

For Training Purpose Only



Bachelor of Aviation Maintenance
Engineering Technology

AVT 3413

Aviation Legislation

CLO 6 - CAR M
Continuing Airworthiness Requirements

FOREWORD

Objective and scope

1. This Regulation establishes common technical requirements and administrative procedures for ensuring the continuing airworthiness of aircraft, including any component for installation thereto, which are:
 - a. registered in the United Arab Emirates Civil Aircraft Registry; or
 - b. Registered in a third country and used by a United Arab Emirates operator where the UAE GCAA has assumed responsibility for the oversight of the continued airworthiness management functions of such an aircraft.
2. Paragraph 1 shall not apply to aircraft the regulatory safety oversight of which has been transferred to a third country and which are not used by a UAE operator.
3. The provisions of this Regulation related to commercial air transport are applicable to licensed air carriers, air transport operators and commercial activities as defined by CAR- OPS 1.003 and CAR-OPS 3.003. The provisions of this regulation are also applicable to Private Operators certified under CAR-OPS 1 and CAR-OPS 3.

Definitions

Within the scope of this Regulation, the following definitions shall apply:

- (a) “**Regulation**” means the rules published by the GCAA that an approved organization must show compliance with to first be granted an approval and then to maintain it. Approved organizations must ensure that they regularly review all applicable published regulation(s) to ensure that they maintain compliance in the light of changes to the rules, or changes with to the practices within the organization.
- (b) “**Acceptable Means Of Compliance**” (AMC) means material that is published in support of the regulation and provides the GCAA's approved method of complying with the published rules. Approved organizations should follow these methods to achieve compliance. Where AMC material is not published it has been determined that the regulation is clear enough as to not require the provision of additional information.

It is possible for an organization to agree a different method of compliance but such a difference must be formally notified and proposed to the GCAA for review. If an alternative AMC is accepted then this will be notified to the organization by letter and will, at some point in the future, be published in the regulations to allow all other approved organizations the opportunity to adopt the practice.

- (c) **"Guidance Material"** means material which helps to illustrate the meaning of regulations or AMCs.
- (d) **"Aircraft"** means any machine that can derive support in the atmosphere from the reactions of the air other than reactions of the air against the earth's surface;
- (e) **"Certifying staff"** means personnel responsible for the release of an aircraft or a component after maintenance;
- (f) **"Component"** means any engine, propeller, part or appliance;
- (g) **"Continuing airworthiness"** means all of the processes ensuring that, at any time in its operating life, the aircraft complies with the airworthiness requirements in force and is in a condition for safe operation;
- (h) **"The GCAA"** means the United Arab Emirates General Civil Aviation Authority, also referred to as the Authority;
- (i) **"CAR"** means UAE Civil Aviation Regulations;
- (j) **"Large aircraft"** means an aircraft, classified as an aeroplane with a maximum take-off mass of more than 5700 kg, or a multi-engine helicopter;
- (k) **"Maintenance"** means any one or combination of overhaul, repair, inspection, replacement, modification or defect rectification of an aircraft or component, with the exception of pre-flight inspection;
- (l) **"Organization"** means a natural person, a legal person or part of a legal person. Such an organization may be established at more than one location;
- (m) **"Pre-flight inspection"** means the inspection carried out before flight to ensure that the aircraft is fit for the intended flight;
- (n) **"Commercial Operations"** - Unless otherwise specifically authorized by the GCAA, the following activities are categorized as commercial operations:
 - (1) Sightseeing flights (A to A or A to B within UAE airspace);
 - (2) Aerial work operations, including:
 - (i) Agricultural operations
 - (ii) External load operations
 - (iii) Aerial photography and survey
 - (iv) Aerial reconnaissance
 - (v) Aerial advertising
 - (vi) Air shows and aerial demonstrations
 - (vii) Carriage and dropping of parachutists (operator of aircraft)
 - (viii) Navigation aid calibration
 - (ix) Other activities as determined by the GCAA.

- (o) **“Commercial Air Transport”** means an aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire. The term encompasses Air Carriers and Air Transport Operators.
- (p) **“Air Carrier”** is a commercial operator of an aeroplane engaged in the transportation of passengers, cargo and mail for remuneration or hire and offering services to the public in accordance with a published schedule.
- (q) **“Air Transport Operator” CAT -** An Air Transport Operator is a commercial operator of an aeroplane engaged in transportation of passengers, cargo and mail for remuneration or hire offering service to the public on demand and not to a published schedule;
- (r) **“Private Operator”** – means a person, organization or enterprise engaged in the carriage of persons or cargo not for hire or reward.
- (S) **“Product”** shall mean an aircraft, engine or propeller;
- (T) **“Airworthy”** means the aircraft conforms to its Type Certificate

For the purpose of this chapter, the word **“Subpart”** means **“Subchapter”**.

Introduction to CAR M

In viewing Figure 1, we see that **CAR M is broken into sub parts**. Each sub part is related to a different area of aircraft maintenance. Together, all items amount to what is needed to ensure an aircraft will always be found in an airworthy condition.



Figure 1: Structure of CAR M

CAR PART V

Chapter 4 - (CAR M)

CONTINUING AIRWORTHINESS REQUIREMENTS

CAR M.001

For the purpose of this Chapter, the “Authority” shall be understood as the General Civil Aviation Authority of the United Arab Emirates whose authority shall cover:

1. Oversight of the continuing airworthiness of individual aircraft and the issue of airworthiness review certificates for aircraft registered in the State.
2. Oversight of maintenance organizations as specified in Section A, Subpart F of this Chapter (CAR M).
3. Oversight of continuing airworthiness management organizations as specified in Section A, Subpart G of this Chapter (CAR M).
4. Approval of maintenance programs for aircraft registered in the State.

