



Thailand Civil Aviation Regulation – Airworthiness  
Part Continuing Airworthiness  
(TCAR AIR Part - M)

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Approved by

Suttipong Kongpool

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

This requirement establishes common technical requirements to ensure the continuing airworthiness of aircraft, including any component for installation thereto, which are registered in Kingdom of Thailand and have a standard certificate of airworthiness.

The continuing airworthiness of all following aircraft and components for installation thereon shall be ensured to be in accordance with the requirements of TCAR AIR Part-M

- a) aircraft listed in AOC in accordance with TCAR OPS
- b) complex motor-powered aircraft
- c) aeroplanes of maximum take-off mass more than 2,730 kg.
- d) rotorcraft of maximum take-off mass more than 1,200 kg. or certified for a maximum of more than 4 occupants.

Aircraft other than a) to d), TCAR AIR Part-ML shall apply.

In this requirement the word 'shall' is used to indicate where the Director General expects the person or organisation to respond and adhere closely to the defined requirement.

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## DEFINITIONS

- (a) **“Complex motor-powered aircraft”** shall mean:
- (i) an aeroplane:
    - with a maximum certificated take-off mass exceeding 5,700 kg, or
    - certificated for a maximum passenger seating configuration of more than nineteen, or
    - certificated for operation with a minimum crew of at least two pilots, or
    - equipped with one or more turbojet engines or more than one turboprop engine
  - (ii) a helicopter certificated:
    - for a maximum take-off mass exceeding 3,175 kg, or
    - for a maximum passenger seating configuration of more than nine, or
    - for operation with a minimum crew of at least two pilots
  - (ii) a tilt rotor aircraft;
- (b) **‘LA1 aircraft’** shall mean the following manned Light Aircraft:
- (i) an aeroplane with a maximum take-off mass (MTOM) of 1,200 kg or less that is not classified as a Complex aircraft;
  - (ii) a sailplane or powered sailplane of 1,200 kg MTOM or less;
  - (iii) a balloon with a maximum design lifting gas or hot air volume of not more than 3,400 m<sup>3</sup> for hot air balloons, 1,050 m<sup>3</sup> for gas balloons, 300 m<sup>3</sup> for tethered gas balloons;
  - (iv) an airship designed for not more than four occupants and a maximum design lifting gas or hot air volume of not more than 3,400 m<sup>3</sup> for hot air airships and 1,000 m<sup>3</sup> for gas airships;
- (c) **‘LA2 aircraft’** shall mean the following manned Light Aircraft:
- (i) an aeroplane with a Maximum Take-off Mass (MTOM) of 2,000 kg or less that is not classified as a Complex aircraft;
  - (ii) a sailplane or powered sailplane of 2,000 kg MTOM or less;
  - (iii) a balloon;
  - (iv) a hot airship;
  - (v) a gas airship complying with all of the following characteristics:
    - 3 % maximum static heaviness,
    - non-vector thrust (except reverse thrust),
    - conventional and simple design of structure, control system and ballonnet system,
    - non-power assisted controls.
- (d) - Reserved -
- (e) **‘limited operations’** means the operations of other-than-complex aircraft for:
- (i) cost-shared flights by private individuals, on the condition that the direct cost is shared by all the occupants of the aircraft, pilot included and the number of persons sharing the direct costs is limited to six;

- (ii) competition flights or flying displays, on the condition that the remuneration or any valuable consideration given for such flights is limited to recovery of direct costs and a proportionate contribution to annual costs;
- (iii) introductory flights, parachute dropping, sailplane towing or aerobatic flights performed either by a training organisation, or by an organisation created with the aim of promoting aerial sport or leisure aviation, on the condition that the aircraft is operated by the organisation on the basis of ownership or dry lease, that the flight does not generate profits distributed outside of the organisation, and that whenever non-members of the organisation are involved, such flights represent only a marginal activity of the organisation.

For the purpose of this Regulation, 'limited operations' are not considered as CAT operations or commercial specialised operations;

- (f) '**independent certifying staff**' means certifying staff who do not work on behalf of an approved maintenance organisation and who comply with the requirements of TCAR PEL Part-66;
- (g) '**maintenance organisation**' means an organisation holding an approval issued in accordance with, either:
  - (i) TCAR AIR Part-145; or
  - (ii) TCAR AIR Part-CAO.
- (h) '**owner**' means the person responsible for the continuing airworthiness of the aircraft, including:
  - (i) Thai registered owner of the aircraft;
  - (ii) the lessee in the case of a leasing contract;
  - (iii) the operator.
- (i) '**Airworthy**' means the status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for **safe operation**.
- (j) '**Continuing airworthiness**' means the set of processes by which all aircraft comply with the applicable **airworthiness requirements** and remain in a condition for safe operation throughout their operating life.

## ABBREVIATION

ALI	Airworthiness Limitation Items
AMP	Aircraft Maintenance Programme
AOC	Air Operator Certificate
ATO	Aircraft Training Organisation
CAAT	The Civil Aviation
CAMO	Continuing Airworthiness Management Organisation
CAO	Combined Airworthiness Management Organisation
MTOM	Maximum take-off mass
NDT	Non-Destructive Testing
PIC	Pilot in Command
TCAR	Thailand Civil Aviation Regulation
TSO	Technical Standard Order

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## **TCAR AIR PART-M** **SUBPART A — GENERAL**

### **M.A.101 Scope**

This part establishes the measures to be taken to ensure that the airworthiness of the aircraft is maintained, including its maintenance. It also specifies the conditions to be met by the persons or organisations involved in such activities.

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## **SUBPART B — ACCOUNTABILITY**

### **M.A. 201 Responsibilities**

- (a) The owner is responsible for the continuing airworthiness of an aircraft and shall ensure that no flight takes place unless:
- (1) the aircraft is maintained in an airworthy condition, and;
  - (2) any operational and emergency equipment fitted is correctly installed and serviceable or clearly identified as unserviceable, and;
  - (3) the airworthiness certificate remains valid, and;
  - (4) the maintenance of aircraft is performed in accordance with the maintenance programme as specified in point M.A.302.
- (b) When the aircraft is leased, the responsibilities of the owner are transferred to the lessee if:
- (1) the lessee is specified on the registration document; or
  - (2) detailed in the leasing contract.
- When reference is made in this Part to the 'owner', the term owner covers the owner or the lessee, as applicable.
- (c) Any person or organisation performing maintenance shall be responsible for the tasks performed.
- (d) The PIC or, in the case of an AOC holder in accordance with TCAR OPS, the operator shall be responsible for the satisfactory accomplishment of the pre-flight inspection. This inspection must be carried out by the pilot or another qualified person but not need to be carried out by an approved maintenance organisation or by TCAR PEL Part-66 certifying staff.
- (e) In the case of aircraft used by an AOC holder in accordance with TCAR OPS, the operator is responsible for the continuing airworthiness of the aircraft it operates and shall:
- (1) ensure that no flight takes place unless the conditions defined in point (a) are met;
  - (2) be approved, as part of its AOC, as a continuing airworthiness management organisation pursuant to TCAR AIR Part-CAMO for the aircraft it operates; and
  - (3) be approved in accordance with TCAR AIR Part-145 or establish a contract in accordance with CAMO.A.315(c) of TCAR AIR Part-CAMO with an organisation approved in accordance with TCAR AIR Part-145.
- (f) For complex motor-powered aircraft used for commercial specialised operations, the operator shall ensure that:
- (1) no flight takes place unless the conditions defined in paragraph (a) are met;
  - (2) the tasks associated with continuing airworthiness are performed by an approved CAMO. When the operator is not Part-CAMO approved itself then the operator shall establish a written contract in accordance with Appendix I with an organisation approved in accordance with TCAR AIR Part-CAMO;
  - (3) the CAMO referred to in (2) is approved in accordance with TCAR AIR Part-145 for the maintenance of the aircraft and components for installation thereon, or it has established a written contract in accordance with CAMO.A.315(c) with an organisation approved in accordance with TCAR AIR Part-145.
- (g) For complex motor-powered aircraft not included in point (e) or point (f), the owner shall ensure that:
- (1) no flight takes place unless the conditions defined in paragraph (a) are met;

- (2) the tasks associated with continuing airworthiness are performed by an approved CAMO. When the owner is not Part-CAMO approved itself then the owner shall establish a written contract in accordance with Appendix I with an organisation approved in accordance with TCAR AIR Part-CAMO;
  - (3) the CAMO referred to in (2) is approved in accordance with TCAR AIR Part-145 for the maintenance of the aircraft and components for installation thereon, or it has established a written contract in accordance with CAMO.A.315(c) with an organisation approved in accordance with TCAR AIR Part-145.
- (h) For non-complex motor-powered aircraft used for commercial specialised operations in accordance with TCAR OPS, the operator shall ensure that:
- (1) no flight takes place unless the conditions defined in point (a) are met;
  - (2) the tasks associated with continuing airworthiness are performed by an approved CAMO or CAO. When the operator is not TCAR AIR Part-CAMO or TCAR AIR Part-CAO approved itself then the operator shall establish a written contract in accordance with Appendix I with an organisation approved in accordance with TCAR AIR Part-CAMO or in accordance with TCAR AIR Part-CAO, and
  - (3) the CAMO or CAO referred to in point (2) is approved in accordance with Part-145 or as a CAO with maintenance privileges, or that CAMO has concluded a written contract in accordance with point CAMO.A.315(c) of TCAR AIR Part-CAMO with organisations approved in accordance with TCAR AIR Part-145 or in accordance with TCAR AIR Part-CAO with maintenance privileges.
- (i) For aircraft other than complex motor-powered aircraft not included in point (e) or (h), or used for 'limited operations', the owner is responsible for ensuring that no flight takes place unless the conditions defined in point (a) are met. To that end, the owner shall:
- (1) attribute the continuing airworthiness tasks referred to in point M.A.301 to a CAMO or CAO through a written contract concluded in accordance with Appendix I; or
  - (2) carry out those tasks by themselves; or
  - (3) carry out those tasks by themselves except the tasks of the development of and the processing of the approval of the AMP, only if those tasks are performed by a CAMO or CAO through a limited contract concluded in accordance with point M.A.302.
- (j) The owner/operator shall ensure that any person authorised by CAAT is granted access to any of its facilities, aircraft or documents related to its activities, including any subcontracted activities, to determine compliance with this Part.
- (k) -Reserved-

