



NOTICE OF PROPOSED AMENDMENT - NPA 04-2020

Date of Issue: 10th August 2020

SUBJECT:

YCAR PART II - CHAPTER 8, YCAR-147: APPROVED MAINTENANCE TRAINING ORGANISATIONS

REASON:

The Republic of Yemen has planned to transform its regulation Approved Maintenance Training Organisations and adopt EU based regulation and then adapt it to Yemen environment. Such transformation is not limited to regulation structure since it includes the formulation of the requirements, AMC and GM.

The proposed initial entry into force date of the amendment is 02 January 2023,

TRANSITION: A Maintenance Training Organisations may continue to provide the same service for a period of three years, at the date that this Rule comes into force, a certification as required by this Rule will be required.

The layout and paragraph numbering may change through the NPA process; however, the content will remain the same subject to comments suggesting revision.

This notice is published to announce to the public and other concerned organisations, in particular Maintenance Training Organisations (MTO) users to:

1. Review the attached proposed regulation; and
2. Submit their comments to the CAMA within 90 days from the date of this NPA. If more than 90 days is required, extension must be inquired at below email.

Comments must be submitted to the CAMA using the attached NPA COMMENT-RESPONSE TOOL (CRT)."

Comments and Responses may be viewed in the Comments Response Document CRT pertaining to this NPA.

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YCAR PART II, CHAPTER 8

YCAR 147-APPROVED MAINTENANCE TRAINING ORGANISATIONS

Including

AMC/GM YCAR 147

Issue: November 2020

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CONTENTS – GENERAL

YCAR 147

APPROVED MAINTENANCE TRAINING ORGANISATION

- **REGULATIONS**
- **ACCEPTABLE MEANS OF COMPLIANCE**
- **GUIDANCE MATERIAL**

FOREWORD

1. The Civil Aviation and Met. Authority of the Republic of Yemen is known in these regulations as the “CAMA”.
2. Development of major changes to YCAR 147 will be in accordance with Notice of Proposed Amendment (NPA) procedures.
3. Definitions and abbreviations of terms used in YCAR 147 that are specific to a Section are normally given in that section concerned or, exceptionally, in the associated compliance or guidance material.
4. This issue is initial dated November 2020; it enters into force on 02 January 2023. All pages of this issue of YCAR 147 are now current.

TRANSITION: A Maintenance Training Organisations may continue to provide the same service for a period of three years, at the date that this Rule comes into force, a certification as required by this Rule will be required.

5. Conformity with the Acceptable Means of Compliance (AMC) presented is mandatory unless other means of compliance meet the equivalent level of safety, acceptable to the CAMA.
6. Where reference is made in YCAR Part 147 to YCAR Part 66, YCAR FCL, YCAR 21 codes which have not yet been implemented the equivalent existing national regulations will apply until such time as the reference code has been implemented
7. For the purpose of this chapter, the word SUBPART means SUBCHAPTER
8. All Examinations mentioned in these regulations are referred to examinations that are held in the organisations for the purpose of obtaining the certificates.
9. Examinations for the Purpose of obtaining the license are held in CAMA unless delegation is granted to the organisation.

REVISION HIGHLIGHTS

Amendment	Affected paragraphs/ sections	Details	Effective Date
Issue: 00 November 2020		Initial Issue	January 2023

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SUBPART A - GENERAL

YCAR 147.01 General

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

GM 147.01 General

Such an organisation may conduct business from more than one address and may hold more than one YCAR approval.

YCAR 147.05 Scope

- (a)) This regulation establishes the requirements to be met by organisations seeking and maintaining approval to conduct training and examination as specified in YCAR 66.
- (b) Organizations involved in the training of personnel referred to in Part 66 shall be approved in accordance with Part 147 to be entitled:
 - (1) To conduct recognized basic training courses; and/or
 - (2) To conduct recognized type training courses; and/or
 - (3) To conduct examinations; and
 - (4) To issue training certificates.
- (c) Any maintenance training organization approval issued by CAMA in accordance with CAMA previous requirements and procedures and valid at the time of entry into force of this Part shall be deemed to have been issued in accordance with this Part. For this purpose, by derogation from the provisions of 147.130(b) under Part 147, level 2 findings associated with the differences between CAMA previous Part II Chapter 9 and this Part shall be closed within one year.
- (d) Ongoing basic training courses complying with the requirements applicable before this Part

applies may be continued for a maximum period of thirty six months after the date by which this Part applies.

- (e) Basic knowledge examinations, conducted by CAMA, complying with the requirements applicable before this Part applies may be conducted for a maximum period of forty eight months after the date by which this Part applies.
- (f) Ongoing type training courses and type examinations complying with the requirements applicable before this Part applies shall be continued and finished not later than twelve months after the date by which this Part applies.
- (g) Competency- based approved training for aircraft maintenance personnel shall be conducted within an approved training organization”

YCAR 147.10 Reserved

YCAR 147.15 Application

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

GM 147.15

The application process is detailed in Appendix IV to this regulation.

SUBPART B - ORGANISATIONAL REQUIREMENTS

YCAR 147.100 Facility requirements

- (a) The size and structure of facilities shall ensure protection from the prevailing weather elements and proper operation of all planned training and examination on any particular day.
- (b) Fully enclosed appropriate accommodation separate from other facilities shall be provided for the instruction of theory and the conduct of knowledge examinations.
 - 1. The maximum number of students undergoing knowledge training during any training course shall not exceed 28.
 - 2. The size of accommodation for examination purposes shall be such that no student can read the paperwork or computer screen of any other student from his/her position during examinations.
- (c) The paragraph (b) accommodation environment shall be maintained such that students are able to concentrate on their studies or examination as appropriate, without undue distraction or discomfort.
- (d) In the case of a basic training course, basic training workshops and/or maintenance facilities separate from training classrooms shall be provided for practical instruction appropriate to the planned training course. If, however, the organisation is unable to provide such facilities, arrangements may be made with another organisation to provide such workshops and/or maintenance facilities, in which case a written agreement shall be made with such organisation specifying the conditions of access and use thereof. The CAMA shall require access to any such contracted organisation and the written agreement shall specify this access.
- (e) In the case of an aircraft type/task training course, access shall be provided to appropriate facilities containing examples of aircraft type as specified in YCAR 147.115(d).
- (f) The maximum number of students undergoing practical training during any training course shall not exceed 15 per supervisor or assessor.
- (g) Office accommodation shall be provided for instructors, knowledge examiners and practical assessors of a standard to ensure that they can prepare for their duties without undue distraction or discomfort.
- (h) Secure storage facilities shall be provided for examination papers and training records. The storage environment shall be such that documents remain in good condition for the retention period as specified in YCAR 147.125. 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.