SUBPART A - GENERAL

CAR M.101 Scope

This Section establishes the measures to be taken to ensure that airworthiness is maintained, including maintenance. It also specifies the conditions to be met by the persons or organizations involved in such continuing airworthiness management.

SUBPART B - ACCOUNTABILITY

CAR M.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 certificate of airworthiness remains valid, and;
4. the maintenance of the aircraft is performed in accordance with the approved maintenance programme as specified in CAR M.302.

- (b) When an aircraft is leased, the lessee (the one who rents the aircraft) can take over the owner's responsibilities if either of the following is true:

1, Lessee is named on the aircraft's registration document

– This means the lessee is officially listed as the operator of the aircraft in the GCAA's records.

2, Leasing contract clearly assigns responsibilities to the lessee

– The contract between the owner and the lessee includes clauses stating the lessee is responsible for continuing airworthiness.

- (c) Any person or organization performing maintenance shall be responsible for the tasks performed.

- (d) The pilot-in-command or, in the case of commercial air transport, 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 need not be carried out by an approved maintenance organization or by CAR 66 certifying staff.

- (e) For Most Aircraft (Not Listed in f, h, or i):

If the aircraft isn't a large aircraft or used for commercial operations, the owner must hire a Continuing Airworthiness Management Organization (CAMO) that is approved under Subpart G of CAR M.

Once hired, the CAMO takes over responsibility for making sure the aircraft stays airworthy.

- (f) For Large Aircraft (Not Used in Commercial Air Transport):

The owner must ensure airworthiness tasks are done by an approved CAMO.

This CAMO can either:

Be owned by the operator, or

Be contracted, using a written agreement based on Appendix I of CAR M.

The CAMO becomes responsible for doing these tasks properly.

Alternatively, if the operator is approved under Subpart G, they can manage it themselves.

- (g) Maintenance of large aircraft, aircraft used for commercial air transport and components thereof shall be carried out by a CAR 145 approved maintenance organization.

- (h) In the case of commercial air transport the operator is responsible for the continuing airworthiness of the aircraft it operates and shall:

1. be approved, as part of the air operator certificate issued by the GCAA, pursuant to Section A Subpart G of this Chapter (CAR M) for the aircraft it operates, and
2. be approved in accordance with CAR 145 or contract such an organization; and
3. ensure that paragraph (a) is satisfied.

(i) When an operator is engaged in commercial operations, other than commercial air transport, it shall:

1. be appropriately approved, pursuant to Section A Subpart G of this Chapter (CAR M), for the management of the continuing airworthiness of the aircraft it operates or contract such an organization; and
2. be appropriately approved in accordance with Section A Subpart F of this Chapter (CAR M) (if not listed in paragraph G above) or CAR 145, or contract such organizations; Be approved (or hire someone approved) to do the maintenance,
3. ensure that paragraph (a) is satisfied.

(j) The owner/operator is responsible for granting the GCAA access to the organization/aircraft to determine continued compliance with this chapter.

CAR M.202 Occurrence Reporting

- (a) Any person or organization responsible under CAR M.201 shall report to the GCAA, the organization responsible for the type design or supplemental type design and, if applicable, the State of operator any identified condition of an aircraft or component that hazards seriously the flight safety.
- (b) Reports shall be made in a manner established by the GCAA and contain all pertinent information about the condition known to the person or organization.
- (c) Where the person or organization maintaining the aircraft is contracted by an owner or an operator to carry out maintenance, the person or the organization maintaining the aircraft shall also report to the owner, the operator or the continuing airworthiness management organization any such condition affecting the owner's or the operator's aircraft or component.
- (d) Reports shall be made as soon as practicable, but in any case within 72 hours of the person or organization identifying the condition to which the report relates.

In respect of maintenance, reporting a condition which endangers flight safety is normally limited to:

- Serious cracks, permanent deformation, burning or serious corrosion of structure found during scheduled maintenance of the aircraft or component.
- Failure of any emergency system during scheduled testing.

In any case, CAAP 22 should be consulted to determine if a particular case requires reporting to the GCAA.



Figure 2: External Occurrence Reporting

SUBPART C - CONTINUING AIRWORTHINESS

What items must be done, the actual task, in order to maintain an aircraft to a standard in which it is **always airworthy**.

Continuing Airworthiness Tasks (CAR M.301)

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

1. The accomplishment of pre-flight inspections;
2. Defects or damage affecting safe operation must be fixed, especially in large or commercial aircraft, following the Minimum Equipment List (MEL) and Configuration Deviation List (CDL) for that aircraft type.
3. The accomplishment of all maintenance, in accordance with the CAR M.302 approved aircraft maintenance program.

4. For large or commercial aircraft, the operator must regularly check if the approved maintenance program (CAR M.302) is working effectively.
5. The accomplishment of any applicable: Operators must carry out all of the following if they apply:
 - (i) Airworthiness Directives
 - (ii) Operational directive with a continuing airworthiness impact
 - (iii) Continued airworthiness requirement established by GCAA
 - (iv) Measures mandated by the GCAA in immediate reaction to a safety problem;
6. The accomplishment of modifications and repairs in accordance with CAR M.304;
7. For non-mandatory modifications and/or inspections, for all large aircraft or aircraft used for commercial air transport the establishment of an embodiment policy;
8. Maintenance check flights, when necessary.