## M.A. 202 Occurrence reporting

- (a) Without prejudice to the reporting requirements set out in TCAR AIR Part-145 and Part-CAMO, any person or organisation responsible in accordance with point M.A.201 shall report any identified condition of an aircraft or component which endangers flight safety to
  - (1) CAAT and state of operator, when the aircraft is operated under another authority.
  - (2) the organisation responsible for the type design or supplemental type design.
- (b) The reports referred to in point (a) shall be made in accordance with Reporting of Civil Aviation Occurrences (CAAT Requirement No.22) and shall contain all pertinent information about the condition known to the person or organisation making the report.
- (c) Where the maintenance or the airworthiness review of the aircraft is carried out on the basis of a written contract, the person or the organisation responsible for those activities shall also report any condition referred to in point (a) to the owner and the operator of the aircraft and, when different, to the CAMO or CAO concerned.
- (d) The person or organisation shall submit the reports referred to in points (a) and (c) as soon as possible, but no later than 72 hours from the moment when the person or organisation identified the condition to which the report relates, unless exceptional circumstances prevent this.
- (e) The person or organisation shall submit a follow-up report, providing details of actions which that person or organisation intends to take to prevent similar occurrences in the future, as soon as those actions have been identified. The follow-up report shall be submitted in accordance with Reporting of Civil Aviation Occurrences (CAAT Requirement No.22).

## **SUBPART C — CONTINUING AIRWORTHINESS**

### **M.A. 301 Continuing airworthiness tasks**

The aircraft continuing airworthiness and the serviceability of both operational and emergency equipment shall be ensured by:

- (a) the accomplishment of pre-flight inspections;
- (b) the rectification in accordance with data specified in point M.A.304 and point M.A.401, as applicable, of any defect and damage affecting safe operation taking into account the minimum equipment list (MEL) and configuration deviation list, when applicable;
- (c) the accomplishment of all maintenance, in accordance with the aircraft maintenance programme referred to in point M.A.302;
- (d) the release of all maintenance in accordance with TCAR AIR Part-M Subpart H;
- (e) for all complex motor-powered aircraft or aircraft used by an AOC holder in accordance with TCAR OPS, the analysis of the effectiveness of the aircraft maintenance programme referred to in point M.A.302;
- (f) the accomplishment of any applicable:
  - (1) Airworthiness Directives;
  - (2) operational directive with a continuing airworthiness impact;
  - (3) continued airworthiness requirement established by CAAT;
  - (4) measures mandated by CAAT in immediate reaction to a safety problem;
- (g) the accomplishment of modifications and repairs in accordance with point M.A.304;
- (h) delivering to the pilot-in-command, or to the operator in the case of an AOC holder in accordance with TCAR OPS, the mass and balance statement, which reflects the current configuration of the aircraft;
- (i) maintenance check flights when necessary.

### **M.A. 302 Aircraft Maintenance Programme**

- (a) Maintenance of each aircraft shall be organised in accordance with an aircraft maintenance programme (AMP).
- (b) The AMP and any subsequent amendments shall be approved by CAAT.
- (c) When the continuing airworthiness of the aircraft is managed by a CAMO or CAO, or when there is a limited contract between the owner and this organisation in accordance with point M.A.201(i)(3), the AMP and its amendments may be approved through an indirect approval procedure.

In that case, the indirect approval procedure shall be established by the CAMO or CAO concerned as part of the continuing airworthiness management exposition ('CAME') referred to in point CAMO.A.300 of TCAR AIR Part-CAMO, or as part of the combined airworthiness exposition ('CAE') referred to in point CAO.A.025 of TCAR AIR Part-CAO and shall be approved by CAAT.

- (d) The AMP must establish compliance with:
  - (1) Instructions issued by CAAT;
  - (2) instructions for continuing airworthiness
    - (I) issued by the holders of the Type Certificate, restricted Type Certificate, Supplemental Type Certificate, major repair design approval, TSO authorisation or any other relevant

- approval acceptable to CAAT under TCAR AIR Part-21
- (II) included in the standard changes or repairs referred to in TCAR AIR Part-21, if applicable;
- (3) - reserved -
- (e) The owner or the organisation managing the continuing airworthiness of the aircraft may deviate from the instruction referred to in point (d)(2) and propose escalated intervals in the AMP, based on data obtained from sufficient reviews carried out in accordance with point (h). Indirect approval is not permitted for the escalation of safety-related tasks. The owner or the organisation managing the continuing airworthiness of the aircraft may also propose additional instructions in the AMP.
  - (f) The AMP shall contain details of all maintenance to be carried out, including frequency and any specific tasks linked to the type and specificity of operations.
  - (g) For complex motor-powered aircraft, when the AMP is based on maintenance steering group logic or on condition monitoring, the AMP shall include a reliability programme.
  - (h) The AMP shall be subject to periodic reviews and be amended accordingly when necessary. Those reviews shall ensure that the AMP continues to be up to date and valid in light of the operating experience and instructions from CAAT, while taking into account new or modified maintenance instructions issued by the Type Certificate and Supplemental Type Certificate holders and any other design organisation that publishes such data acceptable to CAAT under TCAR AIR Part-21

### M.A. 303 Airworthiness Directive

Any applicable Airworthiness Directive must be carried out within the requirements of that Airworthiness Directive, unless otherwise specified by CAAT.

### M.A. 304 Data for modifications and repairs

A person or organisation repairing an aircraft or a component shall assess any damage. Modifications and repairs shall be carried out using, as appropriate, the following data:

- (a) data approved by CAAT; or
- (b) data from a Type Certificate holder;
- (c) - reserved -

### M.A. 305 Aircraft continuing airworthiness record system

- (a) At the completion of any maintenance, the aircraft certificate of release to service ('CRS') required by point M.A.801 or point 145.A.50, as applicable, shall be entered in the aircraft continuing airworthiness record system, as soon as practicable and no later than 30 days after the completion of any maintenance.
- (b) The aircraft continuing airworthiness record system shall contain the following:
  1. the date of the entry, the total in-service life accumulated in the applicable parameter for aircraft, engine(s) and/or propeller(s);
  2. the aircraft continuing airworthiness records described in points (c) and (d) below together with the supporting detailed maintenance records described in point (e) below;
  3. if required by point M.A.306, the aircraft technical log.
- (c) The aircraft continuing airworthiness records shall include the current mass and balance report and the current status of:
  1. Airworthiness Directives and measures mandated by CAAT in immediate reaction to a safety problem;

2. modifications and repairs;
  3. compliance with the AMP;
  4. deferred maintenance tasks and deferred defects rectification.
- (d) The aircraft continuing airworthiness records shall include the current status specific to components of:
1. life-limited parts, including the life accumulated by each affected part in relation to the applicable airworthiness limitation parameter; and
  2. time-controlled components, including the life accumulated by the affected components in the applicable parameter, since the last accomplishment of scheduled maintenance, as specified in the AMP.
- (e) The owner or operator shall establish a system to keep the following documents and data in a form acceptable to CAAT and for the periods specified below:
1. aircraft technical log system: the technical log or other data equivalent in scope and detail, covering the 36 months period prior to the last entry,
  2. the CRS and detailed maintenance records:
    - (i) demonstrating compliance with Airworthiness Directives and measures mandated by CAAT in immediate reaction to a safety problem applicable to the aircraft, engine(s), propeller(s) and components fitted thereto, as appropriate, until such time as the information contained therein is superseded by new information equivalent in scope and detail but covering a period not shorter than 36 months;
    - (ii) demonstrating compliance with the applicable data in accordance with point M.A.304 for current modifications and repairs to the aircraft, engine(s), propeller(s) and any component subject to airworthiness limitations; and
    - (iii) of all scheduled maintenance or other maintenance required for continuing airworthiness of aircraft, engine(s), propeller(s), as appropriate, until such time as the information contained therein is superseded by new information equivalent in scope and detail but covering a period not shorter than 36 months.
  3. data specific to certain components:
    - (i) an in-service history record for each life-limited part based on which the current status of compliance with airworthiness limitations is determined;
    - (ii) the CRS and detailed maintenance records for the last accomplishment of any scheduled maintenance and any subsequent unscheduled maintenance of all life-limited parts and time-controlled components until the scheduled maintenance has been superseded by another scheduled maintenance of equivalent scope and detail but covering a period not shorter than 36 months;
    - (iii) the CRS and owner's acceptance statement for any component that is fitted to an LA2 aircraft without a CAAT Form 1 in accordance with point M.A.502(d) of this part but covering a period not shorter than 36 months.
  4. Record-keeping periods when the aircraft is permanently withdrawn from service:
    - (i) the data required by point (b)(1) of point M.A.305 in respect of aircraft, engine(s), and propeller(s) which shall be retained for at least 12 months;
    - (ii) the last effective status and reports as identified under points (c) and (d) of point M.A.305 which shall be retained for at least 12 months; and
    - (iii) the most recent CRS(s) and detailed maintenance records as identified under points (e)(2)(ii) and (e)(3)(i) of point M.A.305 which shall be retained for at least 12 months.

- (f) The person or organisation responsible for the management of continuing airworthiness tasks pursuant to point M.A.201 shall comply with the requirements regarding the aircraft continuing airworthiness record system and present the records to CAAT upon request.
- (g) All entries made in the aircraft continuing airworthiness record system shall be clear and accurate. When it is necessary to correct an entry, the correction shall be made in a manner that clearly shows the original entry.

