maintain a system to identify, assess and incorporate any important modifications into the FSTDs it operates, especially:

- a) Any aircraft modifications that are essential for training, testing and checking, whether or not enforced by an airworthiness directive; and
- b) Any modification of an FSTD, including motion and visual systems, when essential for training, testing and checking, as in the case of data revisions.

2.3.2 Modifications of the FSTD hardware and software that affect handling, performance and systems operation or any major modifications of the motion or visual system shall be evaluated to determine the impact on the original qualification criteria. A holder of COQ shall prepare amendments for any affected validation tests and test the FSTD to the new criteria.

## **2.4 Installations**

2.4.1 The holder of an FSTD COQ shall ensure that:

- a) The FSTD is housed in a suitable environment that supports safe and reliable operation;
- b) 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; and
- c) The FSTD and its installations comply with the local regulations for health and safety.

2.4.2 The FSTD safety features, such as emergency stops and emergency lighting, shall be checked at least annually and recorded.

## **2.5 Additional equipment**

2.5.1 A holder of COQ shall ensure that any additional equipment which are added to the FSTD, even though not required for qualification, to be assessed by the CAAM to ensure that it does not adversely affect the quality of training.

## **2.6 Changes to organisations**

2.6.1 No holder of COQ and UAC shall make any change affecting-

- a) The terms and conditions of the COQ and UAC, respectively or the particulars in the COQ and UAC, respectively; and
- b) Any of the elements of the operator's management system as specified in CAD 1011 – ATO and CAD 6004 - AOC.

Unless with the approval of the CAAM.

2.6.2 An application for the changes under paragraph 2.6.1 (a) shall be made to the CAAM and accompanied by the documents and information as may be required.

2.6.3 CAAM may impose such terms and conditions on the approval of changes.

2.6.4 The holder of COQ and UAC shall continue to operate under the terms and conditions of the COQ and UAC and requirements shall, pending the approval of changes continue in full force and effect.

## **2.7 Access**

2.7.1 For the purpose of determining compliance with the MCAR and any notice, circular, directions or information as issued by CAAM, the holder of COQ and UAC shall comply with any request, demand or order made by the CAAM to access and inspect any aviation facility, place or building, document, records, data, procedures or any other material relevant to its activity.

## **2.8 Record keeping**

2.8.1 The holder of COQ and UAC shall keep records of

- a) All documents describing and involving the initial qualification basis and level of the FSTD for the duration of the FSTD's lifetime; and
- b) Any recurrent documents and reports related to each FSTD and to compliance monitoring activities for a period of at least 5 years.

## **2.9 'Grandfathered' rights**

2.9.1 Grandfathered rights allows the right of an FSTD operator to retain the qualification level granted under a previous regulation. It also means the right of an FSTD user to retain the training and testing/checking credits that were gained under a previous regulation.



### **3 Requirements For The Qualification Of FSTDs**

#### **3.1 Application for FSTD qualification**

3.1.1 An application for the issuance of a COQ shall be made in a form and manner established by CAAM.

3.1.2 The applicant shall be as follows-

- a) In the case of BITDs, by the BITD manufacturer; or
- b) In all other cases, by the organisation intending to operate the FSTD.

3.1.3 An applicant for an initial COQ shall provide the CAAM with documentation demonstrating how they will comply with the requirements established in this CAD. Such documentation shall include the procedure established to ensure compliance with 2.6 and 3.5 of these Directives.

3.1.4 The initial application must include the following information:

- a) completed form;
- b) a description of the tasks to be performed using the FSTD with consideration to requirements relating to pilot licensing, qualification, rating and training;
- c) a compliance letter that states the FSTD has been thoroughly tested using a documented acceptance testing procedure covering cockpit layout, all simulated systems and the Instructor Operating Station as well as the engineering facilities, motion, visual and other systems, as applicable;
- d) a copy of the QTG to be used for the qualification of the FSTD;
- e) documentation supporting the management systems as per paragraph 2.1.2; and
- f) any other documents or records that support the application for the COQ for the FSTD.

3.1.5 For the purpose of renewing the COQ, an application shall be submitted that includes the following information:

- a) completed form;
- b) QTG to be used for the qualification of the FSTD;
- c) a statement confirming that the FSTD complies with the applicable criteria stated in the respective document used during initial qualification; and
- d) any other documents or records that support the renewal of the COQ for the FSTD.

- 3.1.6 The FSTD qualification application form is as per the Attachment A.
- 3.1.7 An FSTD operator who intends to apply for an initial qualification of an FSTD must:
- a) Notify CAAM not less than 6 months prior to the planned evaluation; and
  - b) Submit an application at least 3 months prior to the planned evaluation date.
- 3.1.8 An FSTD operator intending to renew the qualification shall submit an application at least 3 months prior to the expiry of the effective COQ in order to provide sufficient time for a recurrent evaluation of the FSTD to be conducted by CAAM.

