#### সদর দপ্তর সিভিল এভিয়েশন অথরিটি, বাংলাদেশ



#### Headquarters Civil Aviation Authority, Bangladesh

30.31.0000.114.61.03.24 Dated: 09-04-2024

То

All Maintenance Training Organisations

#### SUBJECT: COMMENTS ON THE DRAFT AMENDMENT OF ANO(AW) PART-147.

Dear Sir,

CAAB has amended Maintenance Training Organisation requirements ANO Part-147 on "Approved Maintenance Training Organisations". The draft amendment of ANO (AW) Part-147 is available in CAAB website (Notice Board).

2. You are requested to review the ANO Part-147 and provide your comments within 24 April 2024 through **dd.pel@caab.gov.bd.** 

Thanking you.

 $\sim$ 

(Md. Saiful Haque Shah)

Deputy Director (Trg. & Exam)
PEL, Exam & Training Directorate
Civil Aviation Authority of Bangladesh

<u>C.c.:</u>

1. Read File.

## CIVIL AVIATION AUTHORITY, BANGLADESH



## **AIR NAVIGATION ORDER**

### **PART-147**

Approved Maintenance Training Organisations

Issue-2 27 March 2024

#### Civil Aviation Authority of Bangladesh

Dhaka, ...... 1430/....., 2024

**No. CAAB 30.31.0000.114.61.03.24** - In exercise of the power conferred by section 47 read with section 14 of the Civil Aviation Act, 2017 (Act no. 18 of 2017), hereinafter referred as "Act", the Chairman of the Civil Aviation Authority of Bangladesh is pleased to issue the following Air Navigation Order (ANO) Part -147 Approved Maintenance Training Organisation.

2. It shall come into force immediately.

Air Vice Marshal M Mafidur Rahman BBP, BSP, BUP, ndu, afwc, psc

Chairman

Civil Aviation Authority of Bangladesh

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#### CHAPTER 1: REGULATION

#### SECTION A

#### TECHNICAL REQUIREMENTS

## SUBPART A GENERAL

Civil Aviation Authority of Bangladesh, in exercise of the powers conferred on it under Section 14 of the Civil Aviation Act 2017 has adopted this Regulation.

This Regulation shall be cited as ANO Part-147 Approved Maintenance Training Organisation and shall come in to force immediately.

Guidance Material, GM Part-147 is a separate document which provides guidance for the compliance of Maintenance Training Organisation requirement of this ANO. Section numbering of the GM part-147 is synchronized with that of this ANO.

#### **147.A.1** General

For the purpose of these orders, mandatory clauses are denoted by use of the words "shall" or "must", whereas the words "may" or "should" are used for permissive or recommended clauses.

For the purpose of this Part, the Competent Authority for organisations having their principal place of business in Bangladesh shall be Civil Aviation Authority, Bangladesh;

For the purpose of this Part, Part-66 shall be for licenses issued by CAA Bangladesh, ANO Part 66.

For the purpose of this Part, Competent Authority Form 11 shall be for organisations approved by CAAB Form 11.

For the purpose of this Part, Competent Authority Form 12 shall be for organisations approved by CAAB Form 12.

For the purpose of this Part, Competent Authority Form 4 shall be for organisations approved by CAAB Form 4.

Within the scope of this regulation, the following definitions shall apply:

- (a) 'Aircraft' means any machine that can derive support in the atmosphere from the reactions of the air other than reactions of the air against the earth's surface;
- (b) 'Certifying staff' means personnel responsible for the release of an aircraft or a component after maintenance;
- (c) 'Component' means any engine, propeller, part or appliance;
- (d) 'Maintenance' means any one or combination of overhaul, repair, inspection, replacement, modification or defect rectification of an aircraft or component, with the exception of pre-flight inspection;

- (e) 'Organisation' means a natural person, a legal person or part of a legal person. Such an organisation may hold more than one Part 147 approval.
- (f) 'Training organisation' means an organisation or part of an organisation registered as a legal entity.

#### 147.A.5 Scope

This section establishes the requirements to be met by organisations seeking approval to conduct training and examination as specified in Part-66.

#### 147.A.15 Application

- (a) An application for an approval or for the change of an existing approval shall be made on a form and in a manner established by the Civil Aviation Authority, Bangladesh.
- (b) An application for an approval or change to an approval shall include the following information:
  - 1. the registered name and address of the applicant;
  - 2. the address of the organisation requiring the approval or change to the approval;
  - 3. the intended scope of approval or change to the scope of approval;
  - 4. the name and signature of the accountable manager;
  - 5. the date of application.

#### **SUBPART B**

#### ORGANISATIONAL REQUIREMENTS

#### 147.A.100 Facility Requirements

- (a) The size and structure of facilities shall ensure protection from the prevailing weather elements and proper operation of all planned training and examination on any particular day.
- (b) Fully enclosed appropriate accommodation separate from other facilities shall be provided for the instruction of theory and the conduct of knowledge examinations.
  - 1. The maximum number of students undergoing knowledge training during any training course shall not exceed 28.
  - 2. The size of accommodation for examination purposes shall be such that no student can read the paperwork or computer screen of any other student from his/her position during examinations.
- (c) The paragraph (b) accommodation environment shall be maintained such that students are able to concentrate on their studies or examination as appropriate, without undue distraction or discomfort.
- (d) In the case of a basic training course, basic training workshops and/or maintenance facilities separate from training classrooms shall be provided for practical instruction appropriate to the planned training course. If, however, the organisation is unable to provide such facilities, arrangements may be made with another organisation to provide such workshops and/or maintenance facilities, in which case a written agreement shall be made with such organisation specifying the conditions of access and use thereof. The Civil Aviation Authority, Bangladesh shall require access to any such contracted organisation and the written agreement shall specify this access.
- (e) In the case of an aircraft type/task training course access, shall be provided to appropriate facilities containing examples of aircraft type as specified in 147.A.115 (d).
- (f) The maximum number of students undergoing practical training during any training course shall not exceed 15 per supervisor or assessor.
- (g) Office accommodation shall be provided for instructors, knowledge examiners and practical assessors of a standard to ensure that they can prepare for their duties without undue distraction or discomfort.
- (h) Secure storage facilities shall be provided for examination papers and training records. The storage environment shall be such that documents remain in good condition for the retention period as specified in 147.A.125. The storage facilities and office accommodation may be combined, subject to adequate security.
- (i) A library shall be provided containing all technical material appropriate to the scope and level of training undertaken.

#### 147.A.105 Personnel Requirements

- (a) The organisation shall appoint an accountable manager who has corporate authority for ensuring that all training commitments can be financed and carried out to the standard required by this Part.
- (b) A person or group of persons, whose responsibilities include ensuring that the maintenance training organisation is in compliance the requirements of this Part, shall be nominated. Such person(s) must be responsible to the accountable manager. The senior person or one person from the group of persons may also be the accountable manager subject to meeting the requirements for the accountable manager as defined in paragraph (a).
- (c) The maintenance training organisation shall contract sufficient staff to plan/perform knowledge and practical training, conduct knowledge examinations and practical assessments in accordance with the approval.
- (d) By derogation to paragraph (c), when another organisation is used to provide practical training and assessments, such other organisation's staff may be nominated to carry out practical training and assessments.
- (e) Any person may carry out any combination of the roles of instructor, examiner and assessor, subject to compliance with paragraph (f).
- (f) The experience and qualifications of instructors, knowledge examiners and practical assessors shall be established in accordance with criteria published or in accordance with a procedure and to a standard agreed by the Civil Aviation Authority, Bangladesh.
- (g) The knowledge examiners and practical assessors shall be specified in the organisation exposition for the acceptance of such staff.
- (h) Instructors and knowledge examiners shall undergo updating training at least every 24 months relevant to current technology, practical skills, human factors and the latest training techniques appropriate to the knowledge being trained or examined.