### M.A. 306 Aircraft technical log system

- (a) In addition to the requirements of point M.A.305, for CAT, commercial specialised operations and ATO operation, the operator shall use a technical log system containing all the following information for each aircraft:
  - (1) information about each flight, necessary to ensure continued flight safety;
  - (2) the current aircraft certificate of release to service;
  - (3) the current maintenance statement giving the aircraft maintenance status of what scheduled and out of phase maintenance is next due except that CAAT may agree to the maintenance statement being kept elsewhere;
  - (4) all outstanding deferred defects rectifications that affect the operation of the aircraft;
  - (5) any necessary guidance instructions on maintenance support arrangements.
- (b) The initial issue of aircraft technical log system shall be approved by CAAT. Any subsequent amendment to that system shall be managed in accordance with point CAMO.A.300(c) of TCAR AIR Part-CAMO, or point CAO.A.025(c) of TCAR AIR Part-CAO.

### M.A. 307 Transfer of aircraft continuing airworthiness records

- (a) The owner shall ensure when an aircraft is permanently transferred from one owner to another that the M.A.305 continuing airworthiness records and, if applicable, M.A.306 operator's technical logs are also transferred.
- (b) When the owner contracts the continuing airworthiness management tasks to a CAMO or CAO, the owner shall ensure that the continuing airworthiness records referred to in point M.A.305 are transferred to that contracted organisation.
- (c) The time periods prescribed for the retention of records shall continue to apply to the new owner, operator, CAMO or CAO.

## **SUBPART D — MAINTENANCE STANDARDS**

### **M.A. 401 Maintenance data**

- (a) The person or organisation maintaining an aircraft shall have access to and use only applicable current maintenance data in the performance of maintenance including modifications and repairs.
- (b) For the purposes of this Part, applicable maintenance data is any of the following:
  - (1) any applicable requirement, procedure, standard or information issued by CAAT;
  - (2) any applicable Airworthiness Directive;
  - (3) applicable instructions for continuing airworthiness, issued by Type Certificate holders, Supplemental Type Certificate holders and any other design organisation that publishes such data acceptable to CAAT;
  - (4) for components approved for installation by the design approval holder, the applicable maintenance instructions published by the component manufacturers and acceptable to the design approval holder;
  - (5) any applicable data issued in accordance with TCAR AIR Part-145 point 145.45(d).
- (c) The person or organisation maintaining an aircraft shall ensure that all applicable maintenance data is current and readily available for use when required. The person or organisation shall establish a work card or worksheet system to be used and shall either transcribe accurately the maintenance data onto such work cards or worksheets or make precise reference to the particular maintenance task or tasks contained in such maintenance data.

### **M.A. 402 Performance of maintenance**

Except for maintenance performed by a maintenance organisation approved in accordance with TCAR AIR Part-145, any person or organisation performing maintenance shall:

- (a) be qualified for the tasks performed, as required by this part;
- (b) ensure that the area in which maintenance is carried out is well organised and clean in respect of dirt and contamination;
- (c) use the methods, techniques, standards and instructions specified in the M.A.401 maintenance data;
- (d) use the tools, equipment and material specified in the M.A.401 maintenance data. If necessary, tools and equipment shall be controlled and calibrated to an officially recognised standard;
- (e) ensure that maintenance is performed within any environmental limitations specified in the M.A.401 maintenance data;
- (f) ensure that proper facilities are used in case of inclement weather or lengthy maintenance;
- (g) ensure that the risk of multiple errors during maintenance and the risk of errors being repeated in identical maintenance tasks are minimised;
- (h) ensure that an error capturing method is implemented after the performance of any critical maintenance task; and
- (i) carry out a general verification after completion of maintenance to ensure the aircraft or component is clear of all tools, equipment and any extraneous parts or material, and that all access panels removed have been refitted.

## M.A. 403 Aircraft defects

- (a) Any aircraft defect that creates a serious hazard to flight safety shall be rectified before further flight.
- (b) Only the certifying staff referred to in point M.A.801(b)(1) or in TCAR AIR Part-145 or in TCAR AIR Part-CAO, or the person authorised in accordance with point M.A.801(c) of this Part can decide, using M.A.401 maintenance data, whether an aircraft defect creates a serious hazard to flight safety and therefore decide when and which rectification action shall be taken before further flight and which defect rectification can be deferred. However, this does not apply when the MEL is used by the pilot or by the authorised certifying staff.
- (c) Any aircraft defect that would not create a serious hazard to flight safety shall be rectified as soon as practicable, after the date the aircraft defect was first identified and within any limits specified in the maintenance data or the MEL.
- (d) Any defect not rectified before flight shall be recorded in the aircraft continuing airworthiness record system referred to in point M.A.305 or, if applicable in the aircraft technical log system referred to in point M.A.306.

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## **SUBPART E — COMPONENTS**

### **M.A. 501 Installation**

- (a) All components shall be classified into the following categories:
- (1) Components which are in a satisfactory condition, released on a CAAT Form 1 or equivalent and marked in accordance with the requirement of state of manufacture acceptable to CAAT under TCAR AIR Part-21 unless otherwise specified in this Part, or in TCAR AIR Part-CAO.
  - (2) Unserviceable components which shall be maintained in accordance with CAAT requirements.
  - (3) Components categorised as unsalvageable because they have reached their certified life limit or contain a non-repairable defect.
  - (4) Standard parts used on an aircraft, engine, propeller or other aircraft component when specified in the maintenance data and accompanied by evidence of conformity traceable to the applicable standard.
  - (5) Material both raw and consumable used in the course of maintenance when the organisation is satisfied that the material meets the required specification and has appropriate traceability. All materials must be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement plus both the manufacturing and supplier source.
- (b) Components, standard parts and material shall only be installed on an aircraft or a component when they are in a satisfactory condition, belong to one of the categories listed in point (a) and the applicable maintenance data specifies the particular component, standard part or material.

### **M.A. 502 Component maintenance**

- (a) The maintenance of components shall be performed by maintenance organisations appropriately approved in accordance with TCAR AIR Part-145 or with TCAR AIR Part-CAO, as applicable.
- (b) Where a component is fitted to the aircraft, the maintenance of such a component may be performed by an aircraft maintenance organisation approved in accordance with TCAR AIR Part-145 or with TCAR AIR Part-CAO or by the certifying staff referred to in point (b)(1) of point M.A.801. Such maintenance shall be performed in accordance with the aircraft maintenance data or in accordance with the component maintenance data if agreed by CAAT. Such aircraft maintenance organisation or the certifying staff may temporarily remove the component for maintenance if this is necessary to improve access to the component, except where additional maintenance is required due to the removal. Component maintenance performed in accordance with this point shall not be eligible for the issuance of a CAAT Form 1 and shall be subject to the aircraft release requirements provided for in point M.A.801.
- (c) Where a component is fitted to the engine or the auxiliary power unit (APU), the maintenance of such component may be performed by an engine maintenance organisation approved in accordance with TCAR AIR Part-145, or with TCAR AIR Part-CAO. Such maintenance shall be performed in accordance with the engine or the APU maintenance data or in accordance with the component maintenance data if agreed by CAAT. Such B-rated organisation may temporarily remove the component for maintenance if this is necessary to improve access to the component, except where additional maintenance is required due to the removal.
- (d) In case of LA1 and LA2 aircraft, maintenance of components of a part or appliance, fitted to the aircraft or is temporarily removed to improve access, is not eligible for the issuance of a CAAT Form 1 and shall be subject to the following conditions :

- (1) The maintenance of part or appliance is performed under the aircraft release requirements provided for in point M.A.801 by an aircraft maintenance organisation approved in accordance with TCAR AIR Part-145 or TCAR AIR Part-CAO, as applicable, by certifying staff referred to in point M.A.801(b)(1) or by the pilot-owner referred to in point M.A.801(b)(2); and
- (2) a part or appliance is
  - (i) not life-limited, nor part of the primary structure, nor part of the flight controls;
  - (ii) manufactured in conformity to applicable design;
  - (iii) marked in accordance with state of manufacturer requirement;
  - (iv) identified for installation in the specific aircraft;
  - (v) to be installed in an aircraft for which the owner has verified compliance with the conditions 1 through 4 and has accepted responsibility for this compliance
- (e) The maintenance of components listed below:
  - (1) a part or appliance for which the consequences of a non-conformity with its approved design data has a negligible safety effect on the product and which is identified as such by the holder of the design approval in the instructions for continued airworthiness. In order to determine the safety effects of a non-conforming part or appliance, the design approval holder may establish in the instructions for continued airworthiness specific verification activities to be conducted by the installer of the part or appliance on the product;
  - (2) in the case of the embodiment of modifications and repairs in accordance with TCAR AIR Part-21, a part or appliance, for which the consequences of a non-conformity with its design data have a negligible safety effect on the product, and which is identified as such in the certification specifications for standard changes and standard repairs issued in accordance with TCAR AIR Part-21. In order to determine the safety effects of a non-conforming part or appliance, specific verification activities to be conducted by the person that installs the part or appliance on the product may be established in the certification specifications referred to above;
  - (3) a part or appliance that is an item of a higher assembly identified in points (d) and (e)(1) to (e)(3).

shall be performed by the organisation referred to in point (a), or performed by any person or organisation and released with a “declaration of maintenance accomplished” issued by the person or organisation that performed the maintenance. The “declaration of maintenance accomplished” shall contain at least basic details of the maintenance carried out, the date on which the maintenance was completed, and the identification of the organisation or person that issues it. It shall be considered a maintenance record and equivalent to a CAAT Form 1 in respect of the maintained component.

### M.A. 503 Life-limited parts and time-controlled components

- (a) Installed life-limited parts and time-controlled components shall not exceed the approved limitation as specified in the AMP and Airworthiness Directives, except as provided for in point M.A.504(b).
- (b) When the approved limitation expires, the component shall be removed from the aircraft for maintenance, or for disposal in the case of life-limited parts.

### M.A. 504 Segregation of components

- (a) Unserviceable and unsalvageable components shall be segregated from serviceable components, standards parts and materials.
- (b) Unsalvageable components shall not be permitted to re-enter the component supply system unless the mandatory life limitation has been extended or a repair solution has been approved in accordance with CAAT requirements or state of design requirements of such product acceptable to CAAT.