### **3.2 Certification specifications**

- 3.2.1 The Certification Specification, in accordance with the MCAR, is detailed in CS-FSTD(A) and CS-FSTD(H) as standard means to show compliance of FSTDs.
- 3.2.2 Such FSTD Certification Specifications shall be sufficiently detailed and specific to indicate to applicants the conditions under which qualifications will be issued.

### **3.3 Qualification basis**

- 3.3.1 The qualification basis for the issuance of a COQ shall consist of:
- a) the applicable FSTD certification specifications defined in 3.2.1 effective on the date of the application for the initial qualification;
  - b) the aircraft validation data defined by the mandatory part of the operational suitability data as approved by the manufacturer; if applicable; and
  - c) any special conditions prescribed by the CAAM if the related FSTD certification specifications do not contain adequate or appropriate standards for the FSTD because the FSTD has novel or different features to those upon which the applicable FSTD certifications specifications are based.
- 3.3.2 The qualification basis shall be applicable for future recurrent qualifications of the FSTD, unless it is re-categorised.

### **3.4 Duration and continued validity**

- 3.4.1 The COQ issued for an FSTD is valid for 12 months from the date specified in the COQ.
- 3.4.2 The qualification shall remain valid subject to:
- a) the FSTD and the operating organisation remaining in compliance with the applicable requirements;

- b) the CAAM being granted access to the organisation as defined in paragraph 2.7 to determine continued compliance with the relevant requirements of the MCAR and the relevant CADs; and
- c) the qualification certificate not being surrendered or revoked.

3.4.3 The period of 12 months may be extended up to a maximum of 24 months, in the following circumstances:

- a) the FSTD has been subject to an initial and at least one recurrent evaluation that has established its compliance with the qualification basis;
- b) the FSTD COQ holder has a satisfactory record of successful regulatory FSTD evaluations during the previous 24 months;
- c) the CAAM performs a formal audit of the compliance monitoring system (refer Attachment G) every 12 months; and
- d) an assigned person from the holder of COQ with adequate experience reviews the regular reruns of the QTG and conducts the relevant functions and subjective tests every 12 months and sends a report of the results to the CAAM.

3.4.4 A BITD qualification shall remain valid subject to regular evaluation for compliance with the applicable qualification basis by the CAAM.

3.4.5 Upon surrender or revocation, the COQ shall be returned to the CAAM within 14 days.

### **3.5 Changes to The Qualified FSTD**

3.5.1 No holder of COQ shall make any changes to the FSTD as follows, unless with an approval from CAAM-

- a) major modifications;
- b) relocation of the FSTD; and
- c) any de-activation of the FSTD.

3.5.2 In case of an upgrade of the FSTD qualification level, the holder of COQ-

- a) shall notify the CAAM prior to the upgrading work;
- b) after the notification, shall conduct the upgrading work and run all validation tests together with CAAM; and
- c) shall not use results from the previous evaluations to validate FSTD performance for the current upgrade.

3.5.3 In case of relocation of the FSTD, the holder of COQ-

- a) shall notify CAAM prior to the relocation;

- b) after the notification and relocation, subject to the direction of the CAAM, shall perform either-
  - 1) At least one third of the validation tests, function tests and subjective tests to ensure that the FSTD performance meets its original qualification standard; or
  - 2) A complete validation tests, function tests and subjective tests in the presence of CAAM;
- c) submit a copy of the test as specified in (2) above and history records of such FSTD to CAAM.

3.5.4 No holder of COQ shall remove an FSTD from active status for prolonged periods unless with the CAAM notification.

3.5.5 For the purpose of 3.5.4, the holder of COQ shall comply with a plan for the de-activation, any storage and re-activation as may be determined by CAAM to ensure that the FSTD can be restored to active status at its original qualification level.

### **3.6 Transferability of an FSTD qualification**

3.6.1 When there is a change of the organisation operating an FSTD, the new organisation no longer complies with its initial qualification basis and the new organisation shall apply for a new FSTD COQ

## **4 Requirements For The Approval To Use A Qualified FSTD**

### **4.1 Application For An Approval To Use A Qualified FSTD**

4.1.1 Pursuant to Regulation 68 of the MCAR a person who intends to use an FSTD for:

- a) training and tests leading to a grant of a Malaysian licence or the grant or renewal of ratings associated with this licence; or
- b) proficiencies training and checks associated with a holder of Malaysia AOC, an ATO or an owner of a Malaysian-registered aircraft,

shall:

- 1) Ensure that the FSTD is a qualified FSTD; and
- 2) Apply to CAAM for the UAC

4.1.2 The applicant for the Approval to Use a qualified FSTD shall submit an application in the form and manner that is acceptable to the CAAM. The application process is contained in Attachment F, and the application must contain:

- a) completed CAAM form;
- b) the relevant segments of the approved training programme or the specific tasks, or both, to be conducted in the FSTD. For the avoidance of doubt, an approved training programme means a programme that is approved by CAAM under the applicant's operations manuals or training manuals, or both;
- c) a gap analysis report containing the differences between the FSTD and the applicant's aircraft / equipment. The report must also include proposed mitigations to address the differences;
- d) any other documents or records that support the grant of UAC.

