



Thailand Civil Aviation Regulation - Personnel Licensing
Acceptable Means of Compliance and
Guidance Material to TCAR PEL Part - 147
(AMC/GM to TCAR PEL Part - 147)

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Approved By

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Director General

The Civil Aviation Authority of Thailand

THAILAND CIVIL AVIATION REGULATION (TCAR)

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RECORD OF REVISIONS

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INTRODUCTION AND APPLICABILITY

In this publication the word 'should' is used to indicate that the Organisation, Owner or Operator has a degree of latitude in adhering to the requirement, particularly where the nature of the operation - or proposed operation - affects their ability to achieve the necessary degree of compliance with the requirement; provided that an acceptable level of safety is achieved.

If the Organisation's/owner's/operator's response is deemed to be inadequate by the Director General, a specific requirement or restriction may be applied as a condition of the appropriate instrument to be issued under Thailand Civil Aviation Regulations. This publication includes associated means of compliance and interpretative material wherever possible and, unless specifically stated otherwise, clarification will be based on this material or other relevant CAAT documentation.

This TCAR PEL Part-147, AMC & GM is broadly based upon or derived from AMC & GM to European Union Regulation (EU) 1321/2014.

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Section A – Technical Requirements

Subpart A - General

GM to 147.A.10 General

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

AMC.147.A.15 Application

The application form should contain the information required in the CAAT Form 12.

Subpart B - Organisational Requirements

AMC.147.A.100(i) Facility requirements

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

GM to 147.A.100(i) Facility requirements

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

AMC 147.A.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 147.A.130(b) and an examination manager with the responsibility of managing the relevant Part-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 CAAT verifying and being satisfied that all functions can be properly carried out in combination.
- (3) When the organisation is also approved against other Parts which contain some similar functions then such functions may be combined.

AMC 147.A.105(b) Personnel requirements

With the exception of the accountable manager, an CAAT Form 4 should be completed for each person nominated to hold a position required by 147.A.105(b). An example of an CAAT Form 4 is included in Appendix II to AMC.

GM to 147.A.105(c) Personnel requirements

The maintenance training organisation should have a nucleus of permanently employed staff to undertake the minimum amount of maintenance training proposed but may contract, on a part-time basis, instructors for subjects which are only taught on an occasional basis.

AMC 147.A.105(f) Personnel requirements

Any person currently accepted by the Civil Aviation Authority of Thailand in accordance with the national aviation regulations in force prior to Part-147 coming into force may continue to be accepted in accordance with 147.A.105(f).

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

GM to 147.A.105(f) Personnel requirements

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

GM to 147.A.105(g) Personnel requirements

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

AMC 147.A.105(h) Personnel requirements

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

GM to 147.A.105(h) Personnel requirements

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

AMC 147.A.110 Records of instructors, examiners and assessors

- (1) The following minimum information relevant to the scope of activity should be kept on record in respect of each instructor, knowledge examiner and practical assessor:
 - (a) Name
 - (b) Date of Birth
 - (c) Personnel Number
 - (d) Experience
 - (e) Qualifications
 - (f) Training history (before entry)
 - (g) Subsequent Training
 - (h) Scope of activity
 - (i) Starting date of employment/contract
 - (j) If appropriate – ending date of employment/contract.
- (2) The record may be kept in any format but should be under the control of the organisations quality system.

- (3) Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records become accessible to unauthorised persons.
- (4) The Civil Aviation Authority of Thailand is an authorised person when investigating the records system for initial and continued approval or when the CAAT has cause to doubt the competence of a particular person.

