

Jordan Civil Aviation Regulatory Commission

Guidance Procedure: AWS48

CARC Part-147 MTOE Checklist and Guidance

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Abbreviations

CARC	Civil Aviation Regulatory Commission
CEO	Chief Executive Officer
JCAR	Jordan Civil Aviation Regulations
AWSD	Airworthiness Standards Department
ATA	Aviation Transportation Association
A/C	Aircraft
CA.	Category
AML	Aircraft Maintenance License
I.A.W	In accordance with
MTOE	Maintenance Training Organization Exposition
CARC	Civil Aviation Regulatory Commission of Jordan
QM	Quality Manager
TM	Training Manager
AM	Accountable Manager



CARC Part-147 MTOE Checklist and Guidance

I. Scope

The purpose of the Maintenance Training Organization Exposition (MTOE) compliance checklist and user guide is to assist organization wishing to obtain CARC Part-147 approval (MTO). This document is complementary to the requirements of Part-147 “as amended” and does not supersede or replace the information defined within the regulation.

The checklist includes suggested subject headings and all the relevant information as detailed in 147.140 and it's AMC, the format of which may be modified to suit the organization preferred method. The checklist should show compliance by referring in the “MTOE reference / comment” where the information in the MTOE is located and explanation if not applicable.

This checklist, when completed, should be submitted with the initial draft MTOE.

1. Important warning

This user guide is designed to be used by:

- Part-147 MTO - To assist them in the production and/or maintaining of their own MTOE
- CARC - As a comparison document for MTOEs submitted to them for approval; and

The user guide is provided for guidance only and should be customized by each organization to demonstrate how they comply with Part-147. It is the responsibility of the organization to ensure compliance with the regulation. The organization may choose to use another format as long as all the applicable sections of the regulation are addressed and cross-referenced.

For each detailed procedure described within the MTOE, the MTO should address the following questions:

What must be done? Who should do it? When must it be done? Where must it be done? How must it be done? Which procedure(s)/form(s) should be used? The MTOE should be written in the English language.

II. Exposition format

The MTOE may be produced in hardcopy or electronic format;

- a. Hardcopy: CARC does recommend using white paper (format A4); The MTOE shall be provided in a binder with section dividers. (recto/verso can be used)
- b. Electronic Format: The Exposition should be in Portable Document Format (PDF) but a printed copy shall be delivered to CARC to facilitate the document study.



III. Structure of the Maintenance Training Organization Exposition

The MTOE may be produced in the form of a single document or may consist of several separate documents.

- a. Single document: The standard MTOE produced i.a.w. Appendix I to AMC 147.140 is a unique and complete document. It must contain all the information required to show compliance with the regulation including detailed training and examination procedures and detailed training system quality procedures (see 147.140, AMC 147.140 and Appendix I to AMC 147.140).
- b. Several documents: The MTOE must contain at least the information as detailed in Appendix I to AMC 147.140 Part 1.1 to 1.11 (Management). The additional material may be published in separate documents which must be referenced from the MTOE. In this case:
 - i. The MTOE should cross refer to the associated procedures, documents, appendices and forms which are managed separately.
 - ii. These associated documents must meet the same rules as described for the MTOE.
 - iii. This/these associated document(s), procedure(s) and form(s) etc. must be provided to for approval, as Part of the MTOE.

For some organization s certain sections of the headings defined within Appendix I to AMC 147.140 may be not applicable. In this case they should be annotated as such within the MTOE.

IV. Exposition pages presentation

Each page of the MTOE should be identified as follows (this information may be added in the header or footer;

- a. the name of the (official name as defined on the CARC Form 18-0122 approval certificate)
- b. the issue number of the MTOE
- c. the amendment/revision number of the MTOE
- d. the date of the revision (amendment or issue depending on the way the organization has chosen to revise the MTOE)
- e. the chapter of the MTOE
- f. the page number
- g. the name of the document " Maintenance Training Organization Exposition"

At the beginning of the volume, the Cover page should specify:

- h. Maintenance Training Organization Exposition;
- i. The name of the organization (the official one defined on CARC Form 18-0122approval certificate)
- j. The approval reference of the MTO
- k. The copy number from the distribution list

V. Corporate commitment by Accountable Manager

Prior to submission of the draft MTOE to CARC for approval, the Accountable Manager must sign and date the Corporate Commitment statement (Management 1.1). This confirms that they have read the document and understand their responsibilities under the approval. In the case of change of Accountable Manager the new incumbent should sign the document and submit a suitable amendment CARC for approval.

MTOE Reference	
Organization Official	
Date	
Signed by	Signature



MTOE Checklist&Guide

Completed	Content	JCAR Part reference	MTOE reference / comment
	Cover page		
<input type="checkbox"/>	Maintenance Training Organization Exposition		
<input type="checkbox"/>	The official name of the organization as defined on CARC Form 18-0122		
<input type="checkbox"/>	The approval reference of the MTO		
<input type="checkbox"/>	The copy number from the distribution list		
	Introduction		
<input type="checkbox"/>	Foreword		
<input type="checkbox"/>	Table of content		
<input type="checkbox"/>	List of effective pages		
<input type="checkbox"/>	List of issues / amendments or record of revision		
<input type="checkbox"/>	CARC Letter of Approval (LOA)		
<input type="checkbox"/>	Internal organization approval page signed by QM and TM Internal approval statement Title, name, date and signature (QM and TM)		
<input type="checkbox"/>	Revision highlights / Summary of changes		
<input type="checkbox"/>	Effective date of the current revision The effective date is the date that the amendment introduced in this amendment takes effect The effective date can be established just prior to the final approval of the MTOE by CARC or just after. This is in order to obtain the necessary time to incorporate the amendment e.g. to train personnel, print forms etc.		
<input type="checkbox"/>	Distribution list MTOE copy number Location of copies Holders of the copies Format of copies (CD-ROM, Paper etc.)		

<input type="checkbox"/>	Abbreviation, terminology and definitions		
<input type="checkbox"/>	Cross reference list from the MTOE to Appendix I to AMC 147.140, if applicable		
<input type="checkbox"/>	Organization information i.e.: <ul style="list-style-type: none"> • Address of approved locations (Head Office) • Mailing Address(es) • Telephone number(s) • Fax number(s) • E-mail address of the Head Office 		
	PART 1 MANAGEMENT		
<input type="checkbox"/>	1.1 Corporate commitment by the accountable manger When the AM is not the CEO of the organization then such CEO shall countersign the statement	147.140(a) 1.	
<input type="checkbox"/>	1.2 Management personnel Accountable Manager (AM) – insert name Training Manager (TM) – insert name Quality Manager (QM) – insert name Knowledge Examiner(s) – insert name(s) Practical Assessor(s) – insert name(s) Other (as required) – insert name(s)	147.105(a)(b)(c)(g)	
<input type="checkbox"/>	1.3 Duties and Responsibilities of management personnel, including matters on which they may deal directly with the competent authority on behalf of the maintenance training organization Duties and Responsibilities (job functions) <ul style="list-style-type: none"> ○ Accountable Manager (AM) ○ Continuing Airworthiness Manager (TM) ○ Quality Manager (QM) ○ Instructors ○ Knowledge Examiners ○ Practical Assessor 	147.105(a)(b)(c)	
<input type="checkbox"/>	1.4 Management personnel Organization Chart Management personnel organization chart showing associated chains of responsibility of management personnel	147.140(a) 4.	