#### 1 47.A.110 Records of Instructors, Examiners and Assessors

- (a) The organisation shall maintain a record of all instructors, knowledge examiners and practical assessors. These records shall reflect the experience and qualification, training history and any subsequent training undertaken.
- (b) Terms of reference shall be drawn up for all instructors, knowledge examiners and practical assessors.

#### 147.A.115 Instructional Equipment

(a) Each classroom shall have appropriate presentation equipment of a standard that ensures students can easily read presentation text/drawings/diagrams and figures from any position in the classroom.

Presentation equipment shall include representative synthetic training devices to assist students in their understanding of the particular subject matter where such devices are considered beneficial for such purposes.

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- (b) The basic training workshops and/or maintenance facilities as specified in 147.A.100 (d) must have all tools and equipment necessary to perform the approved scope of training.
- (c) The basic training workshops and/or maintenance facilities as specified in 147.A.100 (d) must have an appropriate selection of aircraft, engines, aircraft parts and avionic equipment.
- (d) The aircraft type training organisation as specified in 147.A.100 (e) must have access to the appropriate aircraft type. Synthetic training devices may be used when such synthetic training devices ensure adequate training standards.

#### 147.A.120 Maintenance Training Material

- (a) Maintenance training course material shall be provided to the student and cover as applicable:
  - 1. the basic knowledge syllabus specified in Part-66 for the relevant aircraft maintenance licence category or subcategory and,
  - 2. the type course content required by Part-66 for the relevant aircraft type and aircraft maintenance licence category or subcategory.
- (b) Students shall have access to examples of maintenance documentation and technical information of the library as specified in 147.A.100 (i).

#### 147.A.125 Records

The organisation shall keep all student's training, examination and assessment records for unlimited period following completion of the particular student's course. The organisation shall keep the hard copies of the records for a period of five years.

#### 147.A.130 Training Procedures and Quality System

- (a) The organisation shall establish procedures acceptable to the Civil Aviation Authority, Bangladesh to ensure proper training standards and compliance with all relevant requirements in this Part.
- (b) The organisation shall establish a quality system including:
  - an independent audit function to monitor training standards, the integrity of knowledge examinations and practical assessments, compliance with and adequacy of the procedures, and
  - 2. a feedback system of audit findings to the person(s) and ultimately to the accountable manager referred to in 147.A.105(a) to ensure, as necessary, corrective action.

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#### 147.A.135 Examinations

- (a) The examination staff shall ensure the security of all questions.
- (b) Any student found during a knowledge examination to be cheating or in possession of material pertaining to the examination subject other than the examination papers and associated authorised documentation shall be disqualified from taking the examination and may not take any examination for at least 12 months after the date of the incident. The Civil Aviation Authority, Bangladesh shall be informed of any such incident together with the details of any enquiry within one calendar month.
- (c) Any examiner found during a knowledge examination to be providing question answers to any student being examined shall be disqualified from acting as an examiner and the examination declared void. The Civil Aviation Authority, Bangladesh must be informed of any such occurrence within one calendar month.

#### 147.A.140 Maintenance Training Organisation Exposition

- (a) The organisation shall provide an exposition for use by the organisation describing the organisation and its procedures and containing the following information:
  - a statement signed by the accountable manager confirming that the maintenance training organisation exposition and any associated manuals define the maintenance training organisation's compliance with this Part and shall be complied with at all times.
  - 2. the title(s) and name(s) of the person(s) nominated in accordance with 147.A.105(b).
  - 3. the duties and responsibilities of the person(s) specified in subparagraph 2, including matters on which they may deal directly with the Civil Aviation Authority, Bangladesh on behalf of the maintenance training organisation.
  - 4. a maintenance training organisation chart showing associated chains of responsibility of the person(s) specified in paragraph (a)(2).
  - 5. a list of the training instructors, knowledge examiners and practical assessors.
  - 6. a general description of the training and examination facilities located at each address specified in the maintenance training organisation's approval certificate, and if appropriate any other location, as required by 147.A.145(b).
  - 7. a list of the maintenance training courses which form the extent of the approval.
  - 8. the maintenance training organisation's exposition amendment procedure.
  - 9. the maintenance training organisation's procedures, as required by 147.A.130(a).
  - 10. the maintenance training organisation's control procedure, as required by 147.A.145(c), when authorised to conduct training, examination and assessments in locations different from those specified in 147.A.145(b).
  - 11. a list of the locations pursuant to 147.A.145(b).
  - 12. a list of organisations, if appropriate, as specified in 147.A.145(d).

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- (b) The maintenance training organisation's exposition and any subsequent amendments shall be approved by the Civil Aviation Authority, Bangladesh.
- (c) Notwithstanding paragraph (b) minor amendments to the exposition may be approved through an exposition procedure (hereinafter called indirect approval).

#### 147.A.145 Privileges of the Maintenance Training Organisation

- (a) The maintenance training organisation may carry out the following as permitted by and in accordance with the maintenance training organisation exposition:
  - 1. basic training courses to the Part-66 syllabus, or part thereof.
  - 2. aircraft type/task training courses in accordance with Part-66.
  - 3. the examination of students who attended the basic or aircraft type training course at the maintenance training organisation.
  - 4. the examination of students who did not attend the aircraft type training course at the maintenance training organisation.
  - 5. the examination of students who did not attend the basic training course at the maintenance training organisation, provided that, the examination is conducted at one of the locations identified in the approval certificate.
  - 6. the issue of certificates in accordance with Appendix III following successful completion of the approved basic or aircraft type training courses and examinations specified in subparagraphs (a)(1), (a)(2), (a)(3), (a)(4) and (a)(5), as applicable.
- (b) Training, knowledge examinations and practical assessments may only be carried out at the locations identified in the approval certificate and/or at any location specified in the maintenance training organisation exposition.
- (c) By derogation to paragraph (b), the maintenance training organisation may only conduct training, knowledge examinations and practical assessments in locations different from the paragraph (b) locations in accordance with a control procedure specified in the maintenance training organisation exposition. Such locations need not be listed in the maintenance training organisation exposition.
- (d) 1. The maintenance training organisation may subcontract the conduct of basic theoretical training, type training and related examinations to a non maintenance training organisation only when under the control of the maintenance training organisation quality system.
  - 2. The subcontracting of basic theoretical training and examination is limited to Part-66, Appendix I, Modules 1, 2, 3, 4, 5, 6, 8, 9 and 10.
  - 3. The subcontracting of type training and examination is limited to powerplant and avionic systems.
- (e) An organisation may not be approved to conduct examinations unless approved to conduct the corresponding training.
- (f) By derogation from point (e), an organisation approved to provide basic knowledge training or type training may also be approved to provide type examination in the cases where type training is not required.

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#### 147.A.150 Changes to the Maintenance Training Organisation

- (a) The maintenance training organisation shall notify the Civil Aviation Authority, Bangladesh of any proposed changes to the organisation that affect the approval before any such change takes place, in order to enable the Civil Aviation Authority, Bangladesh to determine continued compliance with this Part and to amend if necessary the maintenance training organisation approval certificate.
- (b) The Civil Aviation Authority, Bangladesh may prescribe the conditions under which the maintenance training organisation may operate during such changes unless the Civil Aviation Authority, Bangladesh determines that the maintenance training organisation approval must be suspended.
- (c) Failure to inform the Civil Aviation Authority, Bangladesh of such changes may result in suspension or revocation of the maintenance training organisation approval certificate backdated to the actual date of the changes.

#### 147.A.155 Continued Validity

- (a) An approval shall be issued for a maximum period of one year. It shall remain valid subject to:
  - 1. the organisation remaining in compliance with this Part, in accordance with the provisions related to the handling of findings as specified under 147.B.130; and
  - 2. the Civil Aviation Authority, Bangladesh being granted access to the organisation to determine continued compliance with this Part; and
  - 3. the certificate not being suspended, surrendered or revoked.
- (b) Upon suspension, surrender or revocation, the approval shall be returned to the Civil Aviation Authority, Bangladesh.