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

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

GM to 147.A.115(a) Instructional equipment

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

AMC.147.A.115(c) Instructional equipment

1. An appropriate selection of aircraft parts means appropriate in relation to the particular subject module or sub-module of Part-66 being instructed. For example, the turbine engine module should require the provision of sufficient parts from different types of turbine engine to show what such parts look like, what the critical areas are from a maintenance viewpoint and to enable disassembly/assembly exercises to be completed.
2. Appropriate aircraft, engines, aircraft parts and avionic equipment means appropriate in relation to the particular subject module or sub-module of Part-66 being instructed. For example, category B2 avionic training should require amongst other equipment, access to at least one type of installed autopilot and flight director system such that maintenance and system functioning can be observed and therefore more fully understood by the student in the working environment.
3. 'Access' may be interpreted to mean, in conjunction with the facilities requirement of 147.A.100(d), that there may be an agreement with a maintenance organisation approved under Part-145 to access such parts, etc.

AMC 147.A.120(a) Maintenance training material

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

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

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

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

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

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

Table 1: Training tools

Table 2: Training methods

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

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

Table 1: Training tools

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

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

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

Table 2: Training methods

Training method	Description	Instructor centred (1)	Student centred (2)	Blended training (3)

Assisted learning (mentoring)	Assisted learning or mentorship represents an ongoing, close relationship of dialogue and learning between an experienced /knowledgeable instructor and a less experienced/knowledgeable student in order to develop experience/knowledge of students.	X	X	X
Computerbased training (CBT)	CBT is any interactive means of structured training using a computer to deliver a content. (Note: Not to be confused with competency-based training that also uses the acronym 'CBT')	X	X	X
Demonstration	A method of teaching by example rather than explanation.	X		X
Distance learning asynchronous	Distance learning reflects training situations in which instructors and students are physically separated. It is asynchronous if the teacher and the students do not interact at the same time.		X	X
Distance learning synchronous	Distance learning reflects training situations in which instructors and students are physically separated. It is synchronous if the teacher and the students interact at the same time (real time).	X		X
e-learning	Training via a network or electronic means, with or without the support of instructors (e-tutors).	X	X	X
Lecturing (instructorled/ face to face)	Practice of face-to-face delivery of training and learning material between an instructor and students, either individuals or groups.	X		X
Mobile learning (M-learning)	Any sort of learning that happens when the student is not at a fixed, predetermined location, using mobile technologies.	X	X	X
Multimedia-based training(4)	Any combined use of different training media.	X	X	X
Simulation	Any type of training that uses a simulator imitating a real-world process or system.	X	X	X
Web-based training (WBT)	Generic term for training or instruction delivered over the internet or an intranet using a web browser.	X	X	X

Note: The purpose of this table is to provide a short definition for each associated training method and to relate each method to the focus of the learning. It is not meant to comprehensively explore and identify the capabilities of each training method herein included.(1) 'Instructor-centred' means that the instructor is responsible for teaching the student.(2) 'Student-centred' means that the student is responsible for the learning progress.(3) 'Blended training' includes different instructional methods and tools, different delivery methods, different scheduling (synchronous/asynchronous) or different levels of guidance. Blended training allows the integration of a range of learning opportunities.(4) 'Multimedia-based training' by definition uses

various media to achieve its objective, thus, none of the single media listed is per se a complete solution for training.

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

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

Table 3 Combination of training methods and tools and their use

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

Demonstration	1,2,3,5,6,7,8,9, 10,11,12,13,14, 15,16	X	X	X ⁽¹⁾	X	X ⁽¹⁾ Only type	X	X	X ⁽¹⁾ Only type
Simulation	1,3,4,6,7,8,9, 10,12,14, 15 ⁽¹⁾ , 16	X	X	X ⁽¹⁾	X		X	X	X Only type

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

(1) Limited suitability. It means that the respective training method may be used but with limited results, thus requiring the support of a complementary training method to fulfil the learning objectives. NOTE: Instructor (human) involvement should be considered in Basic Knowledge Modules 9A/9B.