AMC 147.100 (i) Facility requirements

1. For approved basic maintenance training courses this means holding and ensuring reasonable access to copies of all YCARs, examples of typical aircraft maintenance manuals and service bulletins, airworthiness directives, aircraft and component records, release documentation, procedures manuals and aircraft maintenance programs.
2. Except for the YCARs, 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.

GM 147.100 (i) Facility requirements

Where the organisation has an existing library of regulations, manuals and documentation required by another YCAR it is not necessary to duplicate such a facility subject to student access being under controlled supervision.

YCAR 147.105 Personnel requirements

- (a) The organisation shall appoint an accountable manager who has corporate authority for ensuring that all training commitments can be financed and carried out to the standard required by this YCAR.
- (b) A person or group of persons, whose responsibilities include ensuring that the maintenance training organisation is in compliance with the requirements of this YCAR, shall be nominated. Such person(s) must be responsible to the accountable manager. The senior person or one person from the group of persons may also be the accountable manager subject to meeting the requirements for the accountable manager as defined in paragraph (a).
- (c) The maintenance training organisation shall contract sufficient staff to plan/performance knowledge and practical training, conduct knowledge examinations and practical assessments in accordance with the approval.

- (d) By derogation to paragraph (c), when another organisation is used to provide practical training and assessments, such other organisation's staff may be nominated to carry out practical training and assessments.
- (e) Any person may carry out any combination of the roles of instructor, examiner and assessor, subject to compliance with paragraph (f).
- (f) The experience and qualifications of instructors, knowledge examiners and practical assessors shall be established in accordance with criteria published as mentioned in AMC 147.105 (f), or in accordance with a procedure and to a standard agreed by the CAMA.
- (g) The instructors, 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.

AMC 147.105 Personnel requirements

1. The larger maintenance training organisation (an organisation with the capacity to provide training for 50 students or more) should appoint a training manager with the responsibility of managing the training organisation on a day to day basis. Such person could also be the accountable manager. In addition, the organisation should appoint a quality manager with the responsibility of managing the quality system as specified in paragraph YCAR 147.130 (b) and an examination manager with the responsibility of managing the relevant YCAR 147 Subpart C or Subpart D examination system. Such person(s) may also be an instructor and/or examiner.
2. The smaller maintenance training organisation (an organisation with the capacity to provide training for less than 50 students) may combine any or all of the sub-paragraph (1) positions subject to the competent authority verifying and being satisfied that all functions can be properly carried out in combination.
3. When the organisation is also approved against other YCARs which contain some similar functions then such functions may be combined.

AMC 147.105 (b) Personnel requirements

Application should be completed for each person nominated to hold a position including accountable manager as required by YCAR 147.105 (b).

AMC 147.105 (f) Personnel requirements

Any person accepted by the CAMA prior to YCAR 147 entry into force may continue to be accepted in accordance with YCAR 147.105(f)

Appendix V provides criteria to establish the qualification of the instructors, knowledge examiners and practical assessors.

AMC 147.105 (h) Personnel requirements

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

GM 147.105 (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.

GM 147.105 (f) Personnel requirements

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

GM 147.105 (g) Personnel requirements

Examiners should demonstrate a clear understanding of the examination standard required by YCAR 66 and have a responsible attitude to the conduct of examinations such that the highest integrity is ensured.

GM 147.105 (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.

YCAR 147.110 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.

AMC 147.110 Records of instructors, examiners and assessors

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

GM 147.110 Records of instructors, examiners and assessors

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

YCAR 147.115 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 workshops and/or maintenance facilities as specified in YCAR 147.100(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 YCAR 147.100(d) must have an appropriate selection of aircraft, engines, aircraft parts and avionics equipment.
- (d) The aircraft type training organisation as specified in YCAR 147.100(e) must have access to the appropriate aircraft type. Synthetic training devices may be used when such synthetic training devices ensure adequate training standards

AMC 147.115(c) Instructional equipment

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

GM 147.115 (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.

YCAR 147.120 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 YCAR 66 for the relevant aircraft maintenance licence category or subcategory, and
 2. the type course content required by YCAR 66 for the relevant aircraft type and aircraft maintenance licence category or subcategory.
- b. Students shall have access to examples of maintenance documentation and technical information of the library as specified in YCAR 147.100(i).

AMC 147.120 (a) Maintenance training material

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

YCAR 147.125 Records

The organisation shall keep all records including student training, examination and assessment records for an unlimited period.

AMC 147.125 Records

1. All records can be either a paper or computer system or any combination of both.
2. Paper systems should use robust material which can withstand normal handling and filing. The record should remain legible throughout the required retention period. Computer systems may be used to control and keep all records. However, the systems used should have at least a backup system which should be continuously be updated whenever a change on the records status. Each terminal is required to contain program safeguards against the ability of unauthorised personnel to alter the database.

YCAR 147.130 Training procedures and quality system

- (a) The organisation shall establish procedures acceptable to the CAMA to ensure proper training standards and compliance with all relevant requirements in this YCAR.
- (b) The organisation shall establish a quality system including:
 - 1. an independent audit function to monitor training standards, the integrity of knowledge examinations and practical assessments, compliance with and adequacy of the procedures, and
 - 2. a feedback system of audit findings to the person(s) and ultimately to the accountable manager referred to in YCAR 147.105(a) to ensure, as necessary, corrective action.

AMC 147.130 (b) Training procedures and quality system

- 1. The independent audit procedure should ensure that all aspects of YCAR 147 compliance should be checked at least once in every 12 months and may be carried out as one complete single exercise or subdivided over a 12-month period in accordance with a scheduled plan.
- 2. In a small maintenance training organisation the independent audit function may be contracted to another maintenance training organisation approved under YCAR 147 or a competent person acceptable to the CAMA. Where the small training organisation chooses to contract the audit function, it is conditional on the audit being carried out twice in every 12 month period with one such audit being unannounced.
- 3. Where the maintenance training organisation is also approved to another YCAR 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:
 - a. a pre-audit procedure should be established whereby the YCAR 147 approved maintenance training organisation should audit a prospective sub-contractor to determine whether the services of the sub-contractor meet the intent of YCAR 147.
 - b. a renewal audit of the subcontractor should be performed at least once every 12 months to ensure continuous compliance with the YCAR 147 standard.
 - c. the sub-contract control procedure should record audits of the sub-contractor 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.

GM 147.130 (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 YCAR 147.
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.

YCAR 147.135 Examinations

- (a) The examination staff shall ensure the security of all questions.
- (b) Any student found during a knowledge examination to be cheating or in possession of material pertaining to the examination subject other than the examination papers and associated authorised documentation shall be disqualified from taking the examination and may not take

any examination for at least 12 months after the date of the incident. The CAMA shall be informed of any such incident together with the details of any enquiry within one calendar month.