#### **147.A.160** Findings

- (a) A level 1 finding is one or more of the following:
  - 1. any significant non-compliance with the examination process which would invalidate the examination(s),
  - 2. reserved
  - 3. the lack of an accountable manager,
  - 4. a significant non-compliance with the training process.
- (b) A level 2 finding is any non-compliance with this part other than level 1 findings.
- (c) After receipt of notification of findings according to 147.B.130, the holder of the maintenance training organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the Civil Aviation Authority, Bangladesh within a period agreed with this authority.

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#### SUBPART C

#### THE APPROVED BASIC TRAINING COURSE

#### 147.A.200 The Approved Basic Training Course

- (a) The approved basic training course shall consist of knowledge training, knowledge examination, practical training and a practical assessment.
- (b) The knowledge training element shall cover the subject matter for a category or subcategory A, B1 or B2 aircraft maintenance licence as specified in Part-66.
- (c) The knowledge examination element shall cover a representative cross section of subject matter from the paragraph (b) training element.
- (d) The practical training element shall cover the practical use of common tooling/equipment, the disassembly/assembly of a representative selection of aircraft parts and the participation in representative maintenance activities being carried out relevant to the particular Part-66 complete module.
- (e) The practical assessment element shall cover the practical training and determine whether the student is competent at using tools and equipment and working in accordance with maintenance manuals.
- (f) The duration of basic training courses shall be in accordance with Appendix I.
- (g) The duration of conversion courses between (sub) categories shall be determined through an assessment of the basic training syllabus and the related practical training needs.

#### **147.A.205** Basic Knowledge Examinations

Basic knowledge examinations shall:

- (a) be in accordance with the standard defined in Part-66.
- (b) be conducted without the use of training notes.
- (c) cover a representative cross section of subjects from the particular module of training completed in accordance with Part-66.

#### 147.A.210 Basic Practical Assessment

- (a) Basic practical assessments shall be carried out during the basic maintenance training course by the nominated practical assessors at the completion of each visit period to the practical workshops/maintenance facility.
- (b) The student shall achieve an assessed pass with respect to 147.A.200(e).

#### SUBPART D

#### AIRCRAFT TYPE/TASK TRAINING

#### 147.A.300 Aircraft type/task training

A maintenance training organisation shall be approved to carry out Part-66 aircraft type and/or task training subject to compliance with the standard specified in 66.A.45.

#### 147.A.305 Aircraft Type Examinations and Task Assessments

A maintenance training organisation approved in accordance with 147.A.300 to conduct aircraft type training shall conduct the aircraft type examinations or aircraft task assessments specified in Part-66 subject to compliance with the aircraft type and/or task standard specified in Part-66.A.45.

#### Regulation Appendix I

#### **Basic Training Course Duration**

Minimum duration of complete basic courses

Basic Course	Duration (in Hours)	Theoretical Training Ratio (in %)
A1	800	30 to 35
A2	650	30 to 35
A3	800	30 to 35
A4	800	30 to 35
B1.1	2400	50 to 60
B1.2	2000	50 to 60
B1.3	2400	50 to 60
B1.4	2400	50 to 60
B2	2400	50 to 60
B2L	1500 (*)	50 to 60
В3	1000	50 to 60

(\*) This number of hours shall be increased as follows, depending on the additional system ratings selected:

System Rating	<b>Duration (in Hours)</b>	Theoretical Training Ratio (in %)
COM/NAV	90	
INSTRUMENTS	55	
AUTOFLIGHT	80	50 to 60
SURVEILLANCE	40	
AIRFRAME SYSTEMS	100	

#### Regulation Appendix II

## Maintenance Training Organisation Approval referred to in ANO (Part-147) CAAB FORM 11

#### CIVIL AVIATION AUTHORITY, BANGLADESH



## MAINTENANCE TRAINING AND EXAMINATION ORGANISATION APPROVAL CERTIFICATE

Reference: [Approval Number (\*)].MTO.[XXXX] Pursuant to "Civil Aviation Authority, Bangladesh" for the time being in force and subject to the condition specified below, the "Civil Aviation Authority, Bangladesh" hereby certifies:

#### [COMPANY NAME AND ADDRESS]

As a maintenance training organisation in compliance with PART-147, approved to provide training and conduct examinations listed in the attached approval schedule and issue related certificates of recognition to students using the above references.

#### **CONDITIONS:**

- 1. This approval is limited to that specified in the scope of work section of the approved maintenance training organisation exposition as referred to in PART-147 and
- 2. This approval requires compliance with the procedures specified in the approved maintenance training organisation exposition; and
- This approval is valid whilst the approved maintenance training organisation remains in compliance with PART-147
- 4. Subject to compliance with the foregoing conditions, this approval shall remain valid for a period of one year unless the approval has previously been surrendered, superseded, suspended or revoked.

Date of original issue:	
Signed:	
Date of this revision:	Revision No:
For the "Civil Aviation Authority, Bangladesh":	

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#### MAINTENANCE TRAINING AND EXAMINATION ORGANISATION APPROVAL SCHEDULE

Reference: [MEMBER STATE CODE (\*)].147.[XXXX]
Organisation: [COMPANY NAME AND ADDRESS]

CLASS	LICENCE CATEGORY		LIMITATION
BASIC (**)	B1 (**)	TB1.1 (**)	AEROPLANES TURBINE (**)
		TB1.2 (**)	AEROPLANES PISTON (**)
		TB1.3 (**)	HELICOPTERS TURBINE (**)
		TB1.4 (**)	HELICOPTERS PISTON (**)
	B2 (**)/(****)	TB2 (**)	AVIONICS (**)
	B2L (**)	TB2L (**)	AVIONICS (indicate system rating)
			(**)
	B3 (**)	TB3 (**)	PISTON ENGINE NON-
			PRESSURISED AERO-PLANES 2
			000 KG MTOM AND BELOW (**)
	A (**)	TA.1 (**)	AEROPLANES TURBINE (**)
		TA.2 (**)	AEROPLANES PISTON (**)
		TA.3 (**)	HELICOPTERS TURBINE (**)
		TA.4 (**)	HELICOPTERS PISTON (**)
	L (**) (Only examination)	TL (**)	QUOTE THE SPECIFIC LICENCE
			SUB-CATEGORY (**)
TYPE/TASK	C (**)	T4 (**)	[QUOTE AIRCRAFT TYPE] (***)
(**)	B1 (**)	T1 (**)	[QUOTE AIRCRAFT TYPE] (***)
	B2 (**)	T2 (**)	[QUOTE AIRCRAFT TYPE] (***)
	A (**)	T3 (**)	[QUOTE AIRCRAFT TYPE] (***)

This approval schedule is limited to those trainings and examinations specified in the scope of work section of the approved maintenance training organisation exposition.

Maintenance Training Organisation Exposition reference:	
Date of original issue:	
Date of last revision approved:	Revision No:
Signed:	
For the Civil Aviation Authority Bangladesh	

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<sup>(\*)</sup> or Civil Aviation Authority, Bangladesh.

<sup>(\*\*)</sup> Delete as appropriate if the organisation is not approved.

<sup>(\*\*\*)</sup> Complete with the appropriate rating and limitation.

<sup>(\*\*\*\*)</sup> The approval for the Basic B2 course/examination includes approval for B2L course/examination for all system ratings.

#### Regulation Appendix III

#### Certificates of Recognition referred to ANO (Part-147) - CAAB Forms 148 and 149

#### 1. Basic Training/Examination

The basic training certificate template shall be used for recognition of completion of either the basic training or the basic examination, or both the basic training and basic training examinations.

The training certificate shall clearly identify each individual module examination by date passed together with the corresponding version of Appendix I to Annex III (Part-66).