4.1.3 Applications without a COQ from a competent authority are not accepted by CAAM.

### **4.2 Validity of the User Approval Certificate**

4.2.1 The UAC issued for an FSTD is valid for up to 12 months.

4.2.2 An application for a renewal of the UAC must be submitted at least 3 months prior to the expiry of the effective UAC in order to provide for sufficient time for a recurrent evaluation of the user to be conducted by CAAM.

4.2.3 The validity of the UAC is contingent upon:

- a) The continuing validity of the COQ
- b) The holder of the UAC complying with the limitations and conditions stated on the FSTD's COQ and UAC




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## 5 Attachments

### 5.1 Attachment A: Application for FSTD Certificate Of Qualification (COQ)

(CAAM/BOP/FSTD/1)

	<b>CIVIL AVIATION AUTHORITY OF MALAYSIA</b>
<b>APPLICATION FOR FLIGHT SIMULATION TRAINING DEVICE (FSTD) CERTIFICATE OF QUALIFICATION (COQ)</b>	
<b>A. APPLICANT</b>	
Application form for: <input type="checkbox"/> Initial <input type="checkbox"/> Renewal <input type="checkbox"/> Upgrade <input type="checkbox"/> Relocation <input type="checkbox"/> Change of ownership	
FSTD Operator:	
Aircraft Type:	FSTD Type: <input type="checkbox"/> FFS <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> FNPT <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> MCC <input type="checkbox"/> FTD <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> BITD
<b>B. FSTD DETAILS</b>	
FSTD ID Number:	Location:
FSTD Manufacturer:	Proposed Evaluation Date:
Training Organisation/sponsor:	
FAA/EASA/ICAO Designator (4 Letter Code):	
<b>C. USE OF FSTD</b>	
<input type="checkbox"/> For ATO approved training program as in Training Specifications	
<input type="checkbox"/> Dry lease only	
<b>D. INITIAL QTG QUALIFICATION</b>	
<input type="checkbox"/> For QTG tests run at the factory, not later, than 45 days prior to the proposed evaluation date with the additional “1/3 on-site” tests provided not later than 14 days prior to the proposed evaluation date	
<input type="checkbox"/> For QTG tests run on-site, not later than 30 days prior to the proposed evaluation date.	
We understand that the formal request will contain the following documents:	
1. <input type="checkbox"/> Sponsor’s Letter of Request (Company Compliance Letter).	
2. <input type="checkbox"/> Complete QTG.	
If we are unable to meet the above requirements, we understand this may result in a significant delay.	



<b>E. APPLICANT'S REMARK:</b>	
Applicant's Signature:	Submission Date:
Applicant's Name:	
Applicant's Designation:	
<b>F. FOR CAAM OFFICIAL USE ONLY:</b>	
Accepted by FOI:	Signature:
Accepted Date:	Proposed Evaluation Date:
DFO or Head of FSTD instruction to CAAM ADMIN to prepare acknowledgement receipt and forward to DFO, followed by FOI who will be assigned to perform evaluations	
DFO/Head of FSTD Remarks /Assign to:	
Signature:	Date:
DFO/Head of FSTD:	

**FOR CAAM USE ONLY**

FOI Checked

ACCEPT       REJECT

Remarks

FOI Signature

Date:

Application Fee:	
Receipt No:	
Cheque / P.O:	
Initial:	
Date:	