- (c) Any examiner found during a knowledge examination to be providing question answers to any student being examined shall be disqualified from acting as an examiner and the examination declared void. The CAMA must be informed of any such occurrence within one calendar month.
- (d) Knowledge examiners should not prepare an examination paper or invigilate an examination in a subject area where he/she has acted as an instructor.

AMC 147.135 Examinations

1. Examinations may be computer or hard copy based or a combination of both.
2. The actual questions to be used in a particular examination should be determined by the examiners and in accordance with the requirements of YCAR 66.

GM 147.135 Examinations

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

YCAR 147.140 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 YCAR and shall be complied with at all times.
 2. the title(s) and name(s) of the person(s) nominated in accordance with YCAR 147.105(b).
 3. the duties and responsibilities of the person(s) specified in subparagraph 2, including matters on which they may deal directly with the CAMA on behalf of the maintenance training organisation.
 4. a maintenance training organisation chart showing associated chains of responsibility of the person(s) specified in paragraph (a)(2).
 5. a list of the training instructors, knowledge examiners and practical assessors.

6. a general description of the training and examination facilities located at each address specified in the maintenance training organisation's approval certificate, and if appropriate any other location, as required by YCAR 147.145(b).
 7. a list of the maintenance training courses which form the extent of the approval.
 8. the maintenance training organisation's exposition amendment procedure.
 9. the maintenance training organisation's procedures, as required by YCAR 147.130(a).
 10. the maintenance training organisation's control procedure, as required by YCAR 147.145(c), when authorised to conduct training, examination and assessments in locations different from those specified in YCAR 147.145(b).
 11. a list of the locations pursuant to YCAR 147.145(b).
 12. a list of organisations, if appropriate, as specified in YCAR 147.145(d).
- (b) The maintenance training organisation's exposition and any subsequent amendments shall be approved by the CAMA.
- (c) Notwithstanding paragraph (b) minor amendments to the exposition may be approved through an exposition procedure (hereinafter called indirect approval).

AMC 147.140 Maintenance training organisation exposition

1. A recommended format of the exposition is included in Appendix III.
2. When the maintenance training organisation is approved in accordance with any other YCAR which also requires an exposition, the exposition required by the other YCAR may form the basis of the maintenance training organisation exposition in a combined document., as long as the other exposition contains the information required by YCAR 147.140 and a cross reference index is included based upon Appendix III.
3. 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 III item 2.18 plus a list of sub-contractors as required by YCAR 147.140 (a) 12 and detailed in Appendix III item 1.7.
4. The CAMA may approve a delegated exposition approval system for all changes other than those affecting the approval.

YCAR 147.145 Privileges of the maintenance training organisation

- (a) The maintenance training organisation may carry out the following as permitted by and in accordance with the maintenance training organisation exposition:
 - 1. basic training courses to the YCAR 66 syllabus, or YCAR thereof.
 - 2. aircraft type/task training courses in accordance with YCAR 66.
 - 3. the examinations on behalf of the CAMA, 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 Appendix II following successful completion of the approved basic or aircraft type training courses and examinations 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 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 except the basic module examination location which requires prior CAMA approval. Such locations need not be listed in the maintenance training organisation exposition.

AMC 147.145 (d) Privileges of the maintenance training organisation

1. When training or examination is carried out under the sub-contract control system it means that for the duration of such training or examination, the YCAR 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 YCAR 147 approved maintenance training organisation's students should meet requirements of YCAR 147 for the duration of that training or examination and it remains the YCAR 147 organisation's responsibility to ensure such requirements are satisfied.
2. The maintenance training organisation approved under YCAR 147 is not required to have complete facilities and personnel for training that it needs to sub-contract but it should have its own expertise to determine that the sub-contractor meets the YCAR 147 standards. Particular attention should be given to ensuring that the training that is delivered also meets the requirements of YCAR 66 and the aircraft technologies as appropriate.
3. The contract between the maintenance training organisation approved under YCAR 147 and the sub-contractor should contain:
 - a provision for the CAMA to have right of access to the sub-contractor;
 - a provision for the sub-contractor to inform the YCAR 147 approved maintenance training organisation of any change that may affect its YCAR 147 approval, before any such change takes place.

AMC 147.145(f) Privileges of the maintenance training organisation

When an organisation approved to provide basic knowledge training or type training is also approved to provide type examination in the cases where type training is not required, appropriate procedures in the MTOE should be developed and approved, including:

- . The development and the conduct of the type examination;
- . The qualification of the examiners and their currency.

In particular, emphasis should be put when such examination is not regularly conducted or when the examiners are not normally involved in aircraft or activities with technology corresponding to the aircraft type subject to the examination. An example would be the case of an organisation providing basic knowledge training only for the B1.1 license. This organisation should justify how they run type examinations for single piston engine helicopters in the case of a B1.4 license.

GM 147.145 (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 YCAR 147 and YCAR 66.
2. The fundamental reason for allowing a maintenance training organisation approved under YCAR 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 YCAR 66 modules.
3. The reason for allowing the subcontracting of training modules 1 to 6 and 8 to 10 of Appendix I to YCAR 66 is that most of the related subjects can generally also be taught by training organisations not specialized in aircraft maintenance and the practical training element as specified in YCAR 147.200 does not apply to them. On the contrary training modules 7 and 11 to 17 of Appendix I to YCAR 66 are specific to aircraft maintenance and include the practical training element as specified in YCAR 147.200. The intent of the “limited subcontracting” option as specified in YCAR 147.145 is to grant YCAR 147 approvals only to those organisations having themselves at least the capacity to teach on aircraft maintenance specific matters.

GM 147.145 (d) 3 Privileges of the maintenance training organisation

In the case of type training and examination, the reason for allowing only subcontracting to powerplant and avionics systems is that the related subjects can generally also be imparted by certain organisations specialized in these domains such as the Type Certificate Holder of the powerplant or the Original Equipment Manufacturers (OEMs) of these avionics systems. In such a case, the type training course should make clear how the interfaces with the airframe are addressed and by whom (the subcontracted organisation or the YCAR 147 organisation itself).

YCAR 147.150 Changes to the maintenance training organisation

- (a) The maintenance training organisation shall notify the CAMA of any proposed changes to the organisation that affect the approval before any such change takes place, in order to enable the CAMA to determine continued compliance with this YCAR and to amend if necessary the maintenance training organisation approval certificate.
- (b) The CAMA may prescribe the conditions under which the maintenance training organisation may operate during such changes unless the CAMA determines that the maintenance training organisation approval must be suspended.

- (c) Failure to inform the CAMA of such changes may result in suspension or revocation of the maintenance training organisation approval certificate backdated to the actual date of the changes.