#### **CAAB FORM 148**

## CERTIFICATE OF RECOGNITION PART 147 APPROVED TRAINING COURSE OR EXAMINATION

This Certificate of recognition is issued to:

[NAME]

[DATE and PLACE OF BIRTH]

By: [COMPANY NAME AND ADDRESS] [may be pre-printed]

**Reference:** [MEMBER STATE CODE].147.[XXXX]

a maintenance training organisation approved to provide training and conduct examinations within its approval schedule and in accordance with ANO (Part-147)

This certificate confirms that the above named person either successfully passed the approved basic training course or the basic examination stated below in compliance with ANO Part-66 for the time being in force.

[BASIC TRAINING COURSE] or/and [BASIC EXAMINATION]

[LIST OF PART-66 MODULES/DATE OF EXAMINATION PASSED]

Signed:	Certificate No:
For: [Company Name, May be pre-printed]	Date:

#### **Type Training/Examination**

The type training certificate template shall be used for recognition of completion of either the theoretical elements or the practical elements, or both the theoretical and practical elements of the type rating training course.

The certificate shall indicate the airframe/engine combination for which the training was imparted.

The appropriate references shall be deleted as applicable and the course type box shall detail whether only the theoretical elements or the practical elements were covered or whether theoretical and practical elements were covered.

The training certificate shall clearly identify if the course is a complete course or a partial course (such as an airframe or powerplant or avionic/electrical course) or a difference course based upon the applicant previous experience, for instance A340 (CFM) course for A320 technicians. If the course is not a complete one, the certificate shall identify whether the interface areas have been covered or not.

#### CERTIFICATE OF RECOGNITION

## PART 147 APPROVED TYPE MAINTENANCE TRAINING COURSE OR AIRCRAFT TYPE EXAMINATION

This Certificate of recognition is issued to:

[NAME]

[DATE and PLACE OF BIRTH]

By: [COMPANY NAME AND ADDRESS] [may be pre-printed]

**Reference:** [MEMBER STATE CODE].147.[XXXX]

a maintenance training organisation approved to provide training and conduct examinations within its approval schedule and in accordance with ANO (Part-147)

This certificate confirms that the above named person either successfully passed the theoretical and/or the practical elements of the approved type training course stated below and the related examinations in compliance with ANO Part-66 for the time being in force.

#### [AIRCRAFT TYPE TRAINING COURSE]

[START and END DATES]

#### [SPECIFY THEORETICAL ELEMENTS AND/OR PRACTICAL ELEMENTS]

Signed:	Certificate No:
For: [Company Name, May be pre-printed]	Date:

#### **CHAPTER 2**

#### ACCEPTABLE MEANS OF COMPLIANCE

This section contains Acceptable Means of Compliance (AMC) to PART-147 Section A & B - Regulations. Acceptable Means of Compliance (AMC) illustrate a means, or several alternative means, but not necessarily the only possible means by which a requirement can be met.

A numbering system has been used in which the Acceptable Means of Compliance uses the same number as the paragraph in PART-147 Section A & B to which it refers. The number is preceded by the letters AMC to distinguish the material from the PART-147 Section A & B themselves.

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#### **SECTION A - REQUIREMENT**

#### **SUBPART A**

#### **GENERAL**

#### AMC 147.A.15 Application

In a form and in a manner prescribed by the Civil Aviation Authority, Bangladesh, means that the application should be made on a CAAB Form 12.

## SUBPART B ORGANISATIONAL REQUIREMENTS

#### **AMC 147.A.100(i)** Facility Requirements

- For approved basic maintenance training courses this means holding and ensuring access to copies of all Parts and national aviation legislation, examples of typical aircraft maintenance manuals, service bulletins, airworthiness directives, aircraft and component records, release documentation procedures manuals and aircraft maintenance programmes.
- 2 Except for the Parts and national aviation regulations the remainder of the documentation should represent typical examples for both large and small aircraft and cover both aeroplanes and helicopters as appropriate. Avionic documentation should cover a representative range of available equipment. All documentation should be reviewed and updated on a regular basis.

#### **AMC 147.A.105** Personnel Requirements

- The larger maintenance training organisation (an organisation with the capacity to provide training for 50 students or more at any one time) should appoint a training manager with the responsibility of managing the training organisation on a day to day basis. Such person could also be the accountable manager. In addition, the organisation should appoint a quality manager with the responsibility of managing the quality system as specified in paragraph PART-147.130(b) and an examination manager with the responsibility of managing the relevant PART-147 Section 1 Subpart C or Subpart D examination system. Such person(s) may also be an instructor and/or examiner. The accountable manager, the training manager or the examination manager may also function as an instructor and /or examiner / assessor, however they shall not function as an examiner in respect of subjects delivered by them.
- The smaller maintenance training organisation (an organisation with the capacity to provide training for less than 50 students at any one time) may combine any or all of the sub-paragraph (1) positions subject to the Civil Aviation Authority, Bangladesh verifying and being satisfied that all functions can be properly carried out in combination. Personnel involved in quality audit functions should be independent from the functions detailed in (1)
- When the organisation is also approved against other Parts which contain some similar functions then such functions may be combined.

#### AMC 147.A.105(b) Personnel Requirements

With the exception of the accountable manager, a CAAB Form 4 should be completed for each person nominated to hold a position required by PART-147.105(b). An example of a CAAB Form 4 is included in appendix II to AMC.

#### **AMC 147.A.105(f)** Personnel Requirements

Any person currently accepted by the Civil Aviation Authority, Bangladesh prior to PART - 147 coming into force may continue to be accepted in accordance with PART-147.105(f).

Paragraph 3 of Appendix III to AMC to Part-66 provides criteria to establish the qualification of assessors.

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#### **AMC 147.A.105 (h)** Personnel Requirements

Updating training should normally be of 35 hours duration but may be adjusted to the scope of training of the organisation and particular instructor/examiner.

#### AMC 147.A.110 Records of Instructors, Examiners and Assessors

- 1. The following minimum information relevant to the scope of activity should be kept on record in respect of each instructor, knowledge examiner and practical assessor:
  - (a) Name
  - (b) Date of Birth
  - (c) Personnel Number
  - (d) Experience
  - (e) Qualifications
  - (f) Training history (before entry)
  - (g) Subsequent Training
  - (h) Scope of activity
  - (i) Starting date of employment/contract
  - (j) If appropriate ending date of employment/contract.
- 2. The record may be kept in any format but should be under the control of the organisations quality system.
- 3. Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records become accessible to unauthorised persons.
- 4. The Civil Aviation Authority, Bangladesh may investigate the records system for issuance of initial and renewal approval or when it has cause to doubt the competence of a particular person.

#### AMC 147.A.115(c) Instructional Equipment

- An appropriate selection of aircraft parts means appropriate in relation to the particular subject module or sub-module of PART-66 being instructed. For example the turbine engine module should require the provision of sufficient parts from different types of turbine engine to show what such parts look like, what the critical areas are from a maintenance viewpoint and to enable disassembly/assembly exercises to be completed.
- Appropriate aircraft, engines, aircraft parts and avionic equipment means appropriate in relation to the particular subject module or sub-module of PART-66 being instructed. For example category B2 avionic training should require amongst other equipment, access to at least one type of installed autopilot and flight director system such that maintenance and system functioning can be observed and therefore more fully understood by the student in the working environment.
- 3 "Access" may be interpreted to mean, in conjunction with the facilities requirement of PART-147.100(d), that there may be an agreement with a maintenance organisation approved under PART-145 to access such parts, etc.

#### **AMC 147.A.120(a)** Maintenance Training Material

Training course notes, diagrams and any other instructional material should be accurate. Where an amendment service is not provided a written warning to this effect should be given.

#### AMC 147.A.130(a) Training procedures and quality system

This guidance material provides some clarifications for the incorporation of new training methods and training technologies in the procedures for aircraft maintenance training.