## **SUBPART H — CERTIFICATE OF RELEASE TO SERVICE — CRS**

### **M.A. 801 Aircraft certificate of release to service**

- (a) Except for aircraft released to service by a maintenance organisation approved in accordance with TCAR Part-145, the CRS shall be issued according to this Subpart;
- (b) No aircraft shall be released to service unless a CRS is issued when all maintenance tasks ordered have been properly carried out. The CRS shall be issued by an authorised certifying staff of the maintenance organisation approved in accordance with TCAR AIR Part-CAO, except for maintenance tasks other than complex maintenance tasks listed in Appendix IV to this Part where the CRS is issued, either by
  - (1) Independent certifying staff in compliance with the requirements laid down in TCAR PEL Part-66; or
  - (2) by the Pilot-owner in compliance with point M.A.803;
- (c) In the case of unforeseen situations, when an aircraft is grounded at a location where no approved maintenance organisation appropriately approved under TCAR Part-145 or Part-CAO and no independent certifying staff are available, the owner may authorise any person, with no less than 3 years of appropriate maintenance experience and holding the proper qualifications, to maintain according to the standards set out in TCAR AIR Part-M Subpart D and release the aircraft. In that case, the owner shall:
  - (1) obtain and keep in the aircraft records details of all the work carried out and of the qualifications held by that person issuing the CRS; and
  - (2) ensure that any such maintenance is rechecked and released by an appropriately authorised person referred to in point M.A.801(b) or an organisation approved in accordance with TCAR AIR Part-145 or TCAR AIR Part-CAO at the earliest opportunity but within a period not exceeding 7 days from the issuance of a CRS; and
  - (3) notify the organisation responsible for the continuing airworthiness management of the aircraft when contracted in accordance with point M.A.201(i), or CAAT in the absence of such a contract, within 7 days from the issuance of such authorisation.
- (d) In case of a release to service in accordance with point (b)(1), the certifying staff may be assisted in performing the maintenance tasks by one or more persons subject to their direct and continuous control.
- (e) A CRS shall contain as a minimum:
  - (1) basic details of the maintenance carried out;
  - (2) the date on which the maintenance was completed;
  - (3) the identity of the organisation or person issuing the CRS, including either:
    - (i) the approval reference of the maintenance organisation and the certifying staff issuing the CRS; or
    - (ii) in the case referred to in point (b)(2), the identity and, where applicable, the licence number of the certifying staff issuing the CRS;
  - (4) the limitations to airworthiness or operations, if any;
- (f) By derogation from point (b) and notwithstanding point (g), when the required maintenance cannot be completed, a CRS may be issued with the approved aircraft limitations. In that case, the certificate shall indicate that the maintenance could not be completed, as well as indicate any applicable airworthiness or operations limitations, as part of the information required by point (e)(4).
- (g) A CRS shall not be issued in the case of any known non-compliance which endangers flight safety.

## M.A. 802 Component certificate of release to service

- (a) Except for components released to service by a maintenance organisation that is approved in accordance with TCAR AIR Part-145 and for the cases covered by point (e) of point M.A.502, a CRS shall be issued at the completion of any maintenance work carried out on an aircraft component in accordance with point M.A.502.
- (b) The authorised release certificate identified as CAAT Form 1 constitutes the component CRS, except when such maintenance on aircraft components has been performed in accordance with point (b) or (d) of point M.A.502 in which case the maintenance is subject to aircraft release procedures in accordance with point M.A.801.

## M.A. 803 Pilot-owner authorisation

- (a) To qualify as a Pilot-owner, the person must:
  - (1) hold a valid pilot licence (or equivalent) issued or validated by CAAT for the aircraft type or class rating; and
  - (2) own the aircraft, either as sole or joint owner; that owner must be:
    - (i) one of the natural persons on the certificate of registration; or
    - (ii) a member of a non-profit recreational legal entity, where the legal entity is specified on the registration document as owner or operator, and that member is directly involved in the decision-making process of the legal entity and designated by that legal entity to carry out Pilot-owner maintenance.
- (b) - reserved -
- (c) The scope of the limited Pilot-owner maintenance shall be specified in the aircraft maintenance programme referred to in point M.A.302.
- (d) The CRS shall be entered in the aircraft continuing airworthiness record system and contain basic details of the maintenance carried out, the maintenance data used, the date on which that maintenance was completed, as well as the identity, the signature and pilot licence number of the pilot-owner issuing such a certificate.

## **SUBPART I — AIRWORTHINESS REVIEW**

### **M.A. 901 Aircraft airworthiness review**

To ensure the validity of the Certificate of Airworthiness, an airworthiness review of the aircraft and its continuing airworthiness records shall be carried out periodically.

- (a) An airworthiness review report is issued in accordance with Appendix III (CAAT Form 15A) to this Part upon completion of a airworthiness review. The airworthiness review report shall be valid for 1 year;
- (b) - reserved -
- (c) For all aircraft used by an AOC holder in accordance with TCAR OPS, and for aircraft above 2,730 kg MTOM, the organisation referred to in point (b)(1) managing the continuing airworthiness of the aircraft may, in accordance with point CAMO.A.125(e) of TCAR AIR Part-CAMO, or point CAO.A.095(c)(1) of TCAR AIR Part-CAO, as applicable : issue an airworthiness review report in accordance with point M.A.901;
- (d) - reserved -
- (e) For aircraft of 2,730 kg MTOM and below not used by AOC holder in accordance with TCAR OPS, any CAMO or CAO chosen by the owner or operator may in accordance with CAMO.A.125(e) of TCAR AIR Part-CAMO or CAO.A.095(c) of TCAR AIR Part-CAO, as applicable : issue an airworthiness review report in accordance with point M.A.901;
- (f) - reserved -
- (g) Whenever circumstances reveal the existence of a potential risk to aviation safety, CAAT may carry out the airworthiness review and issue the airworthiness review report itself.
- (h) Without prejudice to point (g), CAAT may also carry out the airworthiness review itself for all non-complex aircraft of 2,730 kg MTOM and below, not used in commercial operations, if it is required by the owner. A processing fee would be applied in this case.
- (i) When CAAT carries out the airworthiness review itself accordance with (g) or (h), the owner or operator shall provide CAAT with:
  - (1) the documentation required by CAAT; and
  - (2) suitable accommodation at the appropriate location for its personnel; and
  - (3) when necessary, the support of personnel appropriately qualified in accordance with TCAR PEL Part-66
- (j) - reserved -
- (k) To satisfy the requirement for the airworthiness review of an aircraft, a full documented review of the aircraft records shall be carried out by the organisation in order to be satisfied that:
  - (1) airframe, engine and propeller flying hours and associated flight cycles have been properly recorded; and
  - (2) the flight manual is applicable to the aircraft configuration and reflects the latest revision status; and
  - (3) all the maintenance due on the aircraft according to the approved maintenance programme has been carried out; and
  - (4) all known defects have been corrected or, when applicable, carried forward in a controlled manner in accordance with M.A.403;
  - (5) all applicable Airworthiness Directives have been applied and properly registered; and
  - (6) all modifications and repairs applied to the aircraft have been registered and are in compliance with point M.A.304;

- (7) all life limited parts and time-controlled components installed on the aircraft are properly identified, registered and have not exceeded their approved service life limit; and
  - (8) all maintenance has been released in accordance with TCAR AIR Part-M; and
  - (9) the current mass and balance statement reflects the configuration of the aircraft and is valid; and
  - (10) the aircraft complies with the latest revision of its type design approved by CAAT; and
  - (11) if required, the aircraft holds a noise certificate corresponding to the current configuration of the aircraft in compliance with CAAT requirements.
- (l) The airworthiness review staff shall carry out a physical survey of the aircraft. For this survey, airworthiness review staff not appropriately qualified to TCAR PEL Part-66 shall be assisted by such qualified personnel.
- (m) Through the physical survey of the aircraft, the airworthiness review staff shall ensure that:
- (1) all required markings and placards are properly installed;
  - (2) the aircraft complies with its approved flight manual;
  - (3) the aircraft configuration complies with the approved documentation;
  - (4) no evident defect can be found that has not been addressed according to point M.A.403;
  - (5) no inconsistencies can be found between the aircraft and the documented review of records referred to in point (k).
- (n) The airworthiness review may be anticipated by a maximum period of 90 days without loss of continuity of the airworthiness review pattern, so as to allow for the physical review to take place during a maintenance check.
- (o) The airworthiness review report can only be issued:
- (1) by authorised airworthiness review staff on behalf of the approved organisation;
  - (2) if the airworthiness review has been completely carried out.
- (p) A copy of any airworthiness review report shall be sent to CAAT within 10 days.
- (q) Airworthiness review tasks shall not be sub-contracted.
- (r) Should the outcome of the airworthiness review be inconclusive, the organisation having carried out the review shall inform CAAT as soon as possible and in any case within 72 hours from the moment the organisation identifies the reason for which the airworthiness review is inconclusive.
- (s) - reserved -

### M.A. 902 Validity of the airworthiness review report

- (a) An airworthiness review report becomes invalid if,
- (1) - reserved -
  - (2) the certificate of airworthiness is suspended or revoked;
  - (3) the aircraft is not in the aircraft register of Thailand;
  - (4) the Type Certificate under which the Certificate of Airworthiness was issued is suspended or revoked.
- (b) An aircraft shall not fly if the airworthiness review report is invalid or indicates the presence of finding that endanger flight safety or if any of the following circumstances are present:

- (1) the continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of this Part;
  - (2) the aircraft does not remain in conformity with the type design approved and/or validated by CAAT
  - (3) the aircraft has been operated beyond the limitations of the approved flight manual or certificate of airworthiness, without appropriate action being taken;
  - (4) the aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without subsequent appropriate action to restore airworthiness;
  - (5) a modification or repair to the aircraft or any component fitted to the aircraft is not in compliance with point M.A.304.
- (c) - reserved -

### M.A. 903 -Reserved-

### M.A. 904 Airworthiness review of aircraft imported into THAILAND

- (a) When importing an aircraft onto the Thai register from another country, the applicant shall:
  - (1) apply to CAAT for the issuance of a new Certificate of Airworthiness in accordance with TCAR AIR Part-21; and
  - (2) for aircraft other than new, have an airworthiness review carried out in accordance with point M.A.901; and
  - (3) have all maintenance carried out to comply with the AMP approved in accordance with point M.A.302.
- (b) When satisfied that the aircraft is in compliance with the relevant requirements, the organisation performing the airworthiness review, shall send a documented airworthiness review report for the issuance of a Certificate of Airworthiness to CAAT.
- (c) The owner shall allow access to the aircraft for inspection by CAAT.
- (d) A certificate of airworthiness will be issued by CAAT when it is satisfied the aircraft complies with requirements in TCAR AIR Part-21.