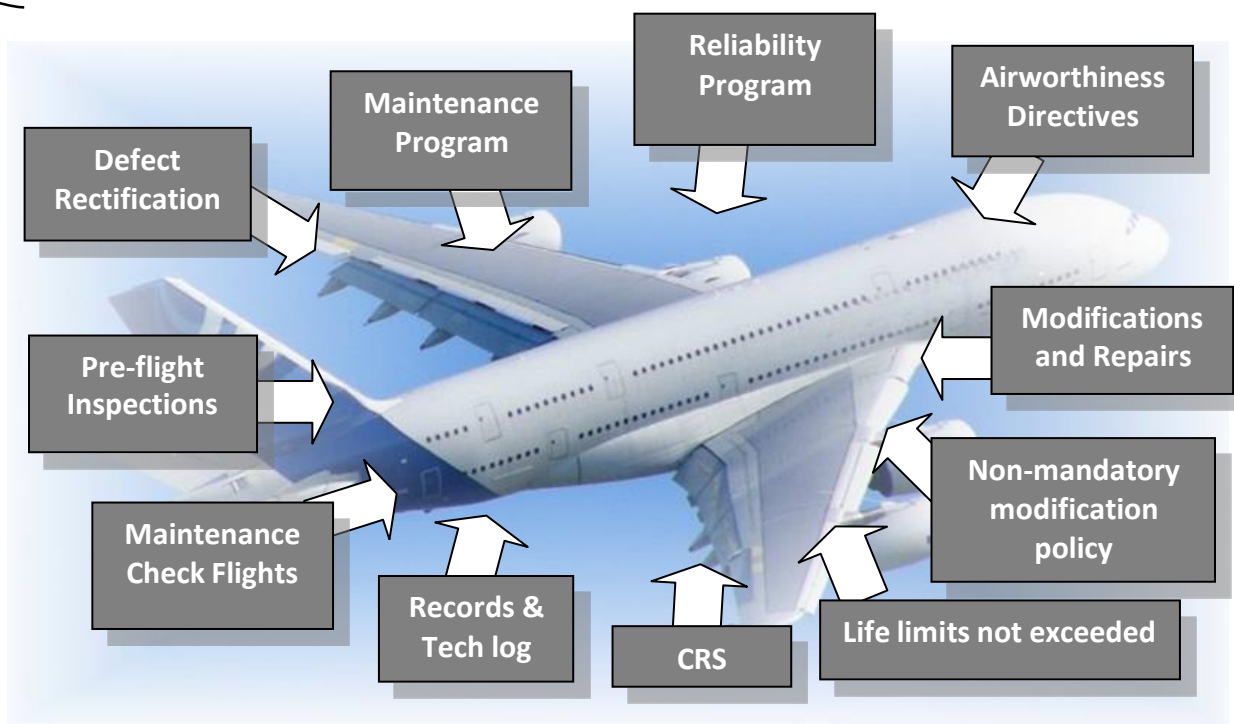


Figure 3: Continuing Airworthiness Task

AMC to CAR M.301 – 1 – Continuing Airworthiness Tasks

1. With regard to the pre-flight inspection it is intended to mean all of the actions necessary to ensure that the aircraft is fit to make the intended flight.
2. Tasks such as oil and hydraulic fluid uplift and tire inflation may be considered as part of the pre-flight inspection.

AMC to CAR M.301 -5- Continuing Airworthiness Tasks

Version Spring 202120

Operational directives with a continuing airworthiness impact include operating rules such as extended twin-engine operations (ETOPS)/long range operations (LROPS), reduced vertical separation minima (RVSM), MNPS, all weather operations (AWOPS), RNAV, etc.

Any other continued airworthiness requirement made mandatory by the GCAA includes TC related requirements such as: certification life limited parts, airworthiness limitations contained in CS25 Book 1, Appendix H, paragraph H25.1, fuel tank system airworthiness limitations including Critical Design Configuration Control Limitations (CDCCL), etc.

CAR M.302 Aircraft Maintenance Programme

- (a) Maintenance of each aircraft shall be organized in accordance with an aircraft maintenance programme.
- (b) The aircraft maintenance programme and any subsequent amendments shall be approved by the GCAA.
- (c) When the continuing airworthiness of the aircraft is managed by a continuing airworthiness management organization approved in accordance with Section A, Subpart G of this Chapter (CAR M), the aircraft maintenance programme and its amendments may be approved through an indirect approval procedure.
- (d) The aircraft maintenance programme must establish compliance with:
 - (i) Instructions issued by GCAA;
 - (ii) Instructions for continuing airworthiness
 - Issued by the holders of the type certificate, restricted type certificate, supplemental type certificate, major repair design approval, ETSO authorization or any other relevant approval issued under CAR 21, and
 - Included in the certifications specification.
 - (iii) Additional or alternative instructions proposed by the owner or the continuing airworthiness management organization once approved in accordance with CAR M.302.
- (e) The aircraft maintenance programme shall contain details including frequency of all maintenance to be carried out, including any specific tasks linked to the type and the specificity of operations
- (f) For large aircraft, if the maintenance plan uses Maintenance Steering Group logic or condition monitoring, it must also include a reliability programme..
- (g) The aircraft maintenance programme shall be subject to periodic reviews and amended accordingly when necessary.

Note: details of a maintenance program are covered later in the notes.

AMC to CAR M.302 Aircraft Maintenance Programme

- A maintenance programme includes the scheduled maintenance tasks plus the procedures and standard practices used to carry them out.
- A maintenance schedule refers only to the list of scheduled maintenance tasks.

