

DIRECTORATE GENERAL OF CIVIL AVIATION

**CAR 147**  
**APPROVED MAINTENANCE TRAINING**  
**ORGANISATION**

DRAFT

## Foreword

Rule 133 B of the Aircraft Rules, 1937 requires that organisations engaged in the aircraft maintenance basic and type training be approved.

In order to harmonize the requirements of approval of training organizations with International requirements, it has been decided to introduce, after careful consideration, CAR 147 regulations based as per International standards in respect of the approval of Aircraft Maintenance Training organisations.

Considering that the aviation industry will need time to adopt CAR 147, it is considered necessary to retain CAR Section 2 Series E Part VIII.

From 3<sup>rd</sup> of June, 2008, any new applicants for approval as training organizations shall be required to meet the requirements of this CAR.

## PREAMBLE

This CAR 147 has been issued on the 3<sup>rd</sup> of June, 2008 and becomes effective forthwith. This preamble is intended to be a summarized record of the main changes introduced when this CAR 147 is amended.

Initial Issue (Rev. 0)

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03-06-08

This CAR 147 stipulates the requirement to be complied for conducting basic and/or type/task training in accordance with requirements of this CAR.

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# CIVIL AIRWORTHINESS REQUIREMENT 147

## SECTION A - REQUIRMENTS

### SUB-PART A GENERAL

#### 147.A.05 Scope

This section establishes the requirements to be met by an organisations seeking approval to conduct training as specified for acquiring Aircraft Maintenance Licences as per Aircraft Rule 61. Organisations seeking approval in accordance with this CAR shall be entitled to the following as per the scope of approval granted to the organization;

- (a) to conduct recognized basic training courses;
- (b) to conduct recognized type training courses and to conduct type training examinations in association with DGCA

#### 147.A.07 Applicability

This CAR is applicable to the following applicants:-

- (i) Maintenance organizations approved under CAR 145 to maintain large Transport Category Aircraft with all up weight not less than 40,000 kg and having base maintenance approval at least up to 'C' Check.
- (ii) Organizations approved by EASA/FAA under Part 147.
- (iii) Organisations manufacturing large aircraft or their engines.

#### 147.A.10 General

A training organisation shall be an organisation or part of the organisation registered as a legal entity.

#### 147.A.15 Application

An application for an approval, renewal or variation of an existing approval shall be made on a form and in a manner established by DGCA. Typical format of application form for approval/renewal, variation of an organisation is given in Appendix III & IV.

**SUB-PART B**  
**ORGANISATIONAL REQUIREMENTS**

**147.A.100 Facility requirements**

- (a) The size and structure of the facilities shall ensure protection of trainees from the prevailing weather conditions. Premises of theory classes, practical trainings and examinations should be constructed to be suitable for the training on any particular day.
- (b) Fully enclosed appropriate accommodation separated from other facilities shall be provided for conducting training sessions on theory and practical and for conducting knowledge examination.
  - 1. The maximum number of students undergoing type training during any training course shall not exceed 30.
  - 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. The DGCA shall have access to all such organisation.
- (e) In 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) Instructors, knowledge examiners and practical assessors shall be provided with proper office accommodation to ensure that they can prepare for their duties without undue distraction or discomfort.
- (h) Secured 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 CAR 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 standards stipulated in this CAR.
- (b) Accountable Manager shall nominate a person or group of persons as post holder(s) acceptable to DGCA, and their responsibilities shall include ensuring that the maintenance training organisation is in compliance with the requirements of this CAR. Such persons shall be responsible to the accountable manager. In small organisations, one of the post holders may also function as the accountable manager subject to the condition that he has corporate authority for ensuring that all training commitments can be financed and carried out to the standards stipulated in the CAR.
- (c) The maintenance training organisation shall appoint/contract sufficient number of staff to plan/ perform knowledge (theoretical) training, practical training, and conduct knowledge examinations and practical assessments in accordance with the approval.
- (d) When another organisation is used to provide practical training and assessments as specified in 147.A.100(d), such other organisation's staff may also be nominated to carryout 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.
- (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.
- (i) For the purpose of type training, CAR 147 approved organization may contract qualified instructors, examiners and practical assessors from FAA/EASA part 147 approved organizations.

#### **147.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. All persons must be provided with a copy of their terms of references.

#### **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.

- (b) The basic training workshop and / or maintenance facilities as stipulated 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 avionics equipment.
- (d) The aircraft type training organisation as specified in CAR 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 CAR for the relevant aircraft maintenance licence category or subcategory and,
  - (2) the type course content required by CAR 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 CAR 147.A.100(i).

#### **147.A.125 Records**

- (a) The maintenance training organisation shall keep all student training, examination and assessment records for at least five years following completion of the particular student's course.
- (b) Records of all instructors, knowledge examiners and practical assessors shall be maintained for at least five years.

#### **147.A.130 Training procedures and quality system**

- (a) The organisation shall establish procedures acceptable to DGCA to ensure proper training standards and compliance with all relevant requirements in this CAR.
- (b) The organisation shall establish a quality system including:
  - (1) an independent audit function to monitor training and examination standards, the integrity of knowledge examinations and practical assessments, and compliance with and adequacy of the procedures; and
  - (2) a feedback system of audit findings to the concern person(s) and ultimately to the Accountable Manager referred to in 147.A.105(a) to ensure necessary and timely corrective action .