	<p>A flow chart should provide a comprehensive understanding of the whole training organization . It should give further details on the management system, and should clearly show the independence of the quality monitoring system, including the links between the Quality assurance department and the other departments.</p> <p>This flow chart may be combined or subdivided as necessary, depending on the size and the complexity of the organization .</p>		
<input type="checkbox"/>	<p>1.5 List of instructional and examination staff List of the training instructors - insert name(s) List of the knowledge examiners - insert name(s) List of the practical assessors insert name(s)</p>	147.140(a) 5.	
<input type="checkbox"/>	<p>1.6 List of approved addresses This paragraph should list those address(s) at which instruction practical training are to be carried out for the duration of the The names, address(s) and approval numbers of any proposed Maintenance Part-145 Organization at which it is proposed to student practical training in order to fulfill the requirements of be kept in another document or procedure and cross arrangement should include written agreement with relevant Part 145 MO.</p>	147.100 / 147.140(a) 11. / 147.145(b)	
<input type="checkbox"/>	<p>1.7 List of sub-contractors as per 147.145(d) List name of subcontractor(s) List address of subcontractor(s) This paragraph should list name of organization and those address(s) at which training beyond the capacity of the Part-147 Organization may be carried out. Part-66 Modules 1 to 6 inclusive and 8 to 10 inclusive may be sub-contracted to organizations not specializing in aircraft maintenance and where the Part-147.200 practical training element does not apply.</p>	147.100 / 147.140(a) 12. / 147.145(b)	
<input type="checkbox"/>	<p>1.8 General description of facilities of paragraph 1.6 addresses General description of facilities of paragraph 1.6 addresses General description of facilities of paragraph 1.7 addresses Location of facilities General description</p> <ul style="list-style-type: none"> ○ Layout of premises and size ○ Office accommodations ○ Classrooms for the instruction of theory ○ Library ○ Practical training workshop 	147.100 / 147.140(a) 6. / 147.145(b)	

	<ul style="list-style-type: none"> ○ Knowledge Examinations rooms ○ Type/task training facility ○ Secure storage facilities <p>Include here the facilities such as desks, chairs, lockers, overhead projectors, other teaching aids etc. for each of the offices, classrooms, practical training workshops and examination rooms provided.</p>		
<input type="checkbox"/>	<p>1.9 Specific list of courses and type examinations approved by the competent authority</p> <p>This paragraph must contain a list of the Part-147 course(s) and type examination for which approval is held.</p> <p>This should also include "Differences" courses.</p> <p>E.g. Airbus A319/320/321 (CFM 56) B1 - differences to A319/320/321 (V2500) B1.</p>	147.140(a) 7.	
<input type="checkbox"/>	<p>1.10 Notification procedure regarding changes to the organization</p> <p>Changes</p> <ul style="list-style-type: none"> ○ Organization name and location ○ Organization additional location ○ The group of person as specified in 1.2 ○ Operation, facilities, procedures, work scope, staff and arrangements, as far as they may affect the approval <p>Notification before such changes take place</p>	147.150 / 147.130(a)	
<input type="checkbox"/>	<p>1.11 Exposition amendment procedure</p> <p>Exposition Amendment Procedures (including, delegated procedures)</p> <p>Person responsible for amending the Exposition.</p> <ul style="list-style-type: none"> ○ Normally the Quality Manager is responsible for the monitoring and amendment of the Exposition, including associated procedures manuals, and the submission of proposed amendments to CARC <p>Sources of proposed amendments within the organization</p> <p>Internal approval process</p> <ul style="list-style-type: none"> ○ Verifying and validation of amended procedures before use ○ Training Manager and Quality Manager sign the internal approval page, see introduction <p>Approval process with CARC</p> <p>Revision acknowledge receipt process</p> <p>Definition of minor amendments to the Exposition that can be amended without the prior approval of CARC, if applicable and agreed</p> <ul style="list-style-type: none"> ○ In case of minor amendment the Quality Manager may be delegated for indirect approval provided the appropriate 	147.140 / Appendix I to AMC	

	<p>procedure within this paragraph of the MTOE is approved by CARC. Such a delegation is to be based upon the ability of the Quality System to deal adequately with the Part-147 requirements. This ability cannot be therefore demonstrated at the time of the initial approval. Therefore an indirect approval procedure cannot be detailed in the MTOE before the first 2 year period has been completed. In any case CARC must continue to receive a copy and acknowledge receipt of all such minor changes when "indirectly" approved.</p> <p>Summary of documents, including "lower order" documents, constituting the total Exposition, if applicable</p> <p>Effective date of the amendment</p> <p>MTOE Review</p> <p>After CARC has approved the amendment the date when the amendment will take effect need to be determine, sometime to allow time to train personnel, print forms and/or distribute the revision so all personnel needed at different locations have received the revision at the date it is effective</p>		
	PART 2 TRAINING AND EXAMINATION PROCEDURES		
<input type="checkbox"/>	<p>2.1 Organization of courses</p> <p>In this paragraph the organization should detail the procedures in place in order to organize the courses and to ensure that all necessary means are available to deliver in good conditions and by appropriately qualified staff all the course elements as required by the Part-66 syllabus.</p> <p>Such procedures may include a formalized review of the availability of required appropriate training rooms, materials, STDs, specialists... and resulting in tuition program.</p>	147.200	

<input type="checkbox"/>	<p>2.2 Preparation of course material</p> <p>Training material should meet the requirements of Part-66. It should also state how the approved company produces a course for a new aircraft type. This would typically include the production of the Training Needs Analysis i.a.w. Part 66 appendix III</p> <p>For Basic training course approval showing the Total duration of Theoretical Basic Training, Total duration of Practical Basic Training, Theoretical ratio training and 30 % practical training performed in actual maintenance environment needs to be completed and submitted with training material for each module in order to demonstrate compliance with Part 66 Appendix I.</p> <p>In order to get the course approved a set of multi-choice questions/and or essay questions must be submitted.</p> <p>This procedure should also be utilized to list the responsibilities by Part-66 module for the production, review & amendment of lecture notes.</p>	147.120	
<input type="checkbox"/>	<p>2.3 Preparation of classrooms and equipment</p> <p>Cross reference to any procedures for the preparation of classrooms and reporting of faults to any classroom equipment, general maintenance procedures and the control of the teaching environment.</p>	147.115	
<input type="checkbox"/>	<p>2.4 Preparation of workshop/maintenance facilities and equipment</p> <p>Cross reference to any procedures for the reporting of faults to any workshop equipment, general maintenance procedures and the control of the teaching environment.</p> <p>Cross reference to procedures for the ordering and storage of <u>aircraft release standard</u> consumable materials used in the production of practical tasks, and for the ordering and acquisition of any new equipment required to complete the tasks.</p> <p>Cross reference to the procedures for ensuring that all test equipment and/or tooling requiring calibration are correctly forecast and expedited. Also cross reference to the procedure for ensuring that all electrical equipment power supply feeder cables (from wall socket to equipment) throughout the organization are tested as required.</p>	147.100	
<input type="checkbox"/>	<p>2.5 Conduct of Basic/Type knowledge and practical training</p> <p>Describe the method utilized in teaching the Basic/Type knowledge and practical training courses for which the organization is approved.</p> <p>Cross refer to the low level document referred to in 2.1 above.</p>	147.200	

<input type="checkbox"/>	<p>2.6 Records of training carried out</p> <p>Cross refer to procedures for the production, maintenance and security of student files.</p> <p>These should include details of all student attendance's, final knowledge examinations, practical assessments and any re-examination carried out and their results by Part-66 complete module for Basic Licence courses and for Type Training, information of those courses completed, their content and at which levels at which they were instructed and examined.</p> <p>There should be reference to the Basic work experience records required to be kept by the student whilst he is undergoing his live operating aircraft experience.</p> <p>The use of an "Aircraft Maintenance Engineers Log Book" in accordance with GP AWS 46 is a good example.</p>	147.125	
<input type="checkbox"/>	<p>2.7 Storage of Records</p> <p>Cross reference to procedures for the storage of staff and students records.</p> <p>These may be electronically based provided that adequate safeguards are in place to prevent unauthorized access and alteration.</p>	147.100	
<input type="checkbox"/>	<p>2.8 Training at locations not listed in paragraph 1.6</p> <p>Should the Management wish to contract out Part of the practical training (not including live operating aircraft experience), control procedures must be in place. These procedures should effectively reflect those of the Part-147 Organization .</p> <p>Any training carried out at address not listed at 1.6 above must be approved by CARC and control procedures must be in place to ensure that the proposed contract organization is in compliance with the requirements of Part-66 & Part-147.</p> <p>A contract must be in place with the proposed organization in which it is agreed that access is granted to CARC for the purpose of auditing. Note: the "APPLICATION TO CONDUCT TRAINING/EXAMINATIONS* AT A LOCATION REMOTE FROM THE Part-147 APPROVED SITE" Form should be annexed to the MTOE.</p>	147.145	