Airworthiness Directives (CAR M.303)

Any applicable airworthiness directive (AD) must be carried out per the requirements of that airworthiness directive. (AD's are covered in detail later)

CAR M.304 Data for Modifications and Repairs

Damage shall be assessed, modification and repairs carried out using as appropriate:

- a. Data approved by the GCAA
- b. Data approved by a CAR 21 design organization
- c. Data contained in the certification specifications

Aircraft Continuing Airworthiness Record System (CAR M.305)

At the completion of any maintenance (and before flight), the Certificate of Release to Services (CRS) shall be entered in the aircraft continuing airworthiness records. (This is referring to entering into the Technical Log)

Each entry shall be made as soon as practicable but in no case more than 30 days after the day of the maintenance action.

For all UAE registered aircraft having a valid Certificate of Airworthiness, the aircraft continuing airworthiness records shall consist of:

- a) Aircraft logbook,
- b) Engine logbook(s) (engine module log cards),
- c) Propeller logbook(s),
- d) Log cards for service life limited component, and
- e) Operator's technical log

The aircraft records shall contain the current status of the continuing airworthiness tasks, including the mass and balance report and list of deferred maintenance items.

All entries made in the aircraft continuing airworthiness records 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. Like this...

An owner or operator shall ensure that a system has been established to keep the following records for the periods specified: This regulation is about how long an aircraft owner or operator must keep certain maintenance records.

a) At least 12 months after the aircraft or component has been permanently withdrawn from service:

- i. total time in service of aircraft
- ii. total service life of life limited components
- iii. status of airworthiness directives
- iv. details of modifications and repairs

b) Until superseded, but not less than 36 months:

- i. detailed maintenance records
- ii. operators technical log (from last entry)

c) Time in service since last maintenance of components subjected to a service life limit

d) The current status of compliance with the aircraft's approved maintenance program.

CAR M.306 Operator's Technical Log System

(a) An aircraft technical log system shall contain the following information for each aircraft:

1. information about each flight, necessary to ensure continued flight safety, and;
2. the current aircraft certificate of release to service, and;
3. the current maintenance statement giving the aircraft maintenance status of what scheduled and out of phase maintenance is next due except that the GCAA may agree to the maintenance statement being kept elsewhere, and;
4. all outstanding deferred defects and related rectification actions that affect the operation of the aircraft, and;
5. any necessary guidance instructions on maintenance support arrangements.

(b) The aircraft technical log system and any subsequent amendment shall be approved by the GCAA.

(c) An operator shall ensure that the aircraft technical log is retained for 36 months after the date of the last entry.

AMC to CAR M.306 (b) **Operator's Technical Log System**

The aircraft technical log system can be either a paper or computer system or any combination of both methods acceptable to the GCAA.

In case of a computer system, If a computer system is used, it must have security measures in place to prevent unauthorized people from changing the data.

Transfer of Aircraft Continuing Airworthiness Records (CAR M.307) The owner or operator shall ensure when an aircraft is permanently transferred from one owner or operator to another, the continuing airworthiness records, including the operator's technical log, are also transferred.

SUBPART D - **MAINTENANCE STANDARDS**

This section defines applicable maintenance data, qualifies the performance of maintenance standard, and statement on defect requirements.

CAR M.401 **Maintenance Data**

(a) The person or organization 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 Chapter, applicable maintenance data is:

1. Any applicable requirement, procedure, standard or information issued by the GCAA,
2. Any applicable airworthiness directive,
3. Applicable instructions for continuing airworthiness, promulgated by the type certificate and relevant supplementary type certificate holders and any other organization that publishes such data in accordance with CAR 21 or in accordance with any other Regulation recognized by the GCAA.
4. Any applicable data issued in accordance with CAR 145.45(d).

(c) The person or organization maintaining the aircraft must ensure all maintenance data is up to date and easily accessible. They must use work cards or worksheets that either include the maintenance data or clearly refer to the relevant tasks.

CAR M.402 Performance Of Maintenance

- (a) All maintenance shall be performed by qualified personnel, following the methods, techniques, standards and instructions specified in the CAR M.401 maintenance data. Furthermore, an independent inspection (duplicate inspection) shall be carried out after any flight safety sensitive maintenance task unless otherwise specified by CAR 145 and agreed by the GCAA.
- (b) All maintenance shall be performed using the tools, equipment and material specified in the CAR M.401 maintenance data unless otherwise specified by CAR 145. Where necessary, tools and equipment shall be controlled and calibrated to an officially recognized standard.
- (c) The area in which maintenance is carried out shall be well organized and clean in respect of dirt and contamination.
- (d) All maintenance shall be performed within any environmental limitations specified in the CAR M.401 maintenance data.
- (e) In case of inclement weather or lengthy maintenance, proper facilities shall be used.
- (f) After completion of all maintenance a general verification must be carried out to ensure the aircraft or component is clear of all tools, equipment and any other extraneous parts and material, and that all access panels removed have been refitted.

Aircraft Defects (CAR M.403)

Any aircraft defect that hazards seriously the flight safety shall be rectified before further flight.

Any defect not rectified before flight shall be recorded in the operator's technical log system and shall be rectified as soon as practicable within any limits specified in the maintenance data or minimum equipment list (MEL).

Components (Subpart E)

Subpart E of CAR M deals specifically with parts and components, not aircraft in their entirety or aircraft engines and APU's.



Figure 4: Component example, Brake Unit

Installation (CAR M.501)

No component may be fitted unless it is in a satisfactory condition and has been appropriately released to service on a AW Form 1 (or other Authorities equivalent such as FAA Form 8130-3)

Prior to installation of a component on an aircraft, the person or approved maintenance organization shall ensure that the particular component is eligible to be fitted when different modification and/or airworthiness directive configurations may be applicable.