**Statement of Qualifications**


FSTD INFORMATION			
Sponsor Name:		Date:	
Manager Name & Contact Details:			
FSTD Location:		Email:	
Address:		Nearest Airport:	
Sponsor ID No (EASA/FAA Designator):			
Aircraft Make/Model/Series:		Entry Service Date:	
Type of Evaluation: <input type="checkbox"/> Initial <input type="checkbox"/> Renewal <input type="checkbox"/> Relocation <input type="checkbox"/> Upgrade <input type="checkbox"/> Change of ownership			
Initial Qualification Date:		Level:	
Upgrade Qualification Date:		Level:	MQTG:
Qualification:		<input type="checkbox"/> FFS <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> FNPT <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> MCC <input type="checkbox"/> FTD <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> BITD	
OTHER TECHNICAL INFORMATION			
FSTD Manufacturer		Convertible: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sponsor FSTD ID No:		Date of Manufacture:	
Airplane model/series:		Source of aero data:	
Engine model(s) / data revision:		Aero data revision number:	
FMS identification and revision:		Visual system mfg:	
Flight control data revision:		Visual system display:	
Motion system manufacturer:		FSTD computer(s) model:	
Foreign Aviation Authority:		Qualification Level:	
Qualification Basis:		Aircraft FSTD Seats:	
Flight Instrumentation: <input type="checkbox"/> EFIS <input type="checkbox"/> Analog <input type="checkbox"/> FMS <input type="checkbox"/> INS <input type="checkbox"/> Others:			
Engine Equipment: <input type="checkbox"/> ANALOG <input type="checkbox"/> EICAS <input type="checkbox"/> FADEC <input type="checkbox"/> Others:			
Airport Models	Airport Designator	Approach	Runway
Circle to Land:			
Visual Ground Segment:			
<b>Training and Check:</b> <input type="checkbox"/> PPL <input type="checkbox"/> CPL <input type="checkbox"/> ME Rating <input type="checkbox"/> IR <input type="checkbox"/> Type Rating <input type="checkbox"/> Proficiency Checks			
<input type="checkbox"/> CAT I: (RVR    550 m DH200 ft)		<input type="checkbox"/> HUD <input type="checkbox"/> HGS <input type="checkbox"/> EFVS	
<input type="checkbox"/> CAT II: (RVR    300 m DH 100 ft)		<input type="checkbox"/> FANS	
<input type="checkbox"/> CAT III (    <300 m), DH <100ft)		<input type="checkbox"/> WX-Radar	



<input type="checkbox"/> Circling Approach	<input type="checkbox"/> GPWS / EGPWS	
<input type="checkbox"/> LVO	<input type="checkbox"/> ETOPS/EDTO Capability	
<input type="checkbox"/> Recency	<input type="checkbox"/> GPS/LVS/WAAS	
<input type="checkbox"/> Zero Flight Time	<input type="checkbox"/> UPRT Recoveries	
<input type="checkbox"/> IFR Training / Check	Other:	
<input type="checkbox"/> Type Rating		
<input type="checkbox"/> Proficiency Check		
<input type="checkbox"/> Auto- Approach/Auto Go Around / Auto-land / Roll Out Guidance	Additional Helicopter Operations:	
<input type="checkbox"/> Windshear / Windshear Warning System	<input type="checkbox"/> Slope Landings	<input type="checkbox"/> External Load
<input type="checkbox"/> Predictive Windshear	<input type="checkbox"/> Cat A Takeoffs	<input type="checkbox"/> Night Vision Ops
<input type="checkbox"/> TCAS I/II/ACAS I /II (Version)	<input type="checkbox"/> Pinnacle Approach to Landings	
Other Trainings:		
<b>CAAM USE ONLY</b>		
<b>CAAM EVALUATION TEAM</b>	<b>Assignment</b>	<b>Organisation</b>
FOI:		
FOREIGN NAA:		
REMARKS:		

**5.2 Attachment B: Application Form for FSTD User Approval Certificate (UAC)**

(CAAM/BOP/FSTD/2)

	<p><b>CIVIL AVIATION AUTHORITY OF MALAYSIA</b></p>
<p><b>APPLICATION FOR FLIGHT SIMULATION TRAINING DEVICE (FSTD) USER APPROVAL CERTIFICATE (UAC)</b></p>	
<p><b>A. APPLICANT</b></p>	
<p>Application form for:      <input type="checkbox"/>Initial Issue      <input type="checkbox"/>Renewal      <input type="checkbox"/>Variation</p>	
Operator/ATO/Aircraft Owner Name:	Expected Commencement Date:
Point of Contact: (Name):	Phone: Email:
<p><b>B. ATO AND FSTD DETAILS</b></p>	
<p>Application for:      <input type="checkbox"/>Local FSTD    <input type="checkbox"/>Foreign FSTD</p>	
Facility name:	City, Country:
Contact Name:	Phone: Email:
FSTD Model/Series:	<p>FSTD Type: <input type="checkbox"/> FFS      <input type="checkbox"/> A    <input type="checkbox"/> B    <input type="checkbox"/> C    <input type="checkbox"/> D</p> <p style="padding-left: 100px;"><input type="checkbox"/> FNPT    <input type="checkbox"/> I    <input type="checkbox"/> II    <input type="checkbox"/> MCC</p> <p style="padding-left: 100px;"><input type="checkbox"/> FTD      <input type="checkbox"/> 1    <input type="checkbox"/> 2</p> <p style="padding-left: 100px;"><input type="checkbox"/> BITD</p>
Aircraft Model/ series:	
<p>Differences: *    <input type="checkbox"/>No:</p> <p style="padding-left: 100px;"><input type="checkbox"/>Yes:    <input type="checkbox"/>Flight    <input type="checkbox"/>Engine    <input type="checkbox"/>Instrument    <input type="checkbox"/>Com/Nav Equipment,</p> <p style="padding-left: 100px;"><input type="checkbox"/>Cockpit layout    <input type="checkbox"/>Others:</p>	
<p><b>C. APPROVAL SOUGHT</b></p>	
<p>FSTD lease as:      <input type="checkbox"/>Wet lease/full ATO support    <input type="checkbox"/>Dry lease (non ATO Support)</p>	
<p>Use for Training and Check:    <input type="checkbox"/>PPL    <input type="checkbox"/>CPL    <input type="checkbox"/>MPL    <input type="checkbox"/>ATPL    <input type="checkbox"/>SE Rating    <input type="checkbox"/>ME Rating    <input type="checkbox"/>IR</p> <p style="padding-left: 100px;"><input type="checkbox"/>Type Rating    <input type="checkbox"/>Proficiency Checks</p> <p style="padding-left: 100px;"><input type="checkbox"/>Others: <i>Please specify (e.g. UPRT, EDTO, etc)</i></p>	
<p><b>D. SUPPORTING EVIDENCE &amp; REMARK</b></p>	
<input type="checkbox"/> ATO Certificate	<input type="checkbox"/> FSTD COQ
<input type="checkbox"/> List of differences and proposed Training Justification	<input type="checkbox"/> Training Syllabus