### **147.A.135 Examinations**

- (a) The examination staff of the organization shall ensure 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. DGCA shall be informed of any such incident within two days and provided with the details of any inquiry within one calendar month.
- (c) Any examiner found during an 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 DGCA shall be informed of any such occurrence within two days and provided with details of any inquiry 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:
  - (1) 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 CAR and shall be complied with at all times.
  - (2) the title(s) and name(s) of the person(s) accepted by the DGCA in accordance with CAR 147.A.105(b).
  - (3) the duties and responsibilities of the person(s) specified in sub-paragraph (a)(2), including matters on which they may deal directly with DGCA on behalf of the maintenance training organisation.
  - (4) a maintenance training organisation chart showing associated chains of responsibility of the person(s) specified in sub-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 and internal quality assurance system as required by 147.A.130.
  - (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) procedure for obtaining concession from DGCA as specified in 147.A.145(d).
- (b) The maintenance training organization's exposition and any subsequent amendments shall be approved by the DGCA.



- (c) Notwithstanding paragraph (b) minor amendments to the exposition may be approved by the organisation 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 course as per the syllabus specified by DGCA or part there of.
  - (2) aircraft type/task and refresher training courses in accordance with aircraft manufacturer course content as accepted by DGCA.
  - (3) the type course examinations on behalf of DGCA, except for basic course, including the examination of students who did not attend the basic or aircraft type training course at the maintenance training organisation.
  - (4) the issue of certificates in accordance with the format given in Appendix V following successful completion of the approved basic or aircraft type training courses and examination specified in subparagraphs (a)(1), (a)(2) and (a)(3), 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, under rare occasions, 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, but shall be intimated to DGCA.
- (d)
- (1) The maintenance training organisation, may subcontract a few elements of the basic theoretical training, type training and related examinations to another CAR 147 approved organisation with prior permission from DGCA. Such locations need not be listed in the maintenance training organisation exposition.
  - (2) The subcontracting of type training and examination is limited to power plant and avionic systems.
- (e) An organisation may not be approved to conduct only examinations unless approved to conduct training.

#### **147.A.150 Changes to the maintenance training organization**

- (a) The maintenance training organisation shall notify the DGCA of any proposed changes to the organisation that affect the approval before any such change takes place, in order to enable the DGCA to determine continued compliance with this CAR and to amend if necessary the maintenance training organisation approval certificate.

- (b) The DGCA may prescribe the conditions under which the maintenance training organisation may operate during such changes unless it determines that the maintenance training organisation approval must be suspended.
- (c) Failure to inform the DGCA 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/renewed for a maximum period of one year. It shall remain valid subject to:
  - (1) the organisation remaining in compliance with this CAR, in accordance with the provisions related to the handling of findings as specified under 147.B.130; and
  - (2) DGCA being granted access to the organisation to determine continued compliance with this CAR 147; and
  - (3) the certificate not being surrendered or revoked.
- (b) Upon surrender or revocation, the approval shall be returned to DGCA.

#### **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) failure to give the DGCA access to the organisation's facilities during normal operating hours after two written requests.
  - (3) the lack of an accountable manager or a training manager.
  - (4) a significant non-compliance with the training process.
- (b) A level 2 finding is any non-compliance with the training process 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 DGCA within an agreed period.

### **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 Rule 61.

Note:- Subcategory A, B1 or B2 are being introduced in revision to Rule 61 to be published shortly.

- (c) The knowledge examination element shall cover a representative cross section of subject matters 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 Rule 61 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 not be less than two years. The practical training duration shall not be less than 50% of total training period.
- (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 Examination shall:

- (a) be in accordance with the standard defined in Rule 61.

Note: (1) Basic knowledge examinations conducted by maintenance training organisations will be deemed to be preparatory examinations to be eligible for appearing in the Knowledge Examinations conducted by DGCA.

Note: (2) Students are eligible to appear for basic knowledge examination conducted by maintenance training organisations, provided they have attended at least 80% of the classes.

- (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 Rule 61.

#### **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 workshop/maintenance facility.
- (b) The student shall achieve an assessed pass with respect to CAR 147.A.200(e.)

## SUBPART D

### AIRCRAFT TYPE/TASK TRAINING

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

(a) A maintenance training organisation shall be approved to carry out aircraft type training and / or task training subject to compliance with the facility and manpower requirements as stated in CAR 66.

(b) The type/task training course will be conducted in accordance with the scope of approval. Candidates shall be admitted in type training / task training only after passing of the Basic Aircraft Maintenance Training Licence in a respective category.

#### **147.A.305 Aircraft type examinations and task assessments**

A maintenance training organisation approved in accordance with CAR 147.A.300 to conduct aircraft type training shall conduct the aircraft type examination or aircraft task assessments specified in Rule 61 subject to compliance with the aircraft type and/or task standard specified in CAR 66, and with prior intimation to DGCA. DGCA officials may associate with the examinations at their discretion.

## Acceptable Means of Compliance to CAR 147

### SECTION A

#### **AMC 147.A.05 Scope:**

Approved basic training organisation means an organisation, which is engaged in imparting ab-initio training for obtaining basic licence in mechanical and/or avionics categories. Medically fit persons having a minimum qualification of 12<sup>th</sup> class or equivalent with an aggregate mark of 50% each in physics, chemistry and mathematics are eligible for admission. Holders of diploma in engineering (three-year course) or graduates in science with physics, chemistry and mathematics are also eligible for admission. The Mechanical stream includes airframe, engine and relevant portion of electrical systems. The Avionics stream includes electrical system, instrument system and radio navigation system.

Approved type training organisation means an organisation, which is engaged in conducting specific type courses in airframe, engines and avionics of a particular aircraft. Holders of basic licences in mechanical and avionics streams are eligible to attend type training course in organization approved under this CAR.