### M.A. 905 Finding

- (a) A level 1 finding is any finding of significant non-compliance with the requirements of this Part, which lowers the safety standard and seriously endangers flight safety.
- (b) A level 2 finding is any finding of non-compliance with the requirements of this Part, which may lower the safety standard and may endanger flight safety.
- (c) In case of airworthiness review was carried out by CAAT in according with M.A.901(i), after receipt of notification of findings, the person or organisation accountable referred to in point M.A.201 shall define a corrective action plan and demonstrate corrective action to the satisfaction of CAAT within a period agreed including appropriate corrective action to prevent reoccurrence of the finding and its root cause.

## **APPENDICES TO TCAR AIR PART-M**

### **Appendix I —Continuing airworthiness management contract**

1. When an owner/operator contracts in accordance with M.A.201 a CAMO or CAO continuing airworthiness organisation approved pursuant to TCAR AIR Part-CAMO or Part-CAO to carry out continuing airworthiness management tasks, upon request by CAAT a copy of the contract shall be sent by the owner/operator to CAAT once it has been signed by both parties.
2. The contract shall be developed taking into account the requirements of this Part and shall define the obligations of the signatories in relation to continuing airworthiness of the aircraft.
3. It shall contain as a minimum the following information:
  - aircraft registration, type, serial number;
  - aircraft owner or registered lessee's name or company details including the address;
  - CAMO details including the address;
  - type of operation.
4. It shall state the following:

“The owner/operator entrusts to the CAMO or CAO the management of the continuing airworthiness of the aircraft, the development of a maintenance programme that shall be approved by CAAT and the organisation of the maintenance of the aircraft according to said maintenance programme.

According to the present contract, both signatories undertake to follow the respective obligations of this contract.

The owner/operator declares, to the best of its belief that all the information given to the CAMO or CAO concerning the continuing airworthiness of the aircraft is and will be accurate and that the aircraft will not be altered without prior approval of the CAMO or CAO.


In case of any non-conformity with this contract, by either of the signatories, the CAMO or CAO and the owner or operator shall assess if it impacts the continuation of the contract and shall inform CAAT. The assessment carried out by the organisations shall consider the safety significance of the non-conformity and if it is of repetitive nature. If either of the signatories concludes after this assessment that they cannot fulfil their responsibilities due to their own limitations or due to the failures of the signatory, the contract shall be cancelled and CAAT shall be informed immediately. In such a case, the owner or operator will retain full responsibility for every task linked to the continuing airworthiness of the aircraft, and the owner or operator will inform CAAT within 2 weeks about such non-conformity with the contract.

5. When an owner/operator contracts a CAMO or CAO in accordance with M.A.201, the obligations of each party shall be shared as follows:
  - 5.1. Obligations of the CAMO:
    1. have the aircraft type in the scope of its approval;
    2. respect the conditions listed below with regard to maintaining the continuing airworthiness of the aircraft:
      - (a) develop an AMP for the aircraft, including any reliability programme developed, if applicable;
      - (b) declare the maintenance tasks (in the AMP) that may be carried out by the pilot-owner in accordance with point (c) of point M.A.803;
      - (c) organise the approval of the AMP;

- (d) once it has been approved, provide the owner or operator with a copy of the AMP;
  - (e) establish and order the necessary maintenance to ensure an appropriate bridging with the former aircraft maintenance programme;
  - (f) organise for all maintenance to be carried out by an approved maintenance organisation;
  - (g) organise for all applicable Airworthiness Directives to be applied;
  - (h) organise for all defects discovered during scheduled maintenance, airworthiness reviews or reported by the owner to be rectified by an approved maintenance organisation;
  - (i) coordinate the accomplishment of scheduled maintenance, including inspection of components, replacement of life-limited parts and the accomplishment of any applicable AD, and ensure compliance with operational requirements having a continuing airworthiness impact, continuing airworthiness requirements established by the Agency and measures required by the competent authority in immediate reaction to a safety problem;
  - (j) inform the owner each time the aircraft shall be brought to an approved maintenance organisation;
  - (k) manage and archive the aircraft continuing airworthiness records;
  - (l) coordinate with the operator or owner on any request to the relevant CAAT for any deviation from the aircraft maintenance programme;
  - (m) support the operator or pilot-owner as regards the aircraft continuing airworthiness when they conduct maintenance check flights.
3. organise the approval of any modification to the aircraft in accordance with TCAR AIR Part-21 before it is embodied;
  4. organise the approval of any repair to the aircraft in accordance with TCAR AIR Part-21 before it is carried out;
  5. inform CAAT whenever the aircraft is not presented to the approved maintenance organisation by the owner as requested by the approved organisation;
  6. inform CAAT whenever the present contract has not been respected;
  7. ensure that the airworthiness review of the aircraft is carried out when necessary and ensure that the airworthiness review report is sent to CAAT;
  8. a copy of any airworthiness review report issued shall be available for CAAT upon request;
  9. carry out all occurrence reporting mandated by applicable regulations;
  10. inform CAAT whenever the present contract is denounced by either party.
- 5.2. Obligations of the owner/operator:
1. have a general understanding of the approved maintenance programme;
  2. have a general understanding of TCAR AIR Part-M;
  3. present the aircraft to the approved maintenance organisation agreed with the CAMO or CAO at the due time designated at the CAMO's or CAO's request;
  4. not modify the aircraft without first consulting the CAMO or CAO;
  5. inform the CAMO or CAO of all maintenance exceptionally carried out without the knowledge and control of the CAMO or CAO;

6. report all defects found during operations to the CAMO or CAO through the logbook;
  7. inform CAAT whenever the present contract is denounced by either party;
  8. inform the CAMO or CAO and CAAT whenever the aircraft is sold or any change of possession;
  9. carry out all occurrence reporting mandated by applicable regulations;
  10. inform on a regular basis the CAMO or CAO about the aircraft flying hours and any other utilisation data, as agreed with the CAMO or CAO;
  11. enter the CRS in the logbooks as mentioned in point (d) of point M.A.803 when performing pilot-owner maintenance without exceeding the limits of the maintenance tasks list as declared in the approved AMP as laid down in point (c) of point M.A.803;
  12. inform the CAMO or CAO not later than 30 days after completion of any pilot-owner maintenance task in accordance with point (a) of point M.A.305.
  13. ensure compliance with the approved maintenance programme and coordinate with the CAMO or CAO on any request to the relevant competent authority for any one-time extension to a maintenance programme interval;
  14. inform the CAMO or CAO of any non-compliance with operational requirements that may affect the continuing airworthiness of the aircraft;
  15. inform the CAMO or CAO of any operational requirement (e.g. specific approvals) necessary to be fulfilled in order to maintain the aircraft in the required configuration.
6. When an owner or operator contracts a CAMO or CAO in accordance with point M.A.201, the obligations of each party in respect of mandatory and voluntary occurrence reporting in accordance with Reporting of Civil Aviation Occurrences shall be clearly specified.
7. - reserved -

## Appendix II — Authorized release certificate - CAAT Form 1

1. Approving Authority/Country  CAAT/THAILAND		2. AUTHORISED RELEASE CERTIFICATE CAAT FORM 1			3. Form Tracking Number
4. Organisation Name and Address				5. Work Order/Contract/Invoice	
6. Item	7. Description	8. Part Number	9. Qty	10. Serial Number	11. Status/Work
12. Remarks					
13a. Certifies that the items identified above were manufactured in conformity to: <input type="checkbox"/> approved design data and are in a condition for safe operation <input type="checkbox"/> non-approved design data specified in block 12			14a. <input type="checkbox"/> Part 145.A.50 Release to Service <input type="checkbox"/> Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part 145 and in respect to that work the items are considered ready for release to service.		
13b. Authorised Signature		13c. Approval Authorisation Number		14b. Authorised Signature	
13d. Name		13e. Date		14c. Certificate/Approval Ref. No.	
14d. Name		14e. Date			
<p><b>USER/INSTALLER RESPONSIBILITIES</b>  This certificate does not automatically constitute authority to install the item(s).  Where the user/installer performs work in accordance with regulations of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1.  Statements in blocks 13a. and 14a. do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.</p>					

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These instructions relate only to the use of the CAAT Form 1 for maintenance purposes.

### 1. PURPOSE AND USE

- 1.1. The primary purpose of the Certificate is to declare the airworthiness of maintenance work undertaken on products, parts and appliances (hereafter referred to as 'item(s)').
- 1.2. Correlation must be established between the Certificate and the item(s). The originator must retain a Certificate in a form that allows verification of the original data.
- 1.3. - reserved-
- 1.4. The Certificate is not a delivery or shipping note.
- 1.5. Aircraft are not to be released using the Certificate.
- 1.6. The Certificate does not constitute approval to install the item on a particular aircraft, engine, or propeller but helps the end user determine its airworthiness approval status.
- 1.7. A mixture of production released and maintenance released items is not permitted on the same Certificate.

### 2. GENERAL FORMAT

- 2.1. The Certificate must comply with the format attached including block numbers and the location of each block. The size of each block may however be varied to suit the individual application, but not to the extent that would make the Certificate unrecognisable.
- 2.2. The Certificate must be in 'landscape' format but the overall size may be significantly increased or decreased so long as the Certificate remains recognisable and legible. If in doubt consult CAAT.