The classic training method is a teacher lecturing the pupils in a classroom. Commonly the training tools are a blackboard and training manuals. New technologies make it possible to develop new training methods and use other training tools, e.g. multimedia-based training and virtual reality. A combination of several training methods/tools is recommended in order to increase the overall effectiveness of the training.

Simulation cannot be eligible as a sole training or assessment tool for basic hand skills such as wiring, welding, drilling, filing, wire locking, riveting, bonding or any other skill where competence may only be achievable by performing a hands-on activity.

Three tables are provided to illustrate the possibilities for the use of different training methods and tools:

Table 1: Training tools

Table 2: Training methods

Table 3: Combination of training methods and tools and their use

Table 1 lists existing training tools that may be selected for basic training.

Table 1: Training tools

	Training tools	Description
1	Slideshow presentation	A structured presentation of slides.
2	Manuals	Comprehensive and controlled publication of a particular topic.
3	Computer (desktop PC, laptop, etc.)	An electronic processing device that can hold and display information in various media.
4	Mobile devices (such as, but not limited to, tablets, smart phones, etc.)	A mobile electronic processing device that can hold and display information in various media.
5	Videos	Electronic media for broadcasting moving visual images.
6	MSTD — Maintenance simulation training device	A training device that is intended to be used in maintenance training, examination, and/or assessment for a component, system or entire aircraft. The MSTD may consist of hardware and software elements.
7	Mock-up	A scaled or full-size replica of a component, system or entire aircraft that preserves (i.e. is an exact replica of) the geometrical, operational or functional characteristics of the real component, system or entire aircraft for which maintenance training is delivered with the use of such a replica.
8	Virtual reality	A computer-generated three-dimensional (3D) environment which can be explored and possibly interacted with.
9	MTD — Maintenance training device	Maintenance training device is any training device other than an MSTD used for maintenance training and/or examination and/or assessment. It may include mock-ups.

	Training tools	Description
10	Real aircraft	A suitable aircraft whose condition allows teaching a selection of maintenance tasks that are representative of the particular aircraft or of the aircraft category.  'Suitable' means an aircraft of the type or licence (sub)category (if the licence (sub)category aircraft is outfitted with the same equipment subject to the particular lesson module(s) and is sufficiently similar so that the lesson objective(s) can be satisfactorily accomplished) for type training, or an aircraft representative of the licence (sub)category for basic training, and excludes 'virtual aircraft'.  'Condition' means that the aircraft is equipped with its main components and that the systems can be activated/operated when this is required by the learning objectives.
11	Aircraft component	A suitable aircraft component used to teach specific maintenance tasks off-the-wing. This may include but is not limited to tasks such as borescope inspections, minor repairs, testing, or the assembly/disassembly of sub-components. 'Suitable' means that the condition of the component should fit the learning objectives of the tasks and, when appropriate, may feature existing defects or damages.
12	Augmented reality	An enhancement (modification, enrichment, alteration or manipulation) of one's current perception of reality elements of a physical, real-world environment following user's inputs picked up by sensors transferred to rapid streaming computer images. By contrast, virtual reality replaces the real world with a simulated one.
13	Embedded training	A maintenance training function that is originally integrated into the aircraft component's design (i.e. a centralised fault display system).
14	Classroom	A physical, appropriate location where learning takes place.
15	Virtual classroom	A simulated, not physical, location where synchronous learning takes place.
16	Virtual aircraft	A simulated, not physical, aircraft that may be used in theoretical training, practical training, examination or assessment.

Note: Synthetic training devices (STDs) is a generic term used for systems using hardware and/or software, simulating the behaviour of one or more aircraft systems or a complete aircraft, such as maintenance simulation training devices (MSTDs), maintenance training devices (MTDs) and <a href="flight-simulation-training-devices">flight-simulation training devices (FSTDs)</a>.

Table 2 lists existing training methods that may be selected for basic training.

Table 2: Training methods

Training method	Description	Instructor -centred <sup>(1)</sup>	Student- centred <sup>(2)</sup>	Blended training <sup>(3)</sup>
Assisted learning (mentoring)	Assisted learning or mentorship represents an ongoing, close relationship of dialogue and learning between an experienced /knowledgeable instructor and a less experienced/knowledgeable student in order to develop experience/knowledge of students.	X	X	X
Computer- based training (CBT)	CBT is any interactive means of structured training using a computer to deliver a content. (Note: Not to be confused with competency-based training that also uses the acronym 'CBT')	X	X	X

Training method	Description	Instructor -centred <sup>(1)</sup>	Student- centred <sup>(2)</sup>	Blended training <sup>(3)</sup>
Demonstration	A method of teaching by example rather than explanation.	X		X
Distance learning asynchronous	Distance learning reflects training situations in which instructors and students are physically separated. It is asynchronous if the teacher and the students do not interact at the same time.		X	X
Distance learning synchronous	Distance learning reflects training situations in which instructors and students are physically separated. It is synchronous if the teacher and the students interact at the same time (real time).	X		X
e-learning	Training via a network or electronic means, with or without the support of instructors (e-tutors).	X	X	X
Lecturing (instructor- led/face to face)	Practice of face-to-face delivery of training and learning material between an instructor and students, either individuals or groups.	X		X
Mobile learning (M-learning)	Any sort of learning that happens when the student is not at a fixed, predetermined location, using mobile technologies.	X	X	X
Multimedia- based training <sup>(4)</sup>	Any combined use of different training media.	X	X	X
Simulation	Any type of training that uses a simulator imitating a real-world process or system.	X	X	X
Web-based training (WBT)	Generic term for training or instruction delivered over the internet or an intranet using a web browser.	X	X	X

Note: The purpose of this table is to provide a short definition for each associated training method and to relate each method to the focus of the learning. It is not meant to comprehensively explore and identify the capabilities of each training method herein included.

- (1) 'Instructor-centred' means that the instructor is responsible for teaching the student.
- (2) 'Student-centred' means that the student is responsible for the learning progress.
- (3) 'Blended training' includes different instructional methods and tools, different delivery methods, different scheduling (synchronous/asynchronous) or different levels of guidance. Blended training allows the integration of a range of learning opportunities.
- (4) 'Multimedia-based training' by definition uses various media to achieve its objective, thus, none of the single media listed is per se a complete solution for training.

Table 3 presents the combination of training methods and tools that may be taken into account for theoretical and practical training.

The table is intended to support potential delivery methods. Additional training methods and further use of those methods could be acceptable to the competent authority when demonstrated as supporting learning objectives.

Table 3 Combination of training methods and tools and their use

Training method	Training tools	Theoretical elements		Practical OJT		Learning objectives			
See Table 2	See Table 1	Level 1	Level 2	Level 3	elements		Knowledge	Skills	Attitude
Lecturing (instructor-led /face to face)	1,2,3,5,6,7,8,9, 10 11,12,13,14,16	Х	Х	Х	X	X Only type	X	х	X Only type
Assisted learning (mentoring)	1,2,3,5,6,7,8,9, 10,11,12,13,14, 15,16	Х	Х	Х	X	X Only type	X	Х	X Only type
e-learning	1,2,3,4,5,8,12, 14,15,16	Х	X	X <sup>(1)</sup>	X <sup>(1)</sup>		X	X <sup>(1)</sup>	X <sup>(1)</sup>
Computer-based training	1,2,3,4,5,8,12, 14,15,16	Х	Х	Х	X <sup>(1)</sup>		X Only type	X <sup>(1)</sup>	
Multimedia- based training	1,2,3,4,5,8,12, 13,14,15,16	Х	Х	Х	X <sup>(1)</sup>		X Only type	X <sup>(1)</sup>	X <sup>(1)</sup>
Web-based training (WBT)	1,2,3,4,5,8,12, 14,15,16	Х	Х	X <sup>(1)</sup>	X <sup>(1)</sup>		X Only type	X <sup>(1)</sup> Only type	X <sup>(1)</sup>
M-learning	1,2,3,4,5,12,15, 16	Х	Х	X <sup>(1)</sup>	X <sup>(1)</sup>		X <sup>(1)</sup> Type unlimited	X <sup>(1)</sup>	
Distance learning synchronous	1,2,3,4,5,8,15, 16	Х	Х	X <sup>(1)</sup>	X <sup>(1)</sup>		X <sup>(1)</sup> Type unlimited	X <sup>(1)</sup>	X <sup>(1)</sup> Only type
Distance learning asynchronous	1,2,3,4,5,8,16	Х	Х	X <sup>(1)</sup>			X <sup>(1)</sup> Type unlimited	X <sup>(1)</sup>	X <sup>(1)</sup> Only type
Demonstration	1,2,3,5,6,7,8,9, 10,11,12,13,14, 15,16	x	х	X <sup>(1)</sup>	X	X <sup>(1)</sup> Only type	X	x	X <sup>(1)</sup> Only type
Simulation	1,3,4,6,7,8,9, 10,12,14, 15 <sup>(1)</sup> , 16	х	х	X <sup>(1)</sup>	X		X	x	X Only type