The requirements stipulated in this CAR are the essential minimum requirements to be met by the Approved Maintenance Training Organization. Organizations are encouraged to set higher standards and to establish their own requirements to attain high level of learning objectives.

#### **AMC 147.A.10 General:**

Legal Entity means that an organization except a government owned organisation, must be registered under **Companies or Societies Acts**.

#### **AMC 147.A.15 Application:**

The form and manner means that for the purpose of organisation's approval, issue, renewal or variation, Accountable Manager shall submit a duly filled Form as given appendix III & IV along with:

- (a) Accountable Manager's declaration.
- (b) Para wise statement of Compliance with CAR 147.
- (c) In case of variation compliance of relevant paragraphs of CAR 147.
- (d) Maintenance Training Organisation Exposition or Revision to the Exposition in case of variation
- (e) Fees as prescribed in Aircraft Rule 133C of Aircraft Rule, 1937.

In addition, all suitable post holders as mentioned in CAR 147.A.105 are to be nominated for the purpose of organization approval.

### **AMC 147.A.100 Facility requirements**

AMC 147.A.100 (a) The size and structure means that the size of the classroom must be adequate to accommodate at least 30 separate chairs and tables with spacing between rows to facilitate free movement of Instructor for approaching any student without obstruction. The rooms shall also have space for keeping component display tables. It is also intended to ensure that the students are prevented to see or copy the answers from other students during examination if the rooms are used for examination. ICAO recommends at least 1.4 m<sup>2</sup> as ideal space for each adult. (Ref. ICAO Doc 7192 AN/857, Part D-1 2.1.2)

**AMC 147.A.100 (b)** Classroom suitable, fully enclosed and separated from other facility means the class room shall not be an open one in a hangar space, which is prone to noise pollution and distraction. Hangar portion used as classroom is acceptable, provided rooms are fully closed and air-conditioned. Rooms are to be self-contained means each room must have writing board, overhead projector, electronic projector, component display table and diagram / notice display board. Classrooms must have proper provision for electrical points to install teaching aids such as computers and projectors.

**AMC 147.A.100 (b)(1) Class room suitable to conduct examination** means the size of the class room and the seating arrangements are to be made as described in AMC 147.A.100(a). The training organisation shall create a training atmosphere so as to enable the student to absorb maximum out of training (Ref. ICAO Doc 7192 AN/857, Chapter 2).

**AMC 147.A.100 (d)(1) Basic course means**, Basic Aircraft Maintenance Engineering Licence preparatory course or equivalent modules of courses for the purpose of acquiring AME Licence as per rule 61.

**AMC 147.A.100 (d)(2) Basic workshop and maintenance facility** implies that the organization must have facility as prescribed in Appendix V or facilities required to be established as per the course content of the modules. Total of 50% training time must be devoted to basic workshop and practical maintenance training out of which half must be in base maintenance.

**AMC 147.A.100(g) 'Assessors'** are persons authorised by the maintenance training organisation to conduct practical training assessment; **'Examiners'** are persons authorised by the maintenance training organisation to conduct theoretical knowledge examination; **'Instructors'** are persons authorised by the maintenance training organisation to conduct theoretical instruction and / or practical training. Assessors and examiners are to be accepted by DGCA.

**AMC 147.A.100(h) Secured storage facility** means a separate record room(s), where personal records and question papers/answer in the form of hard copy and soft copies are stored and to which only authorised person have access.

**AMC 147.A.100(i)**

1. For approved basic maintenance training courses this means holding and ensuring reasonable access to copies of all Parts and national aviation legislation, examples of typical aircraft maintenance manuals and 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**

**AMC 147.A.105(a)** 'Accountable Manager' means the manager who has corporate authority for ensuring that training can be financed and carried out to the standards required by the DGCA.

1. Large maintenance training organisation means an organisation with the capacity to provide training for 50 students or more. Large organisations should appoint a training manager with the responsibility of managing 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 internal quality assurance system as specified in paragraph CAR 147.A.130(b) and an examination manager with the responsibility of managing the relevant CAR 147 Subpart C or Subpart D examination system. Such person(s) may also be an instructor and/or examiner.
2. Small maintenance training organisation means an organisation with the capacity to provide training for less than 50 students, and such organisation may combine any or all of the sub-paragraph (1) positions subject to the DGCA verifying and being satisfied that all functions can be properly carried out in combination.
3. When the organisation is also approved against other CARs which contain some similar functions, then such functions may be combined.

**AMC 147.A.105(b)** The Accountable Manager shall nominate all post holders to DGCA while submitting application for approval and/or variation, for assessing their suitability in terms of qualification, experience and competency to perform their respective duty. Upon application, DGCA may issue a letter of acceptance to all including Accountable Manager, if they are found suitable for the position applied.

**AMC 147.A.105(c)** The over all ratio of permanent instructor to student shall not be less than one to 30 students. The training school requires at least two Instructors for each range of subjects. The Institute shall have a minimum of one Training Manager and a Deputy

Training Manager; and for each group of 30 students, two Airframe Instructors, two powerplant Instructors and one material workshop practical Instructor. The Institute shall also have at least one Instructor in each specialized subject of electrical, instrument and communication & navigation, for each group of 30 students. The Institute shall have three workshop practical Instructors and a computer Instructor.

**AMC 147.A.105(d) Sufficient number of staff** means that the CAR 147 approved maintenance training organisation employs atleast 50% of the staff that perform classroom training, workshops training and practical on aircraft as permanent employees to ensure organisation stability. Contract staff should be made aware that when working for the CAR 147 approved maintenance training organisation, they are subject to compliance with the organizational procedures specified in the training organisation exposition.