YCAR 147.155 Continued validity

- (a) An approval shall be issued for two years duration. It shall remain valid subject to:
1. the organisation remaining in compliance with this YCAR, in accordance with the provisions related to the handling of findings as specified under YCAR 147.160; and
 2. the CAMA being granted access to the organisation to determine continued compliance with this YCAR; and
 3. the certificate not being surrendered or revoked.
- (b) Upon surrender or revocation, the approval shall be returned to the CAMA.

YCAR 147.160 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 CAMA access to the organisation's facilities during normal operating hours after two written requests,
 3. the lack of an accountable manager,
 4. a significant non-compliance with the training process.
- (b) A level 2 finding is any non-compliance with the training process other than level 1 finding.
- (c) A level 3 finding (Recommendation) is a minor irregularity (normally raised against organisation's own procedures or practices) which doesn't lower the standards but may lead to potential non-compliances. Such findings may warrant attention; or action as appropriate to improve the standards and/or achieve a better practice.

For Level (3) finding, the Auditor, based on his/her judgement, may grant up to 3 months for the corrective actions to be implemented. However, it is up to the Auditor to extend the timeline based on the corrective action plan provided by the organisation.

Not all Level (3) findings shall necessarily warrant corrective actions. This is dealt with on a case-to-case basis.

- (d) After receipt of notification of findings according to (a), (b) and, if applicable, (c) above, the holder of the maintenance training organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the CAMA within a period agreed with the CAMA.

SUBPART C - APPROVED BASIC TRAINING COURSE

YCAR 147.200 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 aircraft maintenance licence as specified in Appendix I of YCAR 66.
- (c) The knowledge examination element shall cover a representative cross section of subject matter from the paragraph (b) training element.
- (d) The practical training element shall cover the practical use of common tooling/equipment, the disassembly/assembly of a representative selection of aircraft parts and the participation in representative maintenance activities being carried out relevant to the particular YCAR 66 complete module.
- (e) The practical assessment element shall cover the practical training and determine whether the student is competent at using tools and equipment and working in accordance with maintenance manuals.
- (f) The duration of basic training courses shall be in accordance with YCAR 147 Appendix I.
- (g) The duration of conversion courses between (sub)-categories shall be determined through an assessment of the basic training syllabus and the related practical training needs.

AMC 147.200 (b) The approved basic training course

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

AMC 147.200 (d) The approved basic training course

1. Where the maintenance training organisation approved under YCAR 147 contracts the practical training element either totally or in part to another organisation in accordance with CAR147.100 (d), the organisation in question should ensure that the practical training elements are properly carried out.

2. At least 30% of the practical training element should be carried in an actual maintenance working environment.

AMC 147.200 (f) The approved basic training course

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

AMC 147.200 (g) The approved basic training course

Typical conversion durations are given below:

- a. The approved basic training course to qualify for conversion from holding a YCAR 66 aircraft maintenance licence in subcategory A1 to subcategory B1.1 or B2 should not be less than 1600 hours and for conversion from holding a YCAR 66 aircraft maintenance licence in subcategory A1 to subcategory B1.1 combined with B2 should not be less than 2200 hours. The course should include between 60% and 70% knowledge training.
- b. The approved basic training course to qualify for conversion from holding a YCAR 66 aircraft maintenance licence in subcategory B1.1 to B2 or category B2 to B1.1 should not be less than 600 hours, and should include between 80% and 85% knowledge training.
- c. The approved basic training course to qualify for conversion from holding a YCAR 66 aircraft maintenance licence in subcategory B1.2 to subcategory B1.1 should not be less than 400 hours, and should include between 50% and 60% knowledge training.
- d. The approved basic training course to qualify for conversion from holding a YCAR 66 aircraft maintenance licence in one subcategory A to another subcategory A should not be less than 70 hours, and should include between 30% and 40% knowledge training.

YCAR 147.205 Basic knowledge examinations

Basic knowledge examinations shall:

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

AMC 147.205 Basic knowledge examinations

The CAMA may accept that the maintenance training organisation approved under YCAR 147 can conduct examination of students who did not attend an approved basic course at the organisation in question.

YCAR 147.210 Basic practical assessment

- (a) Basic practical assessments shall be carried out during the basic maintenance training course by the nominated practical assessors at the completion of each visit period to the practical workshops/maintenance facility.
- (b) The student shall achieve an assessed pass with respect to YCAR 147.200(e).

AMC 147.210 (a) Basic practical assessment

Where the maintenance training organisation approved under CAR147 contracts the practical training element either totally or in part to another organisation in accordance with YCAR 147.100 (d) and chooses to nominate practical assessors from the other organisation, the organisation in question should ensure that the basic practical assessments are carried out.

AMC 147.210 (b) Basic practical assessment

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

Appendix III to the AMC to YCAR 66 provides criteria for the competence assessment performed by approved assessors (and Appendix V of YCAR 147 provides criteria to establish the qualification of practical assessors).

SUBPART D - AIRCRAFT TYPE/TASK TRAINING

YCAR 147.300 Aircraft type/task training

A maintenance training organisation shall be approved to carry out YCAR 66 aircraft type and/or task training subject to compliance with the standard specified in YCAR 66.45.

AMC 147.300 Aircraft type/task training

1. Aircraft type training may be sub-divided in airframe type training, powerplant type training, or avionic systems type training. A maintenance training organisation approved under YCAR 147 may be approved to conduct airframe type training only, powerplant type training only, avionics/electrical systems type training or any combination thereof.
2. Airframe type training course means type training course including all relevant aircraft structure and electrical and mechanical systems excluding the powerplant.
3. Powerplant type training course means type training course 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 course. In some cases, such as for general aviation, it may be more appropriate to cover the interface during the airframe course due to large variety of aircraft that can have the same engine type installed.
5. Avionic/Electrical systems type training course means type training on avionics and electrical systems covered by but not necessarily limited to ATA (Air Transport Association) chapters 22, 23,24,25, 27, 31, 33, 34,42,44, 45, 46, 73 and 77 or equivalent.

YCAR 147.305 Aircraft type examinations and task assessments

A maintenance training organisation approved in accordance with YCAR 147.300 to conduct aircraft type training shall conduct the aircraft type examinations or aircraft task assessments specified in YCAR 66 subject to compliance with the aircraft type and/or task standard specified in YCAR 66.45.