□	<p>2.9 Organization of examinations:</p> <p>For basic course a High level document detailing the course examinations, when each Part-66 module is to be examined and to what Part-66 level. This should include the knowledge, practical and 'on job', training elements and how the number of hours of each comply with the percentage requirements of AMC 147.200.</p> <p>For aircraft type training, the course syllabus should be used to prepare an examination schedule. The examination schedule should detail the examinations to be set at the end of each major phase within the syllabus. A final examination should be conducted at the end of the type training course. The final examination should be recorded. Refer to applicable part to Part 66 Appendix III.</p>	147.135/147.205	
□	<p>2.10 Security and preparation of examination material</p> <p>For Basic courses detail the preparation and security of Examination papers. Number of Questions and Timing must be in accordance with Part-66 Appendix II.</p> <p>Cross reference to procedures for the production of examination questions, their validation and security of the data bank.</p> <p>For Type training it is sufficient to detail the preparation and security procedures in place for the production and storage of examination papers</p>	147.100/135	
□	<p>2.11 Preparation of examination rooms</p> <p>Cross refer to procedure to be followed by the Examiner and Invigilator in preparing the examination room for examinations.</p> <p>An invigilator's ready reference sheet for briefing the candidates prior to the examination should be available in procedures and cross referenced here.</p>	147.100b	

<input type="checkbox"/>	<p>2.12 Conduct of examinations</p> <p>Any student found during a knowledge examination to be cheating or in possession of material pertaining to the subject of the examination, other than that supplied for the examination, will be disqualified from passing the examination and may not then retake the examination for at least 12 months.</p> <p>Any examiner/invigilator found to be providing answers to examination questions to any student will be immediately disqualified from acting as an examiner/invigilator, and CARC will be informed within 1 calendar month.</p> <p>Candidates should only be identified by a numbering system, the only identifying document being held by the nominated Examiner.</p> <p>Examination paper security should be assured by a numbering system, e.g. "1 of 15" etc.</p> <p>A procedure should be in place for checking that all the pages of each examination paper are complete at examination completion and that all examination papers are accounted for. Both the written element and the multi-choice question elements should be marked to 75% with no penalty marking. Ref. Part-66 Appendix II.</p> <p>Nothing other than the actual examination/answer paper is permitted to be on the candidate's desk.</p> <p>All wall charts and/or other visual teaching aids should be removed from the examination room.</p>	147.135/205	
<input type="checkbox"/>	<p>2.13 Conduct of Basic/Type practical assessments</p> <p>Cross refer to procedures used for assessment of student hand skills, and the standard tasks set throughout the course. A set number of mandatory tasks should be assessed to have been completed to a satisfactory standard.</p>	147.210/305	
<input type="checkbox"/>	<p>2.14 Marking and records of examinations</p> <p>Cross reference to procedures for the marking of completed examination papers and the recording of results.</p> <p>Cross refer to a procedure for practical assessments and recording of results.</p>	147.100/125	

<input type="checkbox"/>	<p>2.15 Storage of examination results</p> <p>A copy of each examination paper, the student number/identification list, a practical task results list, an examination results list and all examination papers for each complete module must be stored for a period of five years.</p> <p>Electronic means of storage may be utilized as required, provided the usual computer security systems are in place.</p>	147.100/125	
<input type="checkbox"/>	<p>2.16 Examinations at locations not listed in paragraph 1.6</p> <p>Cross reference to the control procedure in common with Part 2.8 above. This location must comply with the requirements of 2.10, 2.11, 2.12, 2.13, 2.14 and 2.15 above.</p> <p>Consideration is needed for the security/control of examinations and their completed examination papers and/or practical assessment results.</p>	147.100/140/145)	
<input type="checkbox"/>	<p>2.17 Preparation, control and issue of Basic/Type training course certificates</p> <p>The certificates should be prepared to reflect that illustrated in Part-147 appendix III and tightly controlled prior to issue, with a system in place to ensure that each copy is numbered as Part of a sequence and recorded as issued to a candidate by name.</p>	147.145	
<input type="checkbox"/>	<p>2.18 Control of sub-contractors</p> <p>Cross reference to procedures for the control of sub-contractors as appropriate.</p>	147.100 and 147.145)	
PART 3 TRAINING SYSTEM QUALITY PROCEDURES			
<input type="checkbox"/>	<p>3.1 Audit of training</p> <p>As per the AMC Part 147.130 (2), an external auditor may be contracted by the smaller organization for the purposes of the quality audit.</p> <p>The purpose of the audit plan is to meet Part of the needs of the Part-147 approval.</p> <p>The approved organization should develop a form/audit checklist to be used by the auditor that would demonstrate that all the requirements of Part-147 have been reviewed during the audit process. The audit plan should indicate applicability of the various activities to be monitored and more than one list may be necessary (rolling audit). Each list should be shown against a timetable to indicate when the particular item is scheduled for audit and when the audit was completed. A complete audit of the Part-147 organization must be completed every 12 months.</p>	147.130	

	<p>Cross reference to the various procedures required for quality auditing, reporting findings and levels with any corrective actions required. A management control and follow up system must also be in place and may not be contracted out.</p> <p>Cross reference to any quality procedures manual if available is permitted, but this system must relate to and make reference to the relevant Part-147 paragraphs.</p>		
<input type="checkbox"/>	<p>3.2 Audit of examinations</p> <p>Must be audited annually, but may be Part of the rolling audit procedure.</p>	147.130	
<input type="checkbox"/>	<p>3.3 Analysis of examination results</p> <p>Examination results should be analyzed on completion of each examination and any questions amended as necessary. Cross reference to procedures detailing responsibilities.</p>	147.130	
<input type="checkbox"/>	<p>3.4 Audit and analysis remedial action</p> <p>Cross reference to procedures for the reporting of findings and for corrective actions.</p>	147.130	
<input type="checkbox"/>	<p>3.5 Accountable Manager annual review Points discussed on a set date should include:</p> <ul style="list-style-type: none"> • Projects requiring financial support • Sufficient staff employed to meet foreseen training program. • Part-147 organization review. • Examinations and assessments. • Student achievements. • Student support. • Quality Assurance review. 	147.130	
<input type="checkbox"/>	<p>3.6 Qualifying the Instructors List acceptable staff qualifications*:</p> <p>Include procedures for the induction of inexperienced instructors as required. Where relevant include procedures for the employment of part time or contract instructors. All staff should have an appreciation of the contents of Part-66 and Part-147. Cross reference to the list of present staff/qualification.</p> <p>Note: Staffs employed prior to Part-147 application who's qualifications were previously acceptable, will continue to be accepted.</p> <p>Cross reference to procedures for staff development.</p> <p><u>*Note:</u> Guidance for acceptable qualifications is proposed in the Annex I to the present MTOE guidance.</p>	147.105)	