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

1. The independent audit procedure should ensure that all aspects of Part-147 compliance should be checked at least once in every 12 months and may be carried out as one complete single exercise or subdivided over a 12-month period in accordance with a scheduled plan.
2. In a small maintenance training organisation the independent audit function may be contracted to another maintenance training organisation approved under Part-147 or a competent person acceptable to the competent authority. 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 Part requiring a quality system, then such quality systems may be combined.
4. When training or examination is carried out under the sub-contract control system:
 - (i) a pre audit procedure should be established whereby the Part-147 approved maintenance training organisation' should audit a prospective sub-contractor to determine whether the services of the sub-contractor meet the intent of Part-147.
 - (ii) a renewal audit of the subcontractor should be performed at least once every 12 months to ensure continuous compliance with the Part-147 standard.
 - (iii) 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 to 147.A.130(b) Training procedures and quality system

1. The primary objective of the quality system is to enable the training organisation to satisfy itself that it can deliver properly trained students and that the organisation remains in compliance with Part-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.

AMC 147.A.135 Examinations

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

GM to 147.A.135 Examinations

The Civil Aviation Authority of Thailand will determine when or if the disqualified examiner may be reinstated.

AMC 147.A.140 Maintenance training organisation exposition

1. A recommended format of the exposition is included in Appendix I.
2. When the maintenance training organisation is approved in accordance with any other Part which also requires an exposition, the exposition required by the other Part may form the basis of the maintenance training organisation exposition in a combined document, as long as the other exposition contains the information required by 147.A.140 and a cross reference index is included based upon Appendix I.
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 1 item 2.18 plus a list of sub-contractors as required by 147.A.140(a)12 and detailed in Appendix I item 1.7.

the interfaces with the airframe are addressed and by whom (the subcontracted organisation or the Part-147 organisation itself).

AMC 147.A.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 an 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 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 licence.

Subpart C - The Approved Basic Training Course

AMC 147.A.200(b) The approved basic training course

Each licence category or subcategory basic training course may be subdivided into modules or sub-modules of knowledge and may be intermixed with the practical training elements subject to the required time elements of 147.A.200(f) and (g) being satisfied.

AMC 147.A.200(d) The approved basic training course

1. Where the maintenance training organisation approved under Part-147 contracts the practical training element either totally or in part to another organisation in accordance with 147.A.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 out in an actual maintenance working environment.

AMC 147.A.200(f) The approved basic training course

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

AMC 147.A.200(g) The approved basic training course

Typical conversion durations are given below:

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

- (d) The approved basic training course to qualify for conversion from holding a Part-66 aircraft maintenance licence in one subcategory A to another subcategory A should not be less than 70 hours and should include between 30% and 40% knowledge training.

AMC 147.A.210(a) Basic practical assessment

Where the maintenance training organisation approved under Part-147 contracts the practical training element either totally or in part to another organisation in accordance with 147.A.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.A.210(b) Basic practical assessment

An assessed pass for each student should be granted when the practical assessor is satisfied that the student meets the criteria of 147.A.200(e). This means that the student has demonstrated the capability to use relevant tools/equipment/test equipment as specified by the tool/equipment/test equipment manufacturer and the use of maintenance manuals in that the student can carry out the required inspection/testing without missing any defects, can readily identify the location of components and is capable of correct removal/fitment/adjustment of such components. The student is only required to carry out enough inspection/testing and component removal/fitment/adjustments to prove capability. The student should also show an appreciation of the need to ensure clean working conditions and the observance of safety precautions for the student and the product. In addition, the student should demonstrate a responsible attitude in respect to flight safety and airworthiness of the aircraft.

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

Subpart D - Aircraft Type/Task Training

AMC 147.A.300 Aircraft type/task training

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

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

APPENDICES TO AMCS TO ANNEX IV (PART-147)

Appendix I – Maintenance training organisation exposition (MTOE)

- (1) The following subject headings form the basis of the MTOE required by 147.A.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 material may be produced as separate detailed manuals subject to the main exposition containing the Part 2, 3 and 4 fundamental principles and policy on each item. It is then permitted to delegate the approval of these separate manuals to the senior person but this fact and the procedure should be specified in paragraph 1.10.
- (4) Where an organisation is approved in accordance with any other Part(s) which require an exposition, it is acceptable to combine the exposition requirements by merging the Part 1 items and adding the Parts 2, 3 and 4. When this method is used, it is essential to include the cross-reference index of Part 4 item 4.3.