<i>Applicant's Remark (use separate sheet):</i>	
Applicant's Signature:	Submission Date:
Applicant's Name:	
Applicant's Designation:	
<b>E. FOR CAAM OFFICIAL USE ONLY:</b>	
Accepted by FOI:	Signature:
Accepted Date:	Proposed Evaluation Date:
<b>DFO/Head of FSTD:</b> <input type="checkbox"/> <b>Accepting Foreign Authority approval</b> <b>and documented evidence FSTD evaluation required: Y</b> <input type="checkbox"/> <b>/ N</b> <input type="checkbox"/>	
DFO/Head of FSTD Remarks:	
Signature:	Date:
DFO/Head of FSTD:	

**FOR CAAM USE ONLY**

FOI Checked

ACCEPT                       REJECT

Remarks

FOI Signature

Date:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Application Fee:	
Receipt No:	
Cheque / P.O:	
Initial:	
Date:	

5.3 Attachment C: Sample of FSTD Certificate Of Qualification

<b>CIVIL AVIATION AUTHORITY OF MALAYSIA</b>	
<b>CERTIFICATE OF QUALIFICATION</b>	
Ref. No.: CAAM/BOP/27.3	Ser. No.: 08/21
It is hereby certified that the	
<b>FLIGHT SIMULATION TRAINING DEVICE</b>	
<b>SERIAL NO: P2118</b>	
operated by	
<b>MAB ACADEMY SDN. BHD.</b>	
located at	
<b>SUBANG</b>	
has met the qualifications requirements of regulations 68 of Civil Aviation Regulation 2016 for a	
<b>FULL FLIGHT SIMULATOR</b>	
<b>LEVEL C</b>	
of aeroplane type	
<b>BOEING 737-4H6 (EFIS)</b>	
This certificate is not transferable and unless revoked, suspended or varied shall continue in effect until	
<b>28 FEBRUARY 2022</b>	
Date: 25 February 2021	CAAM Stamp:  
	<b>CAPTAIN CHESTER VOO CHEE SOON</b> Chief Executive Officer Civil Aviation Authority Malaysia



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5.4 Attachment D: Sample of FSTD Qualification Specifications

**CIVIL AVIATION AUTHORITY OF MALAYSIA**

**FSTD QUALIFICATION SPECIFICATIONS: P2118**



Ref: No. : CAAM/BOP/27.3

Ser. No. : 08A/21

A.	Type or variant of aircraft:	Boeing 737-4H6 (ERIS)
B.	FSTD qualification level:	FFS Level C
C.	Primary reference	CAR 2 A Rev.
D.	Visual system:	Link Miles Ltd
E.	Motion system:	Thomson DSI
F.	Engine fit:	CFM56-3C-1
G.	Instrument fit:	According to aircraft type
H.	ACAS fit:	Yes
I.	Windshear:	Yes
J.	Additional capabilities:	No
K.	Restrictions or limitations:	No
L.	Guidance information for training, testing and checking considerations	
CAT I	RVR 550m DH 200 FT	Yes
CAT II	RVR 350m DH 100 FT	No
CAT IIIA	RVR 200m DH 50 FT	No
CAT IIIB	RVR 100m DH 23 FT	No
LVTO	RVR 175m	No
Recency		Yes
Zero Flight Time		No
IFR-Training / Checking		Yes
Type Rating (Licensing Skill Tests)		Yes
Proficiency Checks (Licensing Skill Checks / Operator Proficiency Checks)		Yes
Auto-coupled Approach		Yes
Auto-land / Roll Out Guidance		No / No
ACAS I / II (version 7.0)		Yes
Windshear Warning System / Predictive Windshear		Yes / No
Weather Radar		Yes
HUD / HUGS / EVS		No / No / No
FANS		No
GPWS / EGPWS		No / Yes
ETOPS / EDTO Capability		No / No
GPS / LVS / WAAS		No / No / No
RNP AR		No
UPRT		No
F1180 Simulator Approved Items (Flight Engineer)		No
Other(s):		