□	<p>3.7 Qualifying the Examiners/Assessors</p> <p>Examiners should have a full understanding of all the requirements of Part-66 and Part-147.</p> <p>Cross reference to procedures for staff development. Cross reference to the list of staff/qualifications.</p> <p>Practical work assessors should be assessed as being competent in accordance with an approved process.</p> <p><u>*Note:</u> Guidance for acceptable qualifications is proposed in the Annex I to the present MTOE guidance.</p>	147.105	
□	<p>3.8 Records of qualified Instructors, Examiners and Assessors</p> <p>The company must maintain a record of all training staff which must include details of the scope of their authorization.</p> <p>Training staff must be provided with evidence of the scope of their authorization.</p> <p>The following minimum information should be kept on record in respect of each instructor:</p> <ul style="list-style-type: none"> • Name • Date of Birth • Personnel Number • Experience • Qualifications relevant to the approval • Training History (before entry) • Training (Basic Training, Type Training, Continuation Training) • Scope of activity • Date of first issue of the authorization • If appropriate - expiry date of the authorization • Starting date of employment <p>The records may be kept in any format (hard copy or computer based) subject to the usual security requirements.</p> <p>Persons authorized to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorized manner or that such confidential records become accessible to unauthorized persons.</p> <p>The instructor should be given reasonable access on request to his/her own records</p>	147.110	

	<p>The authorization document should be in a style that makes its scope clear to instructors and any authorized person that may be required to examine the document. Where codes are used to define scope, an interpretation document should be readily available.</p> <p>Instructional staffs are not required to carry the authorization document at all times but should produce it within a reasonable time of a request from an authorized person. Authorized persons, a part from the organization's department must include CARC.</p> <p>CARC Airworthiness Inspectors and Licensing Officers are classed as an authorized person when investigating the records system for initial and continued approval or when CARC has cause to doubt the competence of a Particular instructor.</p>		
	PART 4 APPENDICES		
<input type="checkbox"/>	<p>4.1 Examples of documents and forms used</p> <p>This section should include examples of all documents and forms used by the organization in the conduct of its Part-147 function.</p> <p>Some examples are listed below:</p> <ul style="list-style-type: none"> • Student attendance record • Course certificate(s) • Certificate(s) of training • Classroom plan (exam purposes) • Course critique • Course results • Course design/change plan • Exam answer sheet • Exam results • Internal audit procedure • Internal audit schedule • Internal audit report • Application to conduct courses/examinations at a remote location • Interview report form • MTOE amendment request • MTOE amendment request log • Staff training record(to include qualifications, history and subjects taught). • Staff terms of reference • Student training/examination and assessment form • Training course review • Quality system • Aircraft visit form 	Appendix I to AMC 147.140	

<input type="checkbox"/>	4.2 Syllabus/Training Needs Analysis (TNA) of each training course	AMC to Paragraph 3.1(d) of Appendix III to Part-66	
<input type="checkbox"/>	4.3 Cross reference Index - if applicable Self-explanatory.	Appendix I to AMC 147.140	



Annex I to CARC Part-147 MTOE CHECKLIST

Annex 1

Experience &

Qualifications of

Instructors, Knowledge Examiners & Practical Assessors



Annex I to CARC Part-147 MTOE CHECKLIST

Introduction

Part 147.105 Personnel requirements quotes: „(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 CARC.“ The purpose of this Appendix I is to establish the criteria applicable to instructors, examiners and assessors exercising their activity in Part 147 Maintenance Training Organizations approved by (CARC) in addition to point 3.5.4 Management personnel qualification of the approved guidance procedures AWS 44.

These apply to concerned staff of the Maintenance Training Organization approved under Part 147, as well as to any instructors, examiners and assessors sub-contracted by the approved organization.

The tables in this Appendix provide minimum standard and criteria established by CARC for instructors, examiners and assessors in Part 147 organizations approved by CARC. Other means of demonstrating the competency may be accepted by CARC provided these guarantee and equivalent level of confidence in the actual competency of the candidates.

Basic Training		
Table 1 a	Modules 1,2,3,4	Basic Training Theoretical element Instructors
Table 1 b	Modules 5,6,8	
Table 1 c	Module 7	
Table 1 d	Module 9	
Table 1 e	Module 10	
Table 1 f	Modules 11, 12, 13, 14, 15, 16, 17	
Table 2		Basic Training Practical knowledge Instructors
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Type Training		
Table 5		Type Training Theoretical element Instructors
Table 6		Type Training Practical knowledge Instructors
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Table 8		Type Training Practical knowledge Assessors

Qualification and experience requirements of Instructors, Knowledge examiners and Practical assessors

Preamble

The competency of the instructors, examiners and assessors is an essential factor contributing to the quality of a training course and only adequately qualified staffs should be assigned by the Training Organization to carry out the training and examination tasks.

It is therefore important to assess the competency of the proposed staffs, and the following criteria establishes the parameters that CARC intend to use to measure the level of competency of training/examination staffs.

Rather than require strict educational background or pre-determined professional experience the criteria address qualities – or skills – that are expected to be owned by the staffs, and which must be demonstrated to CARC.

Note: The means to demonstrate that a proposed instructor, examiner or assessor owns these qualities is addressed in “Assessment and Acceptance of staffs”

Definitions

To better understand the criteria and which categories of staff are subject to compliance, the following definitions are proposed for:

- **Instructor:** a nominated person who will deliver a Part 66 module (i.a.w. Part 66 appendix I), a Part 66 element (i.a.w. Part 66 appendix III), or part thereof. The instructor is not necessarily the person involved into the drafting of the course material (content, duration and etc.), however he must be involved at some point into the organization of the lessons themselves (creation of the instructor notes, slides, sequencing and etc.).
- **Examiner:** a nominated person who will determine the level of theoretical knowledge of the trainees on a particular module, element, or part thereof. The function may include the drafting and/or the selection of questions (MCQs and Essays), the performance of the examination exercise itself for essay question, the evaluation of the correctness of answers (except when correct answers are pre-determined) and the final judgment regarding the level of knowledge demonstrated by the trainee. Persons solely supervising an exam session consisting of pre-selected MCQ questions are not considered as examiners but are considered as support staffs (invigilators), and are therefore not subject to the knowledge and experience requirements, but need to be trained to the examination procedure described in

the MTOE.

- Practical Assessor: a nominated person who will determine the level of practical knowledge/practical skills of the trainees on a particular module, element, or part thereof. The function may include the drafting and/or the selection of practical tasks, the performance of the
- Scope of privileges (Terms of Reference (T of R)): the part of a course that an individual is authorized by the training organization to instruct, examine or assess; this scope can cover a full course or be reduced to a particular module or element, or even be limited to a part thereof (i.e. sub-module, a specific area within a sub-module and etc.).



Standard

Instructors

To be deemed as competent, the instructors should be:

1. Fully knowledgeable about the Part 66 elements that are assigned to their scope of instruction, but also about the rules and specific procedures (MTOE etc..) governing the teaching in a controlled environment (Part 147 organizations)
2. Pedagogic and should know how to organize a lesson and how to efficiently deliver a course that clearly highlights the fundamental points; they should also be able to adapt his communication to a particular audience, what may require efforts to bypass, for instance, the language barrier or the very variable profiles of trainees in a same class (in terms of pre-existing knowledge/experience...)
3. Convincing and therefore should have the required experience proving that he has a good command of the subjects taught, at least sufficient to convince trainees that for instance may themselves have a pre-existing experience of the aircraft types to be taught. He should be in a position to understand, and possibly answer, a number of questions asked by trainees, and should be able to expose the links between the academic training delivered to the trainees and the actual maintenance tasks that these will have to accomplish all along his career. The instructor should also keep and promote the “appropriate attitude” towards regulation and procedures, and in particular the strict adherence to approved maintenance practices and quality standards that can only be acquired through his own experience in a regulated (or governed) aviation environment.
4. Proficient and particular should be familiar with the tools or the training techniques used by the training organization to support the lessons. They should also have a good command of the languages used in aviation literature such as A/C maintenance instructions and that will be used by trainees in an international Part 145 environment.