This table relates a given training method to a list of acceptable training tools (code), oriented to deliver the theoretical elements, practical elements or on-the-job training associated with their specific learning objectives.

(1) Limited suitability. It means that the respective training method may be used but with limited results, thus requiring the support of a complementary training method to fulfil the learning objectives.

NOTE: Instructor (human) involvement should be considered in Basic Knowledge Modules 9A/9B.

#### AMC 147.A.130(b) Training Procedures and Quality System

- 1 The independent audit procedure should ensure that all aspects of PART-147 compliance should be checked at least once in every 12 months and may be carried out as one complete single exercise or subdivided over a 12-month period in accordance with a scheduled plan.
- In a small maintenance training organisation the independent audit function may be contracted to another maintenance training organisation approved under PART-147 or a competent person acceptable to the Civil Aviation Authority, Bangladesh. Where the small training organisation chooses to contract the audit function it is conditional on the audit being carried out twice in every 12- month period with one such audit being unannounced.
- Where the maintenance training organisation is also approved under another ANO part of the CAAB Regulation requiring a quality system, then such quality systems may be combined.
- 4 When training or examination is carried out under the sub-contract control system:
  - (i) a pre audit procedure should be established whereby the PART-147 approved maintenance training organisation' should audit a prospective sub-contractor to determine whether the services of the sub-contractor meet the intent of PART-147.
  - (ii) a renewal audit of the subcontractor should be performed at least once every 12 months to ensure continuous compliance with the PART-147.
  - (iii) the sub-contract control procedure should record audits of the subcontractor and to have a corrective action follow-up plan.
- The independence of the audit system should be established by always ensuring that audits are carried out by personnel not responsible for the function or procedure being checked.

#### AMC 147.A.135 Examinations

- 1 Examinations may be computer or hard copy based or a combination of both.
- 2 The actual questions to be used in a particular examination should be determined by the examination staff.

#### **AMC 147.A.140** Maintenance Training Organisation Exposition

- 1 A recommended format of the exposition is included in AMC Appendix 1.
- When the maintenance training organisation is approved in accordance with any other ANO Part which also requires an exposition, the exposition required by the other ANO Part may form the basis of the maintenance training organisation exposition in a combined document, as long as the other exposition contains the information required by PART-147.140 and a cross reference index is included based upon AMC Appendix 1.
- When training or examination is carried out under the sub-contract control system the maintenance training organisation exposition should contain a specific procedure on the control of sub-contractors as per Appendix 1 item 2.18 plus a list of sub-contractors as required by PART-147.140(a)(12) and detailed in AMC Appendix 1 item 1.7.
- 4 The Civil Aviation Authority, Bangladesh may approve a delegated exposition approval system for all changes other than those affecting the approval.

#### AMC 147.A.145(d) Privileges of the Maintenance Training Organisation

- 1. When training or examination is carried out under the sub-contract control system it means that for the duration of such training or examination, the PART-147 approval has been temporarily extended to include the sub-contractor. It therefore follows that those parts of the sub-contractor's facilities, personnel and procedures involved with the PART- 147 approved maintenance training organisation's students should meet requirements of PART- 147 for the duration of that training or examination and it remains the PART -147 organisation's responsibility to ensure such requirements are satisfied.
- 2. The maintenance training organisation approved under PART-147 is not required to have complete facilities and personnel for training that it needs to subcontract but it should have its own expertise to determine that the sub-contractor meets the PART-147 standards. Particular attention should be given to ensuring that the training that is delivered also meets the requirements of PART-66 and the aircraft technologies as appropriate.
- 3. The contract between the maintenance training organisation approved under PART-147 and the sub-contractor should contain:
  - (a) a provision for the Civil Aviation Authority, Bangladesh to have right of access to the sub-contractor;
  - (b) a provision for the sub-contractor to inform the PART-147 approved maintenance training organisation of any change that may affect its PART-147 approval, before any such change takes place.

#### AMC 147.A.155(2) Continued Validity

- 1. Authority access should be authorised by the organisation during working hours only.
- 2. Operational constraints may lead the organisation not to authorised Civil Aviation Authority, Bangladesh access to the organisation's facility. In such case the organisation should propose alternative dates to the Civil Aviation Authority, Bangladesh to access its facility.
- 3. The organisation should not reject more than two written requests from the Civil Aviation Authority, Bangladesh to authorise access to its facility.

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#### **SUBPART C**

#### THE APPROVED BASIC TRAINING COURSE

#### **AMC 147.A.200** The Approved Basic Training Course

For the purpose of this paragraph, a training hour means 60 minutes training, without pauses.

#### AMC 147.A.200(b) The Approved Basic Training Course

Each licence category or subcategory basic training course may be subdivided into modules or sub - modules of knowledge and may be intermixed with the practical training elements subject to the required time elements of PART-147.200(f) to (g) inclusive being satisfied.

#### AMC 147.A.200(d) The Approved Basic Training Course

- Where the maintenance training organisation approved under PART-147 sub-contracts the practical training element either totally or in part to another organisation in accordance with PART-147.100(d), the approved organisation should ensure that the practical training elements are properly carried out.
- 2 At least 30% of the practical training element should be carried in an actual maintenance working environment.

#### AMC 147.A.200(f) The Approved Basic Training Course

- In order to follow pedagogical and human factors principles, the maximum number of training hours per day for the theoretical training should not be more than 6 hours. A training hour means 60 minutes of tuition excluding any breaks, examination, revision, preparation and aircraft visit. In exceptional cases, the competent authority may allow deviation from this standard when it is properly justified that the proposed number of hours follows pedagogical and human factors principles. These principles are especially important in those cases where:
  - Theoretical and practical training are performed at the same time;
  - Training and normal maintenance duty/apprenticeship are performed at the same time.
- The minimum participation time for the trainee to meet the objectives of the course should not be less than 90 % of the tuition hours. Additional training may be provided by the training organisation in order to meet the minimum participation time. If the minimum participation defined for the course is not met, a certificate of recognition should not be issued.

#### AMC 147.A.200(g) The Approved Basic Training Course

Typical extension durations are given below:

(a) The approved basic training course to qualify for extension from holding a PART-66 aircraft maintenance licence in subcategory A1 to subcategory B1.1 or B2 should not be less than 1600 hours and for extension from holding a PART-66 aircraft maintenance licence in subcategory A1 to subcategory B1.1 combined with B2 should not be less than 2200 hours. The course should include between 60% and 70% knowledge training.