Valid Until: 28 February 2022

CAAM Stamp



Date of issue: 25 February 2021

**CAPTAIN CHESTER VOO CHEE SOON**  
 Chief Executive Officer  
 Civil Aviation Authority of Malaysia



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**5.5 Attachment E: Sample of FSTD User Approval Certificate****CIVIL AVIATION AUTHORITY OF MALAYSIA  
USER APPROVAL CERTIFICATE**

Ref. No. : CAAM/BOP/1/143

Ser. No. : U07/21

It is hereby certified that

**WESTSTAR AVIATION SERVICES SDN. BHD.**

is issued with this User Approval Certificate under Regulation 68 of the Civil Aviation Regulations 2016 to use the following FSTD:

**FULL FLIGHT SIMULATOR – LEVEL D  
SERIAL NO: IT-072**

Helicopter Type

**AW189**

operated by

**ROTORSIM SRL**

located at

**SESTO CALENDE, ITALY**To conduct training, testing and checking as specified in the attached **Training Specifications**. This User Approval validity shall depend on the continued validity of the device(s). It is not transferable and unless revoked, suspended or varied shall continue in effect until**28 FEBRUARY 2022**

CAAM Stamp



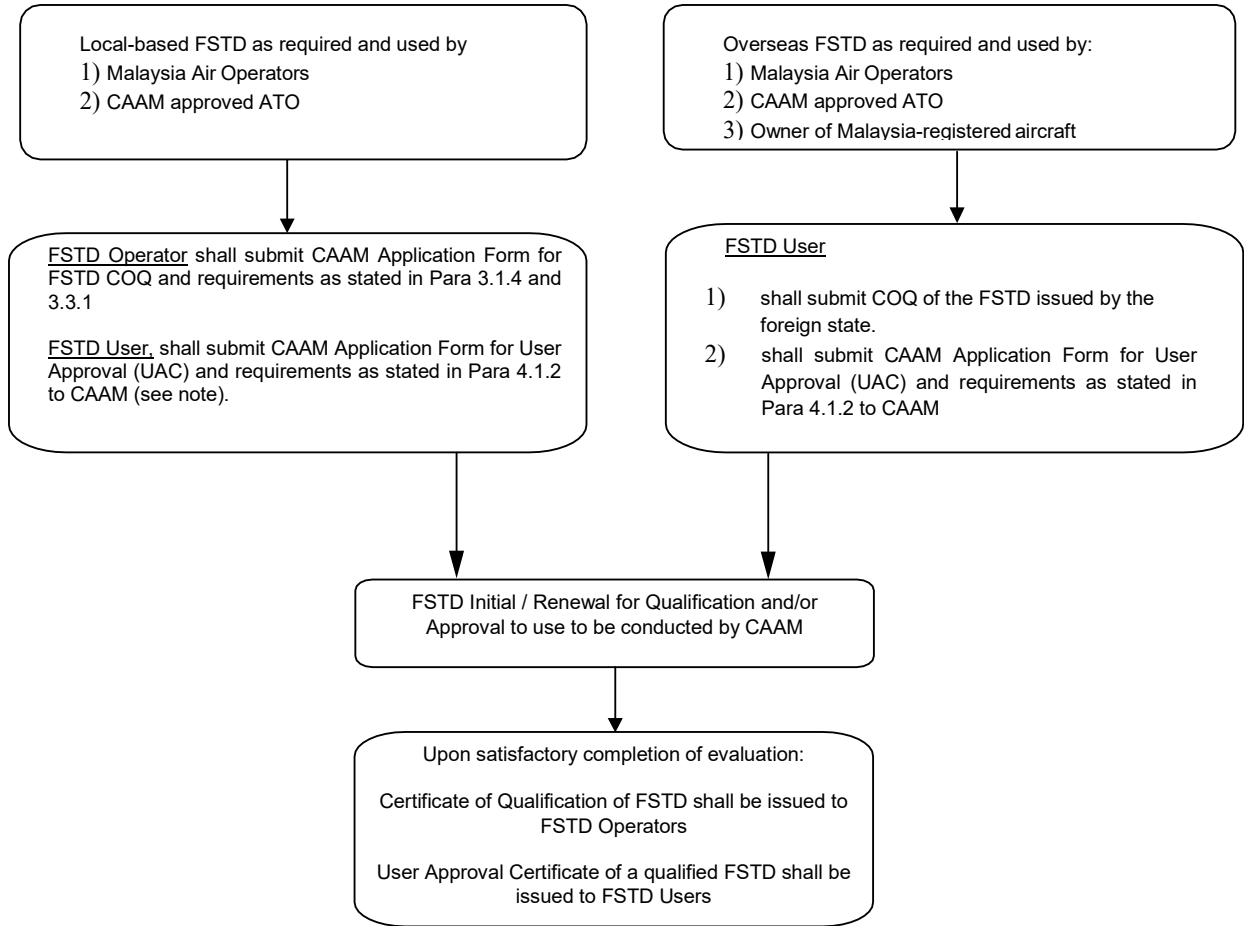
Date: 22 FEBRUARY 2021

  
**CAPTAIN CHESTER VOO CHEE SOON**  
Chief Executive Officer  
Civil Aviation Authority of Malaysia



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## 5.6 Attachment F: Application Process for FSTD Qualification (COQ) And Approval To Use (UAC) Qualified FSTD



*Note.- ATOs utilising their own FSTD to conduct flight crew training/checking shall renew the user approval as part of the ATO renewal process. The renewal when approved, will be part of the ATO's certificate of approval and listed in the training specifications.*



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## **5.7 Attachment G: Compliance Monitoring Assessment for Organisations Operating FSTDs**

See next page



<b>COMPLIANCE MONITORING ASSESSMENT FOR ORGANISATIONS OPERATING FSTDs</b>	
<b>Organisation:</b>	
<b>Site Assessed:</b>	
<b>Date of Assessment:</b>	
<b>Accountable Manager:</b>	
<b>Compliance Monitoring Manager:</b>	
<b>Number and Type of FSTDs:</b>	
<b>CM Manual Reference:</b>	

Audit Area	CM/Proc Ref	Comments	Satisfactory Y/N
<b>1. ACCOUNTABLE MANAGER</b>			
Has an accountable manager (AM) with overall responsibility for compliance monitoring (CM) been nominated?			
Does the accountable manager have corporate authority to ensure all necessary activities can be financed and carried out to the standard required by the competent authority?			
Has a formal written compliance policy statement been established, included in the CM manual and signed by the accountable manager?			
<b>2. COMPLIANCE MONITORING MANAGER</b>			
Has a compliance monitoring manager (CM manager) been nominated?			