Knowledge Examiners

To be deemed as competent, the knowledge examiners should be:

1. Fully knowledgeable about the Part 66 elements that are assigned to their scope of examination, but also about the rules and specific procedures (MTOE and etc..) governing the organization and performance of exams in a controlled environment (Part 147 organizations),
2. Trained to examination techniques. The examiner should be fully aware of the aim of the examination and conduct an examination in such a way that the true abilities of the candidate are demonstrated. These involve technical knowledge, but through the essay questions



the examiner should also determine the ability for the candidate to satisfactorily cope with the necessary “documentary phase” of a maintenance action (ability to fully understand maintenance entries such as task requests or maintenance reports, and to report in an understandable and complete manner the tasks performed or decision taken i.e. troubleshooting). The examiner should remain neutral at all times, and behave in a manner that will not influence or prejudice the final result of the examination, for example by providing undue assistance or clarification to a candidate.

3. Proficient and in particular should be familiar with the tools or the examination techniques used by the training organization to perform the exams
(paper system, computerized systems)



Practical assessors (see also Appendix III to AMC to Part 66) To be deemed competent, the practical assessors should be:

1. Fully knowledgeable in order to build a solid judgment regarding the abilities of the assessed trainees, the assessor should have the required knowledge and experience of the tasks to be assessed. He should also be able to determine if the trainee accomplishes the tasks i.a.w. current regulation, utilizing approved procedures, maintenance practices etc... He should additionally be knowledgeable about the rules and specific procedures (MTOE etc.) governing performance of assessments in a controlled environment (Part 147 organizations).
2. Trained to assessment techniques. The assessor should be fully aware of the aim of the assessment and conduct a practical assessment in such a way that the true abilities of the candidate are demonstrated. These involve technical abilities but also the ability for the candidate to satisfactorily perform the tasks in an actual maintenance environment where basic principles of human factors apply (such as work performed under stressful conditions i.e. time or management pressure etc...). Therefore the assessor should remain neutral at all times, and behave in a manner that will not influence or prejudice the final result of the assessment, for example by providing assistance to a stressed candidate.
3. Proficient, and in particular the assessor should be familiar with the tools or the techniques used by the training organization to assess the practical abilities of trainees (maintenance simulators, mock up and etc.).

Assessment and acceptance of staff

Assessment and acceptance of Instructors, examiners and assessors shall be performed, and documented by the approved training organization in accordance with dedicated procedure described in the MTOE. Proposed candidates shall be physically interviewed by the appropriate staff or the training organization in order to ensure its competency. Once completed, detailed result of this assessment, including any supporting documents (diplomas, Part 66 licence, etc...) must be filed in accordance with MTOE procedure. The staff shall be listed in MTOE with intended scope instruction, examination or assessment detailed in T of R.



Continued qualification

The qualification criteria and experience requirements only address the initial acceptance of instructor, examiners and assessors. The training organization must develop and document a program in accordance with control procedure in MTOE to ensure the continued qualification and competence of these staff. The recurrent training program shall as a minimum comply with Part 147.105(h) i.e.: “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.”

Extension of the scope of instruction, examination and assessment

If the scope of privileges of an instructor, examiner or assessor is extended, an assessment must be performed by the organization and documented in order to demonstrate that the additional qualification and experience requirements induced by the extended scope of privileges are fulfilled.



Table 1a	Basic Training – Theoretical elements instructors Modules 1,2,3,4	
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	<p>Option 1: Knowledge level attested by a school specialty diploma* that is recognized by CARC, or an acceptable equivalent,</p> <p>or</p> <p>Option 2: CARC Part 66 Licence endorsed with relevant category (i.e. B1 for B1 instructors)</p> <p>or</p> <p>Option 3: Part 147 Certificates of recognition (training + exam) for the modules to be taught, at the appropriate level (i.e. Module 1 level 2 for a B1/B2 instructor in module 1 class.** The scope of instruction will be limited to the passed modules.</p>	<p>* I.e. college, university, etc. The diplomas specialty must be consistent with the modules to be taught (the curriculum must include the appendix 1 sub-modules), and the level of the studies must be adapted to the level (1, 2 or 3) of the modules to be taught.</p> <p>** In order to avoid conflicts of interest, the Part 147 exam should not be attended in the Part 147 organization where the instructor is to exercise its privileges unless specific measures are taken and accepted by CARC to demonstrate that the integrity of the examination is ensured.</p>
Pedagogical skills	<p>Option 1: Instructor Certificate delivered by a legal entity* recognized by CARC</p> <p>or</p> <p>Option 2: Completion of a “Train the trainer course”</p> <p>or</p> <p>Option 3: Assessment performed and documented by the Training Organizations Training Manager if himself appropriately qualified as instructor and in accordance with a MTOE procedure and Accepted by CARC following an in-situ audit in real training conditions.</p>	<p>*Teacher education from University etc. or an acceptable equivalent. Certificates obtained outside Jordan will need evaluation.</p>
Other knowledge	<p>A documented familiarization with the specific training procedures and requirements (i.e. organization of courses, attendance etc..) as described in the approved MTOE.</p>	
Specialty experience	<p>Nil</p>	<p>However practical experience in A/C maintenance, design or production activities is advantageous; the advantage for the instructor is to understand the practical applications of a scientific knowledge and therefore to better appreciate the knowledge that the student must receive (i.e. for a mathematics instructor, the practical applications may be the reading of inflation charts, the conversation of units (metric system...) or determination of a center of gravity etc...)</p>

Table 1b	Basic Training – Theoretical elements instructors Modules 5,6,8	
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	<p>Option 1: Knowledge level attested by a school specialty diploma* that is recognized by CARC, or an acceptable equivalent,</p> <p style="text-align: center;">and</p> <p>A training received to gain knowledge about the design, function and the operation of relevant typical aircraft systems and components</p> <p style="text-align: center;">or</p> <p>Option 2: CARC Part 66 Licence endorsed with relevant category (i.e. B1 for B1 instructors)</p> <p style="text-align: center;">or</p> <p>Option 3: Part 147 Certificates of recognition (training + exam) for the modules to be taught, at the appropriate level (i.e. Module 1 level 2 for a B1/B2 instructor in module 1 class.** The scope of instruction will be limited to the passed modules.</p>	<p>* I.e. college, university etc.. The diplomas specialty must be consistent with the modules to be taught (the curriculum must include the appendix 1 sub-modules), and the level of the studies must be adapted to the level (1, 2 or 3) of the modules to be taught.</p> <p>** In order to avoid conflicts of interest, the Part 147 exam should not be attended in the Part 147 organization where the instructor is to exercise its privileges unless specific measures are taken and accepted by CARC to demonstrate that the integrity of the examination is ensured.</p>
Pedagogical skills	<p>Option 1: Instructor Certificate delivered by a legal entity* recognized by CARC</p> <p style="text-align: center;">or</p> <p>Option 2: Completion of a “Train the trainer course</p> <p style="text-align: center;">or</p> <p>Option 3: Assessment performed and documented by the Training Organizations Training Manager</p> <p>if himself appropriately qualified as instructor and in accordance with a MTOE procedure</p> <p style="text-align: center;">and</p> <p>Accepted by CARC following an in-situ audit in real training conditions.</p>	<p>*Teacher education from University etc. or an acceptable equivalent. Certificates obtained outside Jordan will need evaluation.</p>
Other knowledge	<p>A documented familiarization with the specific training procedures and requirements (i.e. organization of courses, attendance etc.) as described in the approved MTOE.</p>	
Specialty experience	<p>Nil</p>	<p>However practical experience in A/C maintenance, design or production activities is advantageous; the advantage for the instructor is to understand the practical applications of a scientific knowledge and therefore to better appreciate the knowledge that the student must receive.</p>