- (b) The approved basic training course to qualify for extension from holding a PART-66 aircraft maintenance licence in subcategory B1.1 to B2 or category B2 to B1.1 should not be less than 600 hours, and should include between 80% and 85% knowledge training.
- (c) The approved basic training course to qualify for extension from holding a PART-66 aircraft maintenance licence in subcategory B1.2 to subcategory B1.1 should not be less than 400 hours, and should include between 50% and 60% knowledge training.
- (d) The approved basic training course to qualify for extension from holding a PART-66 aircraft maintenance licence in one subcategory A to another subcategory A should not be less than 70 hours, and should include between 30% and 40% knowledge training.
- (e) The approved basic training course to qualify for conversion from holding a Part-66 aircraft maintenance licence in any subcategory A to category B2L (with any system rating) should not be less than 800 hours and should include between 60 and 70 % of knowledge training.

#### AMC 147.A.205 Basic Knowledge Examinations

The Civil Aviation Authority, Bangladesh may accept that the maintenance training organisation approved under PART-147 can conduct examination of students who did not attend an approved basic course at the organisation in question.

#### AMC 147.A.210(a) Basic Practical Assessment

Where the maintenance training organisation approved under PART-147 sub-contracts the practical training element either totally or in part to another organisation in accordance with PART-147.100(d) and chooses to nominate practical assessors from the other organisation, the Part 147 approved organisation should ensure that the basic practical assessments are carried out.

#### AMC 147.A.210(b) Basic Practical Assessment

An assessed pass for each student should be granted when the practical assessor is satisfied that the student meets the criteria of PART-147.200(e). This means that the student has demonstrated the capability to use relevant tools/equipment/test equipment as specified by the tool/equipment/test equipment manufacturer and the use of maintenance manuals in that the student can carry out the required inspection/testing without missing any defects, can readily identify the location of components and is capable of correct removal/fitment/adjustment of such components. The student is only required to carry out enough inspection/testing and component removal/fitment/adjustments to prove capability. The student should also show an appreciation of the need to ensure clean working conditions and the observance of safety precautions for the student and the product. In addition, the student should demonstrate a responsible attitude in respect to flight safety and airworthiness of the aircraft.

Appendix III to AMC to Part-66 provides criteria for the competence assessment performed by the designated assessors (and their qualifications).

#### SUBPART D

#### AIRCRAFT TYPE / TASK TRAINING

#### AMC 147.A.300 Aircraft Type/Task Training

Aircraft type training may be sub-divided in airframe and/or powerplant and/or avionics/electrical systems type training courses. A maintenance training organisation approved under Part-147 may be approved to conduct airframe type training only, powerplant type training only, avionics/electrical systems type training only or any combination thereof.

- Airframe type training course means a type training course including all relevant aircraft structure and electrical and mechanical systems excluding the powerplant.
- 2 Powerplant type training course means a type training course on the bare engine, including the build-up to a quick engine change unit.
- 3 The interface of the engine/airframe systems should be addressed by either airframe or powerplant type training. In some cases, such as for general aviation, it may be more appropriate to cover the interface during the airframe course due to the large variety of aircraft that can have the same engine type installed.
- 4 Avionics/electrical systems type training course means type training on avionics and electrical systems covered by but not necessarily limited to ATA (Air Transport Association) chapters 22, 23, 24, 25, 27, 31, 33, 34, 42, 44, 45, 46, 73 and 77 or equivalent.

#### AMC Appendix I

#### **Maintenance Training Organisation Exposition (MTOE)**

- 1 The following subject headings form the basis of the MTOE required by PART-147.140.
- Whilst this format is recommended it is not mandatory to assemble the MTOE in this manner as long as a cross reference index is included in the MTOE as an appendix and the Part 1 items remain in Part 1.
- Part 2, 3 and 4 material may be produced as separate detailed manuals subject to the main exposition containing the part 2, 3 and 4 fundamental principles and policy on each item. It is then permitted to delegate the approval of these separate manuals to the senior person but this fact and the procedure should be specified in paragraph 1.10.
- Where an organisation is approved in accordance with any other parts of the Civil Aviation Authority, Bangladesh which require an exposition it is acceptable to combine the exposition requirements by merging the Part 1 items and adding the parts 2, 3 and 4. When this method is used it is essential to include the cross reference index of Part 4 item 4.3.

#### **PART 1 – MANAGEMENT**

- 1.1 Corporate commitment by accountable manager
- 1.2 Management personnel
- 1.3 Duties and responsibilities of management personnel, instructors, knowledge examiners and practical assessor
- 1.4 Management personnel organisation chart
- 1.5 List of instructional and examination staff (Note: A separate document may be referenced)
- 1.6 List of approved addresses
- 1.7 List of sub-contractors as per 147.145(d)
- 1.8 General description of facilities at paragraph 1.6 addresses
- 1.9 Specific list of courses approved by the Civil Aviation Authority, Bangladesh
- 1.10 Notification procedures regarding changes to organisation
- 1.11 Exposition and associated manuals amendment procedure

#### PART 2 – TRAINING AND EXAMINATION PROCEDURES

- 2.1 Organisation of courses
- 2.2 Preparation of course material
- 2.3 Preparation of classrooms and equipment
- 2.4 Preparation of workshops/maintenance facilities and equipment
- 2.5 Conduct of basic knowledge & practical training
- 2.6 Records of training carried out
- 2.7 Storage of training records
- 2.8 Training at locations not listed in paragraph 1.6
- 2.9 Organisation of examinations
- 2.10 Security and preparation of examination material

- 2.11 Preparation of examination rooms
- 2.12 Conduct of examinations
- 2.13 Conduct of basic practical assessments
- 2.14 Marking and record of examinations
- 2.15 Storage of examination records
- 2.16 Examinations at locations not listed in paragraph 1.6
- 2.17 Preparation, control & issue of basic training course certificates
- 2.18 Control of sub-contractors

#### PART 3 – TRAINING SYSTEM QUALITY PROCEDURES

- 3.1 Audit of training
- 3.2 Audit of examinations
- 3.3 Analysis of examination results
- 3.4 Audit and analysis remedial action
- 3.5 Accountable manager annual review
- 3.6 Qualifying the instructors
- 3.7 Qualifying the examiners
- 3.8 Records of qualified instructors & examiners

#### **PART 4 – APPENDICES**

- 4.1 Example of documents and forms used
- 4.2 Syllabus of each training course
- 4.3 Cross reference index if applicable

#### AMC Appendix II

**CAAB FORM 4** 



#### "Civil Aviation Authority, Bangladesh"

Details	s of Management Personnel required to be accepted as specified in
1.	Name:
2.	Position with the organisation:
3.	Qualifications relevant to the item (2) position*:
4.	Work experience relevant to the item (2) position*:
5.	Organisation:
Signatu	ure: Date:
On co *enclo	mpletion, please send this form under confidential cover to CAAB with necessary sures
For CA	AAB's use only
Name	and signature of authorised Civil Aviation Authority, Bangladesh officer accepting this person:
_	ure: Date:
Name:	Office:

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AMC Appendix III



#### **CAAB FORM 12**

	pplication for Approval  Theck appropriate)	Initial		Change	
1.	Registered Name of applicant:				
2.	Trading name (if different):				
3.	Postal Address:				
4.	Address(es) requiring approval:				
5.	Contact Details:				
	Tel	• • • • • • • • • • • • • • • • • • • •			
	Fax	•••••			
	Email				
6.	Scope of Approval relevant to this	s application:			
7.	Does the organisation hold approv	al under PAF	RT 21* / PART 145* /	PART M*? -	Yes / No
	*cross out if not applicable				
	If yes, provide details of Approva	and scope:			
8.	Staff Number				
	(A). The total number of staff emp	ployed by the	organisation in order	to comply with	h PART 147.
	(B). The number of contracted sta	aff associated	with the proposed app	roval	
		Main Site		ditional Locat detail all additior	
	a) Employees				
	b) Contractors				
9. 10.	Name and Position of the (proposed*) Acco	,	G		
	C (II)				
Pla Da					

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#### AMC Appendix IV

#### **CAAB FORM 22**

Part 147 APPROVAL RECOMMENDAT	ION REPORT
Part 1: General	
Name of organisation:	
Approval reference:	
Requested approval rating/	
Form 11 dated*:	
Other approvals held (if app.)	
Address of facility audited:	
Audit period: from	to
Date(s) of audit(s):	
Audit reference(s):	
Persons interviewed:	
CAAB Official(s) Names:	Signature(s):
CAAB office:	Date of Form 22 part 1 completion:
	*delete where applicable

#### **Part 147 APPROVAL RECOMMENDATION REPORT**

#### Part 2: Part 147 Compliance Audit Review

The five columns may be labeled and used as necessary to record the approved training/examinations, facility, including subcontractor's, reviewed. Against each column used of the following Part 147 subparagraphs please either tick ( $\square$ ) the box if satisfied with compliance or cross ( $\square$ ) the box if not satisfied with compliance and specify the reference of the Part 4 finding next to the box, or enter N/A where an item is not applicable, or N/R when applicable but not reviewed.

applicable bu	applicable but not reviewed.					
Para	Subject					
147. A.100	Facility requirements					
147. A.105	Personnel requirements					
147. A.110	Records of instructors, examiners and assessors					
147. A.115	Instructional equipment					
147. A.120	Maintenance training material					
147. A.125	Records					
147. A.130	Training procedures and quality system					
147. A.135	Examinations					
147. A.145	Privileges of the maintenance training organisation					
147. A.150	Changes to the maintenance raining organisation					
147. A.160	Findings					
147. A.200	Approved basic training course					
147. A.205	Dasia Imaviladas avaminations					
147. A.210	Basic knowledge examinations  Basic practical assessment					
147. A.300	Aircraft type/task training					
147. A.305	Aircraft type examinations and ask assessments					
PEL-AME In	spector(s):		Signature(s):			
CAAB Divisi	ion:		Date of Form	22 part 2 co	mpletion:	
				1	•	

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#### Part 147 APPROVAL RECOMMENDATION REPORT

#### Part 3: Compliance with Part-147 maintenance training organisation exposition (MTOE)

Please either tick ( $\boxtimes$ ) the box if satisfied with compliance; or cross ( $\boxtimes$ ) if not satisfied with compliance and specify the reference of the Part 4 finding, or enter N/A where an item is not applicable, or N/R when applicable but not reviewed.

Part 1	[	MANAGEMENT
1.1		Corporate commitment by accountable Manager
1.2		Management personnel
1.3		Duties and responsibilities of management personnel, instructors, knowledge examiners and practical assessor
1.4		Management personnel organisation chart
1.5		List of instructional and examination staff
1.6		List of approved addresses
1.7		List of sub-contractors as per 147.A.145(d)
1.8		General description of facilities of paragraph 1.6 addresses
1.9		Specific list of courses and type examinations approved by the Civil Aviation Authority, Bangladesh
1.10		Notification procedures regarding changes to organisation
1.11		Exposition and associated manuals amendment procedures

#### Part 2 TRAINING AND EXAMINATION PROCEDURES

2.16

2.17

2.18

2.1	Organisation of courses
2.2	Preparation of course material
2.3	Preparation of classrooms and equipment
2.4	Preparation of workshops/maintenance facilities and equipment
2.5	Conduct of theoretical training & practical training (during basic knowledge training and type/task training)
2.6	Records of training carried out
2.7	Storage of training records
2.8	Training at locations not listed in paragraph 1.6
2.9	Organisation of examinations
2.10	Security and preparation of examination material
2.11	Preparation of examination rooms
2.12	Conduct of examinations (basic knowledge examinations, type/task training examinations and type examinations)
2.13	Conduct of practical assessments (during basic knowledge training and type/task training)
2.14	Marking and record of examinations
2.15	Storage of examination records

Examinations at locations not listed in paragraph 1.6

Control of sub-contractors.

Preparation, control & issue of basic training course certificates.

## Part 147 APPROVAL RECOMMENDATION REPORT TRAINING SYSTEM QUALITY PROCEDURES Part 3 3.1 Audit of training 3.2 Audit of examinations 3.3 Analysis of examination results. 3.4 Audit and analysis remedial action 3.5 Accountable manager annual review 3.6 Qualifying the instructors Qualifying the examiners and the assessors 3.7 Records of qualified instructors & examiners. 3.8 Part 4 **APPENDICES** 4.1 Example of documents and forms used Syllabus of each training course 4.2 4.3 Cross reference Index — if applicable MTOE reference: MTOE amendment: Civil Aviation Authority, Bangladesh Officials: Signature(s): Civil Aviation Authority, Bangladesh office: Date of Form 22 Part 3 completion:

#### **Part 147 APPROVAL RECOMMENDATION REPORT**

#### Part 4: Findings regarding CAR-147 compliance status

Each level 1 and 2 finding should be recorded whether it has been rectified or not and should be identified by a simple cross-reference to the Part 2 requirement. All non-rectified findings should be copied in writing to the organisation for the necessary corrective action.

	Audit Reference(s): Findings		Corrective action		
1 art	Findings		Level Correct		action
2 or 3 ref.			Date	Date	
			Due	Closed	
					Reference

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# Part 147 APPROVAL RECOMMENDATION REPORT Part 5: Part 147 approval or continued approval or change recommendation Name of organisation: Approval reference: Audit reference(s): Applicable Part 147 amendment status: The following Part 147 scope of approval is recommended for this organisation: Or, it is recommended that the Part 147 scope of approval specified in CAAB Form 12 referenced ......be continued. Name of recommending Civil Aviation Authority, Bangladesh Officer: Signature of recommending Civil Aviation Authority, Bangladesh Officer: Civil Aviation Authority, Bangladesh office: Date of recommendation: Form 22 review (quality check): Date:

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#### AMC to Regulation Appendix II

## Maintenance Training Organisation Approval referred to ANO (Part-147) - CAAB FORM 11

The following fields on page 2 'Maintenance Training and Examination Approval Schedule' of the maintenance training and examination organisation approval certificate should be completed as follows:

- Date of original issue: It refers to the date of the original issue of the maintenance training organisation exposition
- Date of last revision approved: It refers to the date of the last revision of the maintenance training organisation exposition affecting the content of the certificate. Changes to the maintenance training organisation exposition which do not affect the content of the certificate do not require the reissuance of the certificate.
- Revision No: It refers to the revision No of the last revision of the maintenance training organisation exposition affecting the content of the certificate. Changes to the maintenance training organisation exposition which do not affect the content of the certificate do not require the reissuance of the certificate.

#### AMC to Regulation Appendix III

#### **Example of Training Certificate (Basic Training)**

As stated in Appendix III to Part-147, the CAAB Form 148 'Certificate of Recognition for Basic Training/Examination' may be issued after completion of either basic training, basic examination or both basic training and basic examination.

Some examples of cases where an CAAB Form 148 could be issued are the following:

- After successful completion of a full basic course in one licence (sub) category including successful completion of the examinations of all the corresponding modules.
- After successful completion of a full basic course in one licence (sub) category without performing examinations. The examinations may be performed at a different Part-147 organisation (this organisation will issue the corresponding Certificate of Recognition for those examinations) or at the competent authority.
- After successful completion of all module examinations corresponding to a licence (sub) category.
- After successful completion of certain modules/sub-modules/subjects. It must be noted that 'successful completion of a course' (without the module examinations) means successful completion of the theoretical and practical training including the corresponding practical assessment.

#### **CHAPTER 3: NATIONAL VARIANTS**

**CHAPTER 1: Regulation** 

**Section A: Technical Requirements** 

None

Section B: Procedures for Civil Aviation Authority, Bangladesh

CAA-B NV Part-147.B.120 Continued Validity Procedure

#### 147.B.120 Continued Validity Procedure

(a) Each organisation must be completely audited for compliance with this Part at periods not exceeding 12 months.

**CHAPTER 2: Acceptable Means of Compliance Part 66** 

**Section A: Technical Requirements** 

None

Section B: Procedures for Civil Aviation Authority, Bangladesh

None