Are the posts of CM manager and AM combined? If so, is the independence of compliance audits assured?			
Does the CM manager have overall responsibility and authority to: a) verify that standards are met; and b) ensure that the compliance monitoring programme is established, implemented and maintained?			



Audit Area	CM/Proc Ref	Comments	Satisfactory Y/N
Does the CM manager have direct access to the AM?			
Does the CM manager have access to all parts of the organisation operating an FSTD and as necessary any sub-contractor's organisation?			
<b>3. COMPLIANCE MONITORING (CM)</b>			
Has CM been established by the operator?			
Is CM properly documented? (see Section 4)			
Is the CM structured according to the size and complexity of the operator?			
Does the CM include the following as a minimum: a) monitoring of compliance with required technical standards; b) identification of corrective actions and person responsible for rectification; c) a feedback system to accountable manager to ensure corrective action are promptly addressed; d) reporting of significant non-compliances to the competent authority; e) a compliance monitoring programme to verify continued compliance with applicable requirements, standards and procedures.		a)	
Are the responsibilities of the CM manager defined to include, as a minimum: a) monitoring of corrective action programme; b) ensuring that the corrective actions contain the necessary elements; c) providing management with an independent assessment of corrective action, implementation and completion; d) evaluation of the effectiveness of the corrective action programme.			



<b>Audit Area</b>	<b>CM/Proc Ref</b>	<b>Comments</b>	<b>Satisfactory Y/N</b>
Are adequate financial, material and human resources in place to support CM?			
Are management evaluations/reviews of CM held at least quarterly?			
Does the management evaluation ensure that the CMS is working effectively and is it comprehensive and well documented?			
Does the compliance monitoring programme identify the processes necessary and the persons within the organisation who have the training, experience, responsibility and authority to carry out the following: a) schedule and perform quality inspections and audits, including unscheduled audits when required; b) identify and record any concerns or findings, and the evidence necessary to substantiate such concerns or findings; c) initiate or recommend solutions to concerns or findings through designated reporting channels; d) verify the implementation of solutions within specific timescales.			
Is there sufficient auditor resource available and can their required level of independence be demonstrated?			
Do the auditors report directly to the compliance monitoring manager?			