PART 1 – MANAGEMENT

- 1.1 Corporate commitment by accountable manager
- 1.2 Management personnel
- 1.3 Duties and responsibilities of management personnel, instructors, knowledge examiners and practical assessor
- 1.4 Management personnel organisation chart
- 1.5 List of instructional and examination staff Note: A separate document may be referenced
- 1.6 List of approved addresses
- 1.7 List of sub-contractors as per 147.A.145(d)
- 1.8 General description of facilities at paragraph 1.6 addresses
- 1.9 Specific list of courses and type examinations approved by the Civil Aviation Authority of Thailand.
- 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 theoretical training & practical training (during basic knowledge training and type/task training)
- 2.6 Records of training carried out

- 2.7 Storage of training records
- 2.8 Training at locations not listed in paragraph 1.6
- 2.9 Organisation of examinations
- 2.10 Security and preparation of examination material
- 2.11 Preparation of examination rooms
- 2.12 Conduct of examinations (basic knowledge examinations, type/task training examinations and type examinations)
- 2.13 Conduct of practical assessments (during basic knowledge training and type/task training)
- 2.14 Marking and record of examinations
- 2.15 Storage of examination records
- 2.16 Examinations at locations not listed in paragraph 1.6
- 2.17 Preparation, control & issue of basic training course certificates
- 2.18 Control of sub-contractors

PART 3 – TRAINING SYSTEM QUALITY PROCEDURES

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

PART 4 – APPENDICES

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

Appendix II – CAAT Form 4

[Civil Aviation Authority of Thailand]

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

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

CAAT use only

Name and signature of authorised CAAT staff member accepting this person:

Signature: Date:

Name: Office:

CAAT Form 4

Appendix III –CAAT Form 22

PART 147 APPROVAL RECOMMENDATION REPORT CAAT FORM 22	
Part 1: General	
Name of organisation: Approval reference:	
Requested approval rating/	
Other approvals held (if app.)	
Address of facility audited:	
Audit period: from	to :
Date(s) of audit(s):	
Audit reference(s):	
Persons interviewed:	
CAAT Audit Staff:	Signature(s):
CAAT office:	Date of CAAT Form 22 part 1 completion:

PART-147 APPROVAL RECOMMENDATION REPORT CAAT FORM 22

Part 2: Part-147 Compliance Audit Review

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

Para	Subject					
147.A.100	Facility requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.105	Personnel requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.110	Records or instructors, Examiners and assessors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.115	Instructional equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.120	Maintenance training material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.125	Records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.130	Training procedures and Quality system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.135	Examinations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.145	Privileges of the maintenance Training organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.150	Changes to the maintenance Training organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.160	Findings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.200	Approved basic training course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.205	Basin knowledge examinations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.210	Basic practical assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.300	Aircraft type/task training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
147.A.305	Aircraft type examinations and task assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CAAT audit staff Signature(s):

CAAT office:

Date of Form 22 part 2 completion:

PART-147 APPROVAL RECOMMENDATION REPORT CAAT FORM 22		
Part 3: Compliance with Part-147 maintenance training organisation exposition (MTOE)		
Please either tick (√) the box if satisfied with compliance; or cross (X) if not satisfied with compliance and specify the reference of the Part 4 finding or enter N/A where an item is not applicable, or N/R when applicable but not reviewed.		
PART 1 MANAGEMENT		
1.1.	<input type="checkbox"/>	Corporate commitment by accountable Manager
1.2.	<input type="checkbox"/>	Management personnel
1.3.	<input type="checkbox"/>	Duties and responsibilities of management personnel, instructors, knowledge examiners and practical assessor
1.4.	<input type="checkbox"/>	Management personnel organisation chart
1.5.	<input type="checkbox"/>	List of instructional and examination staff
1.6.	<input type="checkbox"/>	List of approved addresses
1.7.	<input type="checkbox"/>	List of sub-contractors as per 147.A.145(d)
1.8.	<input type="checkbox"/>	General description of facilities of paragraph 1.6 addresses
1.9.	<input type="checkbox"/>	Specific list of courses and type examinations approved by CAAT
1.10.	<input type="checkbox"/>	Exposition and associated manuals amendment procedures
PART 2 TRAINING AND EXAMINATION PROCEDURES		
2.1	<input type="checkbox"/>	Organisation of courses
2.2	<input type="checkbox"/>	Preparation of course material
2.3	<input type="checkbox"/>	Preparation of classrooms and equipment
2.4	<input type="checkbox"/>	Preparation of workshops/maintenance facilities and equipment
2.5	<input type="checkbox"/>	Conduct of theoretical training & practical training (during basic knowledge training) and type/task training)
2.6	<input type="checkbox"/>	Records of training carried out
2.7	<input type="checkbox"/>	Storage of training records
2.8	<input type="checkbox"/>	Training at locations not listed in paragraph 1.6
2.9	<input type="checkbox"/>	Organisation of examinations
2.10	<input type="checkbox"/>	Security and preparation of examination material
2.11	<input type="checkbox"/>	Preparation of examination rooms
2.12	<input type="checkbox"/>	Conduct of examinations (basic knowledge examinations, type/task training examinations and type examinations)

2.13		Conduct of practical assessments (during basic knowledge training and type/task training)
2.14		Marking and record of examinations
2.15		Storage of examinations
2.16		Examinations at location not listed in paragraph 1.6
2.17		Preparation, control & issue of basic training course certificates
2.18		Control of sub-contractors
PART 3 TRAINING SYSTEM QUALITY PROCEDURES		
3.1		Audit of training
3.2		Audit of examinations
3.3		Analysis of examination results
3.4		Audit and analysis remedial action
3.5		Accountable manager annual review
3.6		Qualifying the instructors
3.7		Qualifying the examiners and the assessors
3.8		Control of sub-contractors
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
<p>MTOE reference MTOE amendment</p> <p>CAAT audit staff: Signature(s)</p> <p>CAAT office: Date of CAAT Form 22 Part 3 completion</p>		

PART-147 APPROVAL RECOMMENDATION REPORT CAAT FORM 22					
Part 4: Findings regarding Part-147 compliance status					
Each level 1 and 2 finding should be recorded whether it has been rectified or not and should be identified by a simple cross reference to the Part 2 requirement. All non-rectified findings should be copied in writing to the organisation for the necessary corrective action.					
Part 2 or 3 ref.	Audit reference(s): Findings	L e v e l	Corrective action		
			Date Due	Date Closed	Reference

PART-147 APPROVAL RECOMMENDATION REPORT CAAT FORM 22

Part 5: Part147 approval or continued approval or change recommendation

Name of organisation:

Approval reference:

Audit reference(s):

Applicable Part-147 amendment status:

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

Or, it is recommended that the Part-147 scope of approval referenced
 be continued.

Name of recommending CAAT audit staff: Signature of recommending CAAT audit staff: CAAT office:

Date of recommendation:

CAAT Form 22 review (quality check) : Date:

Appendix IV – CAAT Form 12

CAAT FORM 12 Page 1	APPLICATION FOR PART-147 INITIAL / CHANGE OF APPROVAL
<p>Registered Name & Address of Applicant:</p> <p>Trading Name (if different): Addresses Requiring Approval:</p> <p>Tel No:.....Fax No.....E Mail.....</p>	
<p>Scope of Part-147 Approval Relevant to This Initial */ Change of * Application (See other side for training course designators to be used):</p> <p>Basic Training:</p> <p>Type Training:</p> <p>Does the organisation hold approval under Part-21 * / Part-145 * / Part-M *</p> <p>* Cross out whichever is not applicable</p>	
Name & Position of Accountable Manager: Signature of Accountable Manager: Date of Application: Please send this form with any required fee to be paid	Space for official use

(*) Delete as appropriate