Standard parts shall only be fitted when the maintenance data specifies the particular standard part and the parts is accompanied by evidence of conformity traceable to the applicable standard.

Component Maintenance (CAR M.502)

The maintenance of components shall only be performed by maintenance organizations appropriately approved in accordance with CAR M Subpart F or CAR 145. (This is a C rated maintenance organization)

However, an A-rated organization can maintain a component only when it is still installed on the aircraft but (Component is not eligible for the issuance of an AW Form 1)

Similarly, a B-rated organization can perform maintenance on a component only while it is installed on the same engine or APU.

Service Life Limited Components (CAR M.503)

Installed service life limited components shall not exceed the approved service life limit as specified in the approved maintenance program or an airworthiness directive.

The approved service life is expressed in calendar time, flight hours, landings, or cycles, as appropriate. (of the component)

At the end the approved certified life limit, the component must be removed from the aircraft for disposal.

CAR M.504 Control Of Unserviceable Components

A component shall be considered unserviceable in any one of the following circumstances:

- a) Expiry of the **service life limit**; (referring to such task as overhaul)
- b) Non-compliance with applicable airworthiness directives and other continued airworthiness requirement mandated by the Authority;
- c) Absence of the necessary information to determine the airworthiness status or eligibility for installation;
- d) Evidence of defects or malfunctions found;
- e) Component is involved in an incident or accident likely to affect its serviceability.

Unserviceable components shall be identified and stored in a secure location under the control of an Approved Maintenance Organization until a decision is made on the future status of such component. (Quarantine Store)

Components which have reached their **certified life limit** or contain a non-repairable defect shall be classified as unsalvageable and shall not be permitted to re-enter the component supply system. (Mutilated beyond economic repair)

Unsalvageable components must be:

- a) Kept at the AMO storage, or;
- b) Mutilated beyond economic salvage.

Note the difference between “service” life and “certified” life. Service life can be renewed (overhauled) while a certified life limit cannot. A part at the end of its certified life cannot be reinstalled on an aircraft.

SUBPART F - MAINTENANCE ORGANISATION

Aircraft less than 5700 kg **and** not used for Commercial Air Transport (CAT) are not required to be maintained by a 145 Organization. Instead they can be maintained by an organization approved under CAR-M Subpart F, which is essentially a scaled down version of a CAR 145 organization. Therefore, a subpart F maintenance organization is one that has the approval for particular types and/or groups of small aircraft.

Non-large and non-CAT aircraft must be managed for airworthiness in accordance with CAR M Subpart F, this can be carried out by the Owner, A licensed engineer, or a CAMO.

SUBPART G - Continuing Airworthiness Management Organization CAMO

All UAE registered aircraft, including commercial air transport aircraft, twin engine helicopters, and especially large aircraft, must have their maintenance (continuing airworthiness) managed by a Continuing Airworthiness Management Organization (CAMO) approved in accordance with CAR M Subpart G.

Figure 6 shows the how the CAMO interfaces between the owner/operator and the CAR 145 maintenance organization. In the case of one-off tasks (e.g. to recover an aircraft) individual work orders can be used. The CAR 21 Design Organization (DOA) is required to provide sufficient information and support to the operator to ensure continued airworthiness.