- 2.3. The User/Installer responsibility statement can be placed on either side of the form.
- 2.4. All printing must be clear and legible to permit easy reading.
- 2.5. The Certificate may either be pre-printed or computer generated but in either case the printing of lines and characters must be clear and legible and in accordance with the defined format.
- 2.6. The Certificate shall be in English.
- 2.7. The details to be entered on the Certificate may be either machine/computer printed or hand-written using block letters and must permit easy reading.
- 2.8. Limit the use of abbreviations to a minimum, to aid clarity.
- 2.9. The space remaining on the reverse side of the Certificate may be used by the originator for any additional information but must not include any certification statement. Any use of the reverse side of the Certificate must be referenced in the appropriate block on the front side of the Certificate

### 3. COPIES

- 3.1. There is no restriction in the number of copies of the Certificate sent to the customer, or retained by the originator.

### 4. ERROR(S) ON A CERTIFICATE

- 4.1. If an end-user finds an error(s) on a Certificate, they must identify it/them in writing to the originator. The originator may issue a new Certificate only if the error(s) can be verified and corrected.
- 4.2. The new Certificate must have a new tracking number, signature and date.
- 4.3. The request for a new Certificate may be honoured without re-verification of the item(s) condition. The new Certificate is not a statement of current condition and should refer to the previous Certificate in block 12 by the following statement; 'This Certificate corrects the error(s) in block(s) [enter block(s) corrected] of the Certificate [enter original tracking number] dated [enter original issuance date] and does not cover conformity/condition/release to service'. Both Certificates should be retained according to the retention period associated with the first.

### 5. COMPLETION OF THE CERTIFICATE BY THE ORIGINATOR

Block 1 Approving CAAT/Country

**THAILAND**

Block 2 CAAT Form 1 header

**AUTHORIZED RELEASE CERTIFICATE  
CAAT Form 1**

Block 3 Form Tracking Number

Enter the unique number established by the numbering system/procedure of the organisation identified in block 4; this may include alpha/numeric characters.

Block 4 Organisation Name and Address

Enter the full name and address of the approved organisation releasing the work covered by this Certificate. Logos, etc., are permitted if the logo can be contained within the block.

Block 5 Work Order/Contract/Invoice

To facilitate customer traceability of the item(s), enter the work order number, contract number, invoice number, or similar reference number.

**Block 6 Item**

Enter line item numbers when there is more than one line item. This block permits easy cross-referencing to the Remarks block 12.

**Block 7 Description**

Enter the name or description of the item. Preference should be given to the term used in the instructions for continued airworthiness or maintenance data (e.g., Illustrated Parts Catalogue, Aircraft Maintenance Manual, Service Bulletin, and Component Maintenance Manual).

**Block 8 Part Number**

Enter the part number as it appears on the item or tag/packaging. In case of an engine or propeller the type designation may be used.

**Block 9 Quantity**

State the quantity of items.

**Block 10 Serial Number**

If the item is required by regulations to be identified with a serial number, enter it here. Additionally, any other serial number not required by regulation may also be entered. If there is no serial number identified on the item, enter 'N/A'.

**Block 11 Status/Work**

The following describes the permissible entries for block 11. Enter only one of these terms — where more than one may be applicable, use the one that most accurately describes the majority of the work performed and/or the status of the article.

(i)	Overhauled	Means a process that ensures the item is in complete conformity with all the applicable service tolerances specified in the Type Certificate holders, or equipment manufacturer's, instructions for continued airworthiness, or in the data which is approved or accepted by the Authority. The item will be at least disassembled, cleaned, inspected, repaired as necessary, reassembled and tested in accordance with the above specified data.
(ii)	Repaired	Rectification of defect(s) using an applicable standard (1).
(iii)	Inspected/Tested	Examination, measurement, etc. in accordance with an applicable standard (1) (e.g., visual inspection, functional testing, bench testing etc.).
(iv)	Modified	Alteration of an item to conform to an applicable standard (1).
(1) Applicable standard means a manufacturing/design/maintenance/quality standard, method, technique or practice approved by or acceptable to CAAT. The applicable standard shall be described in block 12.		

**Block 12 Remarks**

Describe the work identified in Block 11, either directly or by reference to supporting documentation, necessary for the user or installer to determine the airworthiness of item(s) in relation to the work being certified. If necessary, a separate sheet may be used and referenced from the main CAAT Form 1. Each statement must clearly identify which item(s) in Block 6 it relates to.

Examples of information to be entered in block 12 are:

- (i) Maintenance data used, including the revision status and reference;
- (ii) Compliance with Airworthiness Directives or service bulletins;
- (iii) Repairs carried out;
- (iv) Modifications carried out;
- (v) Replacement parts installed;
- (vi) Life limited parts status;
- (vii) Deviations from the customer work order;
- (viii) Release statements to satisfy a foreign Civil Aviation Authority maintenance requirement;
- (ix) Information needed to support shipment with shortages or re-assembly after delivery;
- (x) For maintenance organisations approved in accordance with TCAR AIR Part-CAO, the component certificate of release to service statement referred to in point CAO.A.070:

“Certifies that, unless otherwise specified in this block, the work identified in block 11 and described in this block was accomplished in accordance with the requirements of TCAR AIR Part-CAO and in respect to that work the item is considered ready for release to service. THIS IS NOT A RELEASE UNDER TCAR AIR PART-145.

If printing the data from an electronic CAAT Form 1, any appropriate data not fit for other blocks should be entered in this block.

#### Block 13a-13e

General Requirements for blocks 13a-13e: Not used for maintenance release. Shade, darken, or otherwise mark to preclude inadvertent or unauthorized use.

#### Block 14a

Mark the appropriate box(es) indicating which regulations apply to the completed work. If the box ‘other regulations specified in block 12’ is marked, then the regulations of the other airworthiness authority(ies) must be identified in block 12. At least one box must be marked, or both boxes may be marked, as appropriate.

For all maintenance carried out by maintenance organisations approved in accordance with TCAR AIR Part-CAO, the box ‘other regulation specified in block 12’ shall be ticked and the certificate of release to service statement made in block 12. In that case, the certification statement ‘unless otherwise specified in this block’ is intended to address the following cases;

- (a) where the maintenance could not be completed;
- (b) where maintenance deviated from the standard required by TCAR AIR Part-M or TCAR AIR Part-CAO;
- (c) where maintenance was carried out in accordance with a requirement other than that specified in TCAR AIR Part-M or TCAR AIR Part-CAO; in this case, block 12 shall specify the particular national regulation.

For all maintenance carried out by maintenance organisations approved in accordance with TCAR AIR Part-145, the certification statement ‘unless otherwise specified in block 12’ is intended to address the following cases:

- (a) where the maintenance could not be completed;
- (b) where the maintenance deviated from the standard required by TCAR AIR Part-145;
- (c) where the maintenance was carried out in accordance with a requirement other than that specified in TCAR AIR Part-145. In this case block 12 shall specify the particular national regulation.

**Block 14b Authorised Signature**

This space shall be completed with the signature of the authorised person. Only persons specifically authorised under the rules and policies of CAAT are permitted to sign this block. To aid recognition, a unique number identifying the authorised person may be added.

**Block 14c Certificate/Approval Number**

Enter the Certificate/Approval number/reference. This number or reference is issued by CAAT.

**Block 14d Name**

Enter the name of the person signing block 14b in a legible form.

**Block 14e Date**

Enter the date on which block 14b is signed, the date must be in the format dd = 2 digit day, mmm = first 3 letters of the month, yyyy = 4 digit year

**User/Installer Responsibilities**

Place the following statement on the Certificate to notify end users that they are not relieved of their responsibilities concerning installation and use of any item accompanied by the form:

‘THIS CERTIFICATE DOES NOT AUTOMATICALLY CONSTITUTE AUTHORITY TO INSTALL.

WHERE THE USER/INSTALLER PERFORMS WORK IN ACCORDANCE WITH REGULATIONS OF AN AIRWORTHINESS AUTHORITY DIFFERENT THAN THE AIRWORTHINESS AUTHORITY SPECIFIED IN BLOCK 1, IT IS ESSENTIAL THAT THE USER/INSTALLER ENSURES THAT HIS/HER AIRWORTHINESS AUTHORITY ACCEPTS ITEMS FROM THE AIRWORTHINESS AUTHORITY SPECIFIED IN BLOCK 1.

STATEMENTS IN BLOCKS 13A AND 14A DO NOT CONSTITUTE INSTALLATION CERTIFICATION. IN ALL CASES AIRCRAFT MAINTENANCE RECORDS MUST CONTAIN AN INSTALLATION CERTIFICATION ISSUED IN ACCORDANCE WITH THE NATIONAL REGULATIONS BY THE USER/INSTALLER BEFORE THE AIRCRAFT MAY BE FLOWN.’