**AMC 147.A.105(f)(1)** The training manager shall be:

- (a) an engineering graduate specialized in mechanical or avionics stream with minimum experience of 5 years in any industry, out of which 2 years in instruction in the field of aircraft maintenance.
- (b) an engineering diploma holder specialized in mechanical or avionics stream with minimum of 7 years of industry experience, out of which 3 years in instruction in the field of aircraft maintenance or
- (c) Basic Aircraft Maintenance Engineering licence holder in mechanical or avionics stream with minimum of 5 years experience in aviation industry, out of which 3 years in instruction in the field of aircraft maintenance.
- (d) DGCA may relax the experience / education requirements for candidates with higher/special qualification and/or specialized training.

**AMC 147.A.105(f)(2)** The theory training instructor shall be :

- (a) an engineering graduate specialized in mechanical or avionics stream with minimum of 2 years experience in aviation industry, out of which 1 year in instruction in the field of aircraft maintenance, or
- (b) an engineering diploma holder specialized in mechanical or avionics stream with minimum of 4 years experience in aviation industry, out of which 2 years in instruction in the field of aircraft maintenance, or
- (c) Basic Aircraft Maintenance Engineering licence holder, specialized in mechanical or avionics stream with minimum of 3 years experience in aviation industry, out of which 1 year in instruction in the field of aircraft maintenance, or
- (d) An engineering graduate/ diploma holder/ BAMEL holder with 6 months specialized instructor's training can function as an Instructor.

**AMC 147.A.105(f)(3)** The aircraft practical training instructor shall be:

**BAMEL** holder in respective category as mentioned in AMC 147.A.100 (d)(2)(a) work shop practices. This position may be contracted to another CAR 147 organisation that may impart practical training on contract basis with provision to control instructional quality.



AMC 147.A.105(h) 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. Matters relating to qualification, experience and competency of instructors, knowledge examiners, and practical assessors require DGCA approval. Any changes in these matters may not qualify for indirect approval, as it is a major change. MTOE revisions will be effective only after DGCA approval.

- (j) **AMC 147.A.105(i)** Policy relating for sub-contracting qualified instructor, examiners and practical assessors from another FAA/EASA part 147 approved organizations, should be defined in the MTOE.

#### **AMC 147.A.110(a) Records of instructors, examiners and assessors**

The following minimum information as applicable should be kept on record in respect of each instructor, knowledge examiner and practical assessor:

- (a) Name
- (b) Date of Birth
- (c) Experience
- (d) Qualifications
- (e) Designation
- (f) Training History (before entry)
- (g) Subsequent Training
- (h) Updating training
- (i) Scope of activity
- (j) Date of employment/contract

The record may be kept in any format or forms (hard copy or soft copy) but should be under the control of the maintenance training organization's quality system.

Security of the records system is ensured by provisions of AMC 147.A.110(h). Limited number of persons shall be authorised to have access to the record system to ensure that records are not altered in an unauthorised manner or that such confidential records become accessible to unauthorised persons.

The DGCA has an authority to have access to the personnel records when investigating the records system for initial and continued approval or when the DGCA has reasons to doubt the competence of a particular person.

AMC 147.A.110(b) Instructors, knowledge examiners and practical assessors or other persons in the organization shall be given a copy of terms of reference which is produced to the DGCA during inspection.

### **AMC 147.A.115 Instructional equipment**

AMC 147.A.115(a) Appropriate equipment means each room must have writing board, Over Head Projector (OHP), electronic projector, component display table and diagram / notice display board.

AMC 147.A.115(b) Basic workshop and maintenance facility implies that the organisation must have facility as prescribed in **Appendix VI** or facilities required to be established as per the course content of the modules stipulated by respective regulatory authorities.

AMC 147.A.115(c)

1. An **appropriate selection of aircraft parts** means appropriate in relation to the particular paper / module or sub-module is being instructed. For example, the turbine engine paper / 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.
2. Appropriate aircraft, engines, aircraft parts and avionic equipment means appropriate in relation to the particular paper / module or sub-module is being instructed. For example avionics 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 the subject is fully understood by the student in the working environment.
3. AMC 147.A.115(d) "Access" may be interpreted to mean, in conjunction with the facilities requirement of 147.A.100(d), that there may be an agreement with a maintenance organisation approved under CAR 145 to access such parts, etc.

### **AMC 147.A.120 Maintenance training material**

**AMC 147.A.120(a)** Training course notes, diagrams and any other instructional material should be accurate and up to date. Where the aircraft documents are not updated or updatable, all such notes shall be provided a written warning as "For Training purpose only".

AMC 147.A.120(b) Students shall have access to examples of maintenance documentation and technical information of the library as specified in CAR 147.A.100(i).

### **AMC 147.A.125 Records**

**AMC 147.A.125(a)** Details of the approved course should at least include the following information:

1. Name of course
2. Course control number and revision status
3. Course objectives
4. Name of instructors
5. Reference material
6. Syllabus, including any practical training session, if applicable

7. Course duration including number of training hours for each subject
8. Course timetable detailing the topics to be covered for each day of the course
9. Attendance and examination results.
10. Format of examination
11. Signature(s) of senior person responsible for the development of the course

### **AMC 147.A.130 Training procedures and quality system**

**AMC 147.A.130(a)** Proper **training standards** means devising feed back and control mechanism to ensure that intended training materials are delivered to the students and students have fully absorbed the materials. System exists in all sphere of training to achieve the training objectives. For example, collecting student's feed back form on instructors is one of the appraisal systems followed for assessing the quality of lectures.