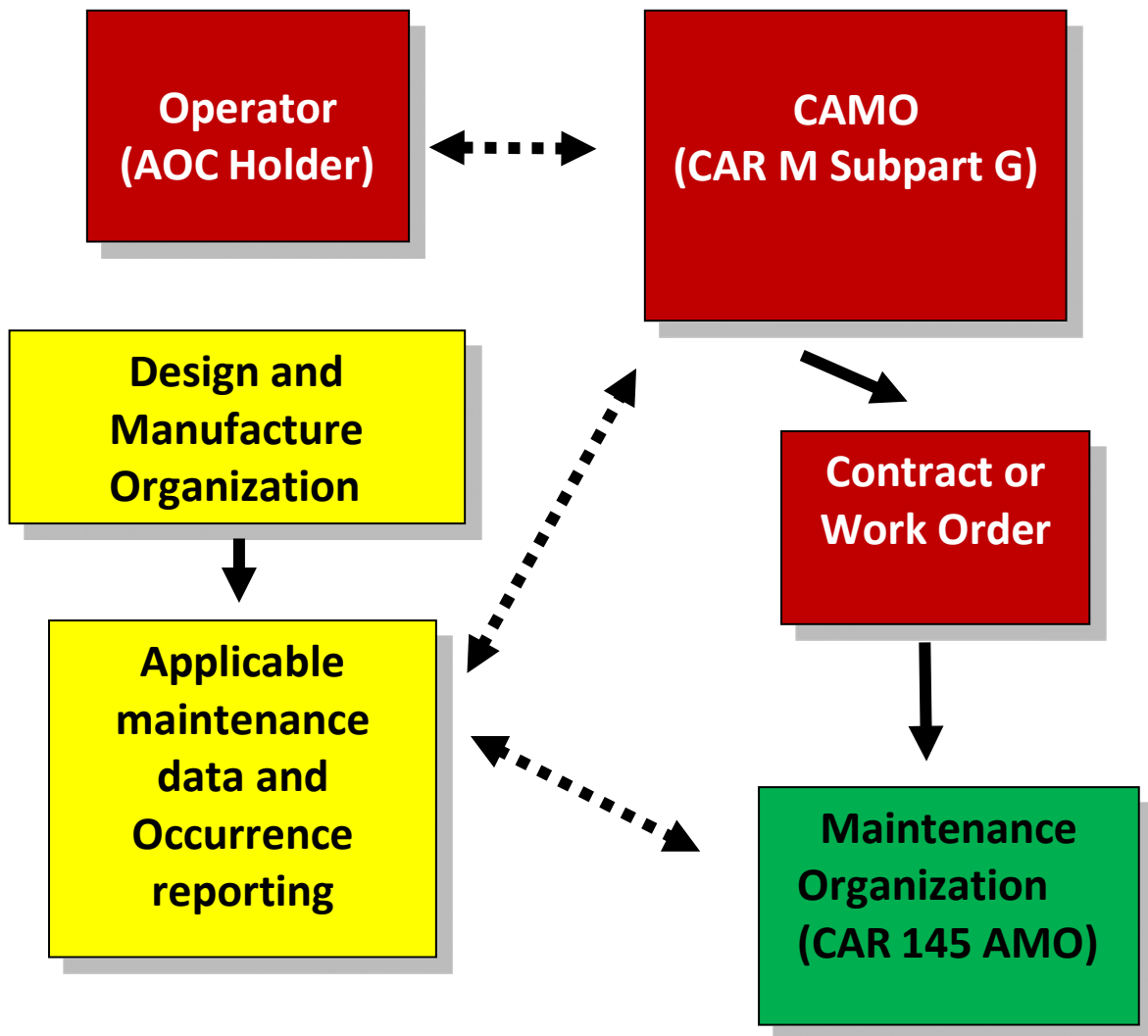


Figure 6: CAMO relationship to maintenance

CAR M Subpart G establishes the requirements to be met by an organization to qualify for the issue of an approval for the management of aircraft continuing airworthiness.

Note: CAMO's manage the aircraft maintenance, AMO's perform the maintenance.

In the event of an operator seeking an Air Operator Certificate (AOC) approval, he must simultaneously submit a CAR-M exposition.

Commercial Air Transport (CAT) operators cannot have an AOC without a CAR-M approval. Thus, the CAT operator must have his own CAMO.

Other than CAT operators, owners must contract a CAMO to act on their behalf.

The owner or operator of an aircraft is responsible for its airworthiness, but it is unacceptable for contracts to be raised to show that the CAMO is assuming responsibility for airworthiness.

The Continuing Airworthiness Management Organization (CAMO) shall provide a Continuing Airworthiness Management Exposition (CAME)

Continuing Airworthiness Management Exposition (CAR M.704)

The continuing airworthiness management organization shall provide a continuing airworthiness management exposition containing the same type of information as the CAR 145 exposition, with the following major differences:

- a) A list of the airworthiness review staff
- b) A list of approved aircraft maintenance programs

The continuing airworthiness management exposition and its amendments shall be approved by the GCAA.

CAMO Facilities (CAR M.705)

The continuing airworthiness management organization shall provide suitable office accommodation at appropriate locations for the personnel.

CAR M.706 Personnel Requirements

- (a) The organization shall appoint an accountable manager, who has corporate authority for ensuring that all continuing airworthiness management activities can be financed and carried out in accordance with this Chapter.
- (c) A person or group of persons shall be nominated with the responsibility of ensuring that the organization is always in compliance with this Subpart.
- (d) For commercial air transport, the accountable manager shall designate a nominated post holder. This person shall be responsible for the management and supervision of continuing airworthiness activities, pursuant to paragraph (c).
- (e) The nominated post holder referred to in paragraph (d) shall not be employed by a CAR 145 approved organization under contract to the operator, unless specifically agreed by the GCAA.
- (f) The organization shall have sufficient appropriately qualified staff for the expected work.
- (g) All paragraph (c) and (d) persons shall be able to show relevant knowledge, background and appropriate experience related to aircraft continuing airworthiness.
- (h) The qualification of all personnel involved in continuing airworthiness management shall be recorded.
- (j) The organization shall define and keep updated in the continuing airworthiness management exposition the title(s) and name(s) of person(s)
- (k) For all large aircraft and for aircraft used for commercial air transport the organization shall establish and control the competence of personnel involved in the continuing

airworthiness management, airworthiness review and/or quality audits in accordance with a procedure and to a standard agreed by the GCAA.

Airworthiness Review Staff (CAR M.707)

The CAMO shall have appropriate airworthiness review staff to issue Airworthiness Review Certificates (ARC).

The requirements to be an airworthiness review staff member are as follows:

- a) at least five years' experience in continuing airworthiness;
- b) an appropriate CAR 66 license or an aeronautical degree;
- c) formal aeronautical maintenance training;
- d) be employed by CAMO and holding appropriate responsibilities.

The organization shall maintain a record of all airworthiness review staff.

This record shall be retained until two years after the airworthiness review staff have left the organization.

Continuing Airworthiness Management (CAR M.708)

For every aircraft managed, the approved continuing airworthiness management organization shall develop, manage, and ensure the list of continuing airworthiness task (refer back to page 7-10).

In addition to the developing, managing, and ensuring the continuing airworthiness task, the CAMO shall also:

- a) Present amendments of the maintenance program to the GCAA for approval;
- b) Manage and archive all continuing airworthiness records and operator's technical log.
- c) Ensure that the mass and balance statement reflects the current status of the aircraft.