APPENDICES

APPENDIX I

TO YCAR 147.200

BASIC TRAINING COURSE DURATION

Minimum duration of complete basic courses

Basic Course	Duration (in hours)	Theoretical training ratio (in %)
A1	800	30 to 35
A2	650	30 to 35
A3	800	30 to 35
A4	800	30 to 35
B1.1	2400	50 to 60
B1.2	2000	50 to 60
B1.3	2400	50 to 60
B1.4	2400	50 to 60
B2	2400	50 to 60
B3	1000	50 to 60

APPENDIX II

TO YCAR 147.145

Example of Training Certificate

CERTIFICATE OF RECOGNITION

YCAR 147 APPROVED BASIC TRAINING COURSE OR BASIC

EXAMINATION This Certificate of recognition is issued to:

[NAME]

[DATE and PLACE OF BIRTH]

By

[COMPANY NAME and ADDRESS]

Approval reference:

This Certificate confirms that the abovenamed person either successfully passed the approved basic training course or the basic examination stated below in compliance with Yemen Civil Aviation Law No. 12 of (1993) and Civil Aviation Regulations (YCAR) 147 for the time being in force:

[BASIC TRAINING COURSE (*)] or/and [BASIC EXAMINATION (*)]

[LIST OF YCAR 66 MODULES/DATE OF EXAMINATION PASSED]

Signed:.....

Certificate No:.....

For: [COMPANY NAME]

Date:.....

(*) Delete as appropriate.

Type Training Certificate

[The YCAR-147 training certificate template detailed below is to be used for recognition of completion of either the theoretical elements, the practical elements or both the theoretical and practical elements of the type rating training course.

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

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

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

CERTIFICATE OF RECOGNITION

YCAR 147 APPROVED AIRCRAFT TYPE MAINTENANCE TRAINING COURSE OR AIRCRAFT TYPE EXAMINATION

This Certificate of recognition is issued to:

[NAME]

[DATE and PLACE OF BIRTH]

By:

[COMPANY NAME and ADDRESS]

Approval reference no:

This Certificate confirms that the abovenamed person either successfully passed the theoretical (*)
and/or practical elements (*) of the approved type training course stated below and related
examination in compliance with Yemen Civil Aviation Law No. 12 of (1993) and Civil Aviation
Regulations (YCAR) 147 for the time being in force:

[AIRCRAFT TYPE TRAINING COURSE]

[START and END DATE]

[SPECIFY THEORETICAL ELEMENTS OR PRACTICAL ELEMENT]

and/or

[AIRCRAFT TYPE EXAMINATION (*)]

[END DATE]

[TNA Ref. No...]

Signed:.....

Certificate No:.....

For:[COMPANY NAME]

Date:.....

(*) Delete as appropriate.

APPENDIX III
TO AMC 147.140

MAINTENANCE TRAINING ORGANISATION EXPOSITION (MTOE)

1. The following subject headings form the basis of the MTOE required by YCAR 147.140.
2. Whilst this format is recommended it is not mandatory to assemble the MTOE in this manner as long as a cross reference index is included in the MTOE as an appendix and the Part 1 items remain in Part 1.
3. Part 2, 3 and 4 materials 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 YCARs, which require an exposition it is acceptable to combine the exposition requirements by merging the Part 1 items and adding the Parts 2, 3 and 4. When this method is used it is essential to include the cross reference index of Part 4 item 4.3.

PART 1 – MANAGEMENT

- 1.1. Corporate commitment by accountable manager
 - 1.2. Management personnel
 - 1.3. Duties and responsibilities of management personnel, instructors, knowledge examiners and practical assessor
 - 1.4. Management personnel organisation chart
 - 1.5. List of instructional and examination staff
- Note: A separate document may be referenced
- 1.6. List of approved addresses
 - 1.7. List of sub-contractors as per YCAR 147.145(d)
 - 1.8. General description of facilities at paragraph 1.6 addresses
 - 1.9. Specific list of courses approved by the CAMA

- 1.10. Notification procedures regarding changes to organisation
- 1.11. Exposition and associated manuals amendment procedure

PART 2 – TRAINING AND EXAMINATION PROCEDURES

- 2.1. Organisation of courses
- 2.2. Preparation of course material
- 2.3. Preparation of classrooms and equipment
- 2.4. Preparation of workshops/maintenance facilities and equipment
- 2.5. Conduct of basic knowledge & practical training
- 2.6. Records of training carried out
- 2.7. Storage of training records
- 2.8. Training at locations not listed in paragraph 1.6
- 2.9. Organisation of examinations
- 2.10. Security and preparation of examination material
- 2.11. Preparation of examination rooms
- 2.12. Conduct of examinations
- 2.13. Conduct of basic practical assessments
- 2.14. Marking and record of examinations
- 2.15. Storage of examination records
- 2.16. Examinations at locations not listed in paragraph 1.6
- 2.17. Preparation, control & issue of basic training course certificates
- 2.18. Control of sub-contractors

PART 3 – TRAINING SYSTEM QUALITY PROCEDURES

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

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

APPENDIX IV

TO GM 147.15

PROCEDURES FOR THE ISSUE, RENEWAL AND CHANGE/VARIATION TO YCAR 147 APPROVED MAINTENANCE TRAINING ORGANISATION CERTIFICATE

PURPOSE

This appendix provides guidance and information to organisations or individuals seeking to apply for approval to conduct training programs for aircraft maintenance personnel in and outside the Yemen.

For an existing approved Yemen YCAR 147 maintenance training organisation who wishes to add new type/category of training program to their schedule of approval or renewal, such an organisation should follow the same general process. Approved maintenance training organisations based outside the Yemen should also follow the same procedure

POLICY

- (a) According to the Yemen Civil Aviation Regulation, no operator or individual is permitted to conduct any type of training without authority granted by the CAMA.
- (b) The initial issue of an Approval Certificate in respect of an organisation or individual who proposes to conduct any type of aviation related training must be authorised by the Director of Licensing and Examination.
- (c) The proposed training activities to be conducted must be clearly defined, such as:
 - (i) To conduct recognized basic training courses; and/or
 - (ii) To conduct recognized type rating courses; and
 - (iii) To conduct examinations; and
 - (iv) To issue training certificates.
- (d) All required approvals shall be obtained prior to CAMA processing of an application. It is applicant's responsibility to ensure that the organisation is in compliance with all other applicable requirements before applying to the CAMA for YCAR 147 approval.

- (e) All applications for Maintenance Training Organisation approvals are to be submitted to the CAMA along with the applicable fees. All costs incurred during the approval process and during the surveillance audits are to be borne by the applicant.
- (f) Renewal application of the Approval Certificate shall be submitted to CAMA at least 60 days prior to the expiry date.

OVERVIEW

The initial issue of Certificate of Approval to an applicant takes place in five distinct phases.

- (a) Pre-application.
- (b) Formal application.
- (c) Document evaluation.
- (d) Inspection and facility audits.
- (e) Certification.

Foreign organisations that hold approvals from aviation authorities of other ICAO contracting states or Yemen based maintenance organisations or airlines that have been conducting trainings under the scope of their other CAMA approvals do not have to go through the pre-application phase and will be required to start the application from phase (b), i.e. Formal application onwards

PHASE 1: PRE-APPLICATION

The pre-application phase occurs when the applicant meets with the CAMA Director of Licensing and Examination or his delegates and generally discusses his initial plans and the viability of different proposals. The applicant should contact CAMA and bring a pre-application statement of intent to this meeting regarding the proposed operations, types of training and sequence of events.