Table 1c	Basic Training – Theoretical elements instructors Module 7A & 7B	
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	<p>Option 1: Knowledge level attested by a school* that issues Aircraft Maintenance & engineering specialty diploma and is recognized by CARC. The training syllabus should meet the Part 66 appendix 1 elements at the appropriate level and for the adequate category/subcategory (i.e. B1.3) and</p> <p>At least completed A/C type training i.a.w. Part 66 Standard or equivalent, which must be representative of the category/sub-category (i.e. B1.3)</p> <p>or</p> <p>Option 2: Part 66 Basic Licence endorsing the relevant category (i.e. B1.1 for B1.1 instructors)</p> <p>or</p> <p>Option 3: Part 147 Certificates of recognition (training + exam**) for module 7, level 3 and</p> <p>At least completed A/C type training i.a.w. Part 66 Standard or equivalent, which must be representative of the category/sub-category (i.e. B1.3)</p> <p>or</p> <p>Option 4: Specialized training received from acceptable training organization s/institutions for specialized services (i.e. for welding, NDT, etc.)***</p>	<p>* Curriculum must be consistent with the syllabus of module 7A or 7B, as applicable, level 3.</p> <p>** In order to avoid conflicts of interest, the Part 147 exam should not be attended in the Part 147 organization where the instructor is to exercise its privileges unless specific measures are taken and accepted by CARC to demonstrate that the integrity of the examination is ensured.</p> <p>*** The purpose is to facilitate the use of instructors – non maintenance specialized providing very specialized training (i.e. on welding) as part of the module 7 training. The scope of instruction is limited to the concerned sub-module(s).</p>
Pedagogical skills	<p>Option 1: Instructor Certificate delivered by a legal entity* recognized by CARC</p> <p>or</p> <p>Option 2: Completion of a “Train the trainer course”</p> <p>or</p> <p>Option 3: Assessment performed and documented by the Training Organizations Training Manager if himself appropriately qualified as instructor and in accordance with a MTOE procedure and</p> <p>Accepted by CARC following an in-situ audit in real training conditions.</p>	<p>*Teacher education from University etc. or an acceptable equivalent. Certificates obtained outside Jordan will need evaluation.</p>
Other knowledge	<p>A level of English compatible with the A/C maintenance activity.* and</p> <p>A training on CARC regulation: Part 66 (basic), 147 (basic) and 145 (detailed) and documented familiarization with the specific training procedures and requirements (i.e. organization of courses, attendance etc.) as described in the approved MTOE.</p>	<p>* General knowledge of English used within the maintenance environment including knowledge of common aeronautical terms. English proficiency should be such that the candidate can read and understand instructions and technical manuals used for performance of maintenance, write technical reports and communicate spoken language at such level that training standards and duties within the MTO are ensured.</p>
Specialty experience	3 years of relevant experience in civil aviation environment (aeronautical maintenance) or acceptable equivalent; the experience must be representative of the subject(s) to be taught.	

Table 1d	Basic Training – Theoretical elements instructors Module 9A & 9B	
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	Option 1: A documented training on Human Factors in Aviation, of a minimum of 2 days. The syllabus of the training must comply with Part 66 appendix 1. or Option 2: A certificate of recognition* for the module 9 at level 2 (training + exam)	* In order to avoid conflicts of interest, the Part 147 exam should not be attended in the Part 147 organization where the instructor is to exercise its privileges unless specific measures are taken and accepted by CARC to demonstrate that the integrity of the examination is ensured.
Pedagogical skills	Option 1: Instructor Certificate delivered by a legal entity* recognized by CARC or Option 2: Completion of a “Train the trainer course” or Option 3: Assessment performed and documented by the Training Organizations Training Manager if himself appropriately qualified as instructor and in accordance with a MTOE procedure and Accepted by CARC following an in-situ audit in real training conditions.	*Teacher education from University etc. or an acceptable equivalent. Certificates obtained outside Jordan will need evaluation.
Other knowledge	Training on CARC regulations: Part 66 (basic) and Part 145 (detailed) and A documented familiarization with the specific training procedures and requirements (i.e. organization of courses, attendance etc..) as described in the approved MTOE.	
Specialty experience	N/A*	*Experience in an environment that is representative of human factors affecting aviation maintenance (i.e. Line & Base maintenance experience) is advantageous



Table 1e	Basic Training – Theoretical elements instructors Module 10	
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	A documented training on regulations described in Part 66 Appendix 1, Module 10	
Pedagogical skills	Option 1: Instructor Certificate delivered by a legal entity* recognized by CARC or Option 2: Completion of a “Train the trainer course” or Option 3: Assessment performed and documented by the Training Organizations Training Manager if himself appropriately qualified as instructor and in accordance with a MTOE procedure and Accepted by CARC following an in-situ audit in real training conditions.	*Teacher education from University etc. or an acceptable equivalent. Certificates obtained outside Jordan will need evaluation.
Other knowledge	A documented familiarization with the specific training procedures and requirements (i.e. organization of courses, attendance etc..) as described in the approved MTOE.	
Specialty experience	N/A*	*Experience in an environment that is representative of human factors affecting aviation maintenance (i.e. Line & Base maintenance experience) is advantageous

Table 1f	Basic Training – Theoretical elements instructors Modules 11, 12, 13, 14, 15, 16, 17	
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	<p>Option 1: Knowledge level attested by an aviation engineering diploma* recognized by CARC and covering the 4 subject to be taught, or an acceptable equivalent,</p> <p>or</p> <p>Option 2: Part 66 Basic Licence endorsing the category (i.e. B1 for B1 instructors)</p> <p>or</p> <p>Option 3: Part 147 Certificates of recognition (training + exam) for the modules to be taught, at the appropriate level **. Scope of instruction will be limited to the passed module(s)</p> <p>or</p> <p>Option 4: Specialized training received from acceptable training organization s or institutions ***.</p>	<p>* Diplomas specialty must be consistent with the modules to be taught (the curriculum must include Part 66 Appendix 1 sub-modules), and the level of the studies must be adapted to the level (1, 2 or 3) of the modules to be taught.</p> <p>** In order to avoid conflicts of interest, the Part 147 exam should not be attended in the Part 147 organization where the instructor is to exercise its privileges unless specific measures are taken and accepted by CARC to demonstrate that the integrity of the examination is ensured.</p> <p>*** The purpose is to facilitate the use of specialized instructors providing very specialized training (i.e. on hydraulic power) as part of a complete module. The instruction will be limited to the concerned sub-modules. Acceptable specialized training may for instance include specialized training offered by A/C manufacturers, MO component shop staff, etc..</p>
Pedagogical skills	<p>Option 1: Instructor Certificate delivered by a legal entity* recognized by CARC</p> <p>or</p> <p>Option 2: Completion of a “Train the trainer course”</p> <p>or</p> <p>Option 3: Assessment performed and documented by the Training Organizations Training Manager if himself appropriately qualified as instructor and in accordance with a MTOE procedure</p> <p>and</p> <p>Accepted by CARC following an in-situ audit in real training conditions.</p>	<p>*Teacher education from University etc. or an acceptable equivalent. Certificates obtained outside Jordan will need evaluation.</p>
Other knowledge	<p>A level of English compatible with the A/C maintenance activity.*</p> <p>and</p> <p>A training on CARC regulation: Part 66 (basic), 147 (basic) and 145 (detailed) and documented familiarization with the specific training procedures and requirements (i.e. organization of courses, attendance etc..) as described in the approved MTOE.</p>	<p>* General knowledge of English used within the maintenance environment including knowledge of common aeronautical terms. English proficiency should be such that the candidate can read and understand instructions and technical manuals used for performance of maintenance, write technical reports and communicate spoken language at such level that training standards and duties within the MTO are ensured.</p>
Specialty experience	<p>Option 1: 1 year of relevant experience in civil aviation environment (aeronautical maintenance). The experience must be adapted to cover the subjects to be taught and gained in an aviation engineering department or in MO.</p> <p>or</p> <p>Option 2: Part 66 Basic Licence endorsing the category (i.e. B1.3, B1.4 for module 12, etc.)</p>	