### **AMC 147.A.130(b)**

1. The Independent audit means, auditor shall not assume any other functional responsibility. The independence of the audit system should be established to ensure that audits are carried out by personnel not responsible for the function or procedure being checked. The independent audit procedure are to ensure all aspects of CAR 147 compliance be checked at least once in every 12 months by trained auditing personnel and may be carried out as a complete single exercise or subdivided over a 12-month period in accordance with a scheduled plan.
2. In a small maintenance training organisation the independent audit function may be contracted to another maintenance training organisation approved under CAR147 or a competent person acceptable to DGCA. Where the small training organization 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.
3. Where the maintenance training organisation is also approved to another category 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:
  - (j) A pre audit procedure should be established whereby the CAR 147 approved maintenance training organisation' should audit a prospective sub-contractor to determine whether the services of the sub-contractor meet the intent of CAR 147.
  - (ii) A renewal audit of the subcontractor should be performed at least once every 12 months to ensure continuous compliance with the CAR-147 standard.
  - (iii) The sub-contract control procedure should record audits of the subcontractor and to have a corrective action follow-up plan.

5. 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.130(b)**

(1) Auditors should have sound knowledge on all aspect of the organization including, organization policy, instructional standards, examination standards and record keeping procedures to have detailed assessment of the system.

(2) The internal quality assurance system should also include assessment of examination standards. Examination standards means that the procedures are set to ensure to attain high level of quality indicators such as pass rate , average marks and experts opinion on student's skill. Student feedback rating and examination pass rate will reflect as good indicators of teaching system. These indicators are tracked to identify existing problems or potential causes of problems within the system and;

(3) Management review procedures are devised to measure the effectiveness of any corrective action taken and to ensure the continuing effectiveness of internal quality assurance system in satisfying the requirements of CAR 147.

#### **AMC.147.A.135 Examinations**

**AMC 147.A.135(a) Appropriate control means** only a few authorized persons have access to the examination room / computer rooms. Computer systems are protected with passwords. Examinations may be computer or hard copy based or a combination of both.

The actual questions from the question bank are to be chosen by the basic knowledge examination staff. DGCA may itself coordinate or delegate to the organisation or nominate an industry expert to coordinate while conducting the type or task examination. However, the organization may delegate this function if DGCA is satisfied that the organization can self sustain.

**AMC 147.A.135(b)** Admonition note should be widely published in the instruction booklet or website to all concerned to inform that students adopting unfair means in the examination attract severe punishment.

**AMC 147.A.135(c)** Examiner's terms of references shall also reflect the sensitivity of the role and requirement of maintaining confidentiality on examination matters.

#### **AMC 147.A.140 Maintenance training organization exposition**

1. A recommended format of the exposition is included in **Appendix II**
2. CAR 147 approved organisation may have an approval in other categories, or any other part of equivalent regulations which also requires an exposition. In such case, combined expositions may be acceptable as long as the combined exposition contains the information required by CAR 147.A.140 and a cross reference index is included based on Appendix III.

3. Maintenance training organisations based outside India approved under FAA / EASA or any other regulations may seek approval in India with a common exposition provided all CAR 147 requirements are met. Any differences in requirements should be indicated. The common exposition should have an index based on Appendix III showing where those parts pertaining to the CAR 147 are covered.
4. 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 I item 2.18 plus a list of sub-contractors as required by CAR 147.A.140(a)(12) and detailed in Appendix I item 1.7.
5. The Maintenance Training Organization Exposition requires DGCA approval.

#### **AMC 147.A.145(d) Privileges of the maintenance training organisation**

CAR 147 organization approvals are specific to the location approved for conducting such training.

1. When training or examination is carried out under the sub-contract control system, it means that for the duration of such training, examination and other related policies of the CAR 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 CAR 147 approved maintenance training organisation should meet requirements of CAR 147 for the duration of that training or examination and it remains the CAR 147 organisation's responsibility to ensure such requirements are satisfied.
2. Where maintenance training organisation is unable to provide some facility due to economic or operational reasons, subcontract of such facility / personnel is permitted. But the organisation should have its own expertise to determine that the sub-contractor meets the CAR 147 standards. Particular attention should be given to ensure that the training is conducted as per stipulations of DGCA.
3. The contract between the maintenance training organisation approved under CAR 147 and the subcontractor should contain:
  - a. a provision for DGCA to have right of access to the sub-contractor;
  - b. a provision for the sub-contractor to inform the CAR 147 approved (out sourced) organization of any change that may affect its CAR 147 approval, before any such change takes place.

#### **AMC 147.A.200 The approved basic training course**

##### **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)** Basic training course for each licence category may be subdivided into modules or submodules of knowledge and may be intermixed with the practical training

elements subject to the required time elements of CAR 147.A.200(f) to (g) inclusive being satisfied.

**AMC 147.A.200(d)**

1. Where the maintenance training organisation contracts the practical training element either totally or in part to another organisation in accordance with CAR 147.A.100(d), the contracting organisation should ensure that the practical training elements are properly carried out.
2. At least 50% of the practical training element should be carried in an actual maintenance working environment and out of which at least 50% at base maintenance.

**AMC 147.A.200(g)** The policies and procedures related to conversion of Licence in different category and given in the CAR section 2 series L and for conversion durations under module system will be decided by DGCA.

(a) Reserved.

(b) Reserved.

(c) Reserved.

(d) Reserved.