The arrangement for the pre-application meeting is made by contacting Licensing and Examination Directorate in CAMA Tel. 009671-337166/Email: civilaviation@y.net.ye This meeting is to be requested when details of the training operations/activities are known.

Pre-application Statement of Intent

The pre-application Statement of Intent will be reviewed by Director of Licensing and Examination. The statement of intent should be in a letter form and to be submitted by the owner and/or sponsor. It should contain at least the following information:

- Types of Training
- Proposed area/location/address for training
- Location/address of main base of training and other facilities locations.
- Proposed nominated Post holders (Accountable Manager, Training Manager, Examination Manager and Quality Assurance/Quality Manager.
- Proposed training organisation name and corporate body sponsor
- Approximate date of commencement

Process

On the basis of information provided during this phase, the CAMA will provide the applicant with the following information:

1. Application process briefing.
2. Supporting Documents required
3. General operating and airworthiness advice
4. Approval requirements from other government authorities
5. CAMA Fees

A preliminary assessment will be made to ensure that the proposed training activities are in the national interest and the applicant is capable to comply with all the applicable regulatory requirements.

Phase 2: FORMAL APPLICATION

The formal application phase commences when application form (LIF-ETO-10)/ application is submitted along with all the supporting documents as stated in the application form required documents check list.

Submission of the application is associated with a meeting attended by the Accountable Manager, in addition to the prospective nominated post holders or key personnel and the CAMA. The application must be signed by the corporate body or national sponsor. An accompanying letter shall include the

applicant full name, address and contact numbers. The letter must contain particulars of the proposed operation/training including details of desired training areas to confirm the pre-application information. During this meeting CAMA will nominate and assign a Licensing or/and an Airworthiness Inspector to meet with the applicant's technical management representatives to develop an action plan and to ensure the application proceeds in a timely manner. The formal application letter must be accompanied by:

1. Schedule of events, including personnel training.
2. Manuals/Documents
3. Compliance statement.
4. Current Post holder Form (GTF-NPA-001)/ application.
5. Proof of adequate financial funds to support the proposed training organisation.
6. Organisation's structure.

Note: CAMA forms can be accessed through CAMA website at www.cama.gov.ye navigate downloads, Forms.

Documentation

The following documents should be attached to the application:

1. Passport copy of the accountable manager and national sponsor if applicable.
2. Trade licence by Ministry of Commerce and Industry.
3. Security clearance to be submitted through CAMA to the National Aviation Security Committee for an (Organisation based in Yemen).
4. Bank statements or equivalent.

Schedule of Events

The Schedule of Events is a list of items, activities, and/or facility acquisitions, which the applicant must accomplish or make ready, and the proposed dates on which they will be ready for CAMA inspection.

Manuals/Documents

The following manuals, where applicable, must accompany the formal application:

1. Draft copy of YCAR 147 Maintenance Training Organisation Exposition (MTOE).

2. Organisation's Curriculum Manuals and course syllabi (Lesson plan/TNA)
3. One set of examination papers for each module/phase.

Management Qualifications Resumes

For post holders of the Maintenance Training Organisation, the applicable CAMA Form GTF-NPA-001 is to be completed which should include a brief resume containing information on the individual's qualifications, certificates, ratings and experience of personnel selected for the following or equivalent positions. The CAMA will assess the applicant's qualifications and experience as well as their managerial ability.

The Accountable Manager must be accepted by CAMA, and the following posts must be approved by the CAMA:

- (b) Training Manager.
- (c) Quality Assurance/Quality Manager.
- (d) Examination Manager.

Phase 3: DOCUMENT EVALUATION

The document evaluation phase involves detailed study of the manuals and other supporting documents, submitted along with the formal application for content and compliance. This study of the procedures and contents of these documents gives the CAMA a preliminary assessment of the organisation. The set of documents and manuals should be complete and the detailed evaluation of them must satisfy the CAMA's requirements before the inspection phase can begin. The inspection phase may reveal the need for some operational changes, which in turn make it necessary for the applicant to amend the documents originally submitted. In that case, it is conceivable that some form of documents evaluation may continue until shortly before certification.

Nevertheless, the satisfactory evaluation of the documents as originally submitted is a pre-requisite for the inspection phase to begin. The CAMA will review the list of documents and manuals ensuring adequacy and compliance for the type of training proposed by the organisation. Organisations are reminded that incomplete documentation will affect the application completion date.

Maintenance Training Organisation Exposition (MTOE) Manual

Specific information may be obtained from the CAMA. Guidelines for preparation of the MTOE are given in AMC 147.140.

Phase 4: INSPECTION

The inspection phase is one in which the assigned Licensing or/and Airworthiness Inspector (s) will carry out physical audit of the organisation to make an assessment of the organisation's compliance with the requirements of YCAR 147. This phase normally involves physical on-site verification of the contents of the organisation's MTOE. The auditing inspector (s) will satisfy themselves that the organisation can demonstrate its capability to meet CAMA requirements as written in the submitted manuals. Any discrepancy/deficiency will be communicated to the organisation after completion of the audit with mutually agreed time period for corrective action.

Phase 5: CERTIFICATION

The certification phase follows the satisfactory completion of all the previous phases. It begins when the CAMA is satisfied that the organisation complies with all the applicable requirements. Normally, receipt of the final copies of the manuals listed under the Documentation heading above and satisfactory corrective action on CAMA audit/inspection findings will lead the process into the certification phase. If the inspection phase is unsatisfactory, no further action will be taken until the deficiencies are rectified. The certification phase includes issue of a Yemen YCAR 147 Approval Certificate and its Approval schedule as sample below along with assigned approval number, MTOE approval page and acceptance/approval of the nominated Post Holders. The Approval Certificate has a validity date subject to the organisation continued compliance with CAMA requirements and satisfactory results of CAMA surveillance audits of the organisation. Besides, the certificate shall also cease to be valid if revoked or surrendered or if the organisation fails to ensure continued payment of prescribed fees or if the organisation fails to ensure provision of free access to CAMA inspectors for surveillance audits and spot checks of the training facilities at all times.

APPROVAL CERTIFICATE

**Republic of Yemen
Civil Aviation and Met. Authority**

APPROVAL CERTIFICATE Reference:

Yemen. YCAR 147/XX/XXXX

Pursuant to the Republic of Yemen Civil Aviation Law No. 12 of (1993) and Civil Aviation Regulations (YCAR) 147 for the time being in force and subject to the conditions specified below, the Civil Aviation and Met. Authority hereby certifies:

**NAME OF ORGANISATION
ADDRESS OF ORGANISATION**

As YCAR 147 maintenance training organisation approved to provide training and conduct examinations listed in the attached approval and issue related certificates of recognition to students.