Table 2	Basic Training – Practical elements instructors	
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	<p>Option 1: Part 66 Basic Licence endorsing the appropriate category / sub-category (i.e. B1.1 for B1.1 instructors)</p> <p>and</p> <p>A/C type endorsed on the appropriate category / sub-category of licence, for each aircraft type used for the purpose of the training.</p> <p>or</p> <p>Option 2: Part 147 Certificates of Recognition * (Category B1 or B2 as applicable) covering training & exam at level 3 for the module 7, level 2 for modules 9 and 10, and at the level defined by Part 66 appendix 1 for module 11 to 17 **.</p> <p>and</p> <p>Approved type training (theory + practical) passed in the appropriate category / sub-category for each aircraft type used for the purpose of the training.</p> <p>or</p> <p>Option 3: Specialized training received from acceptable training organization s / institutions to cover specialized services (i.e. welding, NDT inspections etc..). ***. The instruction will be limited to the subjects / methods covered by the specialized training(s). NDT instructors should be holder of a valid qualification i.a.w. EN4179 (level 2 minimum) or acceptable equivalent.</p> <p>or</p> <p>Option 4: A documented release to service authorization (or an internal certification authorization) granted by an approved Part 145 organization iaw the approved MOE and covering the subjects to be taught. For aircraft maintenance instructors the authorization should include privileges for A/C certification that are comparable to B1 or B2 certifying staff as applicable and include each aircraft type used for the purpose of the training. For shop (i.e. structure, components) & specialized services the qualifications must meet the standard as exposed in the organizations MOE. The instruction will be limited to the subjects covered by the AMO authorization(s).</p>	<p>* In order to avoid conflicts of interest, the Part 147 exam should not be attended in the Part 147 organization where the instructor is to exercise its privileges unless specific measures are taken and accepted by CARC to demonstrate that the integrity of the examination is ensured.</p> <p>** The required level depends on the instructor specialty (airframe or avionics)</p> <p>***The purpose is to facilitate the use of instructors – non maintenance specialized – providing very specialized training (i.e. on welding) as part of the module 7 training and under the oversight of the module 7 maintenance instructor(s). The instruction will be limited to the concerned sub-modules.</p>

Pedagogical skills	<p>Option 1: Instructor Certificate delivered by a legal entity* recognized by CARC or</p> <p>Option 2: Completion of a “Train the trainer course” or</p> <p>Option 3: A practical instructor privilege (documented) granted by the Maintenance organization when this part is contracted out (note: an assessment of the competency is still required to be completed and documented by the Part 147 training organization according to MTOE procedure) or</p> <p>Option 4: Assessment performed and documented by the Training Organizations Training Manager (if himself appropriately qualified as practical instructor and in accordance with a MTOE procedure). and Accepted by CARC following an in-situ audit in actual training conditions.</p>	<p>*Teacher education from University etc. or an acceptable equivalent. Certificates obtained outside Jordan will need evaluation.</p>
Other knowledge	<p>A level of English compatible with the A/C maintenance activity.* and</p> <p>A training on CARC regulation: Part 66 (basic), 147 (basic) and 145 (detailed) and documented familiarization with the specific training procedures and requirements (i.e. organization of courses, attendance etc.) as described in the approved MTOE.</p>	<p>* General knowledge of English used within the maintenance environment including knowledge of common aeronautical terms. English proficiency should be such that the candidate can read and understand instructions and technical manuals used for performance of maintenance, write technical reports and communicate spoken language at such level that training standards and duties within the MTO are ensured.</p>
Specialty experience	<p>3 years of relevant experience. The experience must be representative of the subject(s) to be taught and gained as following:</p> <ol style="list-style-type: none"> 1) A/C maintenance instructor: experience to be gained in a regulated civil aviation environment or acceptable equivalent, including line and/or base maintenance experience; 2) Shop maintenance instructors (component / structural elements etc.): experience to be gained in approved civil aviation workshops and adequate to the component maintenance to be taught. 3) For specialized services (welding, NDT etc.): relevant experience to be gained in industry* 	<p>* Care should be exercised that the experience gained in a non- aeronautical industry is relevant and transferable to aviation maintenance practices.</p>

Table 3 Basic Training – Knowledge examiners		
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	Knowledge examiners should meet the same criteria as the theoretical instructor of the concerned modules (i.e. examiner for Module 11 meet the criteria of instructor for Module 11)	
Pedagogical skills	<p>Option 1: Instructor Certificate delivered by a legal entity* recognized by CARC or Option 2: Completion of a “train the trainer” course and Assessment performed and documented by the Training Organizations Training Manager (if himself appropriately qualified as knowledge examiner and in accordance with a MTOE procedure).</p>	*Teacher education from University etc. or an acceptable equivalent. Certificates obtained outside Jordan will need evaluation.
Other knowledge	A training on CARC regulation: Part 66 (basic), 147 (basic), addressing examinations and documented familiarization with the specific training procedures and requirements as described in the approved MTOE.	
Specialty experience	N/A*	*However practical experience in A/C maintenance, design or production activities is advantageous

Table 4	Basic Training – Practical assessors	
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	Practical assessors should meet the same criteria as the practical instructor of the concerned modules (i.e. examiner for module 11 meet the criteria of instructor module 11)	
Pedagogical skills	Criteria as described in Appendix III to AMC to Part 66 and Assessment performed and documented in accordance with a MTOE procedure).	
Other knowledge	A training on CARC regulation: Part 66 (basic), 147 (basic), addressing assessment and documented familiarization with the relevant procedures and requirements as described in the approved MTOE.	
Specialty experience	<p>3 years of relevant experience. The experience must be representative of the subject(s) to be assessed and gained as following:</p> <p>4) A/C maintenance assessor: experience to be gained in a regulated civil aviation environment or acceptable equivalent, including line and/or base maintenance experience;</p> <p>5) Shop maintenance assessor (component / structural elements etc.): experience to be gained in approved civil aviation workshops and adequate to the component maintenance to be taught.</p> <p>6) For specialized services (welding, NDT etc.): relevant experience to be gained in industry*</p>	* Care should be exercised that the experience gained in a non- aeronautical industry is relevant and transferable to aviation maintenance practices.

Table 5	Type Training – Theoretical elements instructors	
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	<p>Option 1: Part 66 licence endorsed with relevant type rating (level 3) corresponding to the specialty of the instructor (i.e. B2 for an avionic instructor)</p> <p>and</p> <p>A refresher/update course on the concerned A/C type if the instructor has not instructed the concerned A/C type(s) in a Part 147 environment during the two years preceding its employment in the current 147 organization .</p> <p>or</p> <p>Option 2: A Part 147 Certificate of Recognition* (training + exam) issued by a Part 147 training organization for a type training (level 3) successfully received on the relevant A/C(s) and including theory & practical. The Certificate of recognition should address the category of licence corresponding to the specialty of the instructor (i.e. B2 for an avionics)</p> <p>and</p> <p>A refresher/update course on the concerned A/C type if the instructor has not instructed the concerned A/C type(s) in a Part 147 environment during the two years preceding its employment in the current 147 organization .</p> <p>or</p> <p>Option 3: a type training (theory + practical) received in a non-Part 147 organization ** The curriculum/ level of the course must be equivalent to Part 66 appendix 3.</p> <p>and</p> <p>A refresher/update course on the concerned A/C type if the instructor has not instructed the concerned A/C type(s) in a Part 147 environment during the two years preceding its employment in the current 147 organization .</p> <p>or</p> <p>Option 4: a specialized training (i.e. hydraulics) on the relevant A/C type(s)*** The curriculum/ level of the course must comply with at least with Part 66 appendix 3. the scope of instruction must be limited to the relevant specialty.</p> <p>and</p> <p>A refresher/update course on the concerned A/C type or A/C type concerned systems if the instructor has not instructed the concerned A/C type(s) in a Part 147 environment during the two years preceding its employment in the current 147 organization .</p>	<p>* In order to avoid conflicts of interest, the Part 147 exam should not be attended in the Part 147 organization where the instructor is to exercise its privileges unless specific measures are taken and accepted by CARC to demonstrate that the integrity of the examination is ensured.</p> <p>** i.e. training delivered by aircraft manufacturer that is not Part 147 approved.</p> <p>*** The purpose is to facilitate the use of specialized instructors providing very specialized training (i.e. on hydraulic power) as part of a type training syllabus. The instruction will be limited to the concerned type training syllabus items. Acceptable specialized training may for instance include specialized training offered by A/C manufacturers, MO component shop staff, etc..</p>