Appendix III — Airworthiness Review Report – CAAT Form 15A



**AIRWORTHINESS REVIEW REPORT for TCAR AIR PART-M**  
**CAAT FORM 15A**

AIRWORTHINESS AND AIRCRAFT ENGINEERING DEPARTMENT

<b>CAMO/CAO Name</b>			
<b>CAMO/CAO Certificate No.</b>			
<b>Aircraft Operator Name</b>		<b>AOC No.</b>	
<b>AR Staff Name</b>			
<b>AR Staff Authorized No.</b>			
<b>Aircraft available at place and period:</b> <i>(In case aircraft physical survey by CAAT is required)</i>			

**Notes for use:** also refer to the Explanatory Notes at the end of this report  
Where an item is satisfactory, indicate 'Y' into the appropriate column.  
If not applicable, indicate 'N/A'

**Date next review due**

*One year after completed sign on Section 4 or 5*

All aircraft defects will require maintenance action prior to further flight

Section 5 cannot be certified if there is evidence or indications that the aircraft is not airworthy

The Explanatory Notes' pages are not required to be kept with the completed certified report

Send the report form to [airworthiness@caat.or.th](mailto:airworthiness@caat.or.th)

**1. AIRCRAFT DETAILS**

<b>Registration Mark</b> <i>(Or reserved mark for imported Aircraft)</i>	<b>Previous Registration</b> <i>(Imported Aircraft)</i>			
	<b>Airframe</b>	<b>Engine(s)</b>	<b>Propeller(s)</b>	
<b>Manufacturer</b>				
<b>Type / Model</b>				
<b>Serial No.</b>		#1 #2 #3 #4	#1 #2 #3 #4	#1 #2 #3 #4
<b>Date of Manufacture</b>		#1 #2 #3 #4	#1 #2 #3 #4	#1 #2 #3 #4
<b>Hours since new</b>		#1 #2 #3 #4	#1 #2 #3 #4	#1 #2 #3 #4
<b>Cycles sine new</b>		#1 #2 #3 #4	#1 #2 #3 #4	#1 #2 #3 #4
<b>State of Design</b>				
<b>State of Manufacture</b>				
<b>TCDS No.</b>		<b>Rev.</b>		<b>Rev.</b>
<b>TCDS No. for Noise and Emissions</b> <i>(For imported aircraft only)</i>				<b>Rev.</b>
<b>Maximum Take-Off Weight</b>				<b>kg.</b>

## 2. DOCUMENT REVIEW

<b>Date of Document Review</b>			
<b>Place of Document Review</b>			
<b>C of R Reference</b>		<b>C of R Issue Date</b>	
<b>C of A Reference</b> <i>(or Export C of A for imported aircraft)</i>		<b>C of A Expiry Date</b> <i>(or Export C of A, as applicable)</i>	
The aircraft has been issued with a CAAT Type Acceptance Certificate?			
The aircraft conforms to the latest revision of its TCDS and acceptable design changes?			
The aircraft holds a noise certificate corresponding to the current aircraft configuration?			
<b>Approved Flight Manual Reference</b>		<b>Issue / Rev.</b>	
<b>Manufacturer Flight Manual Reference</b>		<b>Issue / Rev.</b>	
The approved flight manual and its supplements is applicable to the aircraft configuration and reflects the latest revision status?			
<b>Approved Maintenance Program Reference</b> <i>(or the proposed new program for imported aircraft)</i>		<b>Issue / Rev.</b>	
<b>Manufacturer Maintenance Program Reference</b>		<b>Issue / Rev.</b>	
All maintenance due according to the approved maintenance program has been carried out?			
The aircraft has been maintained for the previous 12 months by CAAT approved maintenance organizations <i>(Not applicable to imported aircraft)</i> ?			
<b>Weight and Balance Manual Reference</b>		<b>Issue / Rev.</b>	
<b>Weight and Balance Report Reference</b>		<b>Report Date</b>	
Weigh and centre of gravity data are within limits and accurate?			
The current mass and balance statement reflect the current aircraft configuration and is valid?			
<b>Approved Minimum Equipment List Reference</b>		<b>Issue / Rev.</b>	
<b>Aircraft Technical Log Issue / Rev.</b>			
The current Aircraft Technical Log system conforms to the approved procedure?			
Aircraft Technical Log (see Note 1) contains all required information?			
Airframe, engine and propeller flying hours and cycles have been properly recorded?			
All known defects and inoperative equipment / MEL items, CDL items, have been properly rectified or deferred/carried forward in a controlled manner?			
All maintenance, relevant work packages, and CRS have been carried out and properly released in accordance with approved procedure and maintenance data conforming TCAR AIR Part-M?			

All components installed onto the aircraft are in a satisfactory condition, released on an acceptable airworthiness approval tag?	
All applicable Airworthiness Directives (AD) have been assessed, incorporated, and recorded?	
All STCs, modifications, and repairs installed onto the aircraft and its components have been correctly approved or accepted by CAAT and appropriately recorded?	
All applicable Instruction for Continued Airworthiness (ICA) for all installed STCs has been incorporated into the approved maintenance program and properly complied?	
All time controlled and life limited components installed on the aircraft are properly identified, registered, and controlled in accordance with approved maintenance program, and have not exceeded their mandatory limit?	
<b>List of organizations having carried out continuing airworthiness activities since the last review:</b>	
<b>List of organizations having carried out maintenance tasks on the aircraft and its components since the last review:</b>	

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**3. AIRCRAFT PHYSICAL SURVEY** (see Note 2)

<b>Date of Aircraft Physical Survey</b>								
<b>Place of Aircraft Physical Survey</b>								
<b>Name of Assisting TCAR PEL Part-66 Personnel</b> (see Note 3)				<input type="checkbox"/> The AR staff is also holding a valid licence <input type="checkbox"/> Assisting Name: _____				
<b>Assisting Personnel's Signature</b>								
<b>Licence No.</b>				<b>Licence Valid Until</b>				
<b>Area</b>	<b>Satisfied?</b>	<b>Area</b>	<b>Satisfied?</b>	<b>Area</b>	<b>Satisfied?</b>	<b>Area</b>	<b>Satisfied?</b>	
Fuselage		Control Surfaces		Instrument Panel		Power Plant		
Registration Marks		Static Wicks		Avionics		Propellers / Rotors		
Wings		Doors / Panels		Electrics				
Empennage		Cargo		Safety Equipment		Flight Recorders		
Landing Gears		Cockpit / Cabin		Systems				
<b>Aircraft Identification and Placards</b>				Type Certification identification plate fitted?				
				Aircraft registration markings and fireproof plate correct?				
<b>Documents on Board</b>				The required documents are on board (see Note 4)?				
				The weight and balance records are updated?				
				The external damage marking records are updated?				
				The third-party liability insurance certificate is valid?				
				All onboard documentation is valid and correct?				
<b>Inoperative Equipment Components</b>				Physical check that placarding is correct?				
				Overhaul and limited life components verification, where practicable, of serial number's correct?				
				Major components serial numbers are correct?				
<b>Modifications and Repairs</b>				Recorded and accomplished as per requirements?				
<b>General Condition Inspection</b>				Aircraft is in satisfactory condition?				
All required markings and placards (see Note 5) are properly installed and legible?								
The aircraft complies with its approved flight manual?								
The aircraft configuration complies with the approved documentation (TCDS, STC, etc.)?								
All defects have been correctly rectified or deferred/carried forward in a controlled manner (No evidence defect that has not been addressed is found)?								
All existing defects that affect or may affect the airworthiness and safe operation of the aircraft have been made known to the aircraft commander?								
The aircraft condition is consistent with the documented review of records in <b>Section 2</b> of this report?								

**4. DEFECTS / FINDINGS OBSERVED** (see Note 6)  
 (All defects / findings must be cleared before certifying the review)

Reference	Defects / Findings Description	Rectification / Actions

Extra page(s) attached ? \_\_\_\_\_

<p>If the defects / findings have not been rectified by the report issuance date, the Airworthiness Review Staff may sign off on the report in this section.</p> <p>However, if the unresolved defects / findings endanger flight safety, the aircraft must not be operated in accordance with M.A.902(b).</p>	<p>( _____ )</p> <p><b>Report date:</b>     /     /</p>
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**5. CERTIFICATION** (see Note 7)

(The review cannot be certified with open defects / findings)

Statement	
<p>I certify that all of the above records have been reviewed for the period plus a physical survey of the aircraft undertaken and the aircraft [ HS - _____ ] is found to be fully in compliance with all of the applicable requirements.</p> <p>The aircraft in its current configuration complies with the following:</p> <ul style="list-style-type: none"> <li>- Airworthiness directives up to the latest published issue</li> <li>- Type certificate datasheet</li> <li>- Maintenance programme</li> <li>- Limitation for life-limited parts and time-controlled components</li> <li>- The valid weight and center of gravity schedule reflecting the current configuration of the aircraft</li> <li>- All modifications and repairs requirements</li> <li>- The current flight manual including supplements</li> <li>- Operational requirements</li> </ul> <p>In addition, all of the above items are properly entered and certified in the aircraft continuing airworthiness record system and/or in its technical log.</p> <p>At the time of the review, the aircraft is considered AIRWORTHY.</p>	
<p>Airworthiness Review Staff Signature</p>	<p>I confirm that information in this report is true and accurate</p> <p>( _____ )</p> <p><b>Report completed date:</b>     /     /</p>

## Explanatory notes for completing the Airworthiness Review Report

### General, for all sections

- Enter a 'Y' in the appropriate column to indicate that the aircraft meets the applicable requirements
- Enter 'N/A' if the requirement is not applicable to the aircraft or operation

### Note 1

M.A.306, AMC M.A.306(a), AMC M.A.306(b)

In addition to the requirements of point M.A.305, for the CAT, commercial specialised operations and ATO operation, the operator shall use a technical log system containing all the following information for each aircraft:

- Information about each flight, necessary to ensure continued flight safety:
  - o Details of the registered name and address of the operator
  - o The aircraft type
  - o The complete international registration marks of the aircraft
  - o The date and place of take-off and landing
  - o The times at which the aircraft took off and landed
  - o The running total of flying hours, such that the hours to the next schedule maintenance can be determined
  - o The quantity of fuel and oil uplifted and the quantity of fuel available in each tank, or combination of tanks, at the beginning and end of each flight
  - o The pre-flight inspection signature
  - o Details of any failure, defect or malfunction to the aircraft affecting airworthiness or safe operation of the aircraft including emergency systems, and any failure, defect or malfunctions in the cabin or galleys that affect the safe operation of the aircraft or the safety of its occupants that are known to the commander
- The current aircraft certificate of release to service:
  - o The current certificate of release to service (CRS), for the complete aircraft, issued normally at the end of the last maintenance check
- The current maintenance statement giving the aircraft maintenance status of what scheduled and out of phase maintenance is next due except that the CAAT may agree to the maintenance statement being kept elsewhere:
  - o Details of when the next scheduled maintenance is due, including, if relevant any out of phase component changes due before the next maintenance check
- All outstanding deferred defects rectifications that affect the operation of the aircraft:
  - o Details of all deferred defects that affect or may affect the safe operation of the aircraft and should therefore be known to the aircraft commander
  - o A cross-reference for each deferred defect such that the original defect can be identified
  - o The original date of occurrence of the defect deferred
  - o Brief details of the defect
  - o Details of the eventual rectification carried out and its CRS or a clear cross-reference back to the document that contains details of the eventual rectification
- Any necessary guidance instructions on maintenance support arrangements:
  - o Any necessary maintenance support information that the aircraft commander needs to know
  - o Data on how to contact maintenance if problems arise whilst operating the routes, etc.