1. This approval is limited to that specified in the scope of approval section of the YCAR 147 approved maintenance training organisation exposition, and
2. This approval requires compliance with the procedures specified in the YCAR 147 approved maintenance training organisation exposition ref. no: Yemen YCAR 147/XX/XXXX (latest revision), and
3. This approval is valid whilst the YCAR 147 approved maintenance training organisation remains in compliance with YCAR 147, and
4. Subject to compliance with the foregoing conditions, this approval shall remain valid until **dd/mm/yyyy** unless the approval has previously been surrendered, superseded, suspended or revoked.

Date of original issue:dd/mm/yy

Date of reissue: dd/mm/yyyy

For the Civil Aviation and Met. Authority

Signed:

TRAINING/EXAMINATION APPROVAL SCHEDULE

Organisation:

Approval Reference: Yemen YCAR 147/XX/XXXX

CLASS	LICENCE CATEGORY	LIMITATION	
BASIC	B1	TB1.1 TB1.2 TB1.3 TB1.4	AEROPLANES TURBINE AEROPLANES PISTON HELICOPTERS TURBINE HELICOPTERS PISTON
	B2	TB2	AVIONICS
	B3	TB3	PISTON ENGINE NON-PRESSURISED AEROPLANES 2000KG MTOM AND BELOW
	A	TA1 TA2 TA3 TA4	AEROPLANES TURBINE AEROPLANES PISTON HELICOPTERS TURBINE HELICOPTERS PISTON
TYPE/TASK	C	T4	[QUOTE AIRCRAFT TYPE]
	B1	T1	[QUOTE AIRCRAFT TYPE]
	B2	T2	[QUOTE AIRCRAFT TYPE]
	A	T3	[QUOTE AIRCRAFT TYPE]

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

Date of original issue: dd/mm/yyyy

Date of reissue: dd/mm/yyyy

For the Civil Aviation and Met. Authority

Signed:

APPENDIX V TO AMC 147.105 (f)

GUIDELINES FOR QUALIFYING YCAR 147 INSTRUCTORS, KNOWLEDGE EXAMINERS, PRACTICAL ASSESSORS AND 145 PRACTICAL ASSESSORS

PURPOSE

The objective of this appendix is to provide guidance to all Yemen YCAR 147 and YCAR 145 organisations for initial assessment for qualifications/ authorisation of knowledge instructors, knowledge examiners and practical assessors and also provides guidance for renewal of such authorisations.

ENGINEERING INSTRUCTORS REQUIREMENTS

General

- (a) All instructors employed in a YCAR 147 approved maintenance training organisation should have completed an Instructional Techniques training with a reputable training provider and should be able to demonstrate thorough understanding of YCAR 147, YCAR 66, company's MTOE and related internal training procedures.
- (b) All instructors, knowledge examiners and practical assessors employed by the organisation should be listed in Part 1.5 of the company's MTOE and should be in possession of valid document that clearly indicates the scopes and limitations of their approvals/qualifications issued in accordance with the approved MTOE.
- (c) Record for all instructors, knowledge examiners and practical assessors must be maintained in accordance with YCAR 147.110.
- (d) All instructors, knowledge examiners and practical assessors may hold other positions within the training organisation. All such roles should be identified against the holders at appropriate places within the MTOE.
- (e) If an instructor has not been involved in any instructional activity for a period of two (02) years, he/she is required to undergo the 35 hours updating training as described in the following paragraphs, complete a number of sit ins and be assessed as competent in accordance with approved procedures of the organisation.

Type Training Instructors

(a) The criteria for qualifying/authorising a type training instructor must either be:

- (1) Hold an aircraft maintenance engineer's license endorsed with the type of aircraft relevant to the type course to be taught and should have completed an instructional techniques course (No previous aircraft type instructional experience).

The instructor should deliver his/her first lecture of the relevant type course (or the appropriate subject if his/her intended scope is to be limited to that subject only) in presence of another qualified instructor as observer. It is not mandatory that observation is made over the entire period of a type course or by a single observer; it may be done on a representative sampling basis by various persons having the appropriate qualification. Observer should raise an evaluation report for each topic/subject area and should clearly make recommendation whether the instructor's performance is satisfactory to independently conduct the training or highlight the areas where more training/development is needed if otherwise. After receiving satisfactory evaluation report from the observer(s), the appropriate post-holder may issue authorisation with appropriate scopes and limitations to the instructor in accordance with the approved MTOE procedure.

OR

- (2) Hold an aeronautical/electrical or mechanical engineering degree and formally completed a formal instructional technique course.

In such a case, the prospective instructor should successfully complete a type course relevant to the category taught. He/she should attend at least two "sit-Ins" lessons in the type training to be delivered by him/her. The instructor should deliver his/her first lecture of the relevant type course (or the appropriate subject if his/her intended scope is to be limited to that subject only) in presence of another qualified instructor as observer. It is not mandatory that observation is made over the entire period of a type course or by a single observer; it may be done on a representative sampling basis by various persons having the appropriate qualification. Observer should raise an evaluation report for each topic/subject area and should clearly make recommendation whether the instructor's performance is satisfactory to independently conduct the training or highlight the areas where more training/development is needed if otherwise. After receiving satisfactory evaluation report from the observer(s), the appropriate post-holder may issue authorisation with appropriate scopes and limitations to the instructor in accordance with the approved MTOE procedure.

OR

- (3) Instructors with acceptable and verifiable previous experience commensurate with the intended scopes of type trainings may be granted authorisation in accordance with approved procedures if they have completed the appropriate type trainings and can demonstrate knowledge of YCAR 66, YCAR 147, MTOE, relevant company procedures and formally completed a formal instructional technique course.
- (b) All instructors are required to undergo updating training every two years. The updating training should cumulatively consist of at least 35 hours and may be spread over the two years period. Such trainings can take form of attending lectures, seminars, symposia etc and should include activities related to awareness of latest training techniques, specific technical upgrade/variation to the aircraft. Record of each activity of the updating training should be maintained for each instructor, knowledge examiner and practical assessor in the organisation with clearly stated dates and venues where the training was conducted.

Basic Skill Instructor

- (a) The criteria for qualifying/authorising a basic skills instructor must be either be:
 - (1) Applicant should hold appropriate YCAR 66 aircraft maintenance license OR hold an aeronautical/electrical or mechanical engineering degree and formally completed a formal instructional technique course.