**AMC 147.A.205 Basic knowledge examinations**

The examinations conducted in CAR 147 approved organizations are preparatory in nature and student are eligible to attend type training only after declared pass in DGCA conducted knowledge examination in appropriate category.

Basic knowledge examinations conducted by maintenance training organisations will be of preparatory to make eligible to appear for knowledge examinations conducted by DGCA.

The candidate should have minimum of 80% attendance in an Approved CAR 147 organisation

To be declared pass in the preparatory course, the candidate must obtain a minimum 80% in each module.

**AMC 147.A.210 Basic practical assessment**

**AMC 147.A.210(a)** Where the maintenance training organisation approved under CAR 147 contracts the practical training element either totally or in part to another organisation in accordance with CAR 147.A.100(d) and chooses to nominate practical assessors from the contracted organisation, the contracting organisation should ensure that the basic practical assessments are carried out.

The basic practical assessment board consists of at least two qualified assessors, one from the training / contracted organization and the another from the industry acceptable to DGCA.

However, for new organization, DGCA may nominate an officer as third member for practical assessment until it satisfied that the organization gained expertise to conduct the practical exams and no need for further monitoring.

**AMC 147.A.210(b)** An assessed pass for each student should be granted when the board of practical assessors satisfied that the student meets the criteria of CAR 147.A.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.

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

1. Aircraft type training may be sub-divided in airframe type training, power plant type training, or avionic systems type training. Approved maintenance training organisation may be permitted to conduct only airframe type training, powerplant type training or avionics systems type training separately.
2. Airframe type training means type training including all relevant aircraft structure and systems excluding the powerplant.
3. Powerplant type training means type training on the bare engine, including the build-up to a quick engine change unit.
4. The interface of the engine/airframe systems should be addressed by either airframe or powerplant type training.
5. Avionic systems type training means type training on avionics systems covered by but not necessarily limited to ATA (Air Transport Association) chapters 22, 23, 24,25, 27, 31, 33, 34, 45, 46, 73 and 77 or equivalent.

## Guidance Material to CAR 147

### SECTION A

#### **GM 147.A.05 Scope**

The trainee for basic course should be subjected to a medical examination by a doctor possessing at least an MBBS Degree before the candidates are admitted for the course. Upon submitting relevant proof that the candidates undergoing basic training may seek transfer from one approved institute to another on personnel reasons.

#### **GM 147.A.10 General**

Such an organization may conduct business from more than one addresses and may hold more than one approvals.

#### **GM 147.A.100(i) Facility requirements**

Where the organisation has an existing library of regulations, manuals and documentation required by another approval system (e.g., CAR 147 and CAR 145), it is not necessary to duplicate such a facility subject to student access being under controlled supervision.

Contracted organizations having facility to carry out only line maintenance including night halt inspection may be restricted to maximum 50% of basic practical training period and the rest of the basic practical must be carried in approved base maintenance facility.

#### **GM 147.A.105 (c) Personnel requirements**

The maintenance training organisation should have a nucleus of permanently employed staff to undertake the minimum amount of maintenance training proposed but may contract, on a part-time basis, instructors for subjects which are only taught on an occasional basis. Contracted instructors including practical instructors shall be provided with necessary training material and syllabi etc. The Institutes are encouraged to invite Guest Faculties to give lectures on 'Advances in Aviation and Maintenance Procedures'.

#### **GM 147.A.105 (f) Personnel requirements**

It is recommended that potential instructors be trained in instructional techniques.

#### **GM 147.A.105(g) Personnel requirements**

Examiners should demonstrate a clear understanding of the examination standard required by DGCA and have a responsible attitude to the conduct of examinations such that the highest integrity is ensured.



### **GM 147.A.105(h) Personnel requirements**

1. Records should show for each instructor/examiner when the updating training was scheduled and when it took place.
2. The updating training may be subdivided during the 24 months into more than one element and may include such activities as attendance at relevant lectures and symposiums.

### **GM 147.A.110 Records of instructors, examiners and assessors**

Instructors, knowledge examiners and practical assessors should be provided with a copy of their terms of reference.

### **GM 147.A.115(a) Instructional equipment**

1. Synthetic training devices are working models of a particular system or component and include computer simulations.
2. A synthetic training device is considered beneficial for complex systems and fault diagnostic purposes.

### **GM 147.A.130 (b) Training procedures and quality system**

1. The primary objective of the quality system is to enable the training organisation to satisfy itself that it can deliver properly trained students and that the organisation remains in compliance with CAR147.
2. The independent audit is a process of routine sample checks of all aspects of the training organisation's ability to carry out all training and examinations to the required standards. It represents an overview of the complete training system and does not replace the need for instructors to ensure that they carry out training to the required standard.
3. A report should be raised each time an audit is carried out describing what was checked and any resulting findings. The report should be sent to the affected department(s) for rectification action giving target rectification dates. Possible rectification dates may be discussed with the affected department(s) before the quality department confirms such dates on the report. The affected department(s) should rectify any findings and inform the quality department of such rectification.
4. A large training organisation (an organisation with the capacity to provide training for 50 students or more) should have a dedicated quality audit group whose sole function is to conduct audits, raise finding reports and follow up to ensure that findings are being rectified. For the small training organisation (an organisation with the capacity to provide training for less than 50 students) it is acceptable to use competent personnel from one section/department not responsible for the function or procedure to check the section/department that is responsible subject to the overall planning and implementation being under the control of the quality manager.
5. The management control and follow up system should not be contracted to outside persons. The principal function is to ensure that all findings resulting from the independent audit are corrected in a timely manner and to enable the accountable manager to remain properly informed of the state of compliance. Apart from rectification

of findings the accountable manager should hold routine meetings to check progress on rectification except that in the large training organisation such meetings may be delegated on a day to day basis to the quality manager as long as the accountable manager meets at least once per year with the senior staff involved to review the overall performance.

#### **GM 147.A.135 Examinations**

The competent authority will determine when or if the disqualified examiner may be reinstated.

#### **GM 147.A.145 (d) Privileges of the maintenance training organisation**

1. The pre audit procedure should focus on establishing compliance with the training and examination standards set out in CAR 147.66
2. The fundamental reason for allowing a maintenance training organisation approved under CAR-147 to sub-contract certain basic theoretical training courses is to permit the approval of maintenance training organisations which may not have the capacity to conduct training courses on all subjects.
3. The reason for allowing the subcontracting of training modules 1 to 6 and 8 to 10 only is, most of the related subjects can generally also be taught by training organisations not specialised in aircraft maintenance and the practical training element as specified in CAR147.A.200 does not apply to them. On the contrary training modules 7 and 11 to 17 are specific to aircraft maintenance and include the practical training element as specified in CAR 147.A.200. The intent of the "limited subcontracting" option as specified in CAR 147.A.145 is to grant CAR 147 approvals only to those organisations having themselves at least the capacity to teach on aircraft maintenance specific matters.

#### **GM 147.A.205 Basic Knowledge Examination**

The training manager shall scrutinize all applications for DGCA Knowledge Examination and forward the applications of eligible candidates to Central Examination Organisation (CEO), New Delhi.

## **APPENDICES**

**APPENDIX I – MAINTENANCE TRAINING ORGANISATION EXPOSITION**

**APPENDIX II – APPLICATION FORMAT FOR NOMINATING POST HOLDERS**

**APPENDIX III – APPROVAL RECOMMENDATION REPORT**

**APPENDIX IV – APPLICATION FOR INITIAL/CHANGE OF APPROVAL**

**APPENDIX V– COURSE COMPLETION CERTIFICATE**

**DRAFT**

## MAINTENANCE TRAINING ORGANISATION EXPOSITION

### Maintenance training organisation exposition (MTOE)

1. The following subject headings form the basis of the MTOE required by CAR 147.A.140.
2. Whilst this format is recommended it is not mandatory to prepare the MTOE in this manner as long as a cross-reference index is included in the MTOE and the Part 1 items remain in Part1.
3. 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.
4. Where an organisation is approved in accordance with any other Civil Aviation Requirements, 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 Management personnel
- 1.2 Duties and responsibilities of management personnel, instructors, knowledge examiners and practical assessor
- 1.3 Management personnel organisation chart
- 1.4 List of instructional and examination staff
- 1.5 Note: A separate document may be referenced
- 1.6 List of approved addresses
- 1.7 List of sub-contractors as per 147.A.145(d)
- 1.8 General description of facilities at paragraph 1.6 addresses
- 1.9 Specific list of courses approved by the DGCA
- 1.10 Notification procedures regarding changes to organisation
- 1.11 Exposition and associated manuals amendment procedure

## **PART 2 – TRAINING AND EXAMINATION PROCEDURES**

Organisation of courses  
Preparation of course material  
Preparation of classrooms and equipment  
Preparation of workshops/maintenance facilities and equipment  
Conduct of basic knowledge & practical training  
Records of training carried out  
Storage of training records  
Training at locations not listed in paragraph 1.6  
Organisation of examinations  
Security and preparation of examination material  
Preparation of examination rooms  
Conduct of examinations  
Conduct of basic practical assessments  
Marking and record of examinations  
Storage of examination records  
Examinations at locations not listed in paragraph 1.6  
Preparation, control & issue of basic training course certificates  
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**

Example of documents and forms used  
Syllabus of each training course  
Cross reference Index - if applicable

CAR Form 4

**DIRECTOR GENERAL OF CIVIL AVIATION**

Details of Management Personnel required to be accepted as specified in Part-.....

1. Name:
2. Position:
3. Qualifications relevant to the item (2) position:
4. Work experience relevant to the item (2) position:

Signature: ..... Date: .....

On completion, please send this form under confidential cover to the competent authority.

DGCA use only  
Name and signature of authorised DGCA OFFICIAL accepting this person:

Signature: ..... Date: .....

Name: ..... Office: .....

CAR Form 4





**9) CAR-147 APPROVAL RECOMMENDATION REPORT EASA FORM 22**

**Part 2: CAR-147 Compliance Audit Review**

The five columns may be labelled & 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 (√) the box if satisfied with compliance or cross (X) 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.

Para	Subject					
147.A.1 00	Facility requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.1 05	Personnel requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.1 10	Records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.1 15	Instructional equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.1 20	Maintenance training material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.1 25	Records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.1 30	Training procedures and quality system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.1 35	Examinations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.1 45	Privileges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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147.A.2 Approved basic training  
00 course

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147.A.2 Basic knowledge  
05 examinations

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147.A.2 Basic practical assessment  
10

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147.A.2 Aircraft type/task training  
10

--	--	--	--	--	--

147.A.3 Examinations and  
05 assessments

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Competent authority surveyor  
(s):

Signature(s):

Competent authority office:

Date of Form 22 part 2 completion:

10)

11) **CAR-147 APPROVAL RECOMMENDATION REPORT CAR FORM 22**

12)