The aircraft technical log system can be either a paper or computer system or any combination of both methods acceptable to the CAAT. In case of a computer system, it should contain programme safeguards against the ability of unauthorised personnel to alter the database.

**Note 2**

AMC M.A.901(l) and (m)

The physical survey could require actions categorised as maintenance (e.g. operational tests, tests of emergency equipment, visual inspections requiring panel opening, etc.). In this case, after the airworthiness review, a release to service should be issued. The physical survey may include verifications to be carried out during flight. To ensure compliance, the physical survey may include relevant sample checks of items.

**Note 3**

AMC M.A.901(l) and (m)

If the Airworthiness Review (AR) staff are qualified as TCAR PEL Part-66 personnel, fill in the licence number and validity.

When the AR staff are not appropriately qualified as TCAR PEL Part-66 personnel, in order to release any maintenance as recommended in Note 2, it is required them to be assisted by such qualified personnel. However, the function of such personnel is limited to performing and releasing the maintenance actions requested by the AR staff, it not being their function to perform the physical survey of the aircraft. This means that the AR staff who is going to sign the airworthiness review report should be the one performing both the documented review and the physical survey of the aircraft. It is not the intent of the rule to delegate the survey to TCAR PEL Part-66 personnel who are not AR staff.

**Note 4**

CAT.GEN.MPA.180, NCC.GEN.140, NCO.GEN.135, SPO.GEN.140

The following manuals and airworthiness information shall be carried on each flight:

- The aircraft flight manual (AFM), or equivalent document(s);
- The original certificate of registration (C of R);
- The original certificate of airworthiness (C of A);
- The noise certificate, for CAT aircraft, including an English translation, where one has been provided by the authority responsible for issuing the noise certificate;
- For CAT aircraft, a certified true copy of the air operator certificate (AOC), including an English translation when the AOC has been issued in another language;
- For CAT aircraft, the operations specifications relevant to the aircraft type, issued with the AOC, including an English translation when the operations specifications have been issued in another language;
- For NCC aircraft, the authorisation as specified in TCAR OPS Part ORO Subpart DEC
- For SPO aircraft, a copy of the declaration as specified in ORO.DEC.100, and, if applicable, a copy of the authorisation as specified in ORO.SPO.110;
- For NCC, NCO, and SPO aircraft, the list of specific approvals, if applicable
- The original aircraft radio licence, if applicable;
- The third-party liability insurance certificate(s);
- The journey log, or equivalent, for the aircraft;
- For CAT and SPO aircraft, the aircraft technical log in accordance with the applicable requirement for continuing airworthiness;
- The MEL and, as applicable, CDL;
- For CAT aircraft, mass and balance documentation;
- Any other documentation that may be pertinent to the flight or is required by the States concerned with the flight

**Note 5**

M.A.901(m)(1)

The markings and placards can be required by certification information in the TCDS, the AFM, manufacturer instructions (ATA Chapter 11), the STCs' ICA, ADs, or supplemental information from approved drawing or document.

**Note 6**

M.A.901(r)

New aircraft defects identified during the review must also be recorded in the technical log by appropriate TCAR PEL Part-66 personnel. All aircraft defects require a clearing maintenance action (correction or deferral) prior to further flight.

If the result of the full airworthiness review is unsatisfactory or inconclusive, then this report, along with all necessary supporting information must be sent to Airworthiness and Aircraft Engineering Department (AIR), the CAAT, within 72 hours from the moment the reason for which the review is inconclusive is found in order to satisfy the requirements of the review. Once all findings have been corrected and satisfactory, the report can be issued with certification statement in Section 5 of this report and resubmitted to the CAAT. The resubmission is not required if the aircraft is subject to the CAAT to issue the certification of this report (See Note 8).

**Note 7**

M.A.901(p)

**THE REPORT CANNOT BE ISSUED WITH OPEN FINDINGS.** Each finding requires a corrective action before the issue of the ARR. The corrective action should be adequate to the open finding and it should be carried out and verified by the AR staff before the issue of the ARR.

Once the report is completed and certified, it must be submitted to [airworthiness@caat.or.th](mailto:airworthiness@caat.or.th) within 10 days.

The next review due date shall be calculated from the certification date in Section 5 of this report.

## Appendix IV — Complex Maintenance Tasks

The following constitutes the complex maintenance tasks referred to in points M.A.801(b)2 and M.A.801(c):

1. The modification, repair or replacement by riveting, bonding, laminating, or welding of any of the following airframe parts:
  - (a) a box beam;
  - (b) a wing stringer or chord member;
  - (c) a spar;
  - (d) a spar flange;
  - (e) a member of a truss-type beam;
  - (f) the web of a beam;
  - (g) a keel or chine member of a flying boat hull or a float;
  - (h) a corrugated sheet compression member in a wing or tail surface;
  - (i) a wing main rib;
  - (j) a wing or tail surface brace strut;
  - (k) an engine mount;
  - (l) a fuselage longeron or frame;
  - (m) a member of a side truss, horizontal truss or bulkhead;
  - (n) a seat support brace or bracket;
  - (o) a seat rail replacement;
  - (p) a landing gear strut or brace strut;
  - (q) an axle;
  - (r) a wheel; and
  - (s) a ski or ski pedestal, excluding the replacement of a low-friction coating.
2. The modification or repair of any of the following parts:
  - (a) aircraft skin, or the skin of an aircraft float, if the work requires the use of a support, jig or fixture;
  - (b) aircraft skin that is subject to pressurisation loads, if the damage to the skin measures more than 15 cm (6 inches) in any direction;
  - (c) a load-bearing part of a control system, including a control column, pedal, shaft, quadrant, bell crank, torque tube, control horn and forged or cast bracket, but excluding
    - (i) the swaging of a repair splice or cable fitting, and
    - (ii) the replacement of a push-pull tube end fitting that is attached by riveting; and
  - (d) any other structure, not listed in (1), that a manufacturer has identified as primary structure in its maintenance manual, structural repair manual or instructions for continuing airworthiness.
3. The performance of the following maintenance on a piston engine:
  - (a) dismantling and subsequent reassembling of a piston engine other than (i) to obtain access to the piston/cylinder assemblies; or (ii) to remove the rear accessory cover to inspect and/or replace oil

- pump assemblies, where such work does not involve the removal and re-fitment of internal gears;
- (b) dismantling and subsequent reassembling of reduction gears;
  - (c) welding and brazing of joints, other than minor weld repairs to exhaust units carried out by a suitably approved or authorised welder but excluding component replacement;
  - (d) the disturbing of individual parts of units which are supplied as bench tested units, except for the replacement or adjustment of items normally replaceable or adjustable in service.
4. The balancing of a propeller, except:
- (a) for the certification of static balancing where required by the maintenance manual;
  - (b) dynamic balancing on installed propellers using electronic balancing equipment where permitted by the maintenance manual or other approved airworthiness data;
5. Any additional task that requires:
- (a) specialised tooling, equipment or facilities; or
  - (b) significant coordination procedures because of the extensive duration of the tasks and the involvement of several persons.

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## Appendix V — Limited Pilot-owner maintenance

In addition to the requirements laid down in TCAR AIR Part-M, the following basic principles are to be complied with before any maintenance task is carried out under the terms of Pilot-owner maintenance:

(a) Competence and responsibility

1. Pilot-owners are always responsible for any maintenance that they perform.
2. Before carrying out any Pilot-owner maintenance tasks, Pilot-owners must satisfy themselves that they are competent to do the task. It is the responsibility of Pilot-owners to familiarise themselves with the standard maintenance practices for their aircraft and with the aircraft maintenance programme. If the Pilot-owner is not competent for the task to be carried out, the task cannot be released by the Pilot-owner.
3. The Pilot-owner (or contracted CAMO or CAO) is responsible for identifying the Pilot-owner tasks according to these basic principles in the maintenance programme and for ensuring that the document is updated in a timely manner.
4. The approval of the maintenance programme has to be carried out in accordance with point M.A.302.

(b) Tasks

Pilot-owners may carry out simple visual inspections or operations to check for general condition and obvious damage and normal operation of the airframe, engines, systems and components.

Maintenance tasks shall not be carried out by Pilot-owners when the task:

1. is a critical maintenance task;
2. requires the removal of major components or major assembly and/or;
3. is carried out in compliance with an Airworthiness Directive or an Airworthiness Limitation Item, unless specifically allowed in the Airworthiness Directive or the ALI and/or;
4. requires the use of special tools, calibrated tools (except torque wrench and crimping tool) and/or;
5. requires the use of test equipment or special testing (e.g. NDT, system tests or operational checks for avionic equipment) and/or;
6. is composed of any unscheduled special inspections (e.g. heavy landing check) and/or;
7. is affecting systems essential for IFR operations and/or;
8. is listed in Appendix IV to this Part or is a component maintenance task in accordance with points M.A.502(a), (b), (c) or (d) and/or;

The criteria 1 to 8 cannot be overridden by less restrictive instructions issued in accordance with 'M.A.302(d) Maintenance Programme'.

Any task described in the aircraft flight manual as preparing the aircraft for flight (Example: assembling the glider wings or pre-flight), is considered to be a pilot task and is not considered a Pilot-owner maintenance task and therefore does not require a Certificate of Release to Service.

(c) Performance of the maintenance Pilot-owner tasks and records

The maintenance data as specified in point M.A.401 must be always available during the conduct of Pilot-owner maintenance and must be complied with. Details of the data referred to in the conduct of Pilot-owner maintenance must be included in the Certificate of Release to Service in accordance with point M.A.803(d).

The Pilot-owner must inform the approved continuing airworthiness management organisation responsible for the continuing airworthiness of the aircraft (if applicable) not later than 30 days after completion of the Pilot-owner maintenance task in accordance with point M.A.305(a)

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