Audit Area	CM/Proc Ref	Comments	Satisfactory Y/N
<p>Does the defined audit schedule cover the following areas, within each 12 month period?</p> <ul style="list-style-type: none"> <li>a) organisation</li> <li>b) plans and objectives</li> <li>c) maintenance procedures</li> <li>d) FSTD qualification level;</li> <li>e) supervision</li> <li>f) FSTD technical status</li> <li>g) manuals, logs and records</li> <li>h) defect deferral</li> <li>i) personnel training</li> <li>j) aircraft and simulator configuration management, including Airworthiness Directives</li> </ul>			
<p>How are audit non-compliances recorded?</p>			
<p>Are procedures in place to ensure that corrective actions are taken in response to findings?</p>			
<p>Are records of the compliance monitoring programme:</p> <ul style="list-style-type: none"> <li>a) accurate</li> <li>b) complete and</li> <li>c) readily accessible?</li> </ul>			
<p>Is there an acceptable and effective procedure for providing a briefing on the CM to all personnel?</p>			
<p>Is there an acceptable and effective procedure for ensuring that all those responsible for managing the CM receive training covering:</p> <ul style="list-style-type: none"> <li>a) an introduction to the concept of the CM;</li> <li>b) compliance management;</li> <li>c) the concept of compliance assurance;</li> <li>d) CM manuals;</li> <li>e) audit techniques;</li> <li>f) reporting and recording;</li> <li>g) how the CM supports continuous improvement within the organisation.</li> </ul>			
<p>Are suitable training records maintained?</p>			
<p>Are activities within the CM subcontracted out to external agencies?</p>			



Audit Area	CM/Proc Ref	Comments	Satisfactory Y/N
Do written agreements exist between the organisation and the sub-contractor clearly defining the services and standard to be provided?			
Are the procedures in place to ensure that the necessary authorisations/approval when required are held by a subcontractor?			
Are the procedures in place to establish that the sub-contractor has the necessary technical competence?			
<b>4. CM MANUAL</b>			
What is the current status of the CM manual – amendment and issue date?			
Is there a procedure in place to control copies and the distribution of the CM manual?			
Is the CM manual signed by the accountable manager and the compliance monitoring manager?			
Does the CM manual include, either directly or by reference to other documents, the following: a) a description of the organisation; b) reference to appropriate FSTD technical standards; c) allocation of duties and responsibilities; d) audit procedures; e) reporting procedures; f) follow-up and corrective action procedures; g) document retention policy; h) training records			



<b>Audit Area</b>	<b>CM/Proc Ref</b>	<b>Comments</b>	<b>Satisfactory Y/N</b>
Is there a document retention policy covering: a) audit schedules; b) inspection and audit reports; c) responses to findings; d) corrective action reports; e) follow-up and closure reports; f) management evaluation reports.			
Does the CM manual include, either directly or by reference to other documents, the following procedures for day to day operation of the FSTD: a) defect reporting systems; b) defect rectification processes; c) tracking mechanisms; d) preventative maintenance programmes; e) spares handling; f) equipment calibration; g) configuration management of the device including visual, IOS and navigation databases; h) configuration control system to ensure the continued integrity of the hardware and software qualified; i) QTG running and function and subjective tests.			



Audit Area	CM/Proc Ref	Comments	Satisfactory Y/N
<p>Does the CM manual include, either directly or by reference to other documents, procedures for notification of the competent authorities of the following:</p> <ul style="list-style-type: none"> <li>a) any change in the organisation including company name, location, management;</li> <li>b) major changes to a qualified device;</li> <li>c) deactivation or relocation of a qualified device;</li> <li>d) major failures of a qualified device;</li> <li>e) major safety issue associated with the installation.</li> </ul>			
<p>Does the CM manual define acceptable and effective procedures to ensure compliance with applicable health and safety regulations, including:</p> <ul style="list-style-type: none"> <li>a) safety briefings;</li> <li>b) fire/smoke detection and suppression;</li> <li>c) protection against electrical, mechanical, hydraulic and pneumatic hazards;</li> <li>d) other items as defined in AMC1 ORA.FSTD.115</li> </ul>			
<p>Does the CM manual include acceptable and effective procedures for regularly checking FSTD safety features such as emergency stops and emergency lighting, and are such tests recorded?</p>			
<b>5. COMPLIANCE MEASURES</b>			
<p>Have compliance monitoring objectives been developed from the policy statement, and included either directly or by reference in the CMS manual?</p>			
<p>Does the CMS include processes to produce and review appropriate metrics data?</p>			
<p>Do these compliance measures track the following:</p> <ul style="list-style-type: none"> <li>a) FSTD availability;</li> </ul>			



<b>Audit Area</b>	<b>CM/Proc Ref</b>	<b>Comments</b>	<b>Satisfactory Y/N</b>
b) numbers of defects; c) open defects; d) defect closure rates; e) training session interrupt rates; f) training session compliance rating.			
Do the compliance measures support the compliance objectives?			