CAR M.710 Airworthiness Review

(a) To satisfy the requirement for the airworthiness review of an aircraft referred to in CAR M.901, a full documented review of the aircraft records shall be carried out by the approved continuing airworthiness management organization 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, and;
 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 approved according to CAR 21, and;
 7. All service life limited 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 this Chapter (CAR 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 the GCAA.
 11. If required, the aircraft holds a noise certificate corresponding to the current configuration of the aircraft in compliance with Subpart I of CAR-21).
 12. A flight test report, if required by the GCAA, and in accordance with CAR Part V, Chapter 2, Section 10.
- (b) The airworthiness review staff must perform a physical inspection of the aircraft. If they are not qualified to issue a CAR M Subpart H or CAR 145 release to service, they must be assisted by someone who is.
- (c) Through the physical survey of the aircraft, the airworthiness review staff shall ensure that:
1. all required markings and placards are properly installed; and
 2. the aircraft complies with its approved flight manual; and
 3. the aircraft configuration complies with the approved documentation; and
 4. no evident defect can be found that has not been addressed according to CAR M.403; and

5. no inconsistencies can be found between the aircraft and the paragraph (a) documented review of records.
- (d) By derogation to CAR M.901 (a), the airworthiness review can be anticipated by a maximum period of 90 days without loss of continuity of the airworthiness review pattern, to allow the physical review to take place during a maintenance check. meaning: **What it means:**
Normally, airworthiness reviews happen **once a year** to make sure the aircraft is safe and legal to fly.
But this rule says:
You are allowed to do the review up to 90 days earlier than the due
- (e) The airworthiness review certificate (AWF-ARC-15b) or the recommendation is issued by appropriately authorized CAR M.707 airworthiness review staff on behalf of the approved continuing airworthiness management organization when satisfied that the airworthiness review has been properly carried out.
- (f) Upon issue, the original airworthiness review certificate shall be forwarded to the GCAA for endorsement.
- (g) Airworthiness review tasks shall not be sub-contracted.
- (h) Should the outcome of the airworthiness review be inconclusive, the GCAA shall be informed as soon as practicable but in any case with

CAR M.711 Privileges Of The Organization

- (a) A continuing airworthiness management organization approved in accordance with Section A, Subpart G of this Chapter (CAR M) may:
1. Manage the continuing airworthiness of aircraft; except those involved in commercial air transport, as listed on the approval certificate.
 2. Manage the continuing airworthiness of commercial air transport when listed both on its approval certificate and on its Air Operator Certificate (AOC).
 3. Arrange to carry out limited continuing airworthiness tasks with any contracted organization, working under its quality system, as listed on the approval certificate;
- (b) An approved continuing airworthiness management organization may, additionally, be approved to carry out airworthiness reviews referred to in CAR M.710 and:
1. Issue the related airworthiness review certificate
 2. Issue a recommendation for the airworthiness review to the GCAA.

CAR M.712 Quality System

- (a) To ensure that the approved continuing airworthiness management organization continues to meet the requirements of this Subpart, it shall establish a quality system and designate a quality manager to monitor compliance with, and the adequacy of, procedures required to ensure airworthy aircraft. Compliance monitoring shall include

a feedback system to the accountable manager to ensure corrective action as necessary.

(b) The quality system shall monitor CAR M. Subpart G activities. It shall at least include the following functions:

1. Monitoring that all CAR M. Subpart G activities are being performed in accordance with the approved procedures, and;
2. Monitoring that all contracted maintenance is carried out in accordance with the contract, and;
3. Monitoring the continued compliance with the requirements of this Chapter.

(c) The records of these activities shall be stored for at least two years.

(d) Where the approved continuing airworthiness management organization is approved in accordance with another CAR Part or Chapter, the quality system may be combined with that required by the other Part or Chapter.

(e) In case of commercial air transport the CAR M. Subpart G quality system shall be an integrated part of the operator's quality system.

Changes to the Approved CAMO (CAR M.713)

The approved continuing airworthiness management organization shall notify the GCAA of any proposal to carry out any of the following changes, before such changes take place:

- a) the name of the organization;
- b) the location of the organization;
- c) additional locations of the organization;
- d) the accountable manager;
- e) any of the persons nominated with responsibility of ensuring organization is always in compliance with regulations;
- f) the facilities, procedures, work scope, and staff that could affect the approval.

Note: In the case of proposed changes in personnel not known to the management beforehand, these changes shall be notified at the earliest opportunity.

CAR M.714 Record Keeping

- (a) The continuing airworthiness management organization shall record all details of work carried out. The records required by CAR M.305 and if applicable CAR M.306 shall be retained.
- (b) If the continuing airworthiness management organization has the privilege referred to in CAR M.711 (b), it shall retain a copy of each airworthiness review certificate and recommendation issued together with all supporting documents.
- (c) Reserved
- (d) The continuing airworthiness management organization shall retain a copy of all records referred to in paragraph (b) until two years after the aircraft has been permanently withdrawn from service.
- (e) The records shall be stored in a manner that ensures protection from damage, alteration and theft.
- (f) All computer hardware used to ensure backup shall be stored in a different location from that containing the working data in an environment that ensures they remain in good condition.
- (g) Where continuing airworthiness management of an aircraft is transferred to another organization or person, all retained records shall be transferred to the said organization or person. The time periods prescribed for the retention of records shall continue to apply to the said organization or person.
- (h) Where a continuing airworthiness management organization terminates its operation, all retained records shall be transferred to the owner of the aircraft.

Continued Validity of CAMO Approval (CAR M.715)

An approval shall be issued with 1 year validity, unless otherwise specified by the GCAA.

SUBPART H - CERTIFICATE OF RELEASE TO SERVICE — CRS

CAR M.801 Aircraft Certificate Of Release To Service

- (a) Except for aircraft released to service by a maintenance organization approved in accordance with CAR 145, the certificate of release to service shall be issued according to this Subpart;
- (b) No aircraft shall be released to service unless a certificate of release to service is issued at the completion of any maintenance, when satisfied that all maintenance required has been properly carried out, by:
1. appropriate certifying staff on behalf of the maintenance organization approved in accordance with Section A, Subpart F of this Chapter (CAR M); or
- (f) A certificate of release to service shall contain as a minimum:
1. Basic details of the maintenance carried out; and
 2. The date such maintenance was completed; and
 3. The identity of the organization and/or person issuing the release to service, including:
 - (i) The approval reference of the maintenance organization approved in accordance with Section A, Subpart F of this Chapter (CAR M) and the certifying staff issuing such a certificate;
 4. The limitations to airworthiness or operations, if any.
- (g) If all required maintenance cannot be fully completed, a certificate of release to service can still be issued, as long as it stays within the aircraft's approved limits. Any incomplete maintenance and related limitations (affecting airworthiness or operation) must be clearly written in the release to service document, as required by paragraph (f)4.
- (h) A certificate of release to service shall not be issued in the case of any known non-compliance which endangers flight safety

CAR M.802 Component Certificate Of Release To Service

- (a) A certificate of release to service shall be issued at the completion of any maintenance carried out on an aircraft component in accordance with CAR M.502.
- (b) The AW Form 1 is the official release certificate for a component after maintenance.
But if the maintenance was done under CAR M.502(b) (i.e., while the component is still installed on the aircraft), then it follows the aircraft release rules under CAR M.801 instead.

AMC to CAR M.802 **Component certificate of release to service**

When an approved organization maintains a component for its own use, an AW Form 1 may not be needed, depending on its internal release procedures. However, the certificate of release to service must still include all the information normally required by AW Form 1.

Airworthiness Review Certificate – ARC (Subpart I)

To ensure the validity of the aircraft certificate of airworthiness, an airworthiness review of the aircraft and its continuing airworthiness records shall be carried out periodically (yearly).

Aircraft Airworthiness Review (CAR M.901)

The airworthiness review certificate is valid for one year provided that the certificate is accepted by the GCAA. Their acceptance is indicated by endorsing the certificate;

For all aircraft used in commercial air transport (CAT), and aircraft above 2730 kg MTOM (except balloons), that are in a controlled environment, the CAMO managing the continuing airworthiness of the aircraft may, if appropriately approved, issue an airworthiness review certificate in accordance with this regulation.

An aircraft is considered in a controlled environment, if in the last 12 months:

- has been continuously managed by a unique (one) CAMO; and
- has been maintained by an approved maintenance organization.

When continuing airworthiness for all aircraft used in commercial air transport, and aircraft above 2730 kg MTOM, except balloons, is managed by a continuing airworthiness management organization that does not hold the privilege to carry out airworthiness reviews, the airworthiness review certificate shall be issued by the GCAA upon satisfactory assessment based on a recommendation made by a continuing airworthiness management organization sent together with the application from the owner or operator.

The GCAA's endorsed airworthiness review certificate shall be carried on board the aircraft along with the Certificate of Airworthiness.

Note: whenever circumstances reveal the existence of a potential safety threat, the GCAA shall carry out the airworthiness review and issue the airworthiness review certificate itself

Note: an airworthiness review certificate cannot be issued if there is evidence or reason to believe that the aircraft is not airworthy

Note: the ARC is considered to be part of the aircraft's Certificate of Airworthiness.

CAR M.902 Validity Of The Airworthiness Review Certificate

(a) An airworthiness review certificate becomes invalid if:

1. Suspended or revoked; or
2. The certificate of airworthiness is suspended, revoked or becomes invalid due to any reason specified in CAR 21.181; or
3. The aircraft is not register of the United Arab Emirates; or
4. The type certificate under which the certificate of airworthiness was issued is suspended or revoked, or
5. The 1 year validity period is lapsed unless specifically extended by the GCAA.

(b) An aircraft must not fly if the certificate of airworthiness is invalid or if:

1. The continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of this Chapter, or;
 2. The aircraft does not remain in conformity with the type design approved by the GCAA; or
 3. The aircraft has been operated beyond the limitations of the approved flight manual or the airworthiness certificate, without appropriate action being taken; or
 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; or
 5. A modification or repair has not been approved in accordance with CAR 21.
- (c) Upon surrender or revocation, the airworthiness review certificate shall be returned to the GCAA.

Transfer of Aircraft Registration (CAR M.903)

When transferring an aircraft registration to another country and upon the importing authority's request, the GCAA shall issue an export certificate of airworthiness for this aircraft subject to it having an airworthiness review carried out satisfactorily in accordance with this Subpart.

CAR M.904 Airworthiness review of aircraft imported into the United Arab Emirates

(a) When importing an aircraft onto the UAE register from a third country, the applicant shall:

1. Apply for the issuance of a new certificate of airworthiness in accordance with CAR 21;
2. Have an airworthiness review carried out satisfactorily in accordance with CAR M.901; and
3. Have all maintenance carried out to comply with the approved maintenance programme in accordance with CAR M.302.

(b) When satisfied that the aircraft is in compliance with the relevant requirements, the continuing airworthiness management organization, if applicable, shall send a documented recommendation for the issuance of an airworthiness review certificate to the GCAA.

(c) The owner shall allow access to the aircraft for inspection by the GCAA.

(d) A new certificate of airworthiness will be issued by the GCAA when it is satisfied the aircraft complies with the prescriptions of CAR 21.

(e) The GCAA shall also issue the airworthiness review certificate valid normally for one year unless the GCAA has safety reasons to limit the validity.

Intentionally Blank