**PART 3: Compliance with CAR-147 maintenance training organisation exposition (MTOE)**

Please either tick (✓) the box if satisfied with compliance; or 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  | <input type="checkbox"/> | Corporate commitment by accountable Manager  |
| 1.2  | <input type="checkbox"/> | Management personnel   |
| 1.3  | <input type="checkbox"/> | Duties and responsibilities of management personnel, instructors, knowledge examiners and practical assessor |
| 1.4  | <input type="checkbox"/> | Management personnel organisation chart  |
| 1.5  | <input type="checkbox"/> | List of instructional and examination staff  |
| 1.6  | <input type="checkbox"/> | List of approved addresses   |
| 1.7  | <input type="checkbox"/> | List of sub-contractors as per 147.A.145(d)  |
| 1.8  | <input type="checkbox"/> | General description of facilities of paragraph 1.6 addresses   |
| 1.9  | <input type="checkbox"/> | Specific list of courses approved by the competent authority   |
| 1.10 | <input type="checkbox"/> | Notification procedures regarding changes to organisation  |
| 1.11 | <input type="checkbox"/> | Exposition and associated manuals amendment procedures   |

Part 2

**TRAINING AND EXAMINATION PROCEDURES**

- |     |                          |   |
|-----|--------------------------|---|
| 2.1 | <input type="checkbox"/> | Organisation of courses                                       |
| 2.2 | <input type="checkbox"/> | Preparation of course material                                |
| 2.3 | <input type="checkbox"/> | Preparation of classrooms and equipment                       |
| 2.4 | <input type="checkbox"/> | Preparation of workshops/maintenance facilities and equipment |
| 2.5 | <input type="checkbox"/> | Conduct of basic knowledge & practical training               |
| 2.6 | <input type="checkbox"/> | Records of training carried out                               |
| 2.7 | <input type="checkbox"/> | Storage of training records                                   |
| 2.8 | <input type="checkbox"/> | Training at locations not listed in paragraph 1.6             |
| 2.9 | <input type="checkbox"/> | Organisation of examinations                                  |

**13) CAR-147 APPROVAL RECOMMENDATION REPORT CAR FORM 22**

**PART 3: Compliance with CAR-147 maintenance training organisation exposition (MTOE)**

- 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.

Date of Form 22 part 3 completion:

MTOE reference:

MTOE amendment:

Competent authority audit staff:

Signature(s):

Competent authority office:

Date of Form 22 part 3 completion:


**14) CAR-147 APPROVAL RECOMMENDATION REPORT EASA FORM 22**

**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.

Part 2 or 3 ref.	Audit reference(s):  Findings	L e v e l	Corrective action		
			Date Due	Date Closed	Reference

**15) CAR-147 APPROVAL RECOMMENDATION REPORT CAR FORM 22**

**Part 5: M.A. Subpart F approval or continued approval or change recommendation**

Name of organisation:

Approval reference:

Audit reference(s):

Applicable CAR-147 amendment status:

The following CAR-147 scope of approval is recommended for this organisation:

Or, it is recommended that the CAR-147 scope of approval specified in CAR Form 11 referenced ..... be continued.

Name of recommending competent authority surveyor:

Signature of recommending competent authority surveyor:

Competent authority office:

Date of recommendation:

Form 22 review (quality check) :

Date:

**APPENDIX IV**

**CAR Form 12**

**CAR FORM 12**

**APPLICATION FOR CAR-147**

**Page 1 of 2**

**INITIAL / CHANGE OF APPROVAL**

Registered Name & Address of Applicant:

Trading Name (if different):

Addresses Requiring Approval:

Tel No:.....Fax No.....E Mail.....

Scope of CAR-147 Approval Relevant to This Initial \*/ Change of \* Application  
( See other side for training course designators to be used):

Basic Training:

Type Training:

Does the organisation hold approval under CAR-21 \* / CAR-145 \* / CAR-M \*

\* Cross out whichever is not applicable

Name & Position of Accountable Manager:

Signature of Accountable Manager:

Date of Application:

Please send this form with any required fee to be paid  
under National Legislation to your National Aviation Authority

This space for  
official use

(a) Typical type training certificate

COURSE CERTIFICATE SERIAL NUMBER
NAME OF APPROVED CAR 147 ORGANISATION
PLACE
MTO APPROVAL NUMBER
NAME OF THE APPROVED COURSE AND COURSE REFERENCE/ID CODE
DURATION OF THE APPROVED COURSE
NAME OF STUDENT
Date and Place of Birth
<b>has successfully passed the above approved course and in that respect has met all part of the requirements stipulated in CAR 147 for the issue of a Aircraft Maintenance Engineering Licence under the under CAR 147</b>
NAME AND AUTHORISED SIGNATURE (S) OF PERSON ISSUING THE CERTIFICATE

(b) Typical basic training certificate

<p>COURSE CERTIFICATE SERIAL NUMBER</p> <p>NAME OF APPROVED CAR 147 ORGANISATION</p> <p>PLACE</p> <p>MTO APPROVAL NUMBER</p> <p>NAME OF THE APPROVED BASIC COURSE AND DATE OF PASSING*</p> <p>NAME OF STUDENT</p> <p>Date and place of Birth</p> <p><b>has successfully passed the above approved course and in that respect has met all part of the requirements stipulated in CAR 147 for the issue of a Aircraft Maintenance Engineering Licence under the under CAR 147</b></p> <p>NAME AND AUTHORISED SIGNATURE (S) OF PERSON ISSUING THE CERTIFICATE</p>
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**\* This certificate is issued by the CAR 147 approved organisation after ensuring that the candidate has passed all basic papers conducted by DGCA and practical conducted by the board at the institute.**