Pedagogical skills	<p>Option 1: Instructor Certificate delivered by a legal entity* recognized by CARC or Option 2: Completion of a “Train the trainer course” or Option 3: Assessment performed and documented by the Training Organizations Training Manager if himself appropriately qualified as instructor and in accordance with a MTOE procedure and Accepted by CARC following an in-situ audit in real training conditions.</p>	*Teacher education from University etc. or an acceptable equivalent. Certificates obtained outside Jordan will need evaluation.
Other knowledge	<p>A level of English compatible with the A/C maintenance activity.* and A training on CARC regulation: Part 66 (basic), 147 (basic) and 145 and documented familiarization with the specific training procedures and requirements (i.e. organization of courses, attendance etc.) as described in the approved MTOE. and A documented training on specific instructional methods or training devices used by the training organization (i.e. simulators, synthetic trainers etc...)</p>	* General knowledge of English used within the maintenance environment including knowledge of common aeronautical terms. English proficiency should be such that the candidate can read and understand instructions and technical manuals used for performance of maintenance, write technical reports and communicate spoken language at such level that training standards and duties within the MTO are ensured.
Specialty experience	3 years of relevant experience, including 1 year of experience on the relevant A/C type(s). The experience must be representative of the elements(s) to be taught and gained in civil aviation environment or acceptable equivalent (maintenance, engineering, design organization etc.;)	

Table 6	Type Training – Practical elements instructors	
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	<p>Option 1: Part 66 licence endorsed with relevant type rating (level 3) corresponding to the specialty of the instructor (i.e. B2 for an avionic instructor) and</p> <p>A refresher/update course on the concerned A/C type if the instructor has not instructed the concerned A/C type(s) in a Part 147 environment during the two years preceding its employment in the current 147 organization .</p> <p>or</p> <p>Option 2: A Part 147 Certificate of Recognition* (training + exam + practical assessment) issued by a Part 147 training organization for a type training (level 3) successfully received on the relevant A/C(s). The Certificate of recognition should address the category of licence corresponding to the specialty of the instructor (ice B2 for an avionic instructor) and</p> <p>A refresher/update course on the concerned A/C type if the instructor has not instructed the concerned A/C type(s) in a Part 147 environment during the two years preceding its employment in the current 147 organization .</p> <p>or</p> <p>Option 3: a type training (theory + practical) received in a non-Part 147 organization **. The curriculum/ level of the course must be equivalent to Part 66 appendix 3. and</p> <p>A refresher/update course on the concerned A/C type if the instructor has not instructed the concerned A/C type(s) in a Part 147 environment during the two years preceding its employment in the current 147 organization .</p> <p>or</p> <p>Option 4: a specialized training (i.e. hydraulics) on the relevant A/C type(s)*** The curriculum/ level of the course must comply with at least with Part 66 appendix 3. the scope of instruction must be limited to the relevant specialty. and</p> <p>A refresher/update course on the concerned A/C type or A/C type concerned systems if the instructor has not instructed the concerned A/C type(s) in a Part 147 environment during the two years preceding its employment in the current 147 organization .</p>	<p>* In order to avoid conflicts of interest, the Part 147 exam should not be attended in the Part 147 organization where the instructor is to exercise its privileges unless specific measures are taken and accepted by CARC to demonstrate that the integrity of the examination is ensured.</p> <p>** i.e. training delivered by aircraft manufacturer that is not Part 147 approved.</p> <p>*** The purpose is to facilitate the use of specialized instructors providing very specialized training (i.e. on hydraulic power) as part of a type training syllabus. The instruction will be limited to the concerned type training syllabus items. Acceptable specialized training may for instance include specialized training offered by A/C manufacturers, MO component shop staff, etc.</p>

Pedagogical skills	<p>Option 1: Instructor Certificate delivered by a legal entity* recognized by CARC or Option 2: Completion of a “Train the trainer course” or Option 3: A practical instructor privilege (documented) granted by the Maintenance organization when this part is contracted out (note: an assessment of the competency is still required to be completed and documented by the Part 147 training organization according to MTOE procedure) or Option 4: Assessment performed and documented by the Training Organization "s Training Manager if himself appropriately qualified as instructor and in accordance with a MTOE procedure and Accepted by CARC following an in-situ audit in real training conditions.</p>	<p>*Teacher education from University etc. or an acceptable equivalent. Certificates obtained outside Jordan will need evaluation.</p>
Other knowledge	<p>A level of English compatible with the A/C maintenance activity.* and A training on CARC regulation: Part 66 (basic), 147 (basic) and 145 and documented familiarization with the specific training procedures and requirements (i.e. organization of courses, attendance etc..) as described in the approved MTOE and A documented training on specific instructional methods or training devices used by the training organization (i.e. simulators, synthetic trainers etc...)</p>	<p>* General knowledge of English used within the maintenance environment including knowledge of common aeronautical terms. English proficiency should be such that the candidate can read and understand instructions and technical manuals used for performance of maintenance, write technical reports and communicate spoken language at such level that training standards and duties within the MTO are ensured.</p>
Specialty experience	<p>Option 1: 3 years of relevant experience, including 1 year of experience on the relevant A/C type(s). The experience must be representative of the elements(s) to be instructed and gained in civil aviation environment or acceptable equivalent, including line and/or base maintenance experience; or Option 2: 3 years of experience on similar aircraft types and Additional experience on the particular type gained through type trainings etc.</p>	

Table 7	Type Training – Knowledge examiners	
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	Knowledge examiners should meet the same criteria as the theoretical type training instructor.	
Pedagogical skills	<p>Option 1: Instructor Certificate delivered by a legal entity* recognized by CARC</p> <p>or</p> <p>Option 2: Completion of a “ train the trainer” course</p> <p>and</p> <p>Assessment performed and documented by the Training Organization “s Training Manager (if himself appropriately qualified as knowledge examiner and in accordance with a MTOE procedure).</p>	*Teacher education from University etc. or an acceptable equivalent. Certificates obtained outside Jordan will need evaluation.
Other knowledge	A training on CARC regulation: Part 66 (basic), 147 (basic), addressing examinations and documented familiarization with the specific training procedures and requirements as described in the approved MTOE.	
Specialty experience	N/A*	* However practical experience in A/C maintenance, design or production activities is advantageous



Table 8	Type Training – Practical assessors	
Qualification /experience	Acceptable mean of compliance	Comments / limitations
Specialty knowledge	Practical assessors should meet the same criteria as the practical instructor of the concerned aircraft types.	
Pedagogical skills	Criteria as described in Appendix III to AMC to Part 66 and Assessment performed and documented in accordance with a MTOE procedure).	
Other knowledge	A training on CARC regulation: Part 66 (basic), 147 (basic) and Part 145 addressing assessment and documented familiarization with the relevant procedures and requirements as described in the approved MTOE.	
Specialty experience	3 years of relevant experience including 1 year of experience on the relevant A/C type(s). The experience must be representative of the tasks to be assessed and gained in approved civil aviation environment or acceptable equivalent, including line and/ or hangar maintenance experience;	