The prospective instructor should attend training on relevant YCAR 66 modules to be taught by him/her. He/she should attend at least two “sit-ins” lessons in the relevant module training to be delivered by him/her. The prospective instructor should then deliver his/her first lecture of the relevant module in presence of another qualified instructor as observer. It is not mandatory that observation is made over the entire period of a module or by a single observer; it may be done on a representative sampling basis by various persons having the appropriate qualification. Observer should raise an evaluation report for each topic/subject area and should clearly make recommendation whether the instructor’s performance is satisfactory to independently conduct the training or highlight the areas where more training/development is needed if unsatisfactory. After receiving satisfactory evaluation report from the observer(s), the appropriate post-holder may issue authorisation with appropriate scopes and limitations to the instructor in accordance with the approved MTOE procedure.

OR

- (2) Instructors with acceptable verifiable previous experience commensurate with the intended scopes of basic trainings may be granted authorisation in accordance with approved procedures.

OR

- (3) For instructors involved with teaching of only Module 1 and Module 2, an academic teaching qualification relevant to the modules being taught is acceptable. Such instructors may be granted authorisation in accordance with approved procedures if they have completed the appropriate relevant trainings and can demonstrate knowledge of YCAR 66, YCAR 147, MTOE and relevant company procedures.
- (b) All basic instructors are required to undergo updating training every two years. The updating training should cumulatively consist of at least 35 hours and may be spread over the two years period. Such trainings can take form of attending lectures, seminars, symposia and should include activities related to awareness of latest training techniques etc. Record of each activity of the updating training should be maintained for each instructor, knowledge examiner and practical assessor in the organisation with clearly stated dates and venues where the training was conducted.

KNOWLEDGE EXAMINER REQUIREMENTS

General

- (a) All knowledge examiners must demonstrate an understanding of YCAR 147 and YCAR 66 requirements and working knowledge of the organisation's MTOE and related procedures.
- (b) A knowledge examiner may also hold other positions within the training organisation like an instructor or a practical assessor. Such other roles must be clearly identified in the organisation MTOE and the multiple roles should not impose any kind of constraint on the capability of the holder to discharge his duties. Also knowledge examiner should not be involved in any activity related to examination for the subject area for which he/she was an instructor.

Qualification criteria for knowledge examiner

- (a) Following is the criteria for qualifying a knowledge examiner. A knowledge examiner should comply with all of the following requirements before he/she can be approved/authorised as a knowledge examiner:
 - (1) He/she should be conversant with the aircraft basic/type course for which he/she is acting as knowledge examiner.
 - (2) Should have excellent understanding with YCAR 66 syllabus requirements regarding the level and number of questions for which being approved as knowledge examiner
 - (3) Should be able to compile both essay (for basic modules only) and multiple choice examination in the subject area and in case of essay examination, should be able to prepare model answer sheet detailing the marking guide.

- (4) Should realize that the purpose of the essay is to allow the examiner to determine if candidates can express themselves in a clear and concise manner in the form of a written response, in a technical report format using the technical language of the aviation industry. The essay examinations also allow assessing, in part, the technical knowledge retained by the individual and with a practical application relevant to a maintenance scenario.
- (5) Should be able to mark and analyze the students' responses and provide feedback to the instructor/subject matter experts/training manager regarding any inconsistencies with the examination results or process.

PRACTICAL ASSESSOR REQUIREMENTS

General

- (a) It is a requirement that all practical experience submitted to CAMA for the purpose of licence issue or type rating endorsement be verified by an approved practical assessor. An approved practical assessor assumes the role of a CAMA designated examiner for assessment of the practical competency of a candidate for issue/endorsement of a licence.
- (b) Individual tasks in On Job Training (OJT) logbook or type experience schedule of inspections can be signed/verified by any appropriately qualified person and need not be verified by an approved assessor. However, the role of the approved assessor is to assess the holder on the tasks listed in the logbook/schedule and recommend the applicant for issue of license/rating if found competent in the required skills.
- (c) YCAR 147 and/or YCAR 145 organisations should establish a procedure to qualify and approve practical assessors in the organisation MTOE/MOE.
- (d) Practical assessor approvals issued by CAMA prior to the date of this issue of the regulation shall continue to be valid until the organisations reissue the existing CAMA practical assessor approvals in accordance with the approved procedure as required by paragraph (c) above. The practical assessor approvals issued by the organisations shall replace the existing CAMA practical assessor approvals. In order to give the organisations sufficient time to establish a procedure for qualifying and approving the practical assessor. After this date all existing CAMA practical assessor and new practical assessor approvals shall be issued by the organisations as per the organisation's approved procedure.
- (e) A practical assessor may hold other positions within the training organisation like an instructor or a certifying staff. Such other roles must be clearly identified in the organisation MTOE/MOE and the multiple roles should not impose any kind of constraint on the capability of the holder to discharge his duties.

[Qualification criteria for practical assessor]

Following is the eligibility criteria for applying to CAMA for approval as a practical assessor.

1. Be proficient and have sufficient experience or knowledge in:
 - a. Human performance and safety culture;
 - b. The aircraft type (necessary to have the certifying staff privileges in case of CRS issues);
 - c. Training/coaching/testing skills (practical assessor course);
 - d. Instructional tools to use;
2. Understand the objective and the content of the practical elements of the training that is being assessed;
3. Have interpersonal skills to manage the assessment process (professionalism, sincerity, objectivity and neutrality, analysis skills, sense of judgment, flexibility, capability of evaluating the supervisor's or instructor's reports, handling of trainee's reactions to failing assessment with the cultural environment, being constructive, etc.);
4. Be ultimately designated by the organisation to carry out the assessment.

The roles may be combined for:

- the assessor and the instructor for the practical elements of the Type Rating Training;
- or
- the assessor and the supervisor for the On-the-Job Training

provided that the objectives associated with each role are clearly understood and that the competence and qualification criteria according to the company's procedures are met for both functions. Whenever possible (depending on the size of the organisation), it is recommended to split the roles (two different persons) in order to avoid any conflicts of interests.

When the functions are not combined, the role of each function should be clearly understood.

NPA COMMENT-RESPONSE TOOL (CRT)

CRT Terms of use

NPA 04-2020 RESPONSE SHEET

Please return this response sheet by E-mail: legislation.dir@cama.gov.ye and cc: civilaviation@y.net.ye Please indicate your acceptance or otherwise of the proposal by ticking [✓] the appropriate box below. Any additional constructive comments, suggested amendments or alternative action will be welcome and may be provided on this response sheet or by separate correspondence.

[] The proposals are ***acceptable without change.***

[] The proposals are ***acceptable but would be improved if the following changes were made:*** (Please provide explanatory comment).

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[] The proposals are ***not acceptable but would be acceptable if the following changes were made:*** (Please provide explanatory comment).

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[] The proposals are ***not acceptable under any circumstances.*** (Please provide explanatory comment).

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Name.....Orgnaisation:.....

Address/Contact No:.....

Signed: Date: