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Maldivian Civil Aviation Regulations

MCAR-M Continuing Airworthiness

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Maldives Civil Aviation Authority
Republic of Maldives

Maldivian Civil Aviation Regulations

MCAR-M Continuing Airworthiness

Issue 3.00, 18 December 2019

Foreword

Maldives Civil Aviation Authority, in exercise of the powers conferred on it under Articles 5 and 6 of the Maldives Civil Aviation Authority Act 2/2012 has adopted this Regulation.

This Regulation shall be cited as MCAR-M Continuing Airworthiness and shall come in to force on 18 December 2019.

Existing aviation requirements in the field of airworthiness as listed in MCAR-M Continuing Airworthiness Requirements dated 22 October 2015 will be repealed as from 18 December 2019.

Definitions of the terms and abbreviations used in this regulation, unless the context requires otherwise, are in MCAR-1 Definitions and Abbreviations.

'Acceptable Means of Compliance' (AMC) illustrate a means, or several alternative means, but not necessarily the only possible means by which a requirement can be met.

'Guidance Material' (GM) helps to illustrate the meaning of a requirement.

List of Amendments

Rev #	Date	Remarks
Issue 1 Amendment 0	2007-07-15	Initial issue
Issue 1 Amendment 1	2008-08-19	
Issue 1 Amendment 2	2008-09-22	
Issue 1 Amendment 3	2009-01-06	Incorporated up to EU No. 1056/2008 and EDD 2008/013/R
Issue 1 Amendment 4	2009-05-25	Incorporated EDD 2009/006/R
Issue 2 Amendment 0	2015-10-22	Incorporated up to SARI Part M Initial Issue, EU No. 593/2012 and EDD 2013/034/R
Issue 3 Amendment 0	2019-12-18	Incorporated up to SARI Part M Issue 2, EU No. 2015/1536 and EDD 2016/011/R

List of Effective Pages

Section	Part	Page	Issue	Date
	Foreword	ii	3.00	18 Dec 2019
	List of Amendments	iii	3.00	18 Dec 2019
	List of Effective Pages	iv-v	3.00	18 Dec 2019
	Table of Contents	vi-viii	3.00	18 Dec 2019
A	Technical Requirements	1-196	3.00	18 Dec 2019
B	Procedure for the Authority	197-198	3.00	18 Dec 2019
-	Appendices to the Regulations	199-251	3.00	18 Dec 2019
-	Appendices to the AMCs	252-326	3.00	18 Dec 2019

Section	Part	Page	Issue	Date

Table of Contents

Section A – TECHNICAL REQUIREMENTS

Subpart A — GENERAL

MCAR-M.A.1 Definitions

Licenced air carrier Undertaking carrying out commercial air transport operations other than:

a. air services performed by non-power driven aircraft and/or ultralight aircraft; and/or
b. local flights

Limited operation the operations of other-than-complex motor-powered aircraft for:

a. 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;

b. 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, as well as prizes of no more than a value specified by the CAA;

c. introductory flights, parachute dropping, sailplane towing or aerobatic flights performed either by a training organisation approved in accordance with MCAR-Aircrew, 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;

local flight a flight not involving carriage of passengers, mail and/or cargo between different airports or other authorised landing points;

undertaking any natural or legal person, whether profit-making or not, or any official body whether having its own legal personality or not;

MCAR-M.A.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 organisations involved in such continuing airworthiness management.

Subpart B — ACCOUNTABILITY

MCAR-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 the aircraft is performed in accordance with the maintenance programme as specified in MCAR-M.A.302.

(b) When the aircraft is leased, the responsibilities of the owner are transferred to the lessee if:

1. the lessee is stipulated on the registration document, or;

2. detailed in the leasing contract.

When reference is made in this MCAR 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 pilot-in-command or, in the case of licenced air carriers, 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 organisation or by MCAR-66 certifying staff.

(e) In the case of aircraft used by licenced air carriers, 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 air operator certificate, as a continuing airworthiness management organisation pursuant to M.A. Subpart G (CAMO) for the aircraft it operates; and

3. Be approved, in accordance with MCAR145 or establish a contract in accordance with M.A.708(c) with such organisation.

(f) For complex motor-powered aircraft used for commercial specialised operations, or CAT other than those by licenced air carriers, or commercial ATOs, 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 CAMO approved itself then the operator shall establish a written contract in accordance with Appendix 1 with such an organisation, and

3. The CAMO referred to in (2) is approved in accordance with MCAR-145 for the maintenance of the aircraft and components for installation thereon, or it has established a contract in accordance with M.A.708(c) with such organisations.

(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 CAMO approved itself then the owner shall establish a written contract in accordance with Appendix 1 with such an organisation, and

3. the CAMO referred to in (2) is approved in accordance with MCAR-145 for the maintenance of the aircraft and components installation thereon, or it has established a contract in accordance with M.A.708(c) with such organisations.

(h) For other than complex motor-powered aircraft, used for commercial specialised operations, or CAT other than those by licenced air carriers, or commercial ATOs, 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. When the operator is not CAMO approved itself then the operator shall establish a written contract in accordance with Appendix 1 with such an organisation, and

3. the CAMO referred in paragraph (2) is approved in accordance with MCAR-M Subpart F or MCAR-145 for the maintenance of the aircraft and components for installation thereon, or it has established a contract in accordance with M.A.708(c) with such organisation.

(i) For other than complex motor-powered aircraft not included in paragraph (e) and (h), or used for "limited operations", the owner is responsible for ensuring that no flight takes

place unless the conditions defined in paragraph (a) are met. To that end, the owner shall:

1. contract the tasks associated with continuing airworthiness to an approved CAMO through a written contract in accordance with Appendix 1, which will transfer the responsibility for the accomplishment of these tasks to the contracted CAMO, or,

2. manage the continuing airworthiness of the aircraft under its own responsibility, without contracting an approved CAMO, or,

3. manage the continuing airworthiness of the aircraft under its own responsibility and establish a limited contract for the development of the maintenance programme and for processing its approval in accordance with paragraph M.A.302 with:
   - An approved CAMO, or
   - In the case of ELA2 aircraft, an MCAR-145 or M.A Subpart F maintenance organisation.

This limited contract transfers the responsibility for the development and, except in the case where a declaration is issued by the owner in accordance with M.A.302(h), processing the approval of the maintenance programme to the contracted organisation.

(j) The owner/operator shall ensure that any person authorised by the CAA is granted access to any of its facilities, aircraft or documents related to its activities, including any subcontracted activities, to determine compliance with this Regulation.

GM M.A.201 Responsibilities

Quick summary table

Select your type of operation and your category of aircraft			Complex motor-powered aircraft		Other-than-complex motor-powered aircraft	
			Is a CAMO required for the management of continuing airworthiness?	Is maintenance by a maintenance organisation required?	Is a CAMO required for the management of continuing airworthiness?	Is maintenance by a maintenance organisation required?
Commercial operations	CAT	Licenced air carriers	Yes, a CAMO is required and it shall be part of the AOC (M.A.201(e))	Yes, maintenance by a MCAR-145 organisation is required (M.A.201(e))	Yes, a CAMO is required and it shall be part of the AOC (M.A.201(e))	Yes, maintenance by a MCAR-145 organisation is required (M.A.201(e))
		CAT other than licenced air carriers	Yes, a CAMO is required (M.A.201(f))	Yes, maintenance by a MCAR-145 organisation is required (M.A.201(f))	Yes, a CAMO is required (M.A.201(h))	Yes, maintenance by a Subpart F or by a MCAR-145 organisation is required (M.A.201(h))
	Commercial operations other than CAT	Commercial specialised operations	Yes, a CAMO is required (M.A.201(f))	Yes, maintenance by a MCAR-145 organisation is required (M.A.201(f))	Yes, a CAMO is required (M.A.201(h))	Yes, maintenance by a Subpart F or by a MCAR-145 organisation is required (M.A.201(h))
		Commercial training organisations (ATOs)	Yes, a CAMO is required (M.A.201(f))	Yes, maintenance by a MCAR-145 organisation is required (M.A.201(f))	Yes, a CAMO is required (M.A.201(h))	Yes, maintenance by a Subpart F or by a MCAR-145 organisation is required (M.A.201(h))
Other than commercial operations including limited operations			Yes, a CAMO is required (M.A.201(g))	Yes, maintenance by a MCAR-145 organisation is required (M.A.201(g))	No, a CAMO is not required (M.A.201(i))	No, maintenance by a Subpart F or MCAR-145 organisation is not required (M.A.201(i))

GM M.A.201(e) Responsibilities

The performance of ground de-icing and anti-icing activities does not require a MCAR-145 maintenance organisation approval. Nevertheless, inspections required to detect and, when necessary, remove de-icing and/or anti-icing fluids are considered maintenance. Such inspections may only be carried out by suitably authorised personnel.

AMC M.A.201(e)(2) Responsibilities

1. A licenced air carriers only needs to hold a CAMO approval as part of its air operator certificate (AOC) for the management of the continuing airworthiness of the aircraft listed on its AOC. The approval to carry out airworthiness reviews is optional.

2. MCAR-M does not provide for CAMOs to be independently approved to perform continuing airworthiness management tasks on behalf of licenced air carriers. The approval of such activity is vested in the AOC.

3. The operator is ultimately responsible and, therefore, accountable for the airworthiness of its aircraft.

GM M.A.201(f) Commercial ATO

"Commercial ATO" refers to "training organisation(s)", as meant in Article 10a of MCAR-Aircrew, which operate aircraft for commercial purposes in order to provide Part-FCL training courses.

GM M.A.201(i), M.A.302(h) and M.A.901(l)

Maintenance Programme development and approval (for private aircraft other than complex motor-powered aircraft *)

* This means aircraft for which M.A.201(e), (f), (g) and (h) do not apply.

The following table provides a summary of the provisions contained in M.A.201(i), AMC M.A.201(i)(3), and GM M.A.201(i)(3):

	OPTION 1 (for private aircraft other than complex motor-powered aircraft)	OPTION 2 (for private aircraft other than complex motor-powered aircraft)	OPTION 3 (for ELA2 aircraft not involved in commercial operations)
Development and processing of the approval of the maintenance programme	Performed by the owner	Contracted to a CAMO (whether it is done through a full contract for the continuing airworthiness management of the aircraft or through a limited contract for the development and processing of the	Contracted to a MCAR-145 or M.A. Subpart F maintenance organisation (see M.A.201(i)(3))

		maintenance programme)	
Approval/Declaration of the maintenance programme	Direct approval by the CAA or Declaration by the owner (only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))	Direct approval by the CAA or Indirect approval by the contracted CAMO or Declaration by the owner (only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))	Direct approval by the CAA or Declaration by the owner (only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))

Maintenance programme content and airworthiness review (for all aircraft)

The following table provides a summary of the provisions contained in M.A.302 and AMC M.A.901 in relation to the content of the maintenance programme, its approval and its link with the airworthiness review:

	OPTION 1 (for all aircraft)	**OPTION 2 (for ELA1 aircraft not involved in commercial operations)**
Basic information used for the maintenance programme	Maintenance data from the Design Approval Holder (complying with M.A.302(d) and (e))	'Minimum Inspection Programme' (see M.A.302(h)2 and M.A.302(i)) (not applicable to airships)
Customisation to a particular aircraft registration	Complying with M.A.302(e) or Using the template in AMC M.A.302(e) **(only for other-than-complex motor powered aircraft)**	Using the template in AMC M.A.302(e)
Approval/Declaration of the maintenance programme	Direct approval by CAA or Indirect approval by contracted CAMO or Declaration by the owner (see M.A.302(h)) (only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))	Direct approval by CAA or Indirect approval by contracted CAMO or Declaration by the owner (see M.A.302(h)) (only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))
Performance of Airworthiness Review and issue of Airworthiness Review Certificate	CAMO or CAA	CAA or CAMO or MCAR-145/M.A. Subpart F maintenance

		organisation (when combined with annual inspection, see M.A.901(l))

GM M.A.201(i) Aircraft maintenance programme

If an owner decides not to make a contract in accordance with M.A.201(i), the owner is fully responsible for the proper accomplishment of the corresponding tasks. As a consequence, it is recommended that the owner properly self-assesses his/her own competence to accomplish them or otherwise seeks the proper expertise.

AMC M.A.201(i)(3) Responsibilities

The limited contract for the development and, when applicable, processing of the approval of the aircraft maintenance programme should cover the responsibilities related to MCAR-M.A.302(d), M.A.302(e) and M.A.302(g).

In the case of ELA1 aircraft not involved in commercial operations, the limited contract between the owner and the CAMO/maintenance organisation should cover the following aspects:

- Whether the maintenance programme will be based on the 'Minimum Inspection Programme' described in M.A.302(i)

- The obligations for the CAMO/maintenance organisation to develop and propose to the owner a maintenance programme which:

  - identifies the owner and the specific aircraft, engine and propeller (as applicable);

  - includes all mandatory maintenance information and any additional tasks derived from the evaluation of the recommendations issued by the Design Approval Holder';

  - does not go below the requirements of the Minimum Inspection Programme; and

  - is customized to the particular aircraft type, configuration and operation, in accordance with M.A.302(h)3.

- Whether the maintenance programme is going to be approved by the CAA or the owner is going to issue a declaration for the maintenance programme.

  - In the case of approval by the CAA, whether indirect approval by the CAMO is permitted or not.

  - In the case of declaration by the owner, a statement in the contract making clear that the owner assumes full responsibility for any deviations introduced to the maintenance programme proposed by the CAMO/maintenance organisation.

MCAR-M.A.202 Occurrence Reporting

(a) Any person or organisation responsible in accordance with point M.A.201 shall report to the CAA, the organisation responsible for the type design or supplemental type design and, if applicable, the State of operator, any identified condition of an aircraft or component which endangers flight safety.

(b) Reports shall be made in a manner established by the CAA and contain all pertinent information about the condition known to the person or organisation.

(c) Where the person or organisation maintaining the aircraft is contracted by an owner or an operator to carry out maintenance, the person or the organisation maintaining the aircraft shall also report to the owner, the operator or the continuing airworthiness management organisation 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 organisation identifying the condition to which the report relates.

AMC M.A.202(a) Occurrence Reporting

Accountable persons or organisations should ensure that the type certificate (TC) holder receives adequate reports of occurrences for that aircraft type, to enable it to issue appropriate service instructions and recommendations to all owners or operators.

Liaison with the TC holder is recommended to establish whether published or proposed service information will resolve the problem or to obtain a solution to a particular problem.

An approved continuing airworthiness management or maintenance organisation should assign responsibility for co-ordinating action on airworthiness occurrences and for initiating any necessary further investigation and follow-up activity to a suitably qualified person with clearly defined authority and status.

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.

AMC M.A.202(b) Occurrence Reporting

The reports may be transmitted by any method, i.e. electronically, by post or by facsimile.

Each report should contain at least the following information:

- reporter or organisation's name and approval reference if applicable,
- information necessary to identify the subject aircraft and/or component,
- date and time relative to any life or overhaul limitation in terms of flying hours/cycles/landings etc., as appropriate,
- details of the occurrence.

MCAR-12 Section 2 provides further guidance on occurrence reporting.

Subpart C — CONTINUING AIRWORTHINESS

MCAR-M.A.301 Continuing airworthiness tasks

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. the rectification in accordance with the data specified in point M.A.304 and/or point M.A.401, as applicable, of any defect and damage affecting safe operation taking into account, the minimum equipment list and configuration deviation list, when applicable;

3. the accomplishment of all maintenance, in accordance with the M.A.302 aircraft maintenance programme;

4. for all complex motor-powered aircraft or aircraft used by licenced air carriers, the analysis of the effectiveness of the M.A.302 approved maintenance programme;

5. the accomplishment of any applicable:

   (i) airworthiness directive,

   (ii) operational directive with a continuing airworthiness impact,

   (iii) continued airworthiness requirement established by the CAA,

   (iv) measures mandated by the competent authority in immediate reaction to a safety problem;

6. the accomplishment of modifications and repairs in accordance with M.A.304;

7. for non-mandatory modifications and/or inspections, for all complex motor-powered aircraft or aircraft used by licenced air carriers, the establishment of an embodiment policy;

8. maintenance check flights when necessary.

AMC M.A.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. These should typically include but are not necessarily limited to:

   (a) a walk-around type inspection of the aircraft and its emergency equipment for condition including, in particular, any obvious signs of wear, damage or leakage. In addition, the presence of all required equipment including emergency equipment should be established.

   (b) an inspection of the aircraft continuing airworthiness record system or the operators technical log as applicable to ensure that the intended flight is not adversely affected by any outstanding deferred defects and that no required maintenance action shown in the maintenance statement is overdue or will become due during the flight.

   (c) a control that consumable fluids, gases etc. uplifted prior to flight are of the correct specification, free from contamination, and correctly recorded.

   (d) a control that all doors are securely fastened.

   (e) a control that control surface and landing gear locks, pitot/static covers, restraint devices and engine/aperture blanks have been removed.

   (f) a control that all the aircraft's external surfaces and engines are free from ice, snow, sand, dust etc. and an assessment to confirm that, as the result of meteorological conditions and de-icing/anti-icing fluids having been previously applied on it, there are no fluid residues that could endanger flight safety. Alternatively to this pre-flight assessment, when the type of aircraft and nature of operations allow for it, the build-up of residues may be controlled through scheduled maintenance inspections/cleanings identified in the approved maintenance programme.

2. Tasks such as oil and hydraulic fluid uplift and tyre inflation may be considered as part of the pre-flight inspection. The related pre-flight inspection instructions should address the procedures to determine where the necessary uplift or inflation results from an abnormal consumption and possibly requires additional maintenance action by the approved maintenance organisation or certifying staff as appropriate.

3. In the case of licenced air carriers, the CAMO should publish guidance to maintenance and flight personnel and any other personnel performing pre-flight inspection tasks, as appropriate, defining responsibilities for these actions and, where tasks are contracted to other organisations, how their accomplishment is subject to the quality system of M.A.712. It should be demonstrated to the CAA that pre-flight inspection personnel have received appropriate training for the relevant pre-flight inspection tasks. The training standard for personnel performing the pre-flight inspection should be described in the continuing airworthiness management exposition.

AMC M.A.301(2) Continuing airworthiness tasks

1. The operator should have a system to ensure that all defects affecting the safe operation of the aircraft are rectified within the limits prescribed by the approved minimum equipment list (MEL), configuration deviation list (CDL) or maintenance data, as appropriate. Also that such defect rectification cannot be postponed unless agreed by the operator and in accordance with a procedure approved by the CAA.

2. When differing or carrying forward a defect rectification, the cumulative effect of a number of deferred or carried forward defects on a given aircraft and any restrictions contained in the MEL should be considered. Whenever possible, deferred defect rectification should be made known to the pilot/flight crew prior to their arrival at the aircraft.

3. In the case of aircraft used by licenced air carriers and of complex motor-powered aircraft, a system of assessment should be in operation to support the continuing airworthiness of an aircraft and to provide a continuous analysis of the effectiveness of the CAMO defect control system in use.

   The system should provide for:

   (a) significant incidents and defects: monitor incidents and defects that have occurred in flight and defects found during maintenance and overhaul, highlighting any that appear significant in their own right.

   (b) repetitive incidents and defects: monitor on a continuous basis defects occurring in flight and defects found during maintenance and overhaul, highlighting any that are repetitive.

   (c) deferred and carried forward defects: Monitor on a continuous basis deferred and carried forward defects. Deferred defects are defined as those defects reported in operational service which are deferred for later rectification. Carried forward defects are defined as those defects arising during maintenance which are carried forward for rectification at a later maintenance input.

   (d) unscheduled removals and system performance: analyse unscheduled component removals and the performance of aircraft systems for use as part of the maintenance programme efficiency.

AMC M.A.301(3) Continuing airworthiness tasks

The owner or the CAMO as applicable should have a system to ensure that all aircraft maintenance checks are performed within the limits prescribed by the approved aircraft maintenance programme and that, whenever a maintenance check cannot be performed within the required time limit, its postponement is allowed in accordance with a procedure agreed by the CAA.

AMC M.A.301(4) Continuing airworthiness tasks

The CAMO managing the continuing airworthiness of the aircraft should have a system to analyse the effectiveness of the maintenance programme, with regard to spares, established defects, malfunctions and damage, and to amend the maintenance programme accordingly.

AMC M.A.301(5) Continuing airworthiness tasks

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 CAA includes TC related requirements such as: certification maintenance requirements (CMR), certification life limited parts, airworthiness limitations as notified by the manufacturer and approved by the State of design, fuel tank system airworthiness limitations including Critical Design Configuration Control Limitations (CDCCL) etc.

AMC M.A.301(7) Continuing airworthiness tasks

The CAMO managing the continuing airworthiness of the aircraft should establish and work according to a policy, which assesses non mandatory information related to the airworthiness of the aircraft. Non mandatory information such as service bulletins, service letters and other information that is produced for the aircraft and its components by an approved design organisation, the manufacturer, the State of Design or the CAA.

MCAR-M.A.302 Aircraft Maintenance programme

(a) Maintenance of each aircraft shall be organised in accordance with an aircraft maintenance programme.

(b) The aircraft maintenance programme and any subsequent amendments shall be approved by the CAA.

(c) When the continuing airworthiness of the aircraft is managed by a continuing airworthiness management organisation approved in accordance with M.A. Subpart G or when there is a limited contract between the owner and this organisation in accordance with point M.A.201(i)(3), the aircraft maintenance programme and its amendments may be approved through an indirect approval procedure.

(i) In that case, the indirect approval procedure shall be established by the continuing airworthiness management organisation as part of the Continuing Airworthiness Management Exposition and shall be approved by the CAA.

(ii) (Reserved)

(d) The aircraft maintenance programme must establish compliance with:

(i) instructions issued by the CAA;

(ii) instructions for continuing airworthiness:

- issued by the holders of the type certificate, restricted type-certificate, supplemental type-certificate, major repair design approval, TSO/ETSO authorisation or any other relevant approval issued or accepted under MCAR-21.

- Included in the certification specifications referred to in point 21A.90B or 21A.431B of MCAR-21, if applicable;

(iii) additional or alternative instructions proposed by the owner or the continuing airworthiness management organisation once approved in accordance with point M.A.302, except for intervals of safety related tasks referred in paragraph (e), which may be escalated, subject to sufficient reviews carried out in accordance with paragraph (g) and only when subject to direct approval in accordance with point M.A.302(b).

(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 complex motor-powered aircraft, when the maintenance programme is based on maintenance steering group logic or on condition monitoring, the aircraft maintenance programme shall include a reliability programme.

(g) The aircraft maintenance programme shall be subject to periodic reviews and amended accordingly when necessary. These reviews will ensure that the programme continues to be valid in light of the operating experience and instructions from the competent authority whilst taking into account new and/or modified maintenance instructions promulgated by the type certificate and supplementary type certificate holders and any other organisation that publishes such data in accordance with MCAR-21.

(h) In the case of ELA1 aircraft not involved in commercial operations, compliance with point (b), (c), (d), (e) and (g) may be replaced by compliance with all the following conditions:

1. The aircraft maintenance programme shall clearly identify the owner and the specific aircraft to which it refers, including any installed engine and propeller.

2. The aircraft maintenance programme shall either:

   - comply with the "Minimum Inspection Programme", contained in paragraph (i), corresponding to the particular aircraft, or

   - comply with points (d) and (e).

   The maintenance programme shall not be less restrictive than the "Minimum Inspection Programme".

3. The aircraft maintenance programme shall include all the mandatory continuing airworthiness requirements, such as repetitive Airworthiness Directives, the Airworthiness Limitations Section (ALS) of the Instructions for the Continued Airworthiness (ICA) or specific maintenance requirements contained in the Type Certificate Data Sheet (TCDS).

   In addition, the aircraft maintenance programme shall identify any additional maintenance tasks to be performed because of the specific aircraft type, aircraft configuration and type and specificity of operation. The following elements shall be taken into consideration as a minimum:

   - Specific installed equipment and modification of the aircraft.
   - Repairs incorporated in the aircraft.
   - Life limited components and flight safety critical components.
   - Maintenance recommendations, such as Time Between Overhauls (TBO) intervals, recommended through service bulletins, service letters and other non-mandatory service information.
   - Applicable operational directives/requirements related to the periodic inspection of certain equipment.
   - Special operational approvals.
   - Use of the aircraft and operational environment.
   - Pilot-owner maintenance (if applicable).

4. If the maintenance programme is not approved by the CAA (directly or by the M.A. Subpart G organisation via an indirect approval procedure), the aircraft maintenance programme shall contain a signed statement where the owner declares that this is the aircraft maintenance programme for the particular aircraft registration and he/she declares to be fully responsible for its content and, in particular, for any deviations introduced as regards the Design Approval Holder recommendations.

5. The aircraft maintenance programme shall be reviewed at least annually. This review of the maintenance programme shall be performed either:

   - By the person who performs the airworthiness review of the aircraft in accordance with paragraph M.A.710(ga), or

   - By the M.A. Subpart G organisation managing the continuing airworthiness of the aircraft in those cases where the review of the maintenance programme is not performed in conjunction with an airworthiness review

   If the review shows discrepancies on the aircraft linked to deficiencies in the content of the maintenance programme, the person performing the review shall inform the CAA and the owner shall amend the maintenance programme as agreed with CAA.

(i) In the case of ELA1 aircraft other than airships, not involved in commercial operations, the "Minimum Inspection Programme" referred in point (h) shall comply with the following conditions:

1. It shall contain the following inspection intervals:

   - For ELA1 aeroplanes and ELA1 Touring Motor Gliders (TMG), every annual or 100 h interval, whichever comes first. A tolerance of 1 month or 10 h may be applied to that interval as long as the next interval is calculated from the date or hours originally scheduled.

   - For ELA1 sailplanes, ELA1 powered sailplanes other than TMG and ELA1 balloons, every annual interval. A tolerance of 1 month may be applied to that interval as long as the next interval is calculated from the date originally scheduled.

2. It shall contain the following:

   - Servicing tasks as required by the Design Approval Holder's requirements.
   - Inspection of markings.
   - Review of weighing records and weighing in accordance with MCAR-Air Operations, point NCO.POL.105.
   - Operational test of transponder (if existing).
   - Operational test of the pitot-static system.
   - In the case of ELA1 aeroplanes:

- Operational checks for power and rpm, magnetos, fuel and oil pressure, engine temperatures.
- For engines equipped with automated engine control, the published run-up procedure.
- For dry-pump engines, engines with turbochargers and liquid cooled engines, an operational check for signs of disturbed fluid circulation.

- Inspection of the condition and attachment of the structural items, systems and components corresponding to the following areas:
  - For ELA1 aeroplanes:
    - Airframe
    - Cabin and cockpit
    - Landing gear
    - Wing and centre section
    - Flight controls
    - Empennage
    - Avionics and electrics
    - Powerplant
    - Clutches and gearboxes
    - Propeller
    - Miscellaneous systems such as the ballistic rescue system

  - For ELA1 sailplanes and ELA1 powered sailplanes:
    - Airframe
    - Cabin and cockpit
    - Landing gear
    - Wing and centre section
    - Empennage
    - Avionics and electrics
    - Powerplant (when applicable)
    - Miscellaneous systems such as removable ballasts, drag chute and controls, and water ballast system

  - For ELA1 hot-air balloons:
    - Envelope
    - Burner
    - Basket
    - Fuel containers
    - Equipment and instrument

  - For ELA1 gas balloons:
    - Envelope
    - Basket
    - Equipment and instruments

Until such time as this regulation specifies a "Minimum Inspection Programme" for airships, their maintenance programme shall comply with points (d) and (e).

AMC M.A.302 Aircraft Maintenance Programme

Note : This AMC is not applicable to those ELA1 aircraft not involved in commercial operations for which the owner has elected to apply the provisions of M.A.302(h). For those cases, refer to AMC M.A.302(h).

1. The term "maintenance programme" is intended to include scheduled maintenance tasks the associated procedures and standard maintenance practises. The term "maintenance schedule" is intended to embrace the scheduled maintenance tasks alone.

2. The aircraft should only be maintained to one approved maintenance programme at a given point in time. Where an owner or operator wishes to change from one approved programme to other, a transfer check or inspection may need to be performed in order to implement the change.

3. The maintenance programme details should be reviewed at least annually. As a minimum revisions of documents affecting the programme basis need to be considered by the owner or operator for inclusion in the maintenance programme during the annual review. Applicable mandatory requirements for compliance with MCAR-21 should be incorporated into the aircraft maintenance programme as soon as possible

4. The aircraft maintenance programme should contain a preface which will define the maintenance programme contents, the inspection standards to be applied, permitted variations to task frequencies and, where applicable, any procedure to manage the evolution of established check or inspection intervals.

5. Repetitive maintenance tasks derived from modifications and repairs should be incorporated into the approved maintenance programme.

6. Appendix I to AMC M.A.302 provides detailed information on the contents of an approved aircraft maintenance programme.

GM M.A.302(a) Aircraft Maintenance Programme

A maintenance programme may indicate that it applies to several aircraft registrations as long as the maintenance programme clearly identifies the effectivity of the tasks and procedures that are not applicable to all of the listed registrations.

AMC M.A.302(d) Aircraft Maintenance Programme

1. An aircraft maintenance programme should normally be based upon the maintenance review board (MRB) report where applicable, the maintenance planning document (MPD), the relevant chapters of the maintenance manual or any other maintenance data containing information on scheduling. Furthermore, an aircraft maintenance programme should also take into account any maintenance data containing information on scheduling for components.

2. Instructions issued by the competent authority can encompass all types of instructions from a specific task for a particular aircraft to complete recommended maintenance schedules for certain aircraft types that can be used by the owner/operator directly. These instructions may be issued by the competent authority in the following cases:

   - in the absence of specific recommendations of the Type Certificate Holder.

   - to provide alternate instructions to those described in the subparagraph 1 above, with the objective of providing flexibility to the operator.

3. Where an aircraft type has been subjected to the MRB report process, an operator should normally develop the initial aircraft maintenance programme based upon the MRB report.

4. Where an aircraft is maintained in accordance with an aircraft maintenance programme based upon the MRB report process, any associated programme for the continuous surveillance of the reliability, or health monitoring of the aircraft should be considered as part of the aircraft maintenance programme.

5. Aircraft maintenance programmes for aircraft types subjected to the MRB report process should contain identification cross reference to the MRB report tasks such that it is always possible to relate such tasks to the current approved aircraft maintenance programme. This does not prevent the approved aircraft maintenance programme from being developed in the light of service experience to beyond the MRB report recommendations but will show the relationship to such recommendations

6. Some approved aircraft maintenance programmes, not developed from the MRB process, utilise reliability programmes. Such reliability programmes should be considered as a part of the approved maintenance programme.

7. Alternate and/or additional instructions to those defined in paragraphs M.A.302(d)(i) and (ii), proposed by the owner or the operator, may include but are not limited to the following:

   - Escalation of the interval for certain tasks based on reliability data or other supporting information. Appendix I to AMC M.A.302 recommends that the maintenance programme contains the corresponding escalation procedures. The escalation of these tasks is directly approved by the CAA, except in the case of ALIs (Airworthiness Limitations), which are approved by the State of Design.

   - More restrictive intervals than those proposed by the TC holder as a result of the reliability data or because of a more stringent operational environment.

   - Additional tasks at the discretion of the operator.

AMC M.A.302(e) Aircraft Maintenance Programme

Except for complex motor-powered aircraft, the aircraft maintenance programme may take the format of the following standard template:

<table>
<tr><td colspan="5">Aircraft Maintenance Programme
(for aircraft other than 'complex motor-powered aircraft')</td></tr>
<tr><td colspan="5">Aircraft identification</td></tr>
<tr><td>1</td><td colspan="2">Registration(s):</td><td>Type:</td><td>Serial No(s):</td></tr>
<tr><td colspan="5">Basic for the Maintenance Programme</td></tr>
<tr><td>2</td><td colspan="4">This Aircraft Maintenance Programme complies with (<u>tick one option</u>):

☐ M.A.302(b), (c). (d). (e) and (g) (Complete section 3 below), or
☐ M.A.302(h) (Only possible for ELA1 aircraft not used in commercial operations)

For Aircraft Maintenance Programmes complying with M.A.302(h) (see above) the following data is used (<u>tick one option</u>):

☐ Design Approval Holder Maintenance Data (Complete section 3 below), or
☐ Minimum Inspection Programme as detailed in AMC M.A.302(i), or
☐ Other Minimum Inspection Programme complying with M.A.302(i) (List the tasks in Appendix A to this Aircraft Maintenance Programme)</td></tr>
<tr><td colspan="5">Design Approval Holder Maintenance Data
(not applicable if using Minimum Inspection Programme)</td></tr>
<tr><td>3</td><td colspan="2">Equipment manufacturer and type</td><td colspan="2">Applicable maintenance data reference (at latest revision)</td></tr>
<tr><td colspan="5">For aircraft other than balloons</td></tr>
<tr><td>3a</td><td>Aircraft</td><td colspan="2"></td><td></td></tr>
<tr><td>3b</td><td>Engine (if applicable)</td><td colspan="2"></td><td></td></tr>
<tr><td>3c</td><td>Propeller (if applicable)</td><td colspan="2"></td><td></td></tr>
<tr><td colspan="5">For balloons</td></tr>
<tr><td>3d</td><td>Envelope</td><td colspan="2"></td><td></td></tr>
<tr><td rowspan="2">3e</td><td rowspan="2">Basket(s)</td><td colspan="2"></td><td></td></tr>
<tr><td colspan="2"></td><td></td></tr>
<tr><td rowspan="2">3f</td><td rowspan="2">Burner(s)</td><td colspan="2"></td><td></td></tr>
<tr><td colspan="2"></td><td></td></tr>
<tr><td rowspan="2">3g</td><td rowspan="2">Fuel cylinders</td><td colspan="2"></td><td></td></tr>
<tr><td colspan="2"></td><td></td></tr>
</table>

Additional maintenance requirements not covered above (applicable to all Aircraft Maintenance Programmes, regardless of whether they are based on Design Approval Holder Data or Minimum Inspection Programmes)			
4	**Indicate if any of the following additional maintenance requirements are applicable (when replying 'YES', list the specific requirements in Appendix B to this Aircraft Maintenance Programme)**	Yes	No
	Maintenance related to specific equipment and modifications		
	Maintenance related to repairs implemented in the aircraft		
	Maintenance related to life-limited components		
	Maintenance related to Mandatory Continuing Airworthiness Information (ALIs, CMRs, specific requirements in the Type Certificate Data Sheet (TCDS), etc.)		
	Maintenance related to repetitive Airworthiness Directives		
	Maintenance related to specific operational/airspace directives/requirements (altimeter, compass, transponder, etc.)		
	Maintenance related to the type of operation or to operational approvals such as Reduced Vertical Separation Minima (RVSM), Minimum Navigation Performance Specification (MNPS), Basic Area Navigation (B-NAV).		
5	**Indicate if there are any specific maintenance recommendations made in Service Bulletins, Service Letters, etc., that are applicable (when replying 'YES', <u>list all the specific recommendations and any deviations</u> in Appendix B to this Aircraft Maintenance Programme)**	Yes	No
Pilot-owner maintenance (only for privately operated non-complex motor-powered aircraft of 2730 kg MTOM and below, sailplanes, powered-sailplanes and balloons)			
6	**Does the Pilot-owner perform Pilot-owner maintenance (ref. Part-M, M.A.803)?** If yes, enter the name of the pilot-owner(s) or the alternative procedure described in AMC M.A.803 point 3: Pilot-owner name:_____ Licence Number:_____ Signature:_____ Date:_____ **If yes, list in Appendix B to this Aircraft Maintenance Programme the deviations to the list of Pilot-owner maintenance tasks contained in the AMC to Appendix VIII to Part-M (tasks which are not performed by the Pilot-owner and additional tasks performed)**	Yes	No
Record of periodic reviews of the Aircraft Maintenance Programme (in accordance with M.A.302(g), or M.A.302(h)5, as applicable)			
7	**Describe whether the review has resulted or not in changes to the Aircraft Maintenance Programme (any changes introduced will be described in field 8 below)**	**Date and signature**	

Revision control of the Aircraft Maintenance Programme			
8	**Rev. No.**	**Content of revision**	**Date and signature**
Approval/Declaration of the Maintenance Programme (select the appropriate option)			
9	☐ Declaration by owner	☐ Approval by contracted CAMO (only under 'indirect approval procedure' approved by the CAA):	☐ Approval by CAA:
	'I hereby declare that this is the maintenance programme applicable to the aircraft referred in field 1 and I am fully responsible for its content and, in particular, for any deviations from the Design Approval Holder's recommendations' Signature/Name/Date:	**Approval Reference No. of the CAMO:** Signature/Name/Date:	**CAA:** Signature/Name/Date:
Certification statement			
10	***'I will ensure that the aircraft is maintained in accordance with this maintenance programme and that the maintenance programme will be reviewed and updated as required'*** Signed by the person/organisation responsible for the continuing airworthiness of the aircraft according to M.A.201: ☐ Owner ☐ Lessee ☐ CAMO Name of owner/lessee or CAMO approval number: Address: Telephone/Fax: E-mail: Signature/Date:		

11	Appendices attached: - Appendix A Yes ☐ No ☐ - Appendix B Yes ☐ No ☐

Appendix A 'Minimum Inspection Programme' (only applicable if a Minimum Inspection Programme different from the one described in AMC M.A.302(i) is used) (see Section 2 above)
Detail the tasks and inspections contained in the Minimum Inspection Programme being used

Appendix B 'Additional Maintenance Requirements' and 'Pilot-owners maintenance' (include only if applicable) (see Section 4, 5 and 6 above)		
Task Description	References	Interval
Maintenance related to specific equipment and modifications		
Maintenance related to repairs implemented in the aircraft		
Maintenance related to life-limited components		
Maintenance related to Mandatory Continuing Airworthiness Instructions (ALIs, CMRs, specific requirements in the TCDS, etc.)		
Maintenance related to repetitive Airworthiness Directives		
Maintenance related to specific operational/airspace directives/requirements (altimeter, compass, transponder, etc.)		
Maintenance related to the type of operation or operational approvals		

Task Description	Recommended interval	Indicate: 'Adopted', or 'Not adopted', or Adopted with deviations'	Alternative inspections/task (if adopted with deviations_)	Amended interval (if adopted with deviations)
Maintenance recommendations contained in Service Bulletins, Service Letter, etc. NOTE: List all the applicable maintenance recommendations, even those for which it has been decided not to accomplish the task or to accomplish it with deviations.				
Task Description (Pilot-owner maintenance)				
Pilot-owner maintenance tasks contained in AMC to Appendix VIII to Part-M which are not performed by the Pilot-owner				
Pilot-owner maintenance tasks performed by the Pilot-owner additional to those contained in AMC to Appendix VIII to Part-M				

AMC M.A.302(f) Aircraft Maintenance Programme

1. Reliability programmes should be developed for aircraft maintenance programmes based upon maintenance steering group (MSG) logic or those that include condition monitored components or that do not contain overhaul time periods for all significant system components.

2. Reliability programmes need not be developed for aircraft not considered complex motor-powered aircraft or that contain overhaul time periods for all significant aircraft system components.

3. The purpose of a reliability programme is to ensure that the aircraft maintenance programme tasks are effective and their periodicity is adequate.

4. The reliability programme may result in the escalation or deletion of a maintenance task, as well as the de-escalation or addition of a maintenance task.

5. A reliability programme provides an appropriate means of monitoring the effectiveness of the maintenance programme.

6. Appendix I to AMC M.A.302 gives further guidance.

AMC M.A.302(h) Aircraft Maintenance Programme

Note: This AMC is applicable to those ELA1 aircraft not involved in commercial operations for which the owner has elected to apply the provisions of M.A.302(h).

1. The aircraft should only be maintained according to one maintenance programme at a given point in time. Where an owner wishes to change from one programme to another because of a change in the type of operation, a transfer check or inspection may need to be performed to implement the change.

2. The maintenance programme may take the format of the standard template provided in AMC M.A.302(e).

3. During the annual review of the maintenance programme, the following should be taken into consideration:

   - The results of the maintenance performed during that year, which may reveal that the current maintenance programme is not adequate.

   - The results of the airworthiness review performed on the aircraft, which may reveal that the current maintenance programme is not adequate.

   - Revisions introduced in the documents affecting the programme basis, such as the M.A.302(i) 'Minimum Inspection Programme' or the Design Approval Holder data.

   - Applicable mandatory requirements for compliance with MCAR-21, such as Airworthiness Directives, Airworthiness Limitations, Certification Maintenance Requirements and specific maintenance requirements contained in the TCDS.

   For the purpose of reviewing the results of the maintenance performed during that year, the airworthiness review staff should request the owner/CAMO to provide the records of all the maintenance performed during that year, including unscheduled maintenance.

   When reviewing the results of the maintenance performed during that year and the results of the airworthiness review, attention should be paid as to whether the defects found may have been prevented by introducing in the maintenance programme certain recommendations from the Design Approval Holder which were initially disregarded by the owner.

GM M.A.302(h) Aircraft maintenance programme

Responsibilities associated to maintenance programmes developed in accordance with M.A.302(h):

- If the owner has contracted an organisation in accordance with M.A.201(i)(1) or M.A.201(i)(3) (whether it covers the full continuing airworthiness management or it is just for the

development of the maintenance programme), this organisation is responsible for developing and proposing to the owner a maintenance programme which:

- Indicates whether the maintenance programme is based on the 'Minimum Inspection Programme' described in M.A.302(i);
- Identifies the owner and the specific aircraft, engine, and propeller (as applicable);
- Includes all mandatory maintenance information and any additional tasks derived from the assessment of the recommendations issued by the Design Approval Holder;
- Does not go below the requirements of the Minimum Inspection Programme; and
- Is customised to the particular aircraft type, configuration and operation, in accordance with paragraph M.A.302(h)3.

If the maintenance programme is going to be approved by the CAA, CAA is responsible for evaluating the justifications provided in relation to deviations from the recommendations issued by the Design Approval Holder.

However, when issuing a declaration for the maintenance programme, the owner assumes full responsibility for any deviations introduced to the maintenance programme proposed by the contracted organisation. The organisation which developed the maintenance programme is not responsible for such deviations. These deviations do not need to be justified by the owner.

- If the owner has not contracted an organisation in accordance with M.A.201(i)(2) and has decided to develop the maintenance programme himself/herself, when issuing a declaration for the maintenance programme, the owner assumes full responsibility for its content, including any deviations introduced to the recommendations issued by the Design Approval Holder. In this case, these deviations do not need to be justified. However, the maintenance programme still needs to comply with the requirements contained in M.A.302(h), in particular with the obligation to not go below the requirements of the 'Minimum Inspection Programme' and to comply with the mandatory continuing airworthiness information.

  If the maintenance programme is going to be approved by the CAA, the owner needs to provide CAA the justification for the deviations from the Design Approval Holder recommendations.

- The content of the declared (by the owner) maintenance programme cannot be initially challenged either by the CAA, the contracted CAMO, or the contracted maintenance organisation. This declared maintenance programme is the basis for adequate planning of maintenance as well as for the airworthiness reviews and the content of the Aircraft Continuing Airworthiness Monitoring (ACAM) inspections done by CAA. Nevertheless, the maintenance programme will be subject to periodic reviews at the occasion of the airworthiness review and the CAA shall be notified in case of discrepancies linked to

deficiencies in the content of the maintenance programme, as described in M.A.302(h)5, M.A.710(ga), M.A.710(h), M.A.901(l)5, and M.A.907(l)7. The owner shall amend the maintenance programme accordingly as required by M.A.302(h)5.

- When the CAA is notified of deficiencies linked to the content of the declared maintenance programme for a particular aircraft, the CAA should contact the owner, request a copy of the maintenance programme (if it was declared) and use the information received for the adequate planning of the ACAM programme. Based on the reported deficiencies and the risks identified, the CAA will adapt the ACAM programme accordingly. This notification will also allow that the CAA agrees on the changes required to the maintenance programme as required by M.A.302(h)5.

- Although there is no requirement for the owner to send a copy of the declared maintenance programme to the CAA, this does not prevent the CAA from requesting a copy to the owner at any time, even if deficiencies have not been reported.

- Since the maintenance programme has to identify the deviations introduced to the recommendations issued by the Design Approval Holder, the airworthiness reviews and ACAM inspections should place emphasis on the inspection of those areas affected by those deviations in order to make sure that the maintenance programme is effective.

- Since the CAA is not responsible for the content of a declared maintenance programme, the CAA cannot authorise deviations from its content. In such case, the owner can always declare an amended maintenance programme.

AMC M.A.302(i) Aircraft Maintenance Programme

This AMC contains an acceptable 'Minimum Inspection Programme' for the following categories of ELA1 aircraft not involved in commercial operations:

- ELA1 aeroplanes;
- ELA1 sailplanes and ELA1 powered sailplanes; and
- ELA1 hot-air balloons.

Although this AMC does not contain an acceptable 'Minimum Inspection Programme' for gas balloons, the use of a 'Minimum Inspection Programme' is still possible as long as it complies with the requirements established in M.A.302(i).

The 'Minimum Inspection Programmes' defined in this AMC already comply with the requirements established in M.A.302(i) and may be used in order to define the basic information for the maintenance programme as required by M.A.302(h)2. However, the maintenance programme must be customised as required by M.A.302(h)3, which may be done by using the standard template contained in AMC M.A.302(e).

It must be noted that using the '1-month' tolerance permitted by M.A.302(i)1 for the annual inspection may result in an expired ARC.

Minimum Inspection Programme for ELA1 aeroplanes not involved in commercial operations

To be performed every annual/100 h interval, whichever comes first.

A tolerance of one month or 10 h may be applied. However, the next interval shall be calculated from the date/hours originally scheduled (without the tolerance).

Note 1: Use the manufacturer's maintenance manual to accomplish each task/inspection.

Note 2: Proper operation of backup or secondary systems and components should be included for every instance where a check is performed for improper installation/operation.

ELA1 aeroplanes not involved in commercial operations	
System/component/area	**Task & Inspection detail**
GENERAL	
General	Remove or open all necessary inspection plates, access doors, fairings, and cowlings. Clean the aircraft and aircraft engine as required.
Lubrication/servicing	Lubricate and replenish fluids in accordance with the manufacturer's requirements.
Markings	Check that side and under-wing registration markings are correct. If applicable, check that an exemption for alternate display is approved. Identification plate for aircraft as per MCAR-47.60 is present. Other identification markings on fuselage are in accordance with relevant MCARs.
Weighing	Review weighing record to establish accuracy against installed equipment. Weigh the aircraft as required by the MCAR- Air Operations Part-NCO rules.
AIRFRAME	
Fabric and skin	Inspect for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings. NOTE: When checking composite structures, check for signs of impact or pressure damage that may indicate underlying damage.
Fuselage structure	Check frames, formers, tubular structure, braces, and attachments. Inspect for signs of corrosion.
Systems and components	Inspect for improper installation, apparent defects, and unsatisfactory operation.
Pitot/static system	Inspect for security, damage, cleanliness, and condition. Drain any water from condensation drains.
General	Inspect for lack of cleanliness and loose equipment that might foul the controls.
Tow hooks	Inspect for condition of moving parts and wear. Check service life.

	Carry out operational test.
CABIN AND COCKPIT	
Seats, safety belts and harnesses	Inspect for poor condition and apparent defects. Check for service life.
Windows, canopies and windshields	Inspect for deterioration and damage, and for function of emergency jettison.
Instrument panel assemblies	Inspect for poor condition, mounting, marking, and (where practicable) improper operation. Check markings of instruments in accordance with the Flight Manual.
Flight and engine controls	Inspect for improper installation and improper operation.
Speed/weight/manoeuvre placard	Check that the placard is correct and legible and accurately reflects the status of the aircraft.
All systems	Inspect for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment.
LANDING GEAR	
Shock-absorbing devices	Inspect for improper fluid level. Inspect for wear and deformation of rubber pads, bungees, and springs.
All units	Inspect for poor condition and insecurity of attachment.
Retracting and locking mechanism	Inspect for improper operation.
Linkages, trusses and members	Inspect for undue or excessive wear fatigue and distortion.
Hydraulic lines	Inspect for leakage. Check service life.
Electrical system	Inspect for chafing and improper operation of switches.
Wheels	Inspect for cracks, defects, and condition of bearings.
Tyres	Inspect for wear and cuts.
Brakes	Inspect for improper adjustment and wear. Carry out operational test.
Floats and skis	Inspect for insecure attachment and apparent defects.
WING AND CENTRE SECTION	
All components	Inspect all components of the wing and centre section assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure, insecurity of attachment.
Connections	Inspect main connections (e.g. between wings, fuselage, wing tips) for proper fit, play within tolerances, wear or corrosion on bolts and bushings.
FLIGHT CONTROLS	

Control circuit/stops	Inspect control rods and cables. Check that the control stops are secure and make contact.
Control surfaces	Inspect aileron, flap, elevator, air brake and rudder assemblies, hinges, control connections, springs/bungees, tapes and seals. Check and record range of movement and cable tensions, if specified, and check free play.
Trim systems	Inspect trim surfaces, controls, and connections. Check full range of motion.
EMPENNAGE	
All components and systems	Inspect all components and systems that make up the complete empennage assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure, insecure attachment, improper component installation, and improper component operation.
AVIONICS AND ELECTRICALS	
Batteries	Inspect for improper installation, improper charge and spillage and corrosion.
Radio and electronic equipment	Inspect for improper installation and insecure mounting. Carry out ground function test.
Wiring and conduits	Inspect for improper routing, insecure mounting, and obvious defects.
Bonding and shielding	Inspect for improper installation, poor condition, and chafing and wear of insulation.
Antennas	Inspect for poor condition, insecure mounting, and improper operation.
POWERPLANT	
Engine section	Inspect for visual evidence of excessive oil, fuel or hydraulic leaks and sources of such leaks.
Stud nuts	Inspect for looseness, signs of rotation and obvious defects.
Internal engine	Inspect for cylinder compression (record measures for each cylinder) and for metal particles or foreign matter in oil filter, screens and sump drain plugs. If there is weak cylinder compression, inspect for improper internal condition and improper internal tolerances.
Engine mounts	Inspect for cracks, looseness of mounting, and looseness of the engine to mount attachment.
Flexible vibration dampeners	Inspect for poor condition and deterioration.
Engine controls	Inspect for defects, improper travel, and improper safe tying.
Lines, hoses and clamps	Inspect for leaks, improper condition, and looseness.
Exhaust stacks	Inspect for cracks, defects, and improper attachment.
Turbochargers and intercooler	Inspect for leaks, improper condition, and looseness of connections and fittings.
Liquid cooling systems	Inspect for leaks and proper fluid level.

Electric engine control	Inspect for signs of chafing and proper electronics and sensor installation.
Accessories	Inspect for apparent defects in security of mounting.
All systems	Inspect for improper installation, poor general condition, defects and insecure attachment.
Cowling	Inspect for cracks and defects. Check cowling flaps.
Cooling baffles and seals	Inspect for defects, improper attachment, and wear.
Fuel tanks	Inspect for improper installation and connection.
CLUTCHES AND GEARBOXES	
Filters, screens, and chip detectors	Inspect for metal particles and foreign matter.
Exterior	Inspect for oil leaks.
Output shaft	Inspect for excessive bearing play and condition.
PROPELLER	
Propeller assembly	Inspect for cracks, nicks, binds, and oil leakage.
Propeller bolts	Inspect for proper installation, looseness, signs of rotation, and lack of safe tying.
Propeller control mechanism	Inspect for improper operation, insecure mounting, and restricted travel.
Anti-icing devices	Inspect for improper operation and obvious defects.
MISCELLANEOUS	
Ballistic rescue system	Inspect for proper installation, unbroken activation mechanism, proper securing while on ground, validity of inspection periods of pyrotechnic devices, and parachute packing intervals.
Other miscellaneous items	Inspect installed miscellaneous items that are not otherwise covered by this listing for improper installation and improper operation.
OPERATIONAL CHECKS	
Power and revolutions per minute (rpm)	Check that power output, static and idle rpm are within published limits.
Magnetos	Check for normal function.
Fuel and oil pressure	Check they are within normal values.
Engine temperatures	Check they are within normal values.
Engine	For engines equipped with automated engine control (e.g. FADEC), perform the published run-up procedure and check for discrepancies.
Engine	For dry-sump engines and engines with turbochargers and for liquid cooled engines, check for signs of disturbed fluid circulation.
Pitot-static system	Perform operational check.
Transponder	Perform operational check.

Minimum Inspection Programme for ELA1 sailplanes and ELA1 powered sailplanes not involved in commercial operations

To be performed:

- every annual/100 h interval (for Touring Motor Gliders (TMG)), whichever comes first; or
- every annual interval (for other than TMGs).

A tolerance of one month or 10 h, as applicable, may be applied. However, the next interval shall be calculated from the date/hours originally scheduled (without the tolerance).

Note 1: Use the manufacturer's maintenance manual to accomplish each task / inspection.

Note 2: In the case of TMGs, it is acceptable to control the hours of use of the aircraft, engine and propeller as separate entities. Any maintenance check to be done between two consecutive annual/100 h inspections may be performed separately on the aircraft, engine and propeller depending on when each element reaches the corresponding hours. However, at the time of the annual/100 h inspection, all the elements must be covered.

Note 3: Proper operation of backup or secondary systems and components should be included for every instance where a check is performed for improper installation/operation.

ELA 1 sailplanes and ELA1 powered sailplanes not involved in commercial operations	
System/component/area	**Task & Inspection details**
GENERAL	
General – all tasks	The aircraft must be clean prior to inspection. Inspect for security, damage, wear, integrity, drain/vent holes clear, signs of overheat, leaks, chafing, cleanliness and condition as appropriate to the particular task. Whilst checking composite structures, check for signs of impact or pressure damages that may indicate underlying damage.
Lubrication/servicing	Lubricate and replenish fluids in accordance with the manufacturer's requirements.
Markings	Check that side and under-wing registration markings are correct.. if applicable, check that an exemption for alternate display is approved, identification plate for aircraft is present as per MCAR-47.60. Other identification markings on fuselage in accordance with the relevant MCARs.
Weighing	Review weighing record to establish accuracy against installed equipment.

	Weigh the aircraft as required by the MCAR- Air Operations Part-NCO.
AIRFRAME	
Fuselage paint/gel coat, including registration markings	Inspect external surface and fairings, gel coat, fabric covering or metal skin, and paintwork. Check that registration marks are correctly applied.
Fuselage structure	Check frames, formers, tubular structure, skin, and attachments. Inspect for signs of corrosion on tubular framework.
Nose fairing	Inspect for evidence of impact with ground or objects.
Release hook(s)	Inspect nose and Centre of Gravity (C of G) release hooks and controls. Check operational life. Carry out operational test. If more than one release hook or control is fitted, check operation of all release hooks from all positions.
Pot pitot/ventilator	Check alignment of probe, check operation of ventilator.
Pitot/static system	Inspect pitot probes, static ports and all accessible tubing for security, damage, cleanliness, and condition. Drain any water from condensation drains.
Bonding/vents drains	Check all bonding leads and straps. Check that all vents and drains are clear from debris.
CABIN AND COCKPIT	
Cleanliness/loose articles	Check under cockpit floor/seat pan and in rear fuselage for debris and foreign items.
Canopy, locks and jettison	Inspect canopy, canopy frame and transparencies for cracks, unacceptable distortion, and decolourisation. Check operation of all locks and catches. Carry out an operational test of the canopy jettison system from all positions.
Seat/cockpit floor	Inspect seat(s). Check that all loose cushions are correctly installed and, as appropriate, energy absorption foam cushions are fitted correctly. Ensure that all seat adjusters fit and lock correctly.
Harness(es)	Inspect all harnesses for condition and wear of all fastenings, webbing, and fittings. Check operation of release and adjustments.
Rudder pedal assemblies	Inspect rudder pedal assemblies and adjusters.
Flight control circuits/stops	Inspect flight controls rods/cables. Check that control stops are secure and make contact. Pay particular attention to wear and security of liners and cables in 'S' tubes. Inspect self-connecting control devices.
Instrument panel assemblies	Inspect instrument panel and all instruments/equipment. Check instrument readings are consistent with ambient conditions. Check marking of all switches, circuit breakers, and fuses. Check operation of all installed equipment, as possible, in accordance with the manufacturer's instructions. Check markings of instruments in accordance with the Flight Manual.
Oxygen system	Inspect oxygen system. Check bottle hydrostatic test date expiry in accordance with the manufacturer's recommendations. Ensure that the bottle is not completely empty (13.8 bars/200 psi minimum) and refill with aviator's oxygen only. Clean masks and regulators with suitable cleaning wipes.

	Ensure that the oxygen installation is recorded on weight and C of G schedule. CAUTION: OBSERVE ALL SAFETY PRECAUTIONS.
Colour-coding of controls	Ensure that controls are colour-coded and in good condition, as follows: Tow release: yellow Air brakes: blue Trimmer: green Canopy normal operation: white Canopy jettison: red Other controls: clearly marked but not using any of the above colours.
Equipment stowed in centre section	Check for security and condition. Check validity of any safety equipment. Check the manufacturer's and the CAA's (if required) data plates.
Speed/weight/manoeuvre placard	Check that the placard is correct and legible and accurately reflects the status of the aircraft.
LANDING GEAR	
Front skid/nose wheel and mounts	Inspect for evidence of hard/heavy landings. Check skid wear, inspect wheel, tyre, and wheel box. Check tyre pressure.
Main wheel and brake assembly	Check for integrity of hydraulic seals and leaks in pipe work. Check life of hydraulic hoses and components if specified by the manufacturer. Remove brake drums, check brake lining wear. Check disk/drum wear. Refit drum. Check brake adjustment. CAUTION: BRAKE DUST MAY CONTAIN ASBESTOS Check operation of brake. Check level of brake fluid and replenish if necessary. Check tyre pressure. CAUTION: CHECK THE TYPE OF BRAKE FLUID USED AND OBSERVE SAFETY PRECAUTIONS.
Undercarriage suspension	Check springs, bungees, shock absorbers, and attachments. Check for signs of damage. Service strut if applicable.
Undercarriage retract system and doors	Check retraction mechanism and controls, warning system if fitted, gas struts, doors and linkages/springs, over-centre/locking device. Perform retraction test.
Tail skid/wheel	Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre, and wheel box. Check bond of bonded skin. Check tyre pressure.
Wheel brake control circuit	Inspect wheel brake control rods/cables. If combined with air brake, ensure correct rigging relationship. Check parking brake operation if fitted.
WING AND CENTRE SECTION	
Centre section fairing	Inspect for security, damage, and condition.
Wing attachment	Inspect the wing structural attachments. Check for damage, wear, and security. Check for rigging damage. Check condition of wing attachment pins.
Aileron control circuit/stops	Inspect aileron control rods/cables. Check that control stops are secure and make contact. Inspect self-connecting control devices.
Air brake control circuit	Inspect air brake control rods/cables. Check friction/locking device (if fitted). Inspect self-connecting control devices.

Wing struts/wires	Inspect wing struts for damage and internal corrosion. Re-inhibit wing struts internally every three years or in accordance with the manufacturer's instructions.
Wings including underside registration markings	Check mainplane structure externally and internally as far as possible. Check gel coat, fabric covering, or metal skin. Check that registration marks are correctly applied.
Ailerons and controls	Inspect aileron and flaperon assemblies, hinges, control connections, springs/bungees, tapes, and seals. Ensure that seals do not impair full range of movement.
Air brakes/spoilers	Inspect air brake/spoiler panel(s) operating rods, closure springs, and friction devices as fitted.
Flaps	Check flap system and control. Inspect self-connecting control devices.
Control deflections and free play, and record on worksheets	Check and record range of movements and cable tensions, if specified, and check free play.
EMPENNAGE	
Tailplane and elevator	With tailplane de-rigged, check tailplane and attachments, self-connecting and manual control connections. Check gel coat, fabric covering, or metal skin.
Rudder	Check rudder assembly, hinges, attachments, balance weights.
Rudder control circuit/stops	Inspect rudder control rods/cables. Check that control stops are secure and make contact. Pay particular attention to wear and security of liner and cables in 'S' tubes.
Elevator control circuit/stops	Inspect elevator control rods/cables. Check that control stops are secure and make contact. Inspect self-connecting control devices.
Trimmer control circuit	Inspect trimmer control rods/cables. Check friction/locking device.
Control deflections and free play, and record on worksheets	Check and record range of movements and cable tensions, if specified, and check free play.
AVIONICS AND ELECTRICS	
Electrical installation/fuses	Check all electrical wiring for condition. Check for signs of overheating and poor connections. Check fuses/trips for condition and correct rating.
Battery security and corrosion	Check battery mounting for security and operation of clamp. Check for evidence of electrolyte spillage and corrosion. Check that the battery has the main fuse fitted correctly. It is recommended to carry out battery capacity test on gliders equipped with radio, used for cross-country, controlled airspace, or competition flying.
Radio installations and placards	Check radio installation, microphones, speakers and intercom, if fitted. Check that the call sign placard is installed. Carry out ground function test. Record radio type fitted.
Altimeter datum	Check barometric sub-scale. Maximum error 2 Mb.
Pitot-static system	Perform operational check.

Transponder	Perform operational check.
MISCELLANEOUS	
Removable ballast	Check removable ballast mountings and securing devices (including fin ballast if applicable) for condition. Check that ballast weights are painted with conspicuous colour. Check that provision is made for the ballast on the loading placard.
Drag chute and controls	Inspect chute, packing and release mechanism. Check packing intervals.
Water ballast	Check water ballast system, wing and tail tanks as fitted. Check filling points, level indicators, vents, dump and frost drains for operations and leakage. If loose bladders are used, check for leakage and expiry date as applicable.
POWERPLANT (when available)	
Engine pylons and mountings	Inspect engine and pylon installation. Check engine compartment and fire sealing.
Gas strut	Check gas strut.
Pylon/engine stops	Check limit stops on retractable pylons. Check restraint cables.
Electric actuator	Inspect electric actuator, motor, spindle drive, and mountings.
Electrical wiring	Insect all electrical wiring. Pay special attention to wiring that is subject to bending during extension and retraction of engine/pylon.
Limit switches	Check operation of all limit switches and strike plates. Make sure that they are not damaged by impact.
Fuel tank(s)	Check fuel tank mountings and tank integrity. Check fuel quantity indication system if fitted.
Fuel pipes and vents	Check all fuel pipes especially those subject to bending during extension and retraction of engine/pylon. Check that vents are clear. Makes sure that overboard drains do not drain into engine compartment. Check self-sealing.
Fuel cock or shut off valve	Check operation of fuel cock or shut-off valve and indications.
Fuel pumps and filters	Clean or replace filters as recommended by the manufacturer. Check operation of fuel pumps for engine supply or tank replenishment. Check fuel pump controls and indications.
Decompression valve	Inspect decompression valve and operating control.
Spark plugs	Carry out spark plug service. It is recommended to replace spark plugs at annual intervals.
Harnesses and Magneto	Inspect low-tension and high-tension wiring, connectors, spark plugs caps. Check magneto to engine timing. Check impulse coupling operation.
Propeller bolts, assembly, mounting, torquing & drive belt	Inspect propeller, hub, folding mechanism, brake, pitch change mechanism, stow sensors.
Doors	Check engine compartment doors, operating cables, rods, and cams.
Safety springs	Check all safety and counterbalancing springs.

Extension and retraction	Check that extension and retraction operation times are within limits specified by manufacturer. Check light indications and interlocks for correct operation.
Exhaust	Inspect exhaust system, silencer, chock mounts, and links.
Engine installation	Inspect engine and all accessories. Carry out compression test and record results. Compression test results: No1 (left/front): No2 (right/rear):
Lubrication	Change engine oil and filter. Replenish oil and additive tanks.
Engine instruments	Inspect all engine instruments and controls. Check control unit, mounts, bonding and connections. Carry out internal self-test if fitted.
Flexible vibration dampers	Check for poor condition and deterioration.
Engine battery	If separate from airframe battery, inspect battery and mountings. If the main fuse is fitted, check rating and condition. Perform a functional test.
Placards	Check that all placards are in accordance with flight manual and legible
Oil and fuel leaks	With the engine fully serviced, check the fuel and oil system for leaks.

Minimum Inspection Programme for ELA1 hot-air balloons not involved in commercial operations

To perform every annual interval.

A tolerance of one month may be applied. However, the next interval shall be calculated from the date originally scheduled (without tolerance).

Note 1: Use the manufacturer's maintenance manual to accomplish each task/inspection.

Note 2: Proper operation of backup or secondary systems and components should be included for every instance where a check is performed for improper installation/operation.

1. ENVELOPE

System/component/area	Task & Inspection detail
Identification (type/serial number/registration plate)	Check for presence and verify type/serial number installed.
Crown ring and line	In place; not corroded, crown line undamaged and has appropriate length.
Vertical;/horizontal load tapes	Check joints with the crown ring, top of the envelop and wires. All load tapes undamaged along their length. Inspect base horizontal tape and edge of the envelope top. Inspect joint between base horizontal load tape and vertical load tapes.
Envelope fabric	Inspect the envelope fabric panels (including parachute and rotation vents if fitted) for damage, porosity overheating or weakness. Unrepaired damage is within tolerance given by the manufacturer. If substantial fabric porosity is suspected, then a flight test should be performed, but only after a grab test has demonstrated that the balloon is safe to fly. Perform grab test in accordance with the manufacturer's instructions.
Flying cables	Inspect for damage (particular heat damage). Kevlar cable – yellow core is not visible
Karabiners	Inspect for damage. Karabiner lock is working properly.
Melting link and Tempilabel	Check maximum temperature indication (flag/'tell-tale').
Control system lines	Inspect for damage wear, security of knots. Check proper length. Check lines attachment for damage, wear, security.
Control lines and their attachments	Inspect for damage, wear, security of knots. Check proper length of the lines.
Envelope pulleys	Inspect for damage, wear, free running, contamination, security of attachment.

2. BURNER

System/component/area	Task & Inspection detail
Identification (type/serial number)	Check for presence and verify type/serial number installed.
Burner frame	Inspect welds for cracking.

	Inspect tubes for distortion/deformation/cuts/gouges.
	Inspect frame for security of fasteners (heat shields, flexi-corners).
	Inspect frame lugs for wear, cracking.
	Inspect general condition (corrosion, heat shields).
Gimballing	Check stiffness, security of fitting manifolds.
Leak check	Perform leak check of the burner.
Hoses	Inspect all hoses for wear, damage, leak, and lifetime limitation. Inspect condition and correct function of the fuel.
Pressure gauges	Check pressure gauge reads zero when no pressure applied, lens present.
Pilot valves/flame	Check shut off, free movement, correct function, lubricate if necessary.
Whisper valves/flame	Check shut off, free movement, correct function, lubricate if necessary.
Main valves/flame	Check shut off, free movement, correct function, lubricate if necessary.
Coils	Check for damage, distortion, security of fasteners. Inspect welds for cracking. Check security of jets, tighten or replace as necessary.
Fuel	Check correct type, check dates (if applicable).

3. BASKET

System/component/area	Task & Inspection detail
Identification (type/serial number)	Check for presence and verify type/serial number installed.
Basket body	Check the general condition of the basket body. Inspect weave for damage, cracks/holes. No sharp objects inside the basket.
Basket wires	Inspect for damage, check eye rings.
Karabiners	Inspect for damage. Karabiner lock is working properly.
Basket floor	Inspect for damage and cracks.
Runners	Inspect for damage.
Rawhide	Inspect for damage, wear and attachments to the floor.
Rope handles	Inspect for damage, security of attachment.
Cylinder straps	Inspect for damage, deterioration.
Padded basket edge trim	Inspect for damage and wear.
Burner rods	Inspect for damage, wear and cracking.
Padded burner rod covers	Inspect for damage and wear.
Basket equipment	Check presence and functionality.
Pilot restraint	Inspect for security and condition.
Fire extinguisher	Check expiration date and protection cover.
First-aid kit	Check for completeness and expiration date.

4. FUEL TANKS

System/component/area	Task & Inspection detail
Identification (type/serial number)	Check for presence.
Cylinder	Check periodic inspections for each cylinder is valid (date) (e.g. 10 years' inspection).
Cylinder body	Inspect for damage, corrosion.
Liquid valve	Inspect for damage, corrosion, correct operation.
	Inspect O-ring seals, lubricate/replace as required.
Fixed liquid Level gauge	Inspect for damage, corrosion, correct operation.
Contents gauge	Inspect for damage, corrosion, freedom of movement.
Vapour valve	Inspect for damage, corrosion, correct operation (including regulator).
	Inspect Quick Release Coupling for correct operation, sealing.
Padded cover	Inspect for damage.
Pressure relief valve	Does not indicate over pressuring.
Assembly	Inspect, leak-test all pressure holding joints using leak detector.
	Functional test.

5. ADDITIONAL EQUIPMENT

System/component/area	Task & Inspection detail
Instruments	Functional check.
Quick release	Functional check and inspect the condition of the latch, bridle and ropes for wear and deterioration. Check that the karabiners are undamaged and operate correctly.
Communication/navigation equipment (radio)	Perform operational check,
Transponder	Perform operational check.

MCAR-M.A.303 Airworthiness directives

Any applicable airworthiness directive must be carried out within the requirements of that airworthiness directive, unless otherwise specified by the CAA.

MCAR-M.A.304 Data for modifications and repairs

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

(a) data approved by the CAA; or

(b) data approved by a design organization accepted under MCAR-21; or

(c) data contained in the certification specifications referred to in point 21A.90B or 21A.431B of MCAR-21

AMC M.A.304 Data for modifications and repairs

A person or organisation repairing an aircraft or component should assess the damage against published approved repair data and the action to be taken if the damage is beyond the limits or outside the scope of such data. This could involve any one or more of the following options:

- repair by replacement of damaged parts; or
- requesting technical support from the type certificate holder or from an organisation accepted in accordance with MCAR-21; or
- CAA approval of the particular repair data.

MCAR-M.A.305 Aircraft continuing airworthiness record system

(a) At the completion of any maintenance, the certificate of release to service required by point M.A.801 or point 145.A.50 shall be entered in the aircraft continuing airworthiness records. Each entry shall be made as soon as practicable but in no case more than 30 days after the day of the maintenance action.

(b) The aircraft continuing airworthiness records shall consist of:

1. an aircraft logbook, engine logbook(s) or engine module log cards, propeller logbook(s) and log cards for any service life limited component as appropriate, and,

2. when required in point M.A.306, the operator's technical log.

(c) The aircraft type and registration mark, the date, together with total flight time and/or flight cycles and/or landings, as appropriate, shall be entered in the aircraft logbooks.

(d) The aircraft continuing airworthiness records shall contain the current:

1. status of airworthiness directives and measures mandated by the CAA in immediate reaction to a safety problem;

2. status of modifications and repairs;

3. status of compliance with maintenance programme;

4. status of service life limited components;

5. mass and balance report;

6. list of deferred maintenance.

(e) In addition to the authorised release document, CAA Form 1 or equivalent, the following information relevant to any component installed (engine, propeller, engine module or service life-limited component) shall be entered in the appropriate engine or propeller logbook, engine module or service life limited component log card:

1. identification of the component; and

2. the type, serial number and registration, as appropriate, of the aircraft, engine, propeller, engine module or service life-limited component to which the particular component has been fitted, along with the reference to the installation and removal of the component; and

3. the date together with the component's accumulated total flight time and/or flight cycles and/or landings and/or calendar time, as appropriate; and

4. the current paragraph (d) information applicable to the component.

(f) The person responsible for the management of continuing airworthiness tasks pursuant to M.A. Subpart B, shall control the records as detailed in this point and present the records to the CAA upon request.

(g) 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.

(h) An owner or operator shall ensure that a system has been established to keep the following records for the periods specified:

1. all detailed maintenance records in respect of the aircraft and any service life-limited component fitted thereto, until such time as the information contained therein is superseded by new information equivalent in scope and detail but not less than 36 months after the aircraft or component has been released to service; and

2. the total time in service (hours, calendar time, cycles and landings) of the aircraft and all service life-limited components, at least 12 months after the aircraft or component has been permanently withdrawn from service; and

3. the time in service (hours, calendar time, cycles and landings) as appropriate, since last scheduled maintenance of the component subjected to a service life limit, at least until the component scheduled maintenance has been superseded by another scheduled maintenance of equivalent work scope and detail; and

4. the current status of compliance with maintenance programme such that compliance with the approved aircraft maintenance programme can be established, at least until the aircraft or component scheduled maintenance has been superseded by other scheduled maintenance of equivalent work scope and detail; and

5. the current status of airworthiness directives applicable to the aircraft and components, at least 12 months after the aircraft or component has been permanently withdrawn from service; and

6. details of current modifications and repairs to the aircraft, engine(s), propeller(s) and any other component vital to flight safety, at least 12 months after they have been permanently withdrawn from service.

AMC M.A.305(d) Aircraft continuing airworthiness record system

The current status of AD should identify the applicable AD including revision or amendment numbers. Where an AD is generally applicable to the aircraft or component type but is not applicable to the particular aircraft or component, then this should be identified. The AD status includes the date when the AD was accomplished, and where the AD is controlled by flight hours or flight cycles it should include the aircraft or engine or component total flight hours or cycles, as appropriate. For repetitive ADs, only the last application should be recorded in the AD status. The status should also specify which part of a multi-part directive has been accomplished and the method, where a choice is available in the AD.

The status of current modification and repairs means a list of embodied modification and repairs together with the substantiating data supporting compliance with the airworthiness requirements. This can be in the form of a Supplemental Type Certificate (STC), SB, Structural Repair Manual (SRM) or similar approved document.

The substantiating data may include:

(a) compliance programme; and

(b) master drawing or drawing list, production drawings, and installation instructions; and

(c) engineering reports (static strength, fatigue, damage tolerance, fault analysis, etc.); and

(d) ground and flight test programme and results; and

(e) mass and balance change data; and

(f) maintenance and repair manual supplements; and

(g) maintenance programme changes and instructions for continuing airworthiness; and

(h) aircraft flight manual supplement.

Some gas turbine engines are assembled from modules and a true total time in service for a total engine is not kept. When owners and operators wish to take advantage of the modular design, then total time in service and maintenance records for each module is to be maintained. The continuing airworthiness records as specified are to be kept with the module and should show compliance with any mandatory requirements pertaining to that module.

AMC M.A.305(d)(4) and M.A.305(h) Aircraft continuing airworthiness record system

The term 'service life-limited components' embraces: (i) components subject to a certified life limit after which the components should be retired, and (ii) components subject to a service life limit after which the components should undergo maintenance to restore their serviceability.

The current status of service life-limited aircraft components should indicate:

(i) for components subject to a certified life limit: the component life limitation, total number of hours, accumulated cycles or calendar time and the number of hours/cycles/time remaining before the required retirement time of the component is reached;

(ii) for components subject to a service life limit: the component service life limit, the hours, cycles or calendar time since the component has been restored back to their service life and the remaining service (hours, cycles, calendar time) life before the components need to undergo maintenance.

Any action that alters the components' life limit (certified or service) or changes the parameter of the life limit (certified or service) should be recorded.

When the determination of the remaining life requires knowledge of the different types of aircraft/engine on which the component has previously been installed, the status of all service-life limited aircraft components should additionally include a full installation history indicating the number of hours, cycles or calendar time relevant to each installation on these different types of aircraft/engine. The indication of the type of aircraft/engine should be sufficiently detailed with regard to the required determination of remaining life.

Recommendations from the type certificate holder on the procedures to record the remaining life may be considered.

AMC M.A.305(h) Aircraft continuing airworthiness record system

When an owner/operator arranges for the relevant maintenance organisation to retain copies of the continuing airworthiness records on their behalf, the owner/operator will continue to be responsible for the retention of records. If they cease to be the owner/operator of the aircraft, they also remain responsible for transferring the records to any other person who becomes the owner/operator of the aircraft.

Keeping continuing airworthiness records in a form acceptable to the CAA normally means in paper form or on a computer database or a combination of both methods. Records stored in microfilm or optical disc form are also acceptable. All records should remain legible throughout the required retention period.

Paper systems should use robust material, which can withstand normal handling and filing.

Computer systems should have at least one backup system, which should be updated at least within 24 hours of any maintenance. Each terminal is required to contain programme safeguards against the ability of unauthorised personnel to alter the database.

Continuing airworthiness records should be stored in a safe way with regard to damage, alteration and theft. Computer backup discs, tapes etc., should be stored in a different location from that containing the current working discs, tapes, etc., and in a safe environment. Reconstruction of lost or destroyed records can be done by reference to other records which reflect the time in service, research of records maintained by repair facilities and reference to

records maintained by individual mechanics, etc. When these things have been done and the record is still incomplete, the owner/operator may make a statement in the new record describing the loss and establishing the time in service based on the research and the best estimate of time in service. The reconstructed records should be submitted to the CAA for acceptance. The CAA may require the performance of additional maintenance if not satisfied with the reconstructed records.

AMC M.A.305(h)(6) Aircraft continuing airworthiness record system

For the purpose of this paragraph, a "component vital to flight safety" means a component that includes certified life limited parts or is subject to airworthiness limitations or a major component such as, undercarriage or flight controls.

MCAR-M.A.306 Aircraft technical log system

(a) For CAT, commercial specialised operations and commercial ATO operations, in addition to the requirements of M.A.305, an operator shall use a technical log system containing 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 CAA may agree to the maintenance statement being kept elsewhere, and;

4. all outstanding deferred defects rectifications 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 CAA.

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

AMC M.A.306(a) Aircraft technical log system

For CAT operations, commercial specialised operations and commercial ATO operations the aircraft technical log is a system for recording defects and malfunctions during the aircraft operation and for recording details of all maintenance carried out on an aircraft between scheduled base maintenance visits. In addition, it is used for recording flight safety and maintenance information the operating crew need to know.

Cabin or galley defects and malfunctions that affect the safe operation of the aircraft or the safety of its occupants are regarded as forming part of the aircraft log book where recorded by another means.

The aircraft technical log system may range from a simple single section document to a complex system containing many sections but in all cases it should include the information specified for the example used here which happens to use a 5 section document /computer system:

Section 1 should contain details of the registered name and address of the operator, the aircraft type and the complete international registration marks of the aircraft.

Section 2 should contain details of when the next scheduled maintenance is due, including, if relevant any out of phase component changes due before the next maintenance check. In addition this section should contain the current certificate of release to service (CRS), for the complete aircraft, issued normally at the end of the last maintenance check.

NOTE: The flight crew do not need to receive such details if the next scheduled maintenance is controlled by other means acceptable to the CAA.

Section 3 should contain details of all information considered necessary to ensure continued flight safety. Such information includes:

i. the aircraft type and registration mark,

ii. the date and place of take-off and landing,

iii. the times at which the aircraft took off and landed,

iv. the running total of flying hours, such that the hours to the next schedule maintenance can be determined. The flight crew does not need to receive such details if the next scheduled maintenance is controlled by other means acceptable to the CAA.

v. 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. Provision should be made for the commander to date and sign such entries including, where appropriate, the nil defect state for continuity of the record. Provision should be made for a CRS following rectification of a defect or any deferred defect or maintenance check carried out. Such a certificate

appearing on each page of this section should readily identify the defect(s) to which it relates or the particular maintenance check as appropriate.

In the case of maintenance performed by a MCAR-145 maintenance organisation, it is acceptable to use an alternate abbreviated certificate of release to service consisting of the statement 'MCAR-145 release to service' instead of the full certification statement specified in AMC 145.A.50(b) paragraph 1. When the alternate abbreviated certificate of release to service is used, the introductory section of the technical log should include an example of the full certification statement from AMC 145.A.50(b) paragraph 1.

vi. 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; provision to show, in the same units of quantity, both the amount of fuel planned to be uplifted and the amount of fuel actually uplifted; provision for the time when ground de-icing and/or anti-icing was started and the type of fluid applied, including mixture ratio fluid/water and any other information required by the operator's procedures in order to allow the assessment on whether inspections for and/or elimination of de-icing/anti-icing fluid residues that could endanger flight safety are required.

vii. the pre-flight inspection signature.

In addition to the above, it may be necessary to record the following supplementary information:

- the time spent in particular engine power ranges where use of such engine power affects the life of the engine or engine module;

- the number of landings where landings affect the life of an aircraft or aircraft component;

- flight cycles or flight pressure cycles where such cycles affect the life of an aircraft or aircraft component.

NOTE 1: Where Section 3 is of the multi-sector 'part removable' type, then such 'part removable' sections should contain all of the foregoing information where appropriate.

NOTE 2: Section 3 should be designed so that one copy of each page may remain on the aircraft and one copy may be retained on the ground until completion of the flight to which it relates.

NOTE 3: Section 3 layout should be divided to show clearly what is required to be completed after flight and what is required to be completed in preparation for the next flight.

Section 4 should contain 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. Each page of this section should be pre-printed with the operator's name and page serial number and make provision for recording the following:

i. a cross reference for each deferred defect such that the original defect can be identified in the particular section 3 sector record page.

ii. the original date of occurrence of the defect deferred.

iii. brief details of the defect.

iv. 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.

Section 5 should contain any necessary maintenance support information that the aircraft commander needs to know. Such information would include data on how to contact maintenance engineering if problems arise whilst operating the routes etc.

AMC M.A.306(b) Aircraft 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 CAA.

In case of a computer system, it should contain programme safeguards against the ability of unauthorised personnel to alter the database.

MCAR-M.A.307 Transfer of aircraft continuing airworthiness records

(a) The owner or operator shall ensure when an aircraft is permanently transferred from one owner or operator to another that the M.A.305 continuing airworthiness records and, if applicable, M.A.306 operator's technical log are also transferred.

(b) The owner shall ensure, when he contracts the continuing airworthiness management tasks to a continuing airworthiness management organisation, that the M.A.305 continuing airworthiness records are transferred to the organisation.

(c) The time periods prescribed for the retention of records shall continue to apply to the new owner, operator or continuing airworthiness management organisation.

AMC M.A.307(a) Transfer of aircraft continuing airworthiness records

Where an owner/operator terminates his operation, all retained continuing airworthiness records should be passed on to the new owner/operator or stored.

A "permanent transfer" does not generally include the dry lease-out of an aircraft when the duration of the lease agreement is less than 6 months. However the CAA should be satisfied that all continuing airworthiness records necessary for the duration of the lease agreement are transferred to the lessee or made accessible to them.

Subpart D — MAINTENANCE STANDARDS

MCAR-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 Regulation, applicable maintenance data is:

1. any applicable requirement, procedure, standard or information issued by the CAA,

2. any applicable airworthiness directive,

3. applicable instructions for continuing airworthiness, issued by type certificate holders, supplementary type certificate holders and any other organisation that publishes such data in accordance with MCAR-21.

4. any applicable data issued in accordance with 145.A.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.

AMC M.A.401(b) Maintenance data

1. Except as specified in sub-paragraph 2, each person or organisation performing aircraft maintenance should have access to and use:

   (a) the regulations on continuing airworthiness of aircraft, associated AMC and GM;

   (b) all applicable maintenance requirements and notices such as CAA standards and specifications that have not been superseded by a requirement, procedure or directive;

   (c) all applicable airworthiness directives'

   (d) the appropriate sections of the aircraft maintenance programme, aircraft maintenance manual, repair manual, supplementary structural inspection document, corrosion control document, service bulletins, service sheets modification leaflets, non-destructive inspection manual, parts catalogue, type certificate data sheets as required for the work undertaken and any other specific document issued by the type certificate or supplementary type certificate holder's maintenance data, except that in the case of operator or customer provided maintenance data it is not necessary to hold such provided data when the work order is completed.

2. In addition to sub-paragraph 1, for components each organisation performing aircraft maintenance should hold and use the appropriate sections of the vendor maintenance and repair manual, service bulletins and service letters plus any document issued by the type certificate holder as maintenance data on whose product the component may be fitted when applicable, except that in the case of operator or customer provided maintenance data it is not necessary to hold such provided data when the work order is completed.

AMC M.A.401(c) Maintenance data

1. Data being made available to personnel maintaining aircraft means that the data should be available in close proximity to the aircraft or component being maintained, for mechanics and certifying staff to perform maintenance.

2. Where computer systems are used, the number of computer terminals should be sufficient in relation to the size of the work programme to enable easy access, unless the computer system can produce paper copies. Where microfilm or microfiche readers/printers are used, a similar requirement is applicable.

3. Maintenance tasks should be transcribed onto the work cards or worksheets and subdivided into clear stages to ensure a record of the accomplishment of the maintenance task. Of particular importance is the need to differentiate and specify, when relevant, disassembly, accomplishment of task, reassembly and testing. In the case of a lengthy maintenance task involving a succession of personnel to complete such task, it may be necessary to use supplementary work cards or worksheets to indicate what was actually accomplished by each individual person. A worksheet or work card system should refer to

particular maintenance tasks.

4. The workcard/worksheet system may take the form of, but is not limited to, the following:

   - a format where the mechanic writes the defect and the maintenance action taken together with information of the maintenance data used, including its revision status,

   - an aircraft log book that contains the reports of defects and the actions taken by authorised personnel together with information of the maintenance data used, including its revision status,

   - for maintenance checks, the checklist issued by the manufacturer (i.e., 100H checklist, Revision 5, Items 1 through 95)

5. Maintenance data should be kept up to date by:

   - subscribing to the applicable amendment scheme,

   - checking that all amendments are being received,

   - monitoring the amendment status of all data.

MCAR-M.A.402 Performance of maintenance

Except for maintenance performed by a maintenance organisation approved in accordance with MCAR-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.

AMC M.A.402(a) Performance of maintenance

1. Maintenance should be performed by persons authorised to issue a certificate of release to service or under the supervision of persons authorised to issue a certificate of release to service. Supervision should be to the extent necessary to ensure that the work is performed properly and the supervisor should be readily available for consultation.

2. The person authorised to issue a certificate of release to service should ensure that:

   (a) each person working under his/her supervision has received appropriate training or has relevant previous experience and is capable of performing the required task; and
   (b) each person who performs specialised tasks, such as welding, is qualified in accordance to an officially recognised standard.

GM M.A.402(a) Performance of maintenance

In the case of limited Pilot-owner maintenance, as specified in M.A.803, any person maintaining an aircraft which they own individually or jointly, provided they hold a valid pilot licence with the appropriate type or class rating, may perform the limited Pilot-owner maintenance tasks in accordance with Appendix VIII to MCAR-M.

AMC M.A.402(c) Performance of maintenance

The general maintenance and inspection standards applied to individual maintenance tasks should meet the recommended standards and practices of the organisation responsible for the type design, which are normally published in maintenance manuals. In the absence of maintenance and inspection standards published by the organisation responsible for the type design, maintenance personnel should refer to the relevant aircraft airworthiness standards and procedures published or used as guidance by the CAA. The maintenance standards used should contain methods, techniques and practices acceptable to the CAA for the maintenance of the aircraft and its components.

AMC M.A.402(d) Performance of maintenance

When performing the maintenance, personnel are required to use the tools, equipment and test apparatuses necessary to ensure completion of work in accordance with accepted maintenance and inspection standards. Inspection, service or calibration that is performed on a regular basis should be performed in accordance with the equipment manufacturers' instructions. All tools requiring calibration should be traceable to an acceptable standard

In this context, "officially recognised standards" means those standards established or published by an official body, being either a natural or legal person, and which are widely recognised by the air transport sector as constituting good practice.

If the organisation responsible for the type design involved recommends special equipment or test apparatuses, personnel should use the recommended equipment or apparatuses or equivalent equipment accepted by the CAA.

All work should be performed using material of such quality and in such a manner that the condition of the aircraft or its component after maintenance is at least equal to its or their original or modified condition (with regard to aerodynamic function, structural strength, resistance to vibration, deterioration and any other qualities affecting airworthiness).

AMC M.A.402(e) Performance of maintenance

The working environment should be appropriate for the maintenance task being performed such that the effectiveness of personnel is not impaired.

(a) Temperature should be maintained such that personnel can perform the required tasks without undue discomfort.

(b) Airborne contamination (e.g. dust, precipitation, paint particles, filings) should be kept to a minimum to ensure aircraft/components surfaces are not contaminated, if this is not possible all susceptible systems should be sealed until acceptable conditions are re-established.

(c) Lighting should be adequate to ensure each inspection and maintenance task can be performed effectively.

(d) Noise levels should not be allowed to rise to the level of distraction for inspection staff or if this is not possible inspection staff should be provided with personnel equipment to reduce excessive noise.

AMC M.A.402(f) Performance of maintenance

Facilities should be provided appropriate for all planned maintenance. This may require aircraft hangars that are both available and large enough for the planned maintenance.

Aircraft component workshops should be large enough to accommodate the components that are planned to be maintained.

Protection from inclement weather means the hangar or component workshop structures should be to a standard that prevents the ingress of rain, hail, ice, snow, wind and dust etc.

AMC M.A.402(g) Performance of maintenance

(a) To minimise the risk of multiple errors and to prevent omissions, the person or organisation performing maintenance should ensure that:

1. every maintenance task is signed off only after completion;
2. the grouping of tasks for the purpose of sign-off allows critical steps to be clearly identified; and
3. any work performed by personnel under supervision (i.e. temporary staff, trainees) is checked and signed off by an authorised person.

(b) To minimise the possibility of an error being repeated in identical tasks that involve removal/installation or assembly/disassembly of several components of the same type fitted to more than one system, whose failure could have an impact on safety, the person or organisation performing maintenance should plan different persons to perform identical tasks in different systems. However, when only one person is available, then this person should perform reinspection of the tasks as described in AMC2 M.A.402(h).

AMC1 M.A.402(h) Performance of maintenance

CRITICAL MAINTENANCE TASKS

The following maintenance tasks should primarily be reviewed to assess their impact on safety:

(a) Tasks that may affect the control of the aircraft, flight path and attitude, such as installation, rigging and adjustments of flight controls;

(b) Aircraft stability control system (autopilot, fuel transfer);

(c) Tasks that may affect the propulsive force of the aircraft, including installation of aircraft engines, propellers and rotors; and

(d) Overhaul, calibration or rigging of engines, propellers, transmission and gearboxes.

AMC2 M.A.402(h) Performance of maintenance

INDEPENDENT INSPECTIONS

(a) What is an independent inspection

Independent inspection is one possible error-capturing method. It consists of an inspection performed by an "independent qualified person" of a task carried out by an "authorised person", taking into account that:

1. The "authorised person" is the person who performs the tasks or supervises the task and assumes the full responsibility for the completion of the task in accordance with the applicable maintenance data;

2. The "independent qualified person" is the person who performs the independent inspection and attests the satisfactory completion of the task and that no deficiencies have been found. The "independent qualified person" does not issue a certificate of release to service, therefore he/she is not required to hold certification privileges;

3. The certificate of release to service is issued by the "authorised person" after the independent inspection has been carried out satisfactorily;

4. The work card should record the identification of each person, the date and the details of the independent inspection, as necessary, before the certificate of release to service is issued.

(b) Qualifications of personnel performing independent inspections

1. When the work is performed by MCAR-M Subpart F organisation, then the organisation should have procedures to demonstrate that the "independent qualified person" has been trained and has gained experience in the specific control systems to be inspected. This training and experience could be demonstrated, for example, by:

   (i) holding a MCAR-66 licence in the same subcategory as the licence subcategory or equivalent necessary to release or sign off the critical maintenance task;

   (ii) holding a MCAR-66 licence in the same category and specific training in the task to be inspected; or

   (iii) having received appropriate training and having gained relevant experience in the specific task to be inspected.

2. When the work is performed outside an MCAR-M Subpart F organisation:

   (i) the "independent qualified person" should hold:

      (A) an MCAR-66 licence in any category or equivalent: or

      (B) a valid pilot licence for the aircraft type issued in accordance with MCAR-Air Operations regulation or equivalent;

   (ii) additionally, the "authorised person" should assess the qualifications and experience of the "independent qualified person" taking into account that the "independent qualified person" should have received training and experience in the particular task. It should not be acceptable that the "authorised person" shows to the "independent qualified person" how to perform the inspection once work has been already finalised.

(c) How should independent inspection be performed

Independent inspection should ensure for example correct assembly, locking and sense of operation. When inspecting control systems that have undergone maintenance, the 'independent qualified person' should consider the following points independently:

1. all those parts of the system that have actually been disconnected or disturbed should be inspected for correct assembly and locking;

2. the system as a whole should be inspected for full and free movement over the complete range;

3. cables should be tensioned correctly with adequate clearance at secondary stops;

4. the operation of the control system as a whole should be observed to ensure that the controls are operating in the correct sense;

5. if different control systems are interconnected so that they effect other, all the interactions should be checked through the full range of the applicable controls; and

6. software that is part of the critical maintenance task should be checked, for example version and compatibility with the aircraft configuration.

(d) What do in unforeseen cases when only one person is available

REINSPECTION

1. Reinspection is subject to the same conditions as the independent inspection is, except that the "authorised person" performing the maintenance task is also acting as "independent qualified person" and performs the inspection.

2. For critical maintenance tasks, reinspection should only be used in unforeseen circumstances when only one person is available to carry out the task and perform the independent inspection. The circumstances cannot be considered unforeseen if the person or organisation has not assigned a suitable "independent qualified person" to that particular task.

3. The certificate of release to service is issued by the "authorised person" after the reinspection has been performed satisfactorily.

4. The work card system should record identification of the "authorised person" and the date and the details of the reinspection, as necessary, before the certificate of release to service is issued.

GM M.A.402(h) Performance of maintenance

Several data sources may be used for identification of critical maintenance tasks, such as:

- Information from the design approval holder;
- Accident reports;
- Investigation and follow-up of incidents;
- Occurrence reporting;
- Flight data analysis;
- Results of audits;
- Normal operations monitoring schemes;
- Feedback from training and

- Information exchange systems.

MCAR-M.A.403 Aircraft defects

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

(b) Only the authorised certifying staff, according to points M.A.801(b)1, M.A.801(b)2, M.A.801(c), M.A.801(d) or MCAR-145 can decide, using M.A.401 maintenance data, whether an aircraft defect hazards seriously the 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 hazard seriously the 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 M.A.305 aircraft maintenance record system or M.A.306 operator's technical log system as applicable.

AMC M.A.403(b) Aircraft defects

An assessment of both the cause and any potentially hazardous effect of any defect or combination of defects that could affect flight safety should be made in order to initiate any necessary further investigation and analysis necessary to identify the root cause of the defect.

AMC M.A.403(d) Aircraft defects

All deferred defects should be made known to the pilot/flight crew, whenever possible, prior to their arrival at the aircraft.

Deferred defects should be transferred on to worksheets at the next appropriate maintenance check, and any deferred defect which is not rectified during the maintenance check, should be re-entered on to a new deferred defect record sheet. The original date of the defect should be retained.

The necessary components or parts needed for the rectification of defects should be made available or ordered on a priority basis, and fitted at the earliest opportunity.

Subpart E — COMPONENTS

MCAR-M.A.501 Installation

(a) No component may be fitted unless it is in a satisfactory condition, has been appropriately released to service on a CAA Form 1 or equivalent and is marked in accordance with MCAR-21 Subpart Q, unless otherwise specified in MCAR-21, MCAR-145 or Subpart F, Section A of this Regulation.

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

(c) Standard parts shall only be fitted to an aircraft or a component when the maintenance data specifies the particular standard part. Standard parts shall only be fitted when accompanied by evidence of conformity traceable to the applicable standard.

(d) Material being either raw material or consumable material shall only be used on an aircraft or a component when the aircraft or component manufacturer states so in relevant maintenance data or as specified in MCAR-145. Such material shall only be used when the material meets the required specification and has appropriate traceability. All material 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.

AMC M.A.501(a) Installation

1. To ensure a component is in a satisfactory condition, the person referred to under M.A.801 or the approved maintenance organisation should perform checks and verifications.

2. Performance of above checks and verifications should take place before the component is installed on the aircraft.

3. The following list, though not exhaustive, contains typical checks to be performed:

   (a) verify the general condition of components and their packaging in relation to damages that could affect the integrity of the components;

   (b) verify that the shelf life of the component has not expired;

   (c) verify that items are received in the appropriate package in respect of the type of component: e.g. correct ATA 300 or electrostatic sensitive devices packaging, when necessary;

   (d) verify that component has all plugs and caps appropriately installed to prevent damage or internal contamination. Tape should not be used to cover electrical connections or fluid fittings/openings because adhesive residues can insulate electrical connections and contaminate hydraulic or fuel units.

4. The purpose of the CAA Form 1 (see also MCAR-M Appendix II) is to release components after manufacture and to release maintenance work carried out on such components under the approval of the CAA and to allow components removed from one aircraft/component to be fitted to another aircraft/ component.

5. For the purpose of MCAR-M, a document equivalent to an CAA Form 1 may be:

   (a) a release document issued by an organisation under the terms of a bilateral agreement signed by the CAA;

   (b) an EASA Form 1;

   (c) an FAA Form 8130-3;

   (d) a Transport Canada TCCA 24-0078 or Authorised Release Certificate Form One;

   (e) reserved;

   (f) reserved;

   (g) reserved;

   (h) reserved;

(i) reserved;

6. Any item in storage without a CAA Form 1 or equivalent cannot be installed on aircraft registered in the Maldives unless a CAA Form 1 is issued for such item by an appropriately approved maintenance organisation in accordance with AMC M.A.613 (a).

AMC M.A.501(b) Installation

1. The CAA Form 1 identifies the airworthiness status of an aircraft component. Block 12 'Remarks' on the CAA Form 1 in some cases contains vital airworthiness related information (see also MCAR-M Appendix II) which may need appropriate and necessary actions.

2. The fitment of replacement components should only take place when the person referred to in M.A.801 or the M.A. Subpart F or MCAR-145 maintenance organisation is satisfied that such components meet required standards in respect of manufacture or maintenance, as appropriate.

3. The person referred to under M.A.801 or the M.A. Subpart F or MCAR-145 approved maintenance organisation should be satisfied that the component in question meets the approved data/standard, such as the required design and modification standards. This may be accomplished by reference to the (S)TC holder or manufacturer's parts catalogue or other approved data (i.e. Service Bulletin). Care should also be taken in ensuring compliance with applicable AD and the status of any service life-limited parts fitted to the aircraft component.

AMC M.A.501(c) Installation

1. Standard parts are:

(a) parts manufactured in complete compliance with an established industry, State of Design, CAA or other Government specification which includes design, manufacturing, test and acceptance criteria, and uniform identification requirements. The specification should include all information necessary to produce and verify conformity of the part. It should be published so that any party may manufacture the part. Examples of specifications are National Aerospace Standards (NAS), Army-Navy Aeronautical Standard (AN), Society of Automotive Engineers (SAE), SAE Sematec, Joint Electron Device Engineering Council, Joint Electron Tube Engineering Council, and American National Standards Institute (ANSI), EN Specifications etc...

(b) For sailplanes and powered sailplanes, non-required instruments and/or equipment certified under the provision of EASA CS 22.1301(b), if those instruments or equipment, when installed, functioning, functioning improperly or not functioning at all, do not in itself, or by its effect upon the sailplane and its operation, constitute a safety hazard.

"Required" in the term "non-required" as used above means required by the applicable airworthiness code (EASA CS 22.1303, 22.1305 and 22.1307) or required by

the relevant operating regulations and the applicable Rules of the Air or as required by Air Traffic Management (e.g. a transponder in certain controlled airspace). Examples of equipment which can be considered standard parts are electrical variometers, bank/slip indicators ball type, total energy probes, capacity bottles (for variometers), final glide calculators, navigation computers, data logger / barograph / turnpoint camera, bug-wipers and anti-collision systems. Equipment which must be approved in accordance to the airworthiness code shall comply with the applicable ETSO or equivalent and is not considered a standard part (e.g. oxygen equipment).

2. To designate a part as a standard part the TC holder may issue a standard parts manual accepted by the competent authority of original TC holder or may make reference in the parts catalogue to a national/international specification (such as a standard diode/capacitor etc) not being an aviation only specification for the particular part.

3. Documentation accompanying standard parts should clearly relate to the particular parts and contain a conformity statement plus both the manufacturing and supplier source. Some material is subject to special conditions such as storage condition or life limitation etc. and this should be included on the documentation and / or material packaging.

4. A CAA Form 1 or equivalent is not normally issued and therefore none should be expected.

AMC M.A.501(d) Installation

1. Consumable material is any material which is only used once, such as lubricants, cements, compounds, paints, chemicals dyes and sealants etc.

2. Raw material is any material that requires further work to make it into a component part of the aircraft such as metals, plastics, wood, fabric etc.

3. Material both raw and consumable should only be accepted when satisfied that it is to the required specification. To be satisfied, the material and or its packaging should be marked with the specification and where appropriate the batch number.

4. Documentation accompanying all material should clearly relate to the particular material and contain a conformity statement plus both the manufacturing and supplier source. Some material is subject to special conditions such as storage condition or life limitation etc. and this should be included on the documentation and / or material packaging.

5. CAA Form 1 or equivalent should not be issued for such material and therefore none should be expected. The material specification is normally identified in the (S)TC holder's data except in the case where the CAA or the competent authority of the (S)TC holder has agreed otherwise.

6. Items purchased in batches (fasteners etc.) should be supplied in a package. The packaging should state the applicable specification/standard, P/N, batch number and the quantity of the items. The documentation accompanying the material should contain the applicable specification/standard, P/N, batch number, supplied quantity, and the manufacturing

sources. If the material is acquired from different batches, acceptance documentation for each batch should be supplied.

MCAR-M.A.502 Component maintenance

(a) Except for components referred in point 21.A.307 (c) of MCAR-21, the maintenance of components shall be performed by maintenance organisations appropriately approved in accordance with Section A, Subpart F of this Regulation or with MCAR-145.

(b) By derogation from point (a), maintenance of a component in accordance with aircraft maintenance data or, if agreed by the CAA, in accordance with component maintenance data, may be performed by an A rated organisation approved in accordance with Section A, Subpart F of this Regulation or with MCAR-145 as well as by certifying staff referred to in point M.A.801(b)2 only whilst such components are fitted to the aircraft. Nevertheless, such organisation or certifying staff may temporarily remove this component for maintenance, in order to improve access to the component, except when such removal generates the need for additional maintenance not eligible for the provisions of this paragraph. Component maintenance performed in accordance with this point is not eligible for the issuance of a CAA Form 1 and shall be subject to the aircraft release requirements provided for in point M.A.801.

(c) By derogation from paragraph (a), maintenance of an engine/Auxiliary Power Unit (APU) component in accordance with engine/APU maintenance data or, if agreed by the CAA, in accordance with component maintenance data, may be performed by a B rated organisation approved in accordance with Section A, Subpart F of this Regulation or with MCAR-145 only whilst such components are fitted to the engine/APU. Nevertheless, such B rated organisation may temporarily remove this component for maintenance, in order to improve access to the component, except when such removal generates the need for additional maintenance not eligible for the provisions of this paragraph.

(d) By derogation from point (a) and point M.A.801(b)2, maintenance of a component while installed or temporarily removed from an ELA1 aircraft used by other than licenced air carriers, and performed in accordance with component maintenance data, may be performed by certifying staff referred to in point M.A.801(b)2, except for:

1. overhaul of components other than engines and propellers, and;

2. overhaul of engines and propellers for aircraft other than CS-VLA, CS-22 and LSA.

Component maintenance performed in accordance with point (d) is not eligible for the issuance of a CAA Form 1 and shall be subject to the aircraft release requirements provided for in point M.A.801.

(e) Maintenance of components referred to in 21.A.307 (c) of MCAR-21 shall be performed by an A rated Organization approved in accordance with Section A Subpart F of this Regulation (MCAR-M) or MCAR-145, by certifying staff referred in point M.A.801 (b)2 or by the pilot-owner referred to in point M.A.803 (b)3 while such a component is fitted to the aircraft or temporarily removed to improve access. Component maintenance performed in accordance with this point is not eligible for the issuance of a CAA Form 1 and shall be subject to the aircraft release requirements provided in point M.A.801.

AMC M.A.502 Component maintenance

Component removal from and installation on an aircraft is considered to be aircraft maintenance and not component maintenance. As a consequence, M.A.502 requirements do not apply to this case.

AMC M.A.502(b) and (c) Component maintenance

M.A.502(b) and (c) allow the performance of certain component maintenance, in accordance with component maintenance data, to maintenance organisations not holding the corresponding B/C rating and to independent certifying staff, subject to the agreement of CAA.

This should only be permitted by the CAA in the case of simple component maintenance, where the CAA is satisfied that the certifying staff are appropriately qualified and the proper tooling and facilities are available. It is important to note that for more complex component maintenance, special qualifications may be required and it is not enough with holding an MCAR-66 aircraft maintenance licence.

MCAR-M.A.503 Service life limited components

(a) Installed service life limited components shall not exceed the approved service life limit as specified in the approved maintenance programme and airworthiness directives, except as provided for in point M.A.504(c).

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

(c) At the end the approved service life, the component must be removed from the aircraft for maintenance, or for disposal in the case of components with a certified life limit.

MCAR-M.A.504 Control of unserviceable components

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

1. expiry of the service life limit as defined in the maintenance program;

2. non-compliance with the applicable airworthiness directives and other continued airworthiness requirement mandated by the CAA;

3. absence of the necessary information to determine the airworthiness status or eligibility for installation;

4. evidence of defects or malfunctions;

5. involvement in an incident or accident likely to affect its serviceability.

(b) Unserviceable components shall be identified and stored in a secure location under the control of an approved maintenance organisation until a decision is made on the future status of such component. Nevertheless, for aircraft not used by licenced air carriers and other than complex motor-powered aircraft, the person or organisation that declared the component unserviceable may transfer its custody, after identifying it as unserviceable, to the aircraft owner provided that such transfer is reflected in the aircraft logbook or engine logbook or component logbook.

(c) 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, unless certified life limits have been extended or a repair solution has been approved according to M.A.304.

(d) Any person or organisation accountable under this Regulation shall, in the case of a point (c) unsalvageable components:

1. retain such component in the point (b) location, or;

2. arrange for the component to be mutilated in a manner that ensures that it is beyond

economic salvage or repair before relinquishing responsibility for such component.

(e) Notwithstanding point (d) a person or organisation accountable under this Regulation may transfer responsibility of components classified as unsalvageable to an organisation for training or research without mutilation.

AMC M.A.504(a) Control of unserviceable components

A component continues to be unserviceable until a decision is taken pursuant to AMC M.A.605(c)6

AMC M.A.504(b) Control of unserviceable components

1. M.A.801(b)(2) and M.A.801(c) certifying staff or the Section A Subpart F / MCAR-145 approved maintenance organisation performing maintenance should ensure proper identification of any unserviceable components.

2. The unserviceable status of the component should be clearly declared on a tag together with the component identification data and any information useful to define actions necessary to be taken. Such information should state, as applicable, in service times, maintenance status, preservation status, failures, defects or malfunctions reported or detected exposure to adverse environmental conditions, if the component has been involved in or affected by an accident/incident. Means should be provided to prevent unwanted separation of this tag from the component.

3. M.A.801(b)(2) and M.A.801(c) certifying staff performing aircraft maintenance should send, with the agreement of the aircraft owner/lessee, any unserviceable component to a maintenance organisation approved under Section A Subpart F or MCAR-145 for controlled storage, or transfer the custody of the component to the owner itself under the conditions specified in M.A.504(b).

   "A secure location under the control of an approved maintenance organisation" means a secure location for which security is the responsibility of the approved maintenance organisation. This may include facilities established by the approved maintenance organisation at locations different from the main maintenance facilities. These locations should be identified in the relevant procedures of the approved maintenance organisation.

AMC M.A.504(c) Control of unserviceable components – unsalvageable components

1. The following types of components should typically be classified as unsalvageable:

   (a) components with non-repairable defects, whether visible or not to the naked eye;

   (b) components that do not meet design specifications, and cannot be brought into conformity with such specifications;

   (c) components subjected to unacceptable modification or rework that is irreversible;

   (d) certified life-limited parts that have reached or exceeded their certified life limits, or have missing or incomplete records;

(e) components that cannot be returned to airworthy condition due to exposure to extreme forces, heat or adverse environment;

(f) components for which conformity with an applicable airworthiness directive cannot be accomplished;

(g) components for which continuing airworthiness records and/or traceability to the manufacturer cannot be retrieved.

2. It is common practice for possessors of aircraft components to dispose of unsalvageable components by selling, discarding, or transferring such items. In some instances, these items have reappeared for sale and in the active parts inventories of the aviation community. Misrepresentation of the status of components and the practice of making such items appear serviceable has resulted in the use of unsalvageable nonconforming components. Therefore organisations disposing of unsalvageable aircraft components should consider the possibility of such components later being misrepresented and sold as serviceable components. Caution should be exercised to ensure that unsalvageable components are disposed of in a manner that does not allow them to be returned to service.

AMC M.A.504(d)(2) Control of unserviceable components

1. Mutilation should be accomplished in such a manner that the components become permanently unusable for their original intended use. Mutilated components should not be able to be reworked or camouflaged to provide the appearance of being serviceable, such as by re-plating, shortening and re-threading long bolts, welding, straightening, machining, cleaning, polishing, or repainting.

2. Mutilation may be accomplished by one or a combination of the following procedures:

(a) grinding,

(b) burning,

(c) removal of a major lug or other integral feature,

(d) permanent distortion of parts,

(e) cutting a hole with cutting torch or saw,

(f) melting,

(g) sawing into many small pieces,

(h) any other method accepted by the CAA on a case by case basis.

3. The following procedures are examples of mutilation that are often less successful because

they may not be consistently effective:

(a) stamping or vibro-etching,

(b) spraying with paint,

(c) small distortions, incisions or hammer marks,

(d) identification by tag or markings,

(e) drilling small holes,

(f) sawing in two pieces only.

4. Since manufacturers producing approved aircraft components should maintain records of serial numbers for "retired" certified life-limited or other critical components, the organisation that mutilates a component should provide the original manufacturer with the data plate and/or serial number and final disposition of the component.

AMC M.A.504(e) Control of unserviceable components

A maintenance organisation may choose, in agreement with the component's owner, to release an unsalvageable component for legitimate non-flight uses, such as for training and education, research and development. In such instances, mutilation may not be appropriate. The following methods should be used to prevent the component re-entering the aviation supply system:

(a) permanently marking or stamping the component, as "NOT SERVICEABLE." (Ink stamping is not an acceptable method);

(b) removing original part number identification;

(c) removing data plate identification;

(d) maintaining a tracking or accountability system, by serial number or other individualised data, to record transferred unsalvageable aircraft component;

(e) including written procedures concerning disposal of such components in any agreement or contract transferring such components.

NOTE: Unsalvageable components should not be released to any person or organisation that is known to return unsalvageable components back into the aviation supply system, due to the potential safety threat.

Subpart F — MAINTENANCE ORGANISATION

MCAR-M.A.601 Scope

This Subpart establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the maintenance of aircraft other than complex motor powered aircraft and components to be installed therein not used by licenced air carriers.

MCAR-M.A.602 Application

An application for issue or change of a maintenance organisation approval shall be made on a form and in a manner established by the CAA.

AMC M.A.602 Application

An application should be made on a CAA Form 2 (Appendix IX to AMC M.A.602 and AMC M.A.702) or equivalent acceptable to the CAA.

The CAA Form 2 is valid for the application for M.A. Subpart F, MCAR-145 and M.A. Subpart G organisations. Organisations applying for several approvals may do so by using a single CAA Form 2.

MCAR-M.A.603 Extent of approval

(a) An organisation involved in activities subject to this Subpart shall not exercise its activities unless approved by the CAA. Appendix V to this Regulation provides the template certificate for this approval.

(b) The maintenance organisation's manual referred to in point M.A.604 shall specify the scope of work deemed to constitute approval. Appendix IV to this Regulation defines all classes and ratings possible under Subpart F of this Regulation.

(c) An approved maintenance organisation may fabricate, in conformity with maintenance data, a restricted range of parts for the use in the course of undergoing work within its own facilities, as identified in the maintenance organisation manual.

AMC M.A.603(a) Extent of approval

The following table identifies the ATA specification 2200 chapter for the category C component rating. If the maintenance manual (or equivalent document) does not follow the ATA Chapters, the corresponding subjects still apply to the applicable C rating.

CLASS	RATING	ATA CHAPTERS
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	21
	C2 Auto Flight	22
	C3 Comms and Nav	23 - 34
	C4 Doors - Hatches	52
	C5 Electrical Power & Lights	24 - 33 - 85
	C6 Equipment	25 - 38 - 44 – 45 - 50
	C7 Engine – APU	49 - 71 - 72 - 73 - 74 - 75 - 76 - 77 - 78 - 79 - 80 - 81 - 82 - 83
	C8 Flight Controls	27 - 55 - 57.40 - 57.50 -57.60 - 57.70
	C9 Fuel	28 - 47
	C10 Helicopters - Rotors	62 - 64 - 66 - 67
	C11 Helicopter - Trans	63 - 65
	C12 Hydraulic Power	29
	C13 Indicating/Recording Systems	31 – 42 - 46
	C14 Landing Gear	32
	C15 Oxygen	35
	C16 Propellers	61
	C17 Pneumatic & Vacuum	36 - 37
	C18 Protection ice/rain/fire	26 - 30
	C19 Windows	56
	C20 Structural	53 - 54 - 57.10 - 57.20 - 57.30
	C21 Water Ballast	41
	C22 Propulsion Augmentation	84

AMC M.A.603(c) Extent of approval

1. The agreement by the CAA for the fabrication of parts by the approved maintenance organisation should be formalised through the approval of a detailed procedure in the maintenance organisation manual. This AMC contains principles and conditions to be taken into account for the preparation of an acceptable procedure.

2. Fabrication, inspection, assembly and test should be clearly within the technical and procedural capability of the approved maintenance organisation.

3. The approved data necessary to fabricate the part are those approved either by the CAA, the TC holder, MCAR-21 design organisation approval holder, or STC holder.

4. Items fabricated by an approved maintenance organisation may only be used by that organisation in the course of overhaul, maintenance, modifications, or repair of aircraft or components undergoing work within its own facility. The permission to fabricate does not constitute approval for manufacture, or to supply externally and the parts do not qualify for certification on CAA Form 1. This also applies to the bulk transfer or surplus inventory, in that locally fabricated parts are physically segregated and excluded from any delivery certification.

5. Fabrication of parts, modification kits etc for onward supply and/or sale may not be conducted under a M.A. Subpart F approval

6. The data specified in paragraph 3 may include repair procedures involving the fabrication of parts. Where the data on such parts is sufficient to facilitate fabrication, the parts may be fabricated by an approved maintenance organisation. Care should be taken to ensure that the data include details of part numbering, dimensions, materials, processes, and any special manufacturing techniques, special raw material specification or/and incoming inspection requirement and that the approved organisation has the necessary capability. That capability should be defined by way of maintenance organisation manual content. Where special processes or inspection procedures are defined in the approved data which are not available at the approved maintenance organisation, that organisation cannot fabricate the part unless the TC/STC-holder gives an approved alternative.

7. Examples of fabrication under the scope of an M.A. Subpart F approval can include but are not limited to the following:
   (a) fabrication of bushes, sleeves and shims,
   (b) fabrication of secondary structural elements and skin panels,
   (c) fabrication of control cables,
   (d) fabrication of flexible and rigid pipes,
   (e) fabrication of electrical cable looms and assemblies,
   (f) formed or machined sheet metal panels for repairs.

   Note: It is not acceptable to fabricate any item to pattern unless an engineering drawing of the item is produced which includes any necessary fabrication processes and which is accepted to the CAA.

8. Where a TC-holder or an approved production organisation is prepared to make available complete data which is not referred to in aircraft manuals or service bulletins but provides manufacturing drawings for items specified in parts lists, the fabrication of these items is not considered to be within the scope of an M.A. Subpart F approval unless agreed otherwise by the CAA in accordance with a procedure specified in the maintenance organisation manual.

9. Inspection and Identification.

Any locally fabricated part should be subject to an inspection stage before, separately, and preferably independently from, any inspection of its installation. The inspection should establish full compliance with the relevant manufacturing data, and the part should be unambiguously identified as fit for use by stating conformity to the approved data. Adequate records should be maintained of all such fabrication processes including heat treatment and the final inspections. All parts, excepting those with inadequate space, should carry a part number which clearly relates it to the manufacturing/inspection data. Additional to the part number the approved maintenance organisation's identity should be marked on the part for traceability purposes.

MCAR-M.A.604 Maintenance organisation manual

(a) The maintenance organisation shall provide a manual containing at least the following information:

1. a statement signed by the accountable manager to confirm that the organisation will continuously work in accordance with MCAR-M and the manual at all times, and;

2. the organisation's scope of work, and;

3. the title(s) and name(s) of person(s) referred to in M.A.606(b), and;

4. an organisation chart showing associated chains of responsibility between the person(s) referred to in M.A.606(b), and;

5. a list of certifying staff and, if applicable, airworthiness review staff and staff responsible for the development and processing of the maintenance programme, with their scope of approval, and;

6. a list of locations where maintenance is carried out, together with a general description of the facilities, and;

7. procedures specifying how the maintenance organisation ensures compliance with this Part, and;

8. the maintenance organisation manual amendment procedure(s).

(b) The maintenance organisation manual and its amendments shall be approved by the CAA.

(c) Notwithstanding point (b) minor amendments to the manual may be approved through a procedure (hereinafter called indirect approval).

AMC M.A.604 Maintenance organisation manual

1. Appendix IV to this AMC provides an outline of the format of an acceptable maintenance organisation manual for a small organisation with less than 10 maintenance staff.

2. The maintenance organisation exposition as specified in MCAR-145 provides an outline of the format of an acceptable maintenance organisation manual for larger organisations with more than 10 maintenance staff, dependent upon the complexity of the organisation.

MCAR-M.A.605 Facilities

The organisation shall ensure that:

(a) Facilities are provided for all planned work, specialised workshops and bays are segregated as appropriate, to ensure protection from contamination and the environment.

(b) Office accommodation is provided for the management of all planned work including in particular, the completion of maintenance records.

(c) Secure storage facilities are provided for components, equipment, tools and material. Storage conditions shall ensure segregation of unserviceable components and material from all other components, material, equipment and tools. Storage conditions shall be in accordance with the manufacturers' instructions and access shall be restricted to authorised personnel.

AMC M.A.605(a) Facilities

1. Where a hangar is not owned by the M.A. Subpart F organisation, it may be necessary to establish proof of tenancy. In addition, sufficiency of hangar space to carry out planned maintenance should be demonstrated by the preparation of a projected aircraft hangar visit plan relative to the aircraft maintenance programme. The aircraft hangar visit plan should be updated on a regular basis.

   For balloons and airships a hangar may not be required where maintenance of the envelope and bottom end equipment can more appropriately be performed outside, providing all necessary maintenance can be accomplished in accordance with M.A.402. For complex repairs or component maintenance requiring a CAA Form 1, suitable approved workshops should be provided. The facilities and environmental conditions required for inspection and maintenance should be defined in the Maintenance Organisation Manual

   Depending on the scope of work of the maintenance organisation, it may not be necessary to have a hangar available. For example, an organisation maintaining ELA2 aircraft (when not performing major repairs) may perform the work in alternative suitable facilities (and possibly at remote locations) as agreed by the CAA.

2. Protection from the weather elements relates to the normal prevailing local weather elements that are expected throughout any twelve-month period. Aircraft hangar and aircraft component workshop structures should be to a standard that prevents the ingress of rain, hail, ice, snow, wind and dust etc. Aircraft hangar and aircraft component workshop floors should be sealed to minimise dust generation.

3. Aircraft maintenance staff should be provided with an area where they may study maintenance instructions and complete continuing airworthiness records in a proper manner.

4. Special case for ELA2 aircraft

   for ELA2 aircraft, it is acceptable not to have access to a hangar or dedicated workshops. Depending on the scope of work, other facilities are acceptable as long as protection is ensured from inclement weather and contamination. This may include, for example, working in the field or in non-aviation premises (closed or not).

   These facilities do not need to be individually approved by the CAA as long as the maintenance organisation manual describes for each type of facility the scope of work, the tooling and equipment available, and the permitted environmental conditions (weather, contamination).

   The organisation should include, as part of the periodic internal organisational review, a sampling of the compliance with these conditions during certain maintenance events.

AMC M.A.605(b) Facilities

It is acceptable to combine any or all of the office accommodation requirements into one office subject to the staff having sufficient room to carry out assigned tasks.

AMC M.A.605(c) Facilities

1. Storage facilities for serviceable aircraft components should be clean, well-ventilated and maintained at an even dry temperature to minimise the effects of condensation. Manufacturer's storage recommendations should be followed for those aircraft components identified in such published recommendations.

2. Adequate storage racks should be provided and strong enough to hold aircraft components and provide sufficient support for large aircraft components such that the component is not damaged during storage.

3. All aircraft components, wherever practicable, should remain packaged in their protective material to minimise damage and corrosion during storage. A shelf life control system should be utilised and identity tags used to identify components.

4. Segregation means storing unserviceable components in a separate secured location from serviceable components.

5. Segregation and management of any unserviceable component should be ensured according to the pertinent procedure approved to that organisation.

6. Procedures should be defined by the organisation describing the decision process for the status of unserviceable components. This procedure should identify at least the following:

   - role and responsibilities of the persons managing the decision process;

   - description of the decision process to choose between maintaining, storing or mutilating a component;

   - traceability of decision

7. Once unserviceable components or materials have been identified as unsalvageable in accordance with M.A.504(c), the organisation should establish secure areas in which to segregate such items and to prevent unauthorised access. Unsalvageable components should be managed through a procedure to ensure that these components receive the appropriate final disposal according to M.A.504 (d) or (e). The person responsible for the implementation of this procedure should be identified.

MCAR-M.A.606 Personnel requirements

(a) The organisation shall appoint an accountable manager, who has corporate authority for ensuring that all maintenance required by the customer can be financed and carried out to the standard required by this Regulation.

(b) A person or group of persons shall be nominated with the responsibility of ensuring that the organisation is always in compliance with this Subpart. Such person(s) shall be ultimately responsible to the accountable manager.

(c) All point (b) persons shall be able to show relevant knowledge, background and appropriate experience related to aircraft and/or component maintenance.

(d) The organisation shall have appropriate staff for the normal expected contracted work. The use of temporarily sub-contracted staff is permitted in the case of higher than normally expected contracted work and only for personnel not issuing a certificate of release to service.

(e) The qualification of all personnel involved in maintenance, airworthiness review and development of maintenance programme shall be demonstrated and recorded.

(f) Personnel who carry out specialised tasks such as welding, non-destructive testing/inspection other than colour contrast shall be qualified in accordance with an officially recognised standard.

(g) The maintenance organisation shall have sufficient certifying staff to issue M.A.612 and M.A.613 certificates of release to service for aircraft and components. They shall be qualified in accordance with the provisions of MCAR-66, except as provided for in points M.A.606(h), M.A.607(b), M.A.801(d) and M.A.803 of this regulation and in point MCAR-145.A.30(j) and Appendix IV to MCAR-145.

(h) By derogation from point (g), the organisation may use certifying staff qualified in accordance with the following provisions when providing maintenance support to operators involved in commercial operations, subject to appropriate procedures to be approved as part of the organisation's manual:

1. For a repetitive pre-flight airworthiness directive which specifically states that the flight crew may carry out such airworthiness directive, the organisation may issue a limited certifying staff authorisation to the aircraft commander on the basis of the flight crew licence held, provided that the organisation ensures that sufficient practical training has been carried out to ensure that such person can accomplish the airworthiness directive to the required standard;

2. In the case of aircraft operating away from a supported location the organisation may issue a limited certifying staff authorisation to the aircraft commander on the basis of the flight crew licence, provided that the organisation ensures that sufficient practical training has been carried out to ensure that such person can accomplish the

task to the required standard.

(i) If the organisation performs airworthiness reviews and issues the corresponding airworthiness review certificate for ELA1 aircraft not involved in commercial operations in accordance with M.A.901(l), it shall have airworthiness review staff qualified and authorised in accordance with M.A.901(l)1.

(j) If the organisation is involved in the development and processing of approval of the maintenance programme for ELA2 aircraft not involved in commercial operations in accordance with M.A.201(e)(ii), it shall have qualified staff who shall be able to show relevant knowledge and experience.

AMC M.A.606(a) Personnel requirements

With regard to the accountable manager, it is normally intended to mean the chief executive officer of the maintenance organisation approved under M.A. Subpart F, who by virtue of position has overall (including in particular financial) responsibility for running the organisation. The accountable manager may be the accountable manager for more than one organisation and is not required to be necessarily knowledgeable on technical matters. When the accountable manager is not the chief executive officer, the CAA will need to be assured that such an accountable manager has direct access to chief executive officer and has a sufficiency of maintenance funding allocation.

AMC M.A.606(b) Personnel requirements

1. Dependent upon the size of the organisation, the functions may be subdivided under individual managers or combined in any number of ways.

2. The maintenance organisation should have, dependent upon the extent of approval, an aircraft maintenance manager, a workshop manager all of whom should report to the accountable manager. In small maintenance organisations any manager may also be the accountable manager, and may also be the aircraft maintenance manager or the workshop manager.

3. The aircraft maintenance manager is responsible for ensuring that all maintenance required to be carried out, plus any defect rectification carried out during aircraft maintenance, is carried out to the design and quality standards specified in this Regulation. The aircraft maintenance manager is also responsible for any corrective action resulting from the M.A.616 organisational review.

4. The workshop manager is responsible for ensuring that all work on aircraft components is carried out to the standards specified in this Regulation and also responsible for any corrective action resulting from the M.A.616 organisational review.

5. Notwithstanding the example sub-paragraphs 2 – 4 titles, the organisation may adopt any title for the foregoing managerial positions but should identify to the CAA the titles and persons chosen to carry out these functions.

AMC M.A.606(c) Personnel requirements

1. All nominated persons should, in the normal way, be expected to satisfy the CAA that they possess the appropriate experience and qualifications which are listed in paragraphs 2.1 to 2.5 below.

2. All nominated persons should have:

    2.1 practical experience and expertise in the application of aviation safety standards and safe maintenance practices;

2.2 comprehensive knowledge of:

(a) MCAR-M and any associated requirements and procedures;

(b) the maintenance organisation manual;

2.3 five years aviation experience of which at least three years should be practical maintenance experience;

2.4 knowledge of the relevant type(s) of aircraft or components maintained. This knowledge may be demonstrated by documented evidence or by an assessment performed by the CAA. This assessment should be recorded.

Training courses should be as a minimum at a level equivalent to MCAR-66 Appendix III Level 1 General Familiarisation, and could be imparted by a MCAR-147 organisation, by the manufacturer, or by any other organisation accepted by the CAA.

2.5 knowledge of maintenance standards.

AMC M.A.606(d) Personnel requirements

1. All staff are subjected to compliance with the organisation's procedures specified in the maintenance organisation manual relevant to their duties.

2. To have sufficient staff means that the approved maintenance organisation employs or contracts staff directly, even on a volunteer basis, for the anticipated maintenance workload.

3. Temporarily sub-contracted means the person is employed by another organisation and contracted by that organisation to the approved maintenance organisation.

AMC M.A.606(e) Personnel requirements

1. Personnel involved in maintenance should be assessed for competence by 'on the job' evaluation and/or by examination relevant to their particular job role within the organisation before unsupervised work is permitted.

2. Adequate initial and recurrent training should be provided and recorded to ensure continued competence.

AMC M.A.606(f) Personnel requirements

1. Non-destructive testing means such testing specified by the type certificate holder of the aircraft, engine or propeller in the M.A.304 (b) maintenance data for in service aircraft/aircraft components for the purpose of determining the continued fitness of the product to operate safely.

2. Appropriately qualified means to level 1, 2 or 3 as defined by European Standard EN 4179 (or equivalent) dependent upon the non-destructive testing function to be carried out.

3. Notwithstanding the fact that level 3 personnel may be qualified via EN 4179 (or equivalent) to establish and authorise methods, techniques, etc., this does not permit such personnel to deviate from methods and techniques published by the type certificate holder/manufacturer in the form of continued airworthiness data, such as in non-destructive test manuals or service bulletins, unless the manual or service bulletin expressly permits such deviation.

4. Notwithstanding the general references in EN 4179 to a national aerospace NDT board, all examinations should be conducted by personnel or organisations under the general control of such a board. In the absence of a national aerospace NDT board, examinations should be conducted by personnel or organisations under the general control of the NDT board of a State acceptable to the CAA.

5. Particular non-destructive test means any one or more of the following: dye penetrant, magnetic particle, eddy current, ultrasonic and radiographic methods including X ray and gamma ray.

6. In addition it should be noted that new methods are and will be developed, such as, but not limited to thermography and shearography, which are not specifically addressed by EN 4179. Until such time as an agreed standard is established such methods should be carried out in accordance with the particular equipment manufacturers' recommendations including any training and examination process to ensure competence of the personnel with the process.

7. Any approved maintenance organisation that carries out continued airworthiness non-destructive testing should establish qualification procedures for non-destructive testing.

8. Boroscoping and other techniques such as delamination coin tapping are non-destructive inspections rather than non-destructive testing. Notwithstanding such differentiation, approved maintenance organisation should establish a procedure to ensure that personnel who carry out and interpret such inspections are properly trained and assessed for their competence with the process. Non-destructive inspections, not being considered as non-destructive testing by M.A.Subpart F are not listed in Appendix IV to MCAR-M under class rating D1.

9. The referenced standards, methods, training and procedures should be specified in the maintenance organisation manual.

10. Any such personnel who intend to carry out and/or control a non-destructive test for which they were not qualified prior to the effective date of MCAR-M should qualify for such non-destructive test in accordance with EN 4179 or equivalent.

11. In this context officially recognised standard means those standards established or

published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice.

AMC M.A.606(h)(2) Personnel requirements

1. For the issue of a limited certification authorisation the commander should hold either a valid air transport pilot license (ATPL), or commercial pilots license (CPL). In addition, the limited certification authorisation is subject to the maintenance organisation manual containing procedures to address the following:

   (a) Completion of adequate airworthiness regulation training.

   (b) Completion of adequate task training for the specific task on the aircraft. The task training should be of sufficient duration to ensure that the individual has a thorough understanding of the task to be completed and should involve training in the use of associated maintenance data.

   (c) Completion of the procedural training.

   The above procedures should be specified in the maintenance organisation manual and be accepted by the CAA.

2. Typical tasks that may be certified and/or carried out by the commander holding an ATPL or CPL are minor maintenance or simple checks included in the following list:

   a. Replacement of internal lights, filaments and flash tubes.

   b. Closing of cowlings and refitment of quick access inspection panels.

   c. Role changes, e.g., stretcher fit, dual controls, FLIR, doors, photographic equipment etc.

   d. Inspection for and removal of de-icing/anti-icing fluid residues, including removal/closure of panels, cowls or covers that are easily accessible but not requiring the use of special tools.

   e. Any check/replacement involving simple techniques consistent with this AMC and as agreed by the CAA.

3. The authorisation should have a finite life of twelve months subject to satisfactory recurrent training on the applicable aircraft type.

MCAR-M.A.607 Certifying staff and airworthiness review staff

(a) In addition to point M.A.606(g), certifying staff can only exercise their privileges, if the organisation has ensured:

1. that certifying staff can demonstrate that they meet the requirements of point 66.A.20(b) of MCAR-66, and;

2. that certifying staff have an adequate understanding of the relevant aircraft and/or aircraft component(s) to be maintained together with the associated organisation procedures.

(b) In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff is available, the maintenance organisation contracted to provide maintenance support may issue a one-off certification authorisation:

1. to one of its employees holding type qualifications on aircraft of similar technology, construction and systems; or

2. to any person with not less than three years maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification provided there is no organisation appropriately approved under this Regulation at that location and the contracted organisation obtains and holds on file evidence of the experience and the licence of that person.

All such cases must be reported to the CAA within seven days after issuing such certification authorisation. The approved maintenance organisation issuing the one-off certification authorisation shall ensure that any such maintenance that could affect flight safety is re-checked.

(c) The approved maintenance organisation shall record all details concerning certifying staff and airworthiness review staff and maintain a current list of all certifying staff and airworthiness review staff together with their scope of approval as part of the organisation's manual pursuant to point M.A.604(a)5.

AMC M.A.607 Certifying staff and airworthiness review staff

1. Adequate understanding of the relevant aircraft and/or aircraft component(s) to be maintained together with the associated organisation procedures means that the person has received training and has relevant maintenance experience on the product type and associated organisation procedures such that the person understands how the product functions, what are the more common defects with associated consequences.

2. All prospective certifying staff are required to be assessed for competence, qualification and capability related to intended certifying duties. Competence and capability can be assessed by having the person work under the supervision of another certifying person for sufficient time to arrive at a conclusion. Sufficient time could be as little as a few weeks if the person is fully exposed to relevant work. The person need not be assessed against the complete spectrum of intended duties. When the person has been recruited from another approved maintenance organisation and was a certifying person in that organisation then it is reasonable to accept a written confirmation from the previous organisation.

3. The organisation should hold copies of all documents that attest to qualification, and to recent experience.

AMC M.A.607(c) Certifying staff and airworthiness review staff

1. The following minimum information as applicable should be kept on record in respect of each certifying person:

   (a) name;

   (b) date of birth;

   (c) basic training;

   (d) type training;

   (e) recurrent training;

   (f) specialised training;

   (g) experience;

   (h) qualifications relevant to the approval;

   (i) scope of the authorisation and personal authorisation reference;

   (j) date of first issue of the authorisation;

   (k) if appropriate – expiry date of the authorisation.

2. The following minimum information, as applicable, should be kept on record in respect of each airworthiness review person:

   (a) name;

   (b) date of birth;

   (c) certifying staff authorization;

   (d) experience as certifying staff on ELA1 aircraft;

   (e) qualifications relevant to the approval (knowledge of relevant parts of MCAR-M and knowledge of the relevant airworthiness review procedures);

   (f) scope of the airworthiness review authorisation and personal authorisation reference;

   (g) date of first issue of the airworthiness review authorisation; and

   (h) if appropriate, expiry date of the airworthiness review authorisation.

3. Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records become accessible to unauthorised persons.

4. The CAA should be granted access to the records upon request.

MCAR-M.A.608 Components, equipment and tools

(a) The organisation shall:

1. hold the equipment and tools specified in the maintenance data described in point M.A.609 or verified equivalents as listed in the maintenance organisation manual as necessary for day-to-day maintenance within the scope of the approval; and,

2. demonstrate that it has access to all other equipment and tools used only on an occasional basis.

(b) Tools and equipment shall be controlled and calibrated to an officially recognised standard. Records of such calibrations and the standard used shall be kept by the organisation.

(c) The organisation shall inspect, classify and appropriately segregate all incoming components.

AMC M.A.608(a) Components, equipment and tools

1. Once the applicant for M.A. Subpart F approval has determined the intended scope of approval for consideration by the CAA, it will be necessary to show that all tools and equipment as specified in the maintenance data can be made available when needed.

2. All such tools should be clearly identified and listed in a control register including any personal tools and equipment that the organisation agrees can be used.

3. For tools required on an occasional basis, the organisation should ensure that they are controlled in terms of servicing or calibration as required.

AMC M.A.608(b) Components, equipment and tools

1. The control of these tools and equipment requires that the organisation has a procedure to inspect/service and, where appropriate, calibrate such items on a regular basis and indicate to users that the item is within any inspection or service or calibration time-limit. A clear system of labelling all tooling, equipment and test equipment is therefore necessary giving information on when the next inspection or service or calibration is due and if the item is unserviceable for any other reason where it may not be obvious. A register should be maintained for all the organisation's precision tooling and equipment together with a record of calibrations and standards used.

2. Inspection, service or calibration on a regular basis should be in accordance with the equipment manufacturers' instructions except where the M.A. Subpart F organisation can show by results that a different time period is appropriate in a particular case.

3. In this context officially recognised standard means those standards established or published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice.

MCAR-M.A.609 Maintenance data

The approved maintenance organisation shall hold and use applicable current maintenance data specified in M.A.401 in the performance of maintenance including modifications and repairs. In the case of customer provided maintenance data, it is only necessary to have such data when the work is in progress.

AMC M.A.609 Maintenance data

When an organisation uses customer provided maintenance data, the scope of approval indicated in the maintenance organisation manual should be limited to the individual aircraft covered by the contracts signed with those customers unless the organisation also holds its own complete set of maintenance data for that type of aircraft.

MCAR-M.A.610 Maintenance work orders

Before the commencement of maintenance a written work order shall be agreed between the organisation and the organisation requesting maintenance to clearly establish the maintenance to be carried out.

AMC M.A.610 Maintenance work orders

"A written work order" may take the form of, but not limited to, the following:

- A formal document or form specifying the work to be carried out. This form may be provided by the continuing airworthiness management organisation managing the aircraft, or by the maintenance organisation undertaking the work, or by the owner/operator himself;

- An entry in the aircraft log book specifying the defect that needs to be corrected.

MCAR-M.A.611 Maintenance standards

All maintenance shall be carried out in accordance with the requirements of M.A. Subpart D.

MCAR-M.A.612 Aircraft certificate of release to service

At the completion of all required aircraft maintenance in accordance with this Subpart an aircraft certificate of release to service shall be issued according to M.A.801.

MCAR-M.A.613 Component certificate of release to service

(a) At the completion of all required component maintenance in accordance with this Subpart a component certificate of release to service shall be issued in accordance with point M.A.802. CAA Form 1 shall be issued except for those components maintained in accordance with points M.A.502(b), M.A.502(d) or M.A.502(e) and components fabricated in accordance with point M.A.603(c).

(b) The component certificate release to service document, CAA Form 1 may be generated from a computer database.

AMC M.A.613(a) Component certificate of release to service

1. An aircraft component which has been maintained off the aircraft requires the issuance of a CRS for such maintenance and another CRS to service in regard to being installed properly on the aircraft when such action occurs. When an organisation maintains a component for use by the same organisation, a CAA Form 1 may not be necessary depending upon the organisation's internal release procedures defined in the maintenance organisation exposition.

2. In the case of components in storage prior to MCAR-145, MCAR-M and MCAR-21 and not released on a CAA Form 1 or equivalent in accordance with M.A.501(a) or removed serviceable from a serviceable aircraft which have been withdrawn from service, this paragraph provides additional guidance regarding the conditions under which an CAA Form 1 may be issued.

   2.1 A CAA Form 1 may be issued for an aircraft component which has been:

   - Maintained before MCAR-145, or MCAR-M became effective or manufactured before MCAR-21 became effective.

   - Used on an aircraft and removed in a serviceable condition. Examples include leased and loaned aircraft components.

   - Removed from aircraft which have been withdrawn from service, or from aircraft which have been involved in abnormal occurrences such as accidents, incidents, heavy landings or lightning strikes.

   - Components maintained by an unapproved organisation.

   2.2 An appropriately rated M.A Subpart F maintenance organisation may issue a CAA Form 1 as detailed in this AMC subparagraph 2.5 to 2.9, as appropriate, in accordance with the procedures detailed in the manual as approved by the CAA. The appropriately rated M.A Subpart F maintenance organisation is responsible for ensuring that all reasonable measures have been taken to ensure that only approved and serviceable aircraft components are issued a CAA Form 1 under this paragraph.

   2.3 For the purposes of this paragraph 2 only, 'appropriately rated' means an organisation with an approval class rating for the type of component or for the product in which it may be installed.

   2.4 A CAA Form 1 issued in accordance with this paragraph 2 should be issued by signing in block 14b and stating 'Inspected/Tested' in block 11. In addition, block 12 should specify:

      2.4.1. when the last maintenance was carried out and by whom;

2.4.2. if the component is unused, when the component was manufactured and by whom with a cross-reference to any original documentation which should be included with the Form;

2.4.3. a list of all ADs, repairs and modifications known to have been incorporated. If no ADs or repairs or modifications are known to be incorporated then this should be so stated;

2.4.4. detail of life used for service life-limited parts being any combination of fatigue, overhaul or storage life;

2.4.5. for any aircraft component having its own maintenance history record, reference to the particular maintenance history record as long as the record contains the details that would otherwise be required in block 12. The maintenance history record and acceptance test report or statement, if applicable, should be attached to the CAA Form 1.

2.5 New/unused aircraft components

2.5.1. Any unused aircraft component in storage without a CAA Form 1 up to the effective date(s) for MCAR-21 that was manufactured by an organisation acceptable to the CAA at the time may be issued a CAA Form 1 by an appropriately rated maintenance organisation approved under M.A Subpart F. The CAA Form 1 should be issued in accordance with the following subparagraphs which should be included in a procedure within the maintenance organisation manual.

Note 1: It should be understood that the release of a stored but unused aircraft component in accordance with this paragraph represents a maintenance release under M.A Subpart F and not a production release under MCAR-21. It is not intended to bypass the production release procedure agreed by the State of Design for parts and subassemblies intended for fitment on the manufacturers own production line.

(a) An acceptance test report or statement should be available for all used and unused aircraft components that are subject to acceptance testing after manufacturing or maintenance as appropriate.

(b) The aircraft component should be inspected for compliance with the manufacturer's instructions and limitations for storage and condition including any requirement for limited storage life, inhibitors, controlled climate and special storage containers. In addition, or in the absence of specific storage instructions, the aircraft component should be inspected for damage, corrosion and leakage to ensure good condition.

(c) The storage life used of any storage life-limited parts should be established.

2.5.2. If it is not possible to establish satisfactory compliance with all applicable conditions specified in subparagraph 2.5.1 (a) to (c) inclusive, the aircraft component should be disassembled by an appropriately rated organisation and subjected to a check for incorporated ADs, repairs and modifications and inspected/ tested in accordance with the maintenance data to establish satisfactory condition and, if relevant, all seals, lubricants and life-limited parts replaced. Upon satisfactory completion after reassembly, a CAA Form 1 may be issued stating what was carried out and the reference to the maintenance data included.

2.6 Used aircraft components removed from a serviceable aircraft.

2.6.1. Serviceable aircraft components removed from a Maldivian registered aircraft may be issued a CAA Form 1 by an appropriately rated organisation subject to compliance with this subparagraph.

(a) The organisation should ensure that the component was removed from the aircraft by an appropriately qualified person.

(b) The aircraft component may only be deemed serviceable if the last flight operation with the component fitted revealed no faults on that component or related system.

(c) The aircraft component should be inspected for satisfactory condition including in particular damage, corrosion or leakage and compliance with any additional maintenance data.

(d) The aircraft record should be researched for any unusual events that could affect the serviceability of the aircraft component such as involvement in accidents, incidents, heavy landings or lightning strikes. Under no circumstances may a CAA Form 1 be issued in accordance with this paragraph 2.6 if it is suspected that the aircraft component has been subjected to extremes of stress, temperatures or immersion which could affect its operation.

(e) A maintenance history record should be available for all used serialised aircraft components.

(f) Compliance with known modifications and repairs should be established.

(g) The flight hours/cycles/landings as applicable of any service life-limited parts including time since overhaul should be established.

(h) Compliance with known applicable airworthiness directives should be established.

(i) Subject to satisfactory compliance with this subparagraph 2.6.1, a CAA Form 1 may be issued and should contain the information as specified in paragraph 2.4 including the aircraft from which the aircraft component was removed.

2.6.2. Serviceable aircraft components removed from an aircraft not registered in the Maldives may only be issued a CAA Form 1 if the components are leased or loaned from the maintenance organisation approved under M.A Subpart F who retains control of the airworthiness status of the components. A CAA Form 1 may be issued and should contain the information as specified in paragraph 2.4 including the aircraft from which the aircraft component was removed.

2.7 Used aircraft components removed from an aircraft withdrawn from service. Serviceable aircraft components removed from a Maldivian registered aircraft withdrawn from service may be issued a CAA Form 1 by a maintenance organisation approved under M.A.Subpart F subject to compliance with this subparagraph.

(a) Aircraft withdrawn from service are sometimes dismantled for spares. This is considered to be a maintenance activity and should be accomplished under the control of an organisation approved under M.A. Subpart F, employing procedures approved by the CAA.

(b) To be eligible for installation, components removed from such aircraft may be issued with a CAA Form 1 by an appropriately rated organisation following a satisfactory assessment.

(c) As a minimum, the assessment will need to satisfy the standards set out in paragraphs 2.5 and 2.6 as appropriate. This should, where known, include the possible need for the alignment of scheduled maintenance that may be necessary to comply with the maintenance programme applicable to the aircraft on which the component is to be installed.

(d) Irrespective of whether the aircraft holds a certificate of airworthiness or not, the organisation responsible for certifying any removed component should satisfy itself that the manner in which the components were removed and stored are compatible with the standards required by M.A Subpart F.

(e) A structured plan should be formulated to control the aircraft disassembly process. The disassembly is to be carried out by an appropriately rated organisation under the supervision of certifying staff, who will ensure that the aircraft components are removed and documented in a structured manner in

accordance with the appropriate maintenance data and disassembly plan.

(f) All recorded aircraft defects should be reviewed and the possible effects these may have on both normal and standby functions of removed components are to be considered.

(g) Dedicated control documentation is to be used as detailed by the disassembly plan, to facilitate the recording of all maintenance actions and component removals performed during the disassembly process. Components found to be unserviceable are to be identified as such and quarantined pending a decision on the actions to be taken. Records of the maintenance accomplished to establish serviceability are to form part of the component maintenance history.

(h) Suitable M.A Subpart F facilities for the removal and storage of removed components are to be used which include suitable environmental conditions, lighting, access equipment, aircraft tooling and storage facilities for the work to be undertaken. While it may be acceptable for components to be removed, given local environmental conditions, without the benefit of an enclosed facility subsequent disassembly (if required) and storage of the components should be in accordance with the manufacturer's recommendations.

2.8 Used aircraft components maintained by organisations not approved in accordance with M.A Subpart F or MCAR-145.

For used components maintained by a maintenance organisation not approved under M.A. Subpart F or MCAR-145, due care should be taken before acceptance of such components. In such cases an appropriately rated maintenance organisation approved under M.A Subpart F should establish satisfactory conditions by:

(a) dismantling the component for sufficient inspection in accordance with the appropriate maintenance data,

(b) replacing of all service life-limited components when no satisfactory evidence of life used is available and/or the components are in an unsatisfactory condition,

(c) reassembling and testing as necessary the component,

(d) completing all certification requirements as specified in M.A.613.

In the case of used components maintained by an EASA Part-145 or EASA M.A. Subpart F organisation or FAA Part-145 repair station (USA) or by TCCA CAR573 approved maintenance organisations (Canada) that does not hold a CAA MCAR-145 or M.A. Subpart F approval, the conditions (a) through (d) described above may be replaced by the following conditions:

(a) availability of an EASA Form 1, an FAA 8130-3 or Transport Canada TCAA 24-0078 / Authorised Release Certificate Form One,

(b) verification of compliance with all applicable airworthiness directives, ~~and~~

(c) verification that the component does not contain repairs or modifications that have not been approved in accordance with MCAR-21,

(d) inspection for satisfactory condition including in particular damage, corrosion or leakage,

(e) issuance of a CAA Form 1 in compliance with paragraphs 2.2, 2.3 and 2.4.

2.9 Used aircraft components removed from an aircraft involved in an accident or incident. Such components should only be issued with an CAA Form 1 when processed in accordance with paragraph 2.7 and a specific work order including all additional necessary tests and inspections made necessary by the accident or incident. Such a work order may require input from the TC holder or original manufacturer as appropriate. This work order should be referenced in block 12.

3. A certificate should not be issued for any component when it is known that the component is unserviceable except in the case of a component undergoing a series of maintenance processes at several approved maintenance organisations and the component needs a certificate for the previous maintenance process carried out for the next approved maintenance organisation to accept the component for subsequent maintenance processes. In such a case, a clear statement of limitation should be endorsed in block 12.

4. The certificate is to be used for export/import purposes, as well as for domestic purposes, and serves as an official certificate for components from the manufacturer/maintenance organisation to users. It should only be issued by organisations approved by the CAA within the scope of the approval.

MCAR-M.A.614 Maintenance and airworthiness review records

(a) The approved maintenance organisation shall record all details of work carried out. Records necessary to prove all requirements have been met for issuance of the certificate of release to service including the sub-contractor's release documents and for the issue of any airworthiness review certificate and recommendation shall be retained.

(b) The approved maintenance organisation shall provide a copy of each certificate of release to service to the aircraft owner, together with a copy of any specific repair/modification data used for repairs/modifications carried out.

(c) The approved maintenance organisation shall retain a copy of all maintenance records and any associated maintenance data for three years from the date the aircraft or aircraft component to which the work relates was released from the approved maintenance organisation. In addition, it shall retain a copy of all the records related to the issue of recommendations and airworthiness' review certificates for three years from the date of issue and shall provide a copy of them to the owner of the aircraft.

1. The records under this paragraph shall be stored in a manner that ensures protection from damage, alteration and theft.

2. 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.

3. Where an approved maintenance organisation terminates its operation, all retained maintenance records covering the last three years shall be distributed to the last owner or customer of the respective aircraft or component or shall be stored as specified by the CAA.

AMC M.A.614(a) Maintenance and airworthiness review records

1. Properly executed and retained records provide owners, operators and maintenance personnel with information essential in controlling unscheduled and scheduled maintenance, and troubleshooting to eliminate the need for re-inspection and rework to establish airworthiness.

2. The prime objective is to have secure and easily retrievable records with comprehensive and legible contents. The aircraft record should contain basic details of all serialised aircraft components and all other significant aircraft components installed, to ensure traceability to such installed aircraft component documentation and associated M.A.304 maintenance data.

3. The maintenance record can be either a paper or computer system or any combination of both. The records should remain legible throughout the required retention period.

4. Paper systems should use robust material which can withstand normal handling and filing.

5. Computer systems may be used to control maintenance and/or record details of maintenance work carried out. Computer systems used for maintenance should have at least one backup system which should be updated at least within 24 hours of any maintenance. Each terminal is required to contain programme safeguards against the ability of unauthorised personnel to alter the database.

AMC M.A.614(c) Maintenance and airworthiness review records

Associated maintenance data is specific information such as repair and modification data. This does not necessarily require the retention of all aircraft maintenance manual, component maintenance manual, parts catalogues etc. issued by the TC holder or STC holder. Maintenance records should refer to the revision status of the data used.

MCAR-M.A.615 Privileges of the organisation

The maintenance organisation approved in accordance with Section A, Subpart F of this Regulation, may:

(a) maintain any aircraft and/or component for which it is approved at the locations specified in the approval certificate and the maintenance organisation manual;

(b) arrange for the performance of specialized services under the control of the maintenance organisation at another organisation appropriately qualified, subject to appropriate procedures being established as part of the Maintenance Organisation Manual approved by the CAA directly;

(c) maintain any aircraft and/or component for which it is approved at any location subject to the need of such maintenance arising either from the unserviceability of the aircraft or from the necessity of supporting occasional maintenance, subject to the conditions specified in the Maintenance Organisation Manual;

(d) issue certificates of release to service on completion of maintenance, in accordance with point M.A.612 or point M.A.613.

(e) If specifically approved to do so for ELA1 aircraft not involved in commercial operations,

1. Perform airworthiness reviews and issue the corresponding airworthiness review certificate, under the conditions specified in point M.A.901(l), and

2. Perform airworthiness' reviews and issue the corresponding recommendations, under the conditions specified in point M.A.901(l) and M.A.904(a)2 and (b).

(f) Develop the maintenance programme and process its approval in accordance with point M.A.302 for ELA2 aircraft not involved in commercial operations, under the conditions specified in point M.A.201(e)(ii), and limited to the aircraft ratings listed in the approval certificate.

The organisation shall only maintain an aircraft or component for which it is approved when all the necessary facilities, equipment, tooling, material, maintenance data and certifying staff are available.

GM M.A.615 Privileges of the organisation

M.A.615 states that the organisation shall only maintain an aircraft or component for which it is approved when all the necessary facilities, equipment, tooling, material, maintenance data, and certifying staff are available.

This provision is intended to cover the situation where the larger organisation may temporarily not hold all the necessary tools, equipment, etc. for an aircraft type or variant specified in the organisation's approval. This paragraph means that the CAA need not amend the approval to

delete the aircraft type or variants on the basis that it is a temporary situation and there is a commitment from the organisation to re-acquire tools, equipment, etc. before maintenance on the type may recommence.

GM M.A.615(a) Privileges of the organisation

M.A.615(a) applies also to facilities which may not be individually approved by the CAA, such as those described in AMC M.A.605(a) for ELA2 aircraft.

AMC M.A.615(b) Privileges of the organisation

M.A.615(b) refers to work carried out by another organisation which is not appropriately approved under M.A. Subpart F or MCAR-145 to carry out such tasks.

The intent is to permit the acceptance of specialised maintenance services, such as, but not limited to, non-destructive testing, surface treatment, heat-treatment, welding, fabrication of specified parts for minor repairs and modifications, etc., without the need of M.A. Subpart F approval for those tasks.

The requirement that the organisation performing the specialised services must be "appropriately qualified" means that it should meet an officially recognised standard or, otherwise, it should be acceptable to the CAA (through the approval of the Maintenance Organisation Manual).

"Under the control of the M.A. Subpart F organisation" means that the M.A. Subpart F organisation should investigate the capability of the subcontracted organisation (including qualifications, facilities, equipment and materials) and ensure that such organisation:

- Receives appropriate maintenance instructions and maintenance data for the task to be performed.

- Properly records the maintenance performed in the Subpart F airworthiness records.

- Notifies the M.A. Subpart F organisation for any deviation or non-conformity, which has arisen during such maintenance.

The CRS may be issued either at the subcontractors or at the organisation facility by authorised certifying staff, and always under the M.A. Subpart F organisation reference. Such staff would normally come from the M.A. Subpart F organisation but may otherwise be a person from the subcontractor who meets the M.A. Subpart F organisation certifying staff standard which itself is approved by the CAA via the Maintenance Organisation Manual.

Subcontracted specialised services organisations should be listed in the Maintenance Organisation Manual of the M.A. Subpart F organisation together with their qualifications, and the associated control procedures.

MCAR-M.A.616 Organisational review

To ensure that the approved maintenance organisation continues to meet the requirements of this Subpart, it shall organise, on a regular basis, organisational reviews.

AMC M.A.616 Organisational review

1. The primary objectives of the organisational review are to enable the approved maintenance organisation to ensure that it can deliver a safe product and that approved maintenance organisation remains in compliance with the requirements.

2. The approved maintenance organisation should identify:

   2.1 The person responsible for the organisational review;

   2.2 The frequency of the reviews;

   2.3 The scope and content of the reviews;

   2.4 The persons accomplishing the reviews;

   2.5 The procedure for planning, performing and processing review findings; and

   2.6 The procedure for ensuring corrective actions are carried out in the appropriate time frame.

3. The organisation quality system as specified in MCAR-145 provides an acceptable basic structure for the organisational review system for organisations with more than 10 maintenance staff, dependent upon the complexity of the organisation.

4. Appendix VIII to AMC M.A.616 should be used to manage the organisational reviews.

MCAR-M.A.617 Changes to the approved maintenance organisation

In order to enable the CAA to determine continued compliance with this Regulation, the approved maintenance organisation shall notify it of any proposal to carry out any of the following changes, before such changes take place:

1. the name of the organisation;

2. the location of the organisation;

3. additional locations of the organisation;

4. the accountable manager;

5. any of the persons specified in point M.A.606(b);

6. the facilities, equipment, tools, material, procedures, work scope, certifying staff and airworthiness review staff that could affect the approval.

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

AMC M.A.617 Changes to the approved maintenance organisation

The CAA should be given adequate notification of any proposed changes in order to enable the maintenance organisation to remain approved if agreed by the CAA during negotiations about any of the specified changes. Without this paragraph the approval would automatically be suspended in all cases.

MCAR-M.A.618 Continued validity of approval

(a) Unless the maintenance organisation's approval has previously been surrendered, superseded, suspended, revoked or expired by virtue of exceeding the expiry date specified in the approval certificate, the continued validity of the approval is dependent upon;

1. the organisation remaining in compliance with this Regulation, in accordance with the provisions related to the handling of findings as specified under point M.A.619, and;

2. the CAA being granted access to the organisation to determine continued compliance with this Regulation, and;

3. the approval not being surrendered or revoked;

(b) Upon surrender or revocation, the approval certificate shall be returned to the CAA.

MCAR-M.A.619 Findings

(a) A level 1 finding is any significant non-compliance with MCAR-M requirements which lowers the safety standard and hazards seriously the flight safety.

(b) A level 2 finding is any non-compliance with the MCAR-M requirements which could lower the safety standard and possibly hazard the flight safety.

(c) After receipt of notification of findings raised by the CAA, the holder of the maintenance organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the CAA within a period agreed with this authority.

Subpart G — CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION

MCAR-M.A.701 Scope

This Subpart establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the management of aircraft continuing airworthiness.

MCAR-M.A.702 Application

An application for issue or change of a continuing airworthiness management organisation approval shall be made on a form and in a manner established by the CAA.

AMC M.A.702 Application

An application should be made on a CAA Form 2 (Appendix IX to AMC M.A.602 and AMC M.A.702) or equivalent acceptable to the CAA.

CAA Form 2 is valid for the application for M.A. Subpart F, MCAR-145 and M.A. Subpart G organisations. Organisations applying for several approvals may do so using a single CAA Form 2.

MCAR-M.A.703 Extent of approval

(a) The approval is indicated on a certificate included in Appendix VI issued by the CAA.

(b) Notwithstanding point (a), for licenced air carriers, the approval shall be part of the air operator certificate issued by the CAA, for the aircraft operated.

(c) The scope of work deemed to constitute the approval shall be specified in the continuing airworthiness management exposition in accordance with point M.A.704.

MCAR-M.A.704 Continuing airworthiness management exposition

(a) The continuing airworthiness management organisation shall provide a continuing airworthiness management exposition containing the following information:

1. a statement signed by the accountable manager to confirm that the organisation will work in accordance with this Regulation and the exposition at all times, and;

2. the organisation's scope of work, and;

3. the title(s) and name(s) of person(s) referred to in points M.A.706(a), M.A.706(c), M.A.706(d) and M.A.706(i);

4. an organisation chart showing associated chains of responsibility between all the person(s) referred to in points M.A.706(a), M.A.706(c), M.A.706(d) and M.A.706(i);

5. a list of the airworthiness staff referred to in point M.A.707, specifying, where applicable, the staff authorised to issue permits to fly in accordance with point M.A.711(c);

6. a general description and location of the facilities, and;

7. procedures specifying how the continuing airworthiness management organisation ensures compliance with this Regulation, and;

8. the continuing airworthiness management exposition amendment procedures, and;

9. the list of approved aircraft maintenance programmes, or, for aircraft not used by licenced air carriers, the list of "generic" and "baseline" maintenance programmes.

(b) The continuing airworthiness management exposition and its amendments shall be approved by the CAA.

(c) Notwithstanding paragraph (b), minor amendments to the exposition may be approved indirectly through an indirect approval procedure. The indirect approval procedure shall define the minor amendment eligible, be established by the continuing airworthiness management organisation as part of the exposition and be approved by the CAA.

AMC1 M.A.704 Continuing airworthiness management exposition

1. The purpose of the continuing airworthiness management exposition is to set forth the procedures, means and methods of the CAMO. Compliance with its contents will assure compliance with MCAR-M requirements.

2. A continuing airworthiness management exposition should comprise:
   Part 0 General organisation
   Part 1 Continuing airworthiness procedures
   Part 2 Quality system or organisational review (as applicable)
   Part 3 Contracted maintenance – management of maintenance (liaison with maintenance organisations)
   Part 4 Airworthiness review procedures (if applicable)

3. Personnel should be familiar with those parts of the continuing airworthiness management exposition that are relevant to their tasks.

4. The CAMO should specify in the exposition who is responsible for the amendment of the document. Unless otherwise agreed by the CAA, the person responsible for the management of the quality system or for the organisational review should be responsible for monitoring and amending the continuing airworthiness management exposition, including associated procedure's manuals, and the submission of proposed amendments to the CAA. The CAA may agree to a procedure, and its agreement will be stated in the amendment control section of the continuing airworthiness management exposition defining the of class amendments, which can be incorporated without the prior consent of the CAA ("indirect approval procedure").

5. The CAMO may use electronic data processing (EDP) for the publication of the continuing airworthiness management exposition. The continuing airworthiness management exposition should be made available to the CAA in a form acceptable to the latter. Attention should be paid to the compatibility of the EDP publication systems with the necessary dissemination, both internally and externally, of the continuing airworthiness management exposition.

6. The continuing airworthiness management exposition should contain information, as applicable, on how the CAMO complies with CDCCL instructions.

7. Appendix V to AMC M.A.704 contains an example of a continuing airworthiness management exposition layout.

AMC2 M.A.704 Continuing airworthiness management exposition

EXPOSITION LAYOUT FOR A CAMO HOLDING A MAINTENANCE ORGANISATION APPROVAL

1. Where a CAMO is also approved to another Regulation, the exposition or manual required by the other Regulation may form the basis of the continuing airworthiness management exposition in a combined document.

2. Example for a combined CAMO and MCAR-145 organisation:

MCAR-145 Exposition (see equivalent paragraphs in AMC 145.A.70 (a))

Part 0 General organisation
Part 1 Management
Part 2 Maintenance procedures
Part L2 Additional line maintenance procedures
Part 3 Quality system and/or organisational review (as applicable)
This chapter should cover the functions specified in M.A.712 "Quality system" and 145.A.65 "Safety and quality system"
Part 4 Contracts
This chapter should include:
- the contracts of the CAMO with the owner/operators as per Appendix 1 to MCAR-M
- the CAMO procedures for the management of maintenance and liaison with maintenance organisations.

Part 5 Appendices (sample of documents)
Part 6 Continuing airworthiness management procedures
Part 7 FAA supplement (if applicable)
Part 8 TCCA supplement (if applicable)
Part 9 Airworthiness review procedures (if applicable)

3. Example for a combined CAMO and M.A. Subpart F organisation:

Part 0 General organisation
Part 1 General
Part 2 Description
Part 3 General Procedures
Part 4 Working Procedures.
This Part should contain, among other things, procedures for quality system or organisational review, as applicable.
Part 5 Appendices
Part 6 Continuing airworthiness management procedures
Part 7 Airworthiness review procedures (if applicable)

AMC M.A.704(a)(2) Continuing airworthiness management exposition

1. Part 0 "General organisation" of the continuing airworthiness management exposition should include a corporate commitment by the CAMO, signed by the accountable manager, confirming that the continuing airworthiness management exposition and any associated manuals define the organisation's compliance with MCAR-M and will be complied with at all times.

2. The accountable manager's exposition statement should embrace the intent of the following paragraph, and in fact this statement may be used without amendment. Any amendment to the statement should not alter the intent.

   "This exposition defines the organisation and procedures upon which the Maldives Civil Aviation Authority CAMO approval is based.

   These procedures are approved by the undersigned and should be complied with, as applicable, in order to ensure that all continuing airworthiness tasks are carried out on time to an approved standard.

   It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published from time to time where these new or amended regulations are in conflict with these procedures.

   It is understood that the CAA will approve this organisation whilst the CAA is satisfied that the procedures are being followed and the work standard is maintained. It is understood that the CAA reserves the right to suspend, limit or revoke the CAMO approval or the air operators certificate, as applicable, if the CAA has evidence that the procedures are not followed and the standards not upheld.

   Signed……
   Dated……
   Accountable Manager and… (quote position)…
   For and on behalf of… (quote organisation's name)…"

3. Whenever the accountable manager is changed it is important to ensure that the new accountable manager signs the paragraph 2 statement at the earliest opportunity as part of the acceptance by the CAA. Failure to carry out this action invalidates the CAMO approval or the air operator certificate.

MCAR-M.A.705 Facilities

The continuing airworthiness management organisation shall provide suitable office accommodation at appropriate locations for the personnel specified in M.A.706.

AMC M.A.705 Facilities

Office accommodation should be such that the incumbents, whether they be continuing airworthiness management, planning, technical records or quality staff, can carry out their designated tasks in a manner that contributes to good standards. In the smaller CAMO, the CAA may agree to these tasks being conducted from one office subject to being satisfied that there is sufficient space and that each task can be carried out without undue disturbance. Office accommodation should also include an adequate technical library and room for document consultation.

MCAR-M.A.706 Personnel requirements

(a) The organisation 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 Regulation.

(b) For licenced air carriers the accountable manager referred to in point (a) shall be the person who also has corporate authority for ensuring that all the operations of the operator can be financed and carried out to the standard required for the issue of an air operator's certificate.

(c) A person or group of persons shall be nominated with the responsibility of ensuring that the organisation is always in compliance with this Subpart. Such person(s) shall be ultimately responsible to the accountable manager.

(d) For licenced air carriers, 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 point (d) shall not be employed by a MCAR-145 approved organisation under contract to the operator, unless specifically agreed by the CAA.

(f) The organisation shall have sufficient appropriately qualified staff for the expected work.

(g) All point (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.

(i) For organisations extending airworthiness review certificates in accordance with points M.A.711(a)4 and M.A.901(f), the organisation shall nominate persons authorised to do so, subject to approval by the CAA.

(j) The organisation shall define and keep updated in the continuing airworthiness management exposition the title(s) and name(s) of person(s) referred to in points M.A.706(a), M.A.706(c), M.A.706(d) and M.A.706(i).

(k) For complex motor-powered aircraft and for aircraft used by licenced air carriers the organisation 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 CAA.

AMC M.A.706 Personnel requirements

1. The person or group of persons should represent the continuing airworthiness management structure of the organisation and be responsible for all continuing airworthiness functions. Dependent on the size of the operation and the organisational set-up, the continuing airworthiness functions may be divided under individual managers or combined in nearly any number of ways. However, if a quality system is in place it should be independent from the other functions.

2. The actual number of persons to be employed and their necessary qualifications is dependent upon the tasks to be performed and thus dependent on the size and complexity of the organisation (general aviation aircraft, corporate aircraft, number of aircraft and the aircraft types, complexity of the aircraft and their age and for commercial air transport, route network, line or charter, ETOPS) and the amount and complexity of maintenance contracting. Consequently, the number of persons needed, and their qualifications may differ greatly from one organisation to another and a simple formula covering the whole range of possibilities is not feasible.

3. To enable the CAA to accept the number of persons and their qualifications, an organisation should make an analysis of the tasks to be performed, the way in which it intends to divide and/or combine these tasks, indicate how it intends to assign responsibilities and establish the number of man/hours and the qualifications needed to perform the tasks. With significant changes in the aspects relevant to the number and qualifications of persons needed, this analysis should be updated.

4. Nominated person or group of persons should have:

    4.1 practical experience and expertise in the application of aviation safety standards and safe operating practices;

    4.2 a comprehensive knowledge of:

        (a) relevant parts of operational requirements and procedures;

        (b) the AOC holder's Operations Specifications when applicable;

        (c) the need for, and content of, the relevant parts of the AOC holder's Operations Manual when applicable;

    4.3 knowledge of quality systems;

    4.4 five years relevant work experience of which at least two years should be from the aeronautical industry in an appropriate position;

    4.5 a relevant engineering degree or an aircraft maintenance technician qualification with additional education acceptable to the CAA. 'relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic

or other studies relevant to the maintenance and continuing airworthiness of aircraft/ aircraft components;

The above recommendation may be replaced by 5 years of experience additional to those already recommended by paragraph 4.4 above. These 5 years should cover an appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management and/or surveillance of such tasks

4.6 thorough knowledge with the organisation's continuing airworthiness management exposition;

4.7 knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to MCAR-66 Appendix III Level 1 General Familiarisation and could be imparted by a MCAR-147 organisation, by the manufacturer, or by any other organisation accepted by the CAA.

"Relevant sample" means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.

For all balloons and any other aircraft of 2730 Kg MTOM and below the formalised training courses may be replaced by demonstration of knowledge. This knowledge may be demonstrated by documented evidence or by an assessment performed by the CAA. This assessment should be recorded.

4.8 knowledge of maintenance methods.

4.9 knowledge of applicable regulations

AMC M.A.706(a) Personnel requirements

Accountable manager is normally intended to mean the chief executive officer of the CAMO, who by virtue of position has overall (including in particular financial) responsibility for running the organisation. The accountable manager may be the accountable manager for more than one organisation and is not required to be knowledgeable on technical matters. When the accountable manager is not the chief executive officer, the CAA will need to be assured that such an accountable manager has direct access to the chief executive officer and has a sufficiency of continuing airworthiness funding allocation.

AMC M.A.706(e) Personnel requirements

1. The CAA should only accept that the nominated post holder be employed by the organisation approved under MCAR-145 when it is manifest that he/she is the only available competent person in a position to exercise this function, within a practical working distance from the operator's offices.

2. This paragraph only applies to contracted maintenance and therefore does not affect situations where the organisation approved under MCAR-145 and the operator are the

same organisation.

AMC M.A.706(f) Personnel requirements

Additional training in fuel tank safety as well as associated inspection standards and maintenance procedures should be required of CAMO technical personnel, especially the staff involved with the management of CDCCL, Service Bulletin assessment, work planning and maintenance programme management. CAA guidance is provided for training to CAMO personnel in Appendix XII to AMC to M.A.706(f).

AMC M.A.706(i) Personnel requirements

The approval by the CAA of the exposition, containing in M.A.704(a)3 the list of M.A.706(i) personnel, constitutes their formal acceptance by the CAA and also their formal authorisation by the organisation.

Airworthiness review staff are automatically recognised as persons with authority to extend an airworthiness review certificate in accordance with M.A.711(a)4 and M.A.901(f).

AMC M.A.706(k) Personnel requirements

Adequate initial and recurrent training should be provided and recorded to ensure continued competence.

MCAR-M.A.707 Airworthiness review staff

(a) To be approved to carry out airworthiness reviews and, if applicable, to issue permits to fly, an approved continuing airworthiness management organisation shall have appropriate airworthiness review staff to issue airworthiness review certificates or recommendations referred to in Section A of Subpart I and, if applicable, to issue a permit to fly in accordance with point M.A.711(c):

1. For aircraft used by licenced air carriers, and aircraft above 2730 kg MTOM, except balloons, these staff shall have acquired:

   (a) at least 5 years' experience in continuing airworthiness, and

   (b) an appropriate license in compliance with MCAR-66 or an aeronautical degree; and

   (c) formal aeronautical maintenance training; and

   (d) a position within the approved organisation with appropriate responsibilities.

   (e) Notwithstanding points (a) to (d), the requirement laid down in point M.A.707(a)1(b) may be replaced by five years of experience in continuing airworthiness additional to those already required by point M.A.707(a)1(a).

2. For aircraft not used by licenced air carriers of 2730 kg MTOM and below, and balloons, these staff shall have acquired:

   (a) at least 3 years' experience in continuing airworthiness; and

   (b) an appropriate license in compliance with MCAR-66 or an aeronautical degree; and

   (c) appropriate aeronautical maintenance training; and

   (d) a position within the approved organisation with appropriate responsibilities;

   (e) Notwithstanding points (a) to (d), the requirement laid down in point M.A.707(a)2(b) may be replaced by four years of experience in continuing airworthiness additional to those already required by point M.A.707(a)2(a).

(b) Airworthiness review staff nominated by the approved continuing airworthiness organisation can only be issued an authorisation by the approved continuing airworthiness organisation when formally accepted by the CAA after satisfactory completion of an airworthiness review under supervision of the CAA or under the supervision of the organisation's airworthiness review staff in accordance with a procedure approved by the CAA.

(c) The organisation shall ensure that aircraft airworthiness review staff can demonstrate appropriate recent continuing airworthiness management experience.

(d) Airworthiness review staff shall be identified by listing each person in the continuing airworthiness management exposition together with their airworthiness review authorisation reference.

(e) The organisation shall maintain a record of all airworthiness review staff, which shall include details of any appropriate qualification held together with a summary of relevant continuing airworthiness management experience and training and a copy of the authorisation. This record shall be retained until two years after the airworthiness review staff have left the organisation.

AMC M.A.707(a) Airworthiness review staff

1. Airworthiness review staff are only required if the CAMO wants to be granted M.A.711(b) airworthiness review and, if applicable, M.A.711(c) permit to fly privileges.

2. "experience in continuing airworthiness" means any appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management and/or surveillance of such tasks.

3. A person qualified to the AMC M.A.706 subparagraph 4.5 should be considered as holding the equivalent to an aeronautical degree.

4. An appropriate licence in compliance with MCAR-66 is any one of the following:

   - a category B1 licence in the subcategory of the aircraft reviewed, or

   - a category B2 or C licence, or

   - in the case of piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below, a category B3 licence.

   It is not necessary to satisfy the experience requirements of MCAR-66 at the time of the review.

5. To hold a position with appropriate responsibilities means the airworthiness review staff should have a position in the organisation independent from the airworthiness management process or with overall authority on the airworthiness management process of complete aircraft.

   Independence from the airworthiness management process may be achieved, among other ways, by:

   - Being authorised to perform airworthiness reviews only on aircraft for which the person has not participated in their management. For example, performing airworthiness reviews on a specific model line, while being involved in the airworthiness management of a different model line.

   - M.A. Subpart G organisations with MCAR-145/M.A.Subpart F approval, may nominate maintenance personnel from their MCAR-145/M.A.Subpart F organisation as airworthiness review staff, as long as they are not involved in the airworthiness management of the aircraft. These personnel should not have been involved in the release to service of that particular aircraft (other than maintenance tasks performed during the physical survey of the aircraft or performed as a result of findings discovered during such physical survey) to avoid possible conflict of interests.

   - Nominating as airworthiness review staff personnel from the Quality Department of the CAMO.

Overall authority on the airworthiness management process of complete aircraft may be achieved, among other ways, by:

- Nominating as airworthiness review staff the Accountable Manager or the Maintenance Postholder.

- Being authorised to perform airworthiness reviews only on those particular aircraft for which the person is responsible for the complete continuing airworthiness management process.

- In the case of one-man organisations, this person has always overall authority. This means that this person can be nominated as airworthiness review staff.

AMC M.A.707(a)(1) Airworthiness review staff

For all aircraft used in by licenced air carriers and for any other aircraft, other than balloons, above 2730 kg MTOM, formal aeronautical maintenance training means training (internal or external) supported by evidence on the following subjects:

- Relevant parts of initial and continuing airworthiness regulations.

- Relevant parts of operational requirements and procedures, if applicable.

- The organisation's continuing airworthiness management exposition.

- Knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to MCAR-66 Appendix III Level 1 General Familiarisation and could be imparted by a MCAR-147 organisation, by the manufacturer, or by any other organisation accepted by the CAA.

- "Relevant sample" means that these courses should cover typical systems embodied in those aircraft being within the scope of approval

- Maintenance methods.

AMC M.A.707(a)(2) Airworthiness review staff

For all balloons and any other aircraft of 2730 Kg MTOM and below, not used by licenced air carriers:

1. "experience in continuing airworthiness" can be full-time or part-time, either as professional or on a voluntary basis.

2. Appropriate aeronautical maintenance training means demonstrated knowledge of the following subjects:

- Relevant parts of initial and continuing airworthiness regulations.

- Relevant parts of operational requirements and procedures, if applicable.

- The organisation's continuing airworthiness management exposition.

- Knowledge of a relevant sample of the type(s) of aircraft gained through training and/ or work experience. Such knowledge should be at least at a level equivalent to MCAR-66 Appendix III Level 1 General Familiarisation and could be imparted by a MCAR-147 organisation, by the manufacturer, or by any other organisation accepted by the CAA.

- "Relevant sample" means that these courses should cover typical systems embodied in those aircraft being within the scope of approval

- Maintenance methods.

This knowledge may be demonstrated by documented evidence or by an assessment performed by the CAA or by other airworthiness review staff already authorised within the organisation in accordance with approved procedures. This assessment should be recorded.

AMC M.A.707(b) Airworthiness review staff

The formal acceptance by the competent authority of the airworthiness review staff is granted through the corresponding CAA Form 4.

If the airworthiness review is performed under the supervision of existing airworthiness review staff, evidence should be provided to the CAA together with the CAA Form 4. If satisfied, the CAA will issue the formal acceptance through the CAA Form 4.

Once the airworthiness review staff has been accepted by the CAA, the inclusion of their name in the exposition (refer to M.A.704(a)5) constitutes the formal authorisation by the organisation.

AMC M.A.707(c) Airworthiness review staff

In order to keep the validity of the airworthiness review staff authorisation, the airworthiness review staff should have either:

- been involved in continuing airworthiness management activities for at least six months in every two year period, or

- conducted at least one airworthiness review in the last twelve month period.

In order to restore the validity of the authorisation, the airworthiness review staff should conduct at a satisfactory level an airworthiness review under the supervision of the CAA or, if accepted by the CAA, under the supervision of another currently valid authorised airworthiness review staff of the concerned continuing airworthiness management organisation in accordance with an approved procedure.

AMC M.A.707(e) Airworthiness review staff

The minimum content of the airworthiness review staff record should be:

- Name,
- Date of Birth,
- Basic Education,
- Experience,
- Aeronautical Degree and/or MCAR-66 qualification,
- Initial Training received,
- Type of Training received,
- Continuation Training received,
- Experience in continuing airworthiness and within the organisation,
- Responsibilities of current role in the organisation,
- Copy of the authorisation.

MCAR-M.A.708 Continuing Airworthiness Management

(a) All continuing airworthiness management shall be carried out according to the prescriptions of M.A Subpart C.

(b) For every aircraft managed, the approved continuing airworthiness management organisation shall:

1. develop and control a maintenance programme for the aircraft managed including any applicable reliability programme,

2. present the aircraft maintenance programme and its amendments to the CAA for approval, unless covered by an indirect approval procedure in accordance with point M.A.302(c), and for aircraft not used by licenced air carriers provide a copy of the programme to the owner or operator responsible in accordance with M.A.201,

3. manage the approval of modification and repairs,

4. ensure that all maintenance is carried out in accordance with the approved maintenance programme and released in accordance with M.A. Subpart H,

5. ensure that all applicable airworthiness directives and operational directives with a continuing airworthiness impact, are applied,

6. ensure that all defects discovered during scheduled maintenance or reported are corrected by an appropriately approved maintenance organisation,

7. ensure that the aircraft is taken to an appropriately approved maintenance organisation whenever necessary,

8. coordinate scheduled maintenance, the application of airworthiness directives, the replacement of service life limited parts, and component inspection to ensure the work is carried out properly,

9. manage and archive all continuing airworthiness records and/or operator's technical log.

10. ensure that the mass and balance statement reflects the current status of the aircraft.

(c) In the case of complex motor-powered aircraft or aircraft used for CAT or aircraft used for commercial specialised operations or commercial ATO operations, when the continuing airworthiness management organisation is not appropriately approved to MCAR-145 or MCAR-M.A. Subpart F, the organisation shall in consultation with the operator, establish a written maintenance contract with a MCAR-145 or MCAR-M.A Subpart F approved organisation or another operator, detailing the functions specified under M.A.301-2, M.A.301-3, M.A.301-5 and M.A.301-6, ensuring that all maintenance is ultimately carried out by an MCAR-145 or MCAR-M.A Subpart F approved maintenance organisation and

defining the support of the quality functions of M.A.712(b).

(d) Notwithstanding point (c), the contract may be in the form of individual work orders addressed to the MCAR-145 or MCAR-M.A. Subpart F maintenance organisation in the case of:

1. An aircraft requiring unscheduled line maintenance

2. Component maintenance, including engine maintenance

GM M.A.708 Continuing airworthiness management

The CAMO should have adequate knowledge of the design status (type specification, customer options, airworthiness directive (ADs), airworthiness limitations contained in the aircraft instructions for continuing airworthiness, modifications, major repairs, operational equipment) and of the required and performed maintenance. The status of aircraft design and maintenance should be adequately documented to support the performance of the quality system.

For EASA CS-25 aeroplanes, adequate knowledge of the airworthiness limitations should cover those contained in EASA CS-25 Book 1, Appendix H, paragraph H25.4 and fuel tank system airworthiness limitations including critical design configuration control limitations (CDCCL).

AMC M.A.708(b)(3) Continuing Airworthiness Management

When managing the approval of modifications or repairs the organisation should ensure that Critical Design Configuration Control Limitations are taken into account.

GM M.A.708(b)(4) Continuing airworthiness management

This requirement means that the CAMO is responsible for determining what maintenance is required, when it has to be performed, by whom and to what standard in order to ensure the continued airworthiness of the aircraft.

AMC1 M.A.708(c) Continuing airworthiness management

1. in case of complex motor-powered aircraft, aircraft used for CAT operations, aircraft used for commercial specialised operations and aircraft used by commercial ATO, the provisions of M.A.201 establish that a CAMO is required. This CAMO is in charge of the continuing airworthiness management and this includes the tasks specified in M.A.301 paragraphs (2), (3), (5) and (6). If the CAMO does not hold the appropriate maintenance organisation approval (Subpart F organisation approval or a MCAR-145 approval), then the CAMO should conclude a contract with the appropriate organisation(s).

2. The CAMO bears the responsibility for the airworthy condition of the aircraft for which it performs the continuing airworthiness management. Thus, it should be satisfied before the intended flight that all required maintenance has been properly carried out.

3. The CAMO should agree with the operator on the process to select a maintenance organisation before concluding any contract with a maintenance organisation.

4. The fact that the CAMO has contracted a maintenance organisation approved under Subpart F or MCAR-145 should not prevent it from checking at the maintenance facilities on any aspect of the contracted work to fulfil its responsibility for the airworthiness of the aircraft.

5. The contract between the CAMO and the maintenance organisation(s) should specify in detail the responsibilities and the work to be performed by each party.

6. Both the specification of work and the assignment of responsibilities should be clear, unambiguous and sufficiently detailed to ensure that no misunderstanding arises between the parties concerned that could result in a situation where work that has an effect on the airworthiness or serviceability of aircraft is not or will not be properly performed.

7. Special attention should be paid to procedures and responsibilities to ensure that all maintenance work is performed, service bulletins are analysed and decisions are taken on their accomplishment, airworthiness directives accomplished on time and that all work, including non-mandatory modifications, is carried out to approved data and to the latest standards.

8. Appendix XI to this AMC gives further details on the subject.

AMC2 M.A.708(c) Continuing airworthiness management

MAINTENANCE CONTRACT WITH ANOTHER CAMO/OPERATOR

1. The purpose of M.A.708(c) is to ensure that all maintenance is carried out by an appropriately approved maintenance organisation. It is possible to contract another operator/CAMO (secondary operator/CAMO) that does not hold a maintenance organisation approval when it proves that such a contract is in the interest of the CAMO by simplifying the management of its maintenance, and the CAMO keeps an appropriate control of it. In this case the continuing airworthiness management exposition should include appropriate procedures to ensure that all maintenance is ultimately carried out on time by approved maintenance organisations in accordance with the CAMO's data. In particular, the quality system procedures should place great emphasis on monitoring compliance with the above. The list of approved maintenance organisations, or a reference to this list, should be included in the CAMO's continuing airworthiness management exposition.

2. This contract should not preclude the CAMO from ensuring that all maintenance is performed by appropriately approved organisations which comply with the M.A.201 continuing airworthiness responsibility requirements. Typical examples of such arrangements are the following:

   - Component maintenance:
     The CAMO may find it more appropriate to have a primary contractor (the secondary operator/CAMO) dispatching the components to appropriately approved organisations rather than sending themselves different types of components to various maintenance organisations approved under MCAR-145. The benefit for the CAMO is that the management of maintenance is simplified by having a single point of contact for component maintenance. The CAMO remains responsible for ensuring that all maintenance is performed by maintenance organisations approved under MCAR-145 and in accordance with the approved standard.

   - Aircraft, engine and component maintenance:

The CAMO may wish to have a maintenance contract with a secondary operator/CAMO not approved under MCAR-145 for the same type of aircraft. A typical case is that of a dry-leased aeroplane between operators where the parties, for consistency or continuity reasons (especially for short-term lease agreements), find it appropriate to keep the aeroplane under the current maintenance arrangement. Where this arrangement involves various MCAR-145 approved contractors, it might be more manageable for the lessee CAMO to have a single maintenance contract with the lessor operator/CAMO. Whatever type of acceptable maintenance contract is concluded, the CAMO is required to exercise the same level of control on contracted maintenance, particularly through the M.A.706(c) continuing airworthiness management group of persons and quality system as referred to in M.A.712.

GM M.A.708(c) Continuing airworthiness management

For line maintenance, the actual layout of the IATA Standard Ground Handling Agreement may be used as a basis, but this does not preclude the CAMO from ensuring that the content of the contract is acceptable and especially that the contract allows the CAMO to properly exercise its maintenance responsibility. Those parts of the contract that have no effect on the technical or operational aspects of airworthiness are outside the scope of this paragraph.

AMC M.A.708(d) Continuing airworthiness management

The intent of this paragraph is that maintenance contracts are not necessary when the continuing airworthiness management exposition specifies that the relevant maintenance activity may be ordered through one-time work orders. This includes unscheduled line maintenance and may also include component maintenance up to engines, as long as the maintenance is manageable through work orders, both in terms of volume and complexity. It should be noted that this paragraph implies that even where base maintenance is ordered on a case-by-case basis, there should be a written maintenance contract.

MCAR-M.A.709 Documentation

(a) The approved continuing airworthiness management organisation shall hold and use applicable current maintenance data in accordance with point M.A.401 for the performance of continuing airworthiness tasks referred to in point M.A.708. This data may be provided by the owner or the operator, subject to an appropriate contract being established with such an owner or operator. In such case, the continuing airworthiness management organisation only needs to keep such data for the duration of the contract, except when required by point M.A.714.

(b) For aircraft not used by licenced air carriers, the approved continuing airworthiness management organisation may develop "baseline" and/or "generic" maintenance programmes in order to allow for the initial approval and/or the extension of the scope of an approval without having the contracts referred to in Appendix I to this Regulation. These "baseline" and/or "generic" maintenance programmes however do not preclude the need to establish an adequate Aircraft Maintenance Programme in compliance with point M.A.302 in due time before exercising the privileges referred to in point M.A.711.

AMC M.A.709 Documentation

When using maintenance data provided by the customer, the CAMO is responsible for ensuring that this data is current. As a consequence, it should establish appropriate procedures or provisions in the contract with the customer.

The sentence "…, except when required by point M.A.714", means, in particular, the need to keep a copy of the customer data which was used to perform continuing airworthiness activities during the contract period.

"Baseline" maintenance programme: it is a maintenance programme developed for a particular aircraft type following, where applicable, the maintenance review board (MRB) report, the type certificate holder's maintenance planning document (MPD), the relevant chapters of the maintenance manual or any other maintenance data containing information on scheduling.

"Generic" maintenance programme: it is a maintenance programme developed to cover a group of similar types of aircraft. These programmes should be based on the same type of instructions as the baseline maintenance programme. Examples of "generic" maintenance programmes could be Cessna 100 Series (covering Cessna 150, 172, 177, etc.).

"Baseline" and "generic" maintenance programmes are not applicable to a particular aircraft registration mark, but to an aircraft type or group of types, and should be available to the CAA prior to the initial approval and prior to the extension of the scope of an existing organisation approval. The intent is that the CAA is aware of the scope and complexity of tasks that will be managed before granting an organisation approval or change of approval.

After this initial approval, when an owner/operator is contracted, the baseline or generic maintenance programme, as applicable, may be used to establish the M.A.302 aircraft maintenance programme, incorporating the additional maintenance tasks and indicating those which are not applicable to a particular aircraft registration mark. This may be achieved by adding an Annex to the baseline/generic maintenance programme for each aircraft registration, specifying which tasks are added and which are not applicable. This will result in an aircraft maintenance programme specific for each customer.

However, this does not mean that this adaptation must be performed for each contracted aircraft registration. The reason is that the customer may already have an approved aircraft maintenance programme, which in that case should be used by the continuing airworthiness management organisation to manage the continuing airworthiness of such aircraft.

Continuing airworthiness management organisations may seek authorisation for indirect approval in order to amend the aircraft maintenance programme mentioned above in accordance with M.A.302(c). The indirect approval procedure should include provisions to notify to the CAA that an aircraft maintenance programme specific for a customer has been created. The reason is that, according to M.A.704(a)9, for aircraft not used by licenced air carriers, the Continuing Airworthiness Management Exposition (CAME) only needs to include the reference to the baseline/generic maintenance programme.

GM M.A.709 Documentation

Paragraph M.A.709(a) refers to continuing airworthiness tasks referred to in M.A.708. As a consequence, this covers continuing airworthiness management tasks but not airworthiness reviews.

Airworthiness review requirements are established in M.A.710 and the requirements for the corresponding records retention are contained in M.A.714.

MCAR-M.A.710 Airworthiness review

(a) To satisfy the requirement for the airworthiness review of an aircraft referred to in point M.A.901, a full documented review of the aircraft records shall be carried out by the approved continuing airworthiness management 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; 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 in compliance with the MCAR-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 Regulation; 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 State of Design; and

11. if required, the aircraft holds a noise certificate corresponding to the current configuration of the aircraft in compliance with Subpart I of MCAR-21.

(b) The airworthiness review staff of the approved continuing airworthiness management organisation shall carry out a physical survey of the aircraft. For this survey, airworthiness review staff not appropriately qualified to MCAR-66 shall be assisted by such qualified personnel.

(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 point M.A.403; and

5. no inconsistencies can be found between the aircraft and the point (a) documented review of records.

(d) By derogation to point M.A.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.

(e) The airworthiness review certificate (CAA Form 15b) or the recommendation for the issue of the airworthiness review certificate (CAA Form 15a) referred to in Appendix III to this Regulation can only be issued:

1. by airworthiness review staff appropriately authorised in accordance with point M.A.707 on behalf of the approved continuing airworthiness management organisation or by certifying staff in cases provided for in point M.A.901(g); and

2. when satisfied that the airworthiness review has been completely carried out and that there is no non-compliance which is known to endanger flight safety.

(f) A copy of any airworthiness review certificate issued or extended for an aircraft shall be sent to the CAA within 10 days.

(g) Airworthiness review tasks shall not be sub-contracted.

(ga) For ELA1 aircraft not involved in commercial operations for which the aircraft maintenance programme has been established in accordance with M.A.302(h), the aircraft maintenance programme shall be reviewed in conjunction with the airworthiness review. This review shall be accomplished by the person who performed the airworthiness review.

(h) Should the outcome of the airworthiness review be inconclusive or should the review under point M.A.710(ga) show discrepancies on the aircraft linked to deficiencies in the content of the maintenance programme, the CAA shall be informed by the organisation as soon as practicable but in any case within 72 hours from the moment the organisation identifies the condition to which the review relates. The airworthiness review certificate shall not be issued until all findings have been closed.

GM M.A.710 Airworthiness review

RESPONSIBILITIES OF AIRWORTHINESS REVIEW STAFF:

The following is a summary of the requirements contained in M.A.710 as well as the associated AMCs and Appendices, in relation to the responsibilities of the airworthiness review staff:

- Airworthiness review staff are responsible for performing both the documental and the physical survey.

- Procedures must be established by the CAMO in order to perform the airworthiness review, including depth of samplings (refer to Appendix V to AMC M.A.704, paragraphs 4.2 and 4.3).

- Procedures must make very clear that the final word about the depth of the inspections (both documental and physical) belongs to the airworthiness review staff, who can go beyond the depth contained in the CAME if they find it necessary. At the end, it is the responsibility of the airworthiness review staff to be satisfied that the aircraft complies with MCAR-M and is airworthy, and the organisation must ensure that no pressure or restrictions are imposed on the airworthiness review staff when performing their duty.

- A compliance report must be produced by the airworthiness review staff, detailing all items checked and the outcome of the review.

- Airworthiness review staff are responsible for the items checked during the airworthiness review. However, they do not take over the responsibilities of the CAMO, MCAR-145, DOA, POA or any other organisations, not being responsible for problems not detected during the airworthiness review or for the possibility that the approved or declared maintenance programme may not include certain recommendations from the Design Approval Holder. Obviously, if the airworthiness review staff are not independent of the airworthiness management process and were nominated on the basis of the option of having overall authority on such a process, they will be responsible for the full continuing airworthiness of such aircraft. Nevertheless, this responsibility will be a consequence of their position related to M.A.706 and not of their position as airworthiness review staff (M.A.707).

- The issuance of the airworthiness review certificate (ARC) by the airworthiness review staff only certifies that the aircraft is considered airworthy in relation to the scope of the airworthiness review performed and the fact that the airworthiness review staff are not aware of instances of non-compliance which endanger flight safety. Furthermore, it only certifies that the aircraft is considered airworthy at the time of the review.

It is the responsibility of the owner or contracted CAMO to ensure that the aircraft is fully airworthy at any time.

AMC M.A.710(a) Airworthiness review

1. A full documented review is a check of at least the following categories of documents:

   - registration papers
   - M.A.305 aircraft continuing airworthiness record system
   - M.A.306 aircraft technical log system
   - list of deferred defects, minimum equipment list and configuration deviation list if applicable.
   - aircraft flight manual including aircraft configuration
   - aircraft maintenance programme
   - maintenance data
   - relevant work packages
   - AD status
   - modification and SB status
   - modification and repair approval sheets
   - list of service life-limited component
   - relevant CAA Form 1 or equivalent
   - mass and balance report and equipment list
   - aircraft, engine and propeller TC Data Sheets

   As a minimum, sample checks within each document category should be carried out.

2. The CAMO should develop procedures for airworthiness review staff to produce a compliance report that confirms the above have been reviewed and found in compliance with MCAR-M.

AMC M.A.710(b) and (c) Airworthiness review

1. 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 in accordance with MCAR-M.

2. When the airworthiness review staff are not appropriately qualified to MCAR-66 in order to release such maintenance, M.A.710(b) requires them to be assisted by such qualified personnel. However, the function of such MCAR-66 personnel is limited to perform and release the maintenance actions requested by the airworthiness review staff, it not being their function to perform the physical survey of the aircraft. As stated in M.A.710(b), the airworthiness review staff shall carry out the physical survey of the aircraft, and this survey includes the verification that no inconsistencies can be found between the aircraft and the documented review of records.

3. This means that the airworthiness review staff who are going to sign the airworthiness review certificate or the recommendation should be the one performing both the documented review and the physical survey of the aircraft, it not being the intent of the rule to delegate the survey to MCAR-66 personnel who are not airworthiness review staff.

Furthermore, the provision of M.A.710(d) allowing a 90 days anticipation for the physical survey provides enough flexibility to ensure that the airworthiness review staff are present.

4. The physical survey may include verifications to be carried out during flight.

5. The CAMO should develop procedures for the airworthiness review staff to produce a compliance report that confirms the physical survey has been carried out and found satisfactory.

6. To ensure compliance the physical survey may include relevant sample checks of items.

AMC M.A.710(d) Airworthiness review

"Without loss of continuity of the airworthiness review pattern" means that the new expiration date is set up one year after the previous expiration date. As a consequence, when the airworthiness review is anticipated, the validity or the airworthiness review certificate is longer than one year (up to 90 days longer).

This anticipation of up to 90 days also applies to the 12 month requirements shown in M.A.901(b), which means that the aircraft is still considered as being in a controlled environment if it has been continuously managed by a single organisation and maintained by appropriately approved organisations, as stated in M.A.901(b), from the date when the last airworthiness review certificate was issued until the date when the new airworthiness review is performed (this can be up to 90 day less than 12 months).

AMC M.A.710(e) Airworthiness review

A copy of both physical survey and document review compliance reports stated above should be sent to the CAA together with any recommendation issued.

AMC M.A.710(ga) Airworthiness review

This review of the maintenance programme is performed by the person who performed the airworthiness review, who could belong to the CAA, a CAMO or a maintenance organisation or could also be independent certifying staff in accordance with M.A.901(g).

During the annual review of the maintenance programme, the following should be taken into consideration:

- The results of the maintenance performed during that year, which may reveal that the current maintenance programme is not adequate.

- The results of the airworthiness review performed on the aircraft, which may reveal that the current maintenance programme is not adequate.

- Revisions introduced in the documents affecting the programme basis, such as the M.A.302(i) 'Minimum Inspection Programme' or the Design Approval Holder data.

- Applicable mandatory requirements for compliance with MCAR-21, such as Airworthiness Directives, Airworthiness Limitations, Certification Maintenance Requirements and specific maintenance requirements contained in the TCDS.

For the purpose of reviewing the results of the maintenance performed during that year, the airworthiness review staff should request the owner/CAMO to provide the records of all the maintenance performed during that year, including unscheduled maintenance.

When reviewing the results of the maintenance performed during that year and the results of the airworthiness review, attention should be paid as to whether the defects found may have been prevented by introducing in the maintenance programme certain recommendations from the Design Approval Holder which were initially disregarded by the owner.

GM M.A.710(h) Airworthiness review

The objective of informing the CAA when the airworthiness review shows discrepancies linked to deficiencies in the content of the maintenance programme is to allow the CAA to take it into account when planning the ACAM inspections and to make sure that the CAA agrees to the amendments required in the maintenance programme as required by M.A.302(h)5.

MCAR-M.A.711 Privileges of the organisation

(a) A continuing airworthiness management organisation approved in accordance with Section A, Subpart G of this Regulation may:

1. manage the continuing airworthiness of aircraft, except those used by licenced air carriers, as listed on the approval certificate.

2. manage the continuing airworthiness of aircraft used by licenced air carriers, 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 sub-contracted organisation, working under its quality system, as listed on the approval certificate;

4. extend, under the conditions of point M.A.901(f), an airworthiness review certificate that has been issued by the CAA or by another continuing airworthiness management organisation approved in accordance with Section A, Subpart G of this Regulation;

(b) An approved continuing airworthiness management organisation registered in the Maldives may, additionally, be approved to carry out airworthiness reviews referred to in point M.A.710 and:

1. issue the related airworthiness review certificate and extend it in due time under the conditions of points M.A.901(c)2 or M.A.901(e)2; and,

2. issue a recommendation for the airworthiness review to the CAA.

(c) A continuing airworthiness management organisation whose approval includes the privileges referred to in point M.A.711(b) may additionally be approved to issue a permit to fly in accordance with MCAR-21.A.711(d) of MCAR-21 for the particular aircraft for which the organisation is approved to issue the airworthiness review certificate, when the continuing airworthiness management organisation is attesting conformity with approved flight conditions, subject to an adequate approved procedure in the exposition referred to in point M.A.704.

AMC M.A.711(a)(3) Privileges of the organisation

SUBCONTRACTING OF CONTINUING AIRWORTHINESS TASKS

1. The CAMO may subcontract certain continuing airworthiness management tasks to qualified persons or organisations. The subcontracted person or organisation performs the continuing airworthiness management tasks as an integral part of the CAMO's continuing airworthiness management system, irrespective of any other approval held by the subcontracted person or organisation (including CAMO or MCAR-145 approval).

2. The CAMO remains accountable for the satisfactory completion of the continuing airworthiness management tasks irrespective of any contract that may be established.

3. In order to fulfil this responsibility, the CAMO should be satisfied that the actions taken by the subcontracted person or organisation meet the standards required by Subpart G. therefore, the CAMO management of such activates should be accomplished:

   (a) By active control through direct involvement, and/or
   (b) By endorsing the recommendations made by the subcontracted person or organisation.

4. In order to retain ultimate responsibility, the CAMO should limit subcontracted tasks to the activities specified below:

   (a) Airworthiness directive analysis and planning;
   (b) Service bulletin analysis;
   (c) Planning of maintenance;
   (d) Reliability monitoring, engine health monitoring;
   (e) Maintenance programme development and amendments;
   (f) Any other activities, which do not limit the CAMO responsibilities, as agreed by the CAA.

5. The CAMO's control associated with subcontracted continuing airworthiness management tasks should be reflected in the associated contract and be in accordance with the CAMO policy and procedures defined in the continuing airworthiness management exposition. When such tasks are subcontracted, the continuing airworthiness management system is considered to be extended to the subcontracted person or organisations.

6. With the exceptions of engines and auxiliary power units, contracts would normally be limited to one organisation per aircraft type for any combination of the activities described in Appendix II. Where contracts are made with more than one organisation, the CAMO should demonstrate that adequate coordination controls are in place and that the individuals' responsibilities are clearly defined in the related contracts.

7. Contracts should not authorise the subcontracted organisation to subcontract to other organisations elements of the continuing airworthiness management tasks.

8. The CAA should exercise oversight of the subcontracted activities through the CAMO approval. The contracts should be acceptable to the CAA. The CAMO should only subcontract to organisations which are specified by the CAA on CAA Form 14.

9. The subcontracted organisation should agree to notify the CAMO of any changes affecting the contract as soon as practical. The CAMO should then inform the CAA. Failure to do so may invalidate the CAA's acceptance of the contract.

10. Appendix II to AMC M.A.711(a)(3) provides information on the subcontracting of continuing airworthiness management tasks.

AMC M.A.711(b) Privileges of the organisation

An organisation may be approved for the privileges of M.A.711(a) only, without the privilege to carry out airworthiness reviews. This can be contracted to another appropriately approved organisation. In such a case, it is not mandatory that the contracted organisation is linked to an AOC holder, being possible to contract an appropriately approved independent continuing airworthiness management organisation which is approved for the same aircraft type.

In order to be approved for the privileges of M.A.711(b) for a particular aircraft type, it is necessary to be approved for the privileges of M.A.711(a) for that aircraft type. As a consequence, the normal situation in this case is that the organisation will be performing continuing airworthiness management tasks and performing airworthiness reviews on every aircraft type contained in the approval certificate.

Nevertheless, this does not necessarily mean that the organisation needs to be currently managing an aircraft type in order to be able to perform airworthiness reviews on that aircraft type. The organisation may be performing only airworthiness reviews on an aircraft type without having any customer under contract for that type.

Furthermore, this situation should not necessarily lead to the removal of the aircraft type from the organisation approval. As a matter of fact, since in most cases the airworthiness review staff are not involved in continuing airworthiness management activities, it cannot be argued that these airworthiness review staff are going to lose their skills just because the organisation is not managing a particular aircraft type. The important issue in relation to maintaining a particular aircraft type in the organisation approval is whether the organisation continuously fulfils all the Subpart G requirements (facilities, documentation, qualified personnel, quality system, etc.) required for initial approval.

AMC M.A.711(c) Privileges of the organisation

The sentence 'for the particular aircraft for which the organisation is approved to issue the airworthiness review certificate' contained in M.A.711(c) means that:

- For aircraft used in licenced air carriers, and for aircraft above 2730 kg MTOM, except balloons, the permit to fly can only be issued for aircraft which are in a controlled environment and are managed by that CAMO.
- For aircraft of 2730 kg MTOM and below not used by licenced air carriers, and for all balloons, the permit to fly can be issued for any aircraft.

MCAR-M.A.712 Quality system

(a) To ensure that the approved continuing airworthiness management organisation 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 activities carried out under Section A, Subpart G of MCAR-M. It shall at least include the following functions:

1. monitoring that all activities carried out under Section A, Subpart G of MCAR-M 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 Regulation.

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

(d) Where the approved continuing airworthiness management organisation is approved in accordance with another MCAR, the quality system may be combined with that required by the other regulation.

(e) For licenced air carriers the M.A. Subpart G quality system shall be an integrated part of the operator's quality system.

(f) In the case of a small organisation not managing the continuing airworthiness of aircraft used by licenced air carriers, the quality system may be replaced by regular organisational reviews subject to the approval of the CAA, except when the organisation issues airworthiness review certificates for aircraft above 2730 kg MTOM other than balloons. In the case where there is no quality system, the organisation shall not contract continuing airworthiness management tasks to other parties.

AMC M.A.712(a) Quality system

1. Procedures should be held current such that they reflect best practice within the organisation. It is the responsibility of all employees to report any difficulties with the procedures via their organisation's internal occurrence reporting mechanisms.

2. All procedures, and changes to the procedures, should be verified and validated before use where practicable.

3. The feedback part of the system should address who is required to rectify any non-compliance in each particular case and the procedure to be followed if rectification is not completed within appropriate timescales. The procedure should lead to the accountable manager specified in M.A.706.

4. The independent quality audit reports referenced in AMC M.A.712 (b) should be sent to the relevant department for rectification action giving target rectification dates. Rectification dates should be discussed with such department before the quality department or nominated quality auditor confirms such dates in the report. The relevant department is required to rectify findings and inform the quality manager or the quality auditor of such rectification.

5. The accountable manager should hold regular meetings with staff to check progress on rectification except that in the large organisations such meetings may be delegated on a day to day basis to the quality manager subject to the accountable manager meeting at least twice per year with the senior staff involved to review the overall performance and receiving at least a half yearly summary report on findings of non-compliance.

AMC M.A.712(b) Quality system

1. The primary objectives of the quality system are to enable the CAMO to ensure airworthy aircraft and to remain in compliance with the MCAR-M requirements.

2. An essential element of the quality system is the independent audit.

3. The independent audit is an objective process of routine sample checks of all aspects of the CAMO's ability to carry out continuing airworthiness management to the required standards. It includes some product sampling as this is the end result of the process.

4. The independent audit represents an objective overview of the complete continuing airworthiness management related activities. It is intended to complement the M.A.902 requirement for an airworthiness review to be satisfied that all aircraft managed by the organisation remain airworthy.

5. The independent audit should ensure that all aspects of M.A. Subpart G compliance are checked annually, including all the sub-contracted activities, and may be carried out as a complete single exercise or subdivided over the annual period in accordance with a scheduled plan. The independent audit does not require each procedure to be checked

against each product line when it can be shown that the particular procedure is common to more than one product line and the procedure has been checked every year without resultant findings. Where findings have been identified, the particular procedure should be rechecked against other product lines until the findings have been rectified after which the independent audit procedure may revert back to the annual interval for the particular procedure. Provided that there are no safety related findings, the audit time periods specified in this AMC may be increased by up to 100% subject to agreement by the CAA.

6. Where the organisation has more than one location approved the quality system should describe how these are integrated into the system and include a plan to audit each location every year.

7. A report should be raised each time an audit is carried out describing what was checked and the resulting findings against applicable requirements, procedures and products.

8. The independence of the audit should be established by always ensuring that audits are carried out by personnel not responsible for the function, procedure or products being checked.

9. An organisation should establish a quality plan acceptable to the competent authority of approval to show when and how often the activities as required by M.A. Subpart G will be audited.

AMC M.A.712(f) Quality system

A small organisation is considered to be an organisation with up to 5 full-time staff (including all M.A.706 personnel) or equivalent proportional number when using part-time staff. The complexity of the organisation, combination of aircraft and aircraft types, the utilisation of the aircraft and the number of approved locations of the organisations should also be considered before replacing the quality system by an organisational review.

Appendix XIII to this AMC should be used to manage the organisational reviews.

The following activities should not be considered as subcontracting and, as a consequence, they may be performed without a quality system, although they need to be described in the continuing airworthiness management exposition and be approved by the CAA:

- Subscription to a technical publisher that provides maintenance data (Aircraft Maintenance Manuals, Illustrated Parts Catalogues, Service Bulletins, etc.), which may be applicable to a wide range of aircraft. These data may include maintenance schedules recommended by different manufacturers that can be afterwards used by the continuing airworthiness management organisation in order to produce customised maintenance programmes.

- Contracting the use of a software tool for the management of continuing airworthiness data and records, under the following conditions (in addition to M.A.714(d) and (e)):

- If the tool is used by several organisations, each organisation should have access to its own data only.
- Introduction of data can only be performed by personnel of the continuing airworthiness management organisation.
- The data can be retrieved at any time.

MCAR-M.A.713 Changes to the approved continuing airworthiness organisation

In order to enable the CAA to determine continued compliance with this Regulation, the approved continuing airworthiness management organisation shall notify it of any proposal to carry out any of the following changes, before such changes take place:

1. the name of the organisation.

2. the location of the organisation.

3. additional locations of the organisation.

4. the accountable manager.

5. any of the persons specified in M.A.706(c).

6. the facilities, procedures, work scope and staff that could affect the approval.

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

AMC M.A.713 Changes to the approved continuing airworthiness organisation

This paragraph covers scheduled changes to the CAMO approval. The primary purpose of this paragraph is to enable the CAMO to remain approved if agreed by the CAA during negotiations about any of the specified changes. Without this paragraph the approval would automatically be suspended in all cases.

MCAR-M.A.714 Record-keeping

(a) The continuing airworthiness management organisation shall record all details of work carried out. The records required by M.A.305 and if applicable M.A.306 shall be retained.

(b) If the continuing airworthiness management organisation has the privilege referred to in point M.A.711(b), it shall retain a copy of each airworthiness review certificate and recommendation issued or, as applicable, extended, together with all supporting documents. In addition, the organisation shall retain a copy of any airworthiness review certificate that it has extended under the privilege referred to in point M.A.711(a)4.

(c) If the continuing airworthiness management organisation has the privilege referred to in point M.A.711(c), it shall retain a copy of each permit to fly issued in accordance with the provisions of point 21.A.729 of MCAR-21.

(d) The continuing airworthiness management organisation shall retain a copy of all records referred to in points (b) and (c) 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 organisation or person, all retained records shall be transferred to the said organisation or person. The time periods prescribed for the retention of records shall continue to apply to the said organisation or person.

(h) Where a continuing airworthiness management organisation terminates its operation, all retained records shall be transferred to the owner of the aircraft.

AMC M.A.714 Record-keeping

1. The CAMO should ensure that it always receives a complete CRS from the approved maintenance organisation, M.A.801(b)(2) certifying staff and/or from the Pilot-owner such that the required records can be retained. The system to keep the continuing airworthiness records should be described in the organisation continuing airworthiness management exposition.

2. When an organisation arranges for the relevant maintenance organisation to retain copies of the continuing airworthiness records on its behalf, it will nevertheless continue to be responsible for the records under M.A.714 relating to the preservation of records. If it ceases to be the organisation of the aircraft, it also remains responsible for transferring the records to any other person or organisation managing continuing airworthiness of the aircraft.

3. Keeping continuing airworthiness records in a form acceptable to the CAA means in paper form or on a computer database or a combination of both methods. Records stored in microfilm or optical disc form are also acceptable. The record should remain legible throughout the required retention period.

4. Paper systems should use robust material which can withstand normal handling and filing.

5. Computer systems should have at least one backup system which should be updated within 24 hours of any new entry. Each terminal is required to contain programme safeguards against the ability of unauthorised personnel to alter the database.

Microfilming or optical storage of continuing airworthiness records may be carried out at any time. The records should be as legible as the original record and remain so for the required retention period.

MCAR-M.A.715 Continued validity of approval

(a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:

1. the organisation remaining in compliance with this Regulation, in accordance with the provisions related to the handling of findings and;

2. the CAA being granted access to the organisation to determine continued compliance with this Regulation, and;

3. the approval not being surrendered or revoked.

(b) Upon surrender or revocation, the approval certificate shall be returned to the CAA.

MCAR-M.A.716 Findings

(a) A level 1 finding is any significant non-compliance with MCAR-M requirements which lowers the safety standard and hazards seriously the flight safety.

(b) A level 2 finding is any non-compliance with the MCAR-M requirements which could lower the safety standard and possibly hazard the flight safety.

(c) After receipt of notification of findings, the holder of the continuing airworthiness management organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the CAA within a period agreed with the authority.

Subpart H — CERTIFICATE OF RELEASE TO SERVICE – CRS

MCAR-M.A.801 Aircraft certificate of release to service

(a) Except for aircraft released to service by a maintenance organisation approved in accordance with MCAR-145, the certificate of release to service shall be issued according to this Subpart;

(b) No aircraft can 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 organisation approved in accordance with Section A, Subpart F of this Regulation (MCAR-M); or

2. certifying staff in compliance with the requirements laid down in MCAR-66 (independent certifying staff), except for complex maintenance tasks listed in Appendix VII to this Regulation for which point 1 applies; or

3. by the Pilot-owner in compliance with point M.A.803;

(c) By derogation from point M.A.801(b)2 for ELA1 aircraft not used in CAT or not used in commercial specialised operations or not used in commercial ATO operations, aircraft complex maintenance tasks listed in Appendix VII may be released by certifying staff referred to in point M.A.801(b)2;

(d) By derogation from point M.A.801(b), in the case of unforeseen situations, when an aircraft is grounded at a location where no approved maintenance organisation appropriately approved under this Regulation or MCAR-145 and no appropriate certifying staff are available, the owner may authorise any person, with not less than three years of appropriate maintenance experience and holding the proper qualifications, to maintain according to the standards set out in Subpart D of this Regulation and release the aircraft. The owner shall in that case:

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 certification; 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 Section A, Subpart F of this Regulation, or with MCAR-145 at the earliest opportunity but within a period not exceeding seven days; 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 the CAA in the absence of such a contract, within seven days of the issuance of such certification authorisation;

(e) In the case of a release to service in accordance with point M.A.801(b)2 or point M.A.801(c), the certifying staff may be assisted in the execution of the maintenance tasks by one or more persons subject to his/her direct and continuous control;

(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 organisation and/or person issuing the release to service, including:

   i. the approval reference of the maintenance organisation approved in accordance with Section A, Subpart F of this Regulation (MCAR-M) and the certifying staff issuing such a certificate; or

   ii. in the case of point M.A.801(b)2 or M.A.801(c) certificate of release to service, the identity and if applicable licence number of the certifying staff issuing such a certificate;

4. the limitations to airworthiness or operations, if any.

(g) By derogation from paragraph (b) and notwithstanding the provisions of paragraph (h), when the maintenance prescribed cannot be completed, a certificate of release to service may be issued within the approved aircraft limitations. Such fact together with any applicable limitations of the airworthiness or the operations shall be entered in the aircraft certificate of release to service before its issue as part of the information required in 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.

AMC M.A.801 Aircraft certificate of release to service after embodiment of a Standard Change or a Standard Repair (SC/SR)

1. Release to service and eligible person

Only natural or legal persons entitled to release to service an aircraft after maintenance in accordance with MCAR-M or MCAR-145 are considered as an eligible installer responsible for the embodiment of a SC/SR when in compliance with applicable requirements.

For aircraft registered in Maldives where there is no MCAR-66 license applicable, the release to service of an aircraft after embodiment of a SC/SR is only possible by holders of an appropriate certifying staff qualification validated or accepted by the CAA.

Depending on its nature, for certain SCs/SRs, the EASA Certification Specification CS-STAN might restrict the eligibility for the issuance of the release to service to certain persons.

Since the design of the SC/SR does not require specific approval, the natural or legal person releasing the aircraft to service after the embodiment of the change or repair takes the responsibility that the applicable Certification Specifications within CS-STAN are fulfilled while being in compliance with MCAR-M and/or MCAR-145 and not in conflict with TC holders' data. This includes responsibility in respect of an adequate design, the selection/manufacturing of suitable parts and their identification, documenting the change or repair, generation or amendment of aircraft manuals and instructions as needed, embodiment of the change/repair, releasing the aircraft to service and record-keeping.

2. Parts and appliances to be installed as part of a SC/SR

The design of the parts and appliances to be used in a SC/SR is considered a part of the change/repair, and, therefore, there is no need of a specific design approval. However, it is possible that for a particular SC, these Certification Specifications specifically require the use of parts and appliances that meet a technical standard. In this case, when the parts and appliances require to be authorised as an ETSO article, other articles recognized as equivalent by means of an international safety agreement or grandfathered in accordance with MCAR-21 are equally acceptable.

Normally, a SC/SR shall not contain specifically designed parts that should be produced by a production organisation. However, in the case that the change or repair would contain such a part, it should be produced by an acceptable Production Organization (POA), and delivered with a CAA Form 1 or equivalent.

Eligibility for installation of parts and appliances belonging to a SC/SR is subject to compliance with the MCAR-21 and MCAR-M and MCAR-145 related provisions, and the situation varies depending on the aircraft in/on which the SC/SR is to be embodied, and who the installer is. The need for a CAA Form 1 addressed in MCAR-21 and MCAR-M, while less restrictive rules may, for instance, apply for ELA1 and ELA2 aircraft parts (e.g. 21.A.307) and sailplanes parts (e.g. AMC 21.A.303). Furthermore, MCAR-M Subpart F and MCAR-145 contain provisions (i.e.

M.A.603(c) and 145.A.42(c)) allowing maintenance organisations to fabricate certain parts to be installed in/on the aircraft as part of their maintenance activities.

3. Parts and appliances identification

The parts modified or installed during the embodiment of the SC/SR need to be permanently marked in accordance with MCAR-21 Subpart Q.

4. Documenting the SC/SR and declaring compliance with the Certification Specifications

In accordance with MCAR-M or MCAR-145 (e.g. AMC M.A.801(f) and 145.A.50(b)), the legal or natural person responsible for the embodiment of a change or a repair should compile details of the work accomplished. In the case of SCs/SRs, this includes, as necessary, based on its complexity, an engineering file containing drawings, a list of parts and appliances used for the change or repair, supporting analysis and the results of tests performed or any other evidence suitable to show that the design fulfils the applicable Certification Specifications within CS-STAN together with a statement of compliance and amendments to aircraft manuals, to instructions for continuing airworthiness and to other documents such as aircraft parts list, wiring diagrams, etc., as deemed necessary. The CAA Form 123 is prepared for the purpose of documenting the preparation and embodiment of the SC/SR. The aircraft logbook should contain an entry referring to CAA Form 123; both CAA Form 123 and the release to service required after the embodiment of the SC/SR should be signed by the same person.

CAA Form 123 and all the records on it should follow elementary principles of controlled documentation, e.g. contain reference number of documents, issue date, revision numbers, name of persons preparing/releasing the document, etc.

5. Record-keeping

The legal or natural person responsible (see paragraph 1. above) for the embodiment of the change/repair should keep the records generated with the SC/SR as required by MCAR-M or MCAR-145 and CS-STAN.

In addition, M.A.305 requires that the aircraft owner (or CAMO, if a contract i.a.w. M.A.201 exists) keeps the status of the changes/repairs embodied in/on the aircraft in order to control the aircraft configuration and manage its continuing airworthiness.

With regard to SCs/SRs, the information provided to the owner or CAMO may be listed in CAA From 123 and should include, as required, a copy of any modified aircraft manual and/or instructions for continuing airworthiness. All this information should normally be consulted when the aircraft undergoes an airworthiness review, and, therefore, a clear system to record the embodiment of SCs/SRs, which is also easily traceable, would be of help during subsequent aircraft inspections.

6. Instructions for continuing airworthiness

As stipulated in M.A.302, the aircraft owner or CAMO needs to assess if the changes in the instructions for continuing airworthiness of the aircraft require to amend the aircraft maintenance programme and to obtain its approval.

7. Embodiment of more than one SC

The embodiment of two or more related SCs described in Subpart B of CS-STAN is permitted as a single change (the use of one CAA Form 123 only) as long as adequate references to and records of all SCs embodied are captured. Restrictions and limitations of the two (or more) SCs would apply. It is permitted to issue a single release to service containing adequate traceability of all the SCs embodied.

8. Acceptable form to be used to record the embodiment of SCs/SRs

CAA FORM 123 – Standard Change/Standard Repair (SC/SR) embodiment record

<table>
<tr><td colspan="2">CAA FORM 123 – Standard Change/Standard Repair (SC/SR) embodiment record</td><td>1. SC/SR number(s):</td></tr>
<tr><td colspan="3">2. SC/SR title & description:</td></tr>
<tr><td colspan="3">3. Applicability:</td></tr>
<tr><td colspan="3">4. List of parts (description/Part-No/Qty):</td></tr>
<tr><td colspan="3">5. Operational limitations/affected aircraft manuals. Copies of these manuals are provided for the aircraft owner:</td></tr>
<tr><td colspan="3">6. Documents used for the development and embodiment of this SC/SR:

* Copies of the documents marked with an asterisk are handed over to the aircraft owner.</td></tr>
<tr><td colspan="3">7. Instructions for continuing airworthiness. Copies of these manuals are provided to the aircraft owner:</td></tr>
<tr><td colspan="3">8. Other information:</td></tr>
<tr><td colspan="3">9a. ☐ This SC complies with the criteria established in 21.A.90B(a) and with the relevant paragraphs of CS-STAN.</td></tr>
<tr><td colspan="3">9b. ☐ This SC complies with the criteria established in 21.A.431B(a) and with the relevant paragraphs of CS-STAN.</td></tr>
<tr><td colspan="2">10. Date of SC-SR embodiment:</td><td>11. Identification data and signature of the person responsible for the embodiment of the SC/SR:</td></tr>
<tr><td colspan="3">12. Signature of the aircraft owner. This signature attests that all relevant documentation is handed over from the issuer of this form to the aircraft owner, and, therefore, the latter becomes aware of any impact or limitations on operations or additional continuing airworthiness requirements which may apply to the aircraft due to the embodiment of the change/repair.</td></tr>
</table>

CAA Form 123, Issue 1.00, 01 June 2019

Notes:

Original remains with the legal or natural person responsible for the embodiment of the SC/SR.

The aircraft owner should retain a copy of this form.

The aircraft owner should be provided with copies of the documents referenced in boxes 5 and 7 and those in box 6 marked with an asterisk '*'.

The 'relevant paragraphs' in boxes 9a and 9b refer to the applicable paragraphs of 'Subject A – General' of CS-STAN and those of the SC/SR quoted in box 2.

For box 12, when the aircraft owner has signed a contract i.a.w. M.A.201, it is possible that the Continuing Airworthiness Management Organisation (CAMO) representative signs box 12 and provides all relevant information to the owner before next flight.

Completion Instructions:

Use English to fill in the form.

1. Identify the SC/SR with a unique number and reference this number in the aircraft logbook.

2. Specify the applicable EASA CS-STAN chapter including revision (e.g. CS-SCxxxy or CS-SRxxxy) & title. Provide also a short description.

3. Identify the aircraft (a/c) registration, serial number and type.

4. List the parts' numbers and description for the parts installed. Refer to an auxiliary document if necessary.

5. Identify affected aircraft manuals.

6. Refer to the documentation developed to support the SC/SR and its embodiment, including design data required by the CS-STAN: design definition, documents recording the showing of compliance with the Certification Specifications or any tests result, etc. The documents" references should quote their revision/issue.

7. Identify instructions for continuing airworthiness that need to be considered for the aircraft maintenance programme review.

8. To be used as deemed necessary by the installer.

9a., 9b., 10. And 12. Self-explanatory.

Give the full name details and certificate reference (of the natural or legal person) used for issuing the aircraft release to service.

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AMC M.A.801(b) Aircraft certificate of release to service

A certificate of release to service is necessary before flight, at the completion of any defect rectification, whilst the aircraft operates a flight between scheduled maintenance checks.

AMC M.A.801(d) Aircraft certificate of release to service

1. "3 years of appropriate maintenance experience" means 3 years working in an aircraft maintenance environment on at least some of the aircraft type systems corresponding to the aircraft endorsed on the aircraft maintenance license or on the certifying staff authorisation that the person holds.

2. "Holding the proper qualifications" means holding either:

    a. a valid ICAO Annex 1 compliant maintenance license for the aircraft type requiring certification, or;

    b. a certifying staff authorisation valid for the work requiring certification, issued by an ICAO Annex 6 approved maintenance organisation.

3. A release in accordance with this paragraph does not affect the controlled environment of the aircraft as long as the M.A.801(d)2 recheck and release has been carried out by an approved maintenance organisation.

AMC M.A.801(f) Aircraft certificate of release to service

1. The aircraft certificate of release to service should contain the following statement:

    (a) 'Certifies that the work specified except as otherwise specified was carried out in accordance with MCAR-M and in respect to that work the aircraft is considered ready for release to service'.

    (b) For a Pilot-owner a certificate of release to service should contain the following statement:

    'Certifies that the limited pilot-owner maintenance specified except as otherwise specified was carried out in accordance with MCAR-M and in respect to that work the aircraft is considered ready for release to service'.

2. The certificate of release to service should relate to the task specified in the manufacturer's or operator's instruction or the aircraft maintenance programme which itself may cross-refer to a manufacturer's/operator's instruction in a maintenance manual, service bulletin etc.

3. The date such maintenance was carried out should include when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/landings etc., as appropriate.

4. When extensive maintenance has been carried out, it is acceptable for the certificate of release to service to summarise the maintenance so long as there is a unique cross-reference to the work-pack containing full details of maintenance carried out. Dimensional information should be retained in the work-pack record.

5. The person issuing the certificate of release to service should use his normal signature except in the case where a computer release to service system is used. In this latter case the CAA will need to be satisfied that only the particular person can electronically issue the release to service. One such method of compliance is the use of a magnetic or optical personal card in conjunction with a personal identity number (PIN) known only to the individual, which is keyed into the computer. A certification stamp is optional.

6. At the completion of all maintenance, owners, certifying staff, operators and maintenance organisations should ensure they have a clear, concise, legible record of the work performed.

7. In the case of an M.A.801 (b) 2 release to service, certifying staff should retain all records necessary to prove that all requirements have been met for the issuance of a certificate of release to service.

AMC M.A.801(g) Aircraft certificate of release to service

1. Being unable to establish full compliance with sub-paragraph M.A.801 (b) means that the maintenance required by the aircraft owner or CAMO could not be completed due either to running out of available aircraft maintenance downtime for the scheduled check or by virtue of the condition of the aircraft requiring additional maintenance downtime.

2. The aircraft owner or CAMO is responsible for ensuring that all required maintenance has been carried out before flight. Therefore an aircraft owner or CAMO should be informed and agree to the deferment of full compliance with M.A.801(b). The certificate of release to service may then be issued subject to details of the deferment, including the aircraft owner or CAMO authorisation, being endorsed on the certificate.

3. If a CRS is issued with incomplete maintenance a record should be kept stating what action the mechanic, supervisor and certifying staff should take to bring the matter to the attention of the relevant aircraft owner or CAMO so that the issue may be discussed and resolved with the aircraft owner or CAMO.

AMC M.A.801(h) Aircraft certificate of release to service

'Endangers flight safety' means any instance where safe operation could not be assured or which could lead to an unsafe condition. It typically includes, but is not limited to, significant cracking, deformation, corrosion or failure of primary structure, any evidence of burning, electrical arcing, significant hydraulic fluid or fuel leakage and any emergency system or total system failure. An AD overdue for compliance is also considered a hazard to flight safety.

MCAR-M.A.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 point M.A.502.

(b) The authorised release certificate identified as CAA Form 1 constitutes the component certificate of release to service, except when such maintenance on aircraft components has been performed in accordance with point M.A.502(b), point M.A.502(d) or point M.A.502(e) in which case the maintenance is subject to aircraft release procedures in accordance with point M.A.801.

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

When an approved organisation maintains an aircraft component for use by the organisation a CAA Form 1 may not be necessary depending upon the organisation's internal release procedures, however all the information normally required for the CAA Form 1 should be adequately detailed in the certificate of release to service.

MCAR-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 the CAA 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 registration form; 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) For any non-complex motor-powered aircraft of 2730 kg MTOM and below, sailplane, powered sailplane or balloon, that are not used in CAT, or not used in commercial specialised operations or not used in commercial ATO operations, the Pilot-owner may issue a certificate of release to service after limited Pilot-owner maintenance as specified in Appendix VIII.

(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 certificate of release to service shall be entered in the logbooks and contain basic details of the maintenance carried out, the maintenance data used, the date on which that maintenance was completed and the identity, the signature and pilot licence number of the Pilot-owner issuing such a certificate.

AMC M.A.803 Pilot-owner authorisation

1. Privately operated means the aircraft is operated pursuant to M.A.201(i).

2. A Pilot-owner may only issue a certificate of release to service for maintenance he/ she has performed.

3. In the case of a jointly-owned aircraft, the maintenance programme should list:

   - The names of all Pilot-owners competent and designated to perform Pilot-owner maintenance in accordance with the basic principles described in Appendix VIII of MCAR-M. An alternative would be the maintenance programme to contain a procedure to ensure how such a list of competent Pilot-owners should be managed separately and kept current.

   - The limited maintenance tasks they may perform.

4. An equivalent valid pilot license may be any document attesting a pilot qualification issued by another state and recognised by the CAA. It does not have to be necessarily issued by the CAA, but it should in any case be issued in accordance with the other State's system. In such a case, the equivalent certificate or qualification number should be used instead of the pilot's licence number for the purpose of the M.A.801(b)3 (certificate of release to service).

5. Not holding a valid medical examination does not invalidate the pilot license (or equivalent) required under M.A.803(a)1 for the purpose of the Pilot-owner authorisation.

Subpart I — AIRWORTHINESS REVIEW CERTIFICATE

MCAR-M.A.901 Aircraft airworthiness review

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

(a) An airworthiness review certificate is issued in accordance with Appendix III (CAA Form 15a, 15b or 15c) on completion of a satisfactory airworthiness review. The airworthiness review certificate is valid one year;

(b) An aircraft in a controlled environment is an aircraft

(i) continuously managed during the previous 12 months by a unique continuing airworthiness management organisation approved in accordance with Section A, Subpart G, of this Regulation, and

(ii) which has been maintained for the previous 12 months by maintenance organisations approved in accordance with Section A, Subpart F of this Regulation, or with MCAR-145. This includes maintenance tasks referred to in point M.A.803(b) carried out and released to service in accordance with point M.A.801(b)2 or point M.A.801(b)3;

(c) For all aircraft used by licenced air carriers, and aircraft above 2730 kg MTOM, except balloons, that are in a controlled environment, the organisation referred to in (b) managing the continuing airworthiness of the aircraft may, if appropriately approved, and subject to compliance with paragraph (k):

1. issue an airworthiness review certificate in accordance with point M.A.710, and;

2. for the airworthiness review certificates it has issued, when the aircraft has remained within a controlled environment, extend twice the validity of the airworthiness review certificate for a period of one year each time;

(d) For all aircraft used by licenced air carriers, and aircraft above 2730 kg MTOM, except balloons, that

(i) are not in a controlled environment, or

(ii) which continuing airworthiness is managed by a continuing airworthiness management organisation that does not hold the privilege to carry out airworthiness reviews,

the airworthiness review certificate shall be issued by the CAA upon satisfactory assessment based on a recommendation made by a continuing airworthiness management organisation appropriately approved in accordance with Section A, Subpart G of this Regulation sent together with the application from the owner or operator. This

recommendation shall be based on an airworthiness review carried out in accordance with point M.A.710;

(e) For aircraft not used by licenced air carriers of 2730 kg MTOM and below, and balloons, any continuing airworthiness management organisation approved in accordance with Section A, Subpart G of this Regulation and appointed by the owner or operator may, if appropriately approved and subject to paragraph (k):

1. issue the airworthiness review certificate in accordance with point M.A.710, and;

2. for airworthiness review certificates it has issued, when the aircraft has remained within a controlled environment under its management, extend twice the validity of the airworthiness review certificate for a period of one year each time;

(f) By derogation from points M.A.901(c)2 and M.A.901(e)2, for aircraft that are in a controlled environment, the organisation referred to in (b) managing the continuing airworthiness of the aircraft, subject to compliance with paragraph (k), may extend twice for a period of one year each time the validity of an airworthiness review certificate that has been issued by the CAA or by another continuing airworthiness management organisation approved in accordance with Section A, Subpart G of this Regulation;

(g) By derogation from points M.A.901(e) and M.A.901(i)2, for ELA1 aircraft not used in CAT or not used in commercial specialised operations or not used in commercial ATO operations the airworthiness review certificate may also be issued by the CAA upon satisfactory assessment, based on a recommendation made by certifying staff formally approved by the CAA and complying with provisions of MCAR-66 as well as requirements laid down in point M.A.707(a)2(a), sent together with the application from the owner or operator. This recommendation shall be based on an airworthiness review carried out in accordance with point M.A.710 and shall not be issued for more than two consecutive years;

(h) Whenever circumstances reveal the existence of a potential safety threat, the CAA shall carry out the airworthiness review and issue the airworthiness review certificate itself;

(i) In addition to point (h), the CAA may also carry out the airworthiness review and issue the airworthiness review certificate itself in the following cases:

1. when the aircraft is managed by a continuing airworthiness management organisation approved in accordance with Section A, Subpart G of this Regulation located outside Maldives;

2. for all balloons and any other aircraft of 2730 kg MTOM and below, if it is requested by the owner;

(j) When the CAA carries out the airworthiness review and/or issues the airworthiness review certificate itself, the owner or operator shall provide the CAA with:

1. the documentation required by the CAA; and

2. suitable accommodation at the appropriate location for its personnel; and

3. when necessary, the support of personnel appropriately qualified in accordance with MCAR-66 or equivalent personnel requirements laid down in point 145.A.30(j)(1) and (2) of MCAR-145;

(k) An airworthiness review certificate cannot be issued nor extended if there is evidence or reason to believe that the aircraft is not airworthy.

(l) For ELA1 aircraft not involved in commercial operations, the MCAR-145 or M.A. Subpart F maintenance organisation performing the annual inspection contained in the maintenance programme may, if appropriately approved, perform the airworthiness review and issue the corresponding airworthiness review certificate subject to the following conditions:

1. The organisation nominates airworthiness review staff complying with the following requirements:

   (a) The airworthiness review staff hold a certifying staff authorisation for the corresponding aircraft.

   (b) The airworthiness review staff have at least three years of experience as certifying staff.

   (c) The airworthiness review staff are independent from the continuing airworthiness management process of the aircraft being reviewed or have overall authority on the continuing airworthiness management process of the complete aircraft being reviewed.

   (d) The airworthiness review staff have acquired knowledge of the parts of this Regulation (MCAR-M) relevant to continuing airworthiness management.

   (e) The airworthiness review staff have acquired proven knowledge of the procedures of the maintenance organisation relevant to the airworthiness review and issue of the airworthiness review certificate.

   (f) The airworthiness review staff have been formally accepted by the CAA after having performed an airworthiness review under the supervision of the CAA or under the supervision of the organisation's airworthiness review staff in accordance with a procedure approved by the CAA.

   (g) The airworthiness review staff have performed at least one airworthiness review in the last twelve months period.

2. The airworthiness review is performed at the same time as the annual inspection

contained in the maintenance programme and by the same person who releases such annual inspection, being possible to use the 90 days anticipation provision contained in M.A.710(d).

3. The airworthiness review includes a full documented review in accordance with paragraph M.A.710(a).

4. The airworthiness review includes a physical survey of the aircraft in accordance with paragraphs M.A.710(b) and (c).

5. An airworthiness review certificate CAA Form 15c is issued, on behalf of the maintenance organisation, by the person who performed the airworthiness review when satisfied that:

   (a) The airworthiness review has been completely and satisfactorily carried out, and

   (b) The maintenance programme has been reviewed in accordance with point M.A.710(ga); and

   (c) There is no non-compliance which is known to endanger flight safety.

6. A copy of the airworthiness review certificate issued is sent to the CAA within 10 days of the date of issue.

7. The CAA is informed within 72 hours if the organisation has determined that the airworthiness review is inconclusive or if the review under paragraph M.A.901(l)5(b) shows discrepancies on the aircraft linked to deficiencies in the content of the maintenance programme.

8. The manual or exposition of the maintenance organisation describes all the following:

   (a) The procedures for the performance of airworthiness reviews and the issue of the corresponding airworthiness review certificate.

   (b) The names of the certifying staff authorised to perform airworthiness reviews and issue the corresponding airworthiness review certificate.

   (c) The procedures for the review of the maintenance programme.

AMC M.A.901 Aircraft airworthiness review

In order to ensure the validity of the aircraft airworthiness certificate, M.A.901 requires performing periodically an airworthiness review of the aircraft and its continuing airworthiness records, which results in the issuance of an airworthiness review certificate valid for one year.

AMC M.A.901(a) Aircraft airworthiness review

CAA Form 15a is issued by the CAA while CAA Form 15b is issued by a M.A. Subpart G organisation and CAA Form 15c is issued by an MCAR-145 or an M.A. Subpart F maintenance organisation.

AMC M.A.901(b) Aircraft airworthiness review

1. If the continuing airworthiness of the aircraft is not managed according to a MCAR-M appendix I Continuing airworthiness contract, the aircraft should be considered to be outside a controlled environment. Nevertheless, such contract is not necessary when the operator and the CAMO are the same organisation.

2. The fact that limited pilot-owner maintenance as defined in M.A.803 (b) is not carried out and released by an approved maintenance organisation does not change the status of an aircraft in a controlled environment providing the CAMO under contract has been informed of any such maintenance carried out.

AMC M.A.901(c)(2), (e)(2) and (f) Aircraft airworthiness review

When the aircraft has remained within a controlled environment, the extension of the validity of the airworthiness review certificate does not require an airworthiness review but only a verification of the continuous compliance with M.A.901 (b).

It is acceptable to anticipate the extension of the airworthiness review certificate by a maximum of 30 days without a loss of continuity of the airworthiness review pattern, which means that the new expiration date is set up one year after the previous expiration date. This anticipation of up to 30 days also applies to the 12 month requirements shown in M.A.901(b), meaning that the aircraft is still considered as being in a controlled environment if it has been continuously managed by a single organisation and maintained by appropriately approved organisations, as stated in M.A.901(b), from the date when the last airworthiness review certificate was issued until the date when the extension is performed (this can be up to 30 days less than 12 months).

It is also acceptable to perform the extension of an airworthiness review certificate after its expiration date, as long as all the conditions for the extension are met. However, this means the following:

- The aircraft could not fly since the airworthiness review certificate expired until it is extended, and

- The new expiration date (after extension) is set one year after the previous expiration date (not one year after the extension is performed).

AMC M.A.901(d) and (g) Aircraft airworthiness review

The recommendation sent to the CAA should contain at least the items described below.

(a) General information
- CAMO information
- owner/lessee information
- date and place where the document review and the aircraft survey were carried out
- period and place the aircraft can be seen if required by the CAA

(b) Aircraft information
- registration
- type
- manufacturer
- serial number
- flight manual reference
- weight and centre of gravity data
- maintenance programme reference

(c) Documents accompanying the recommendation
- copy of registration papers
- copy of the owners request for a new airworthiness review certificate

(d) Aircraft status
- aircraft total time and cycles
- list of persons or organisations having carried out continuing airworthiness activities including maintenance tasks on the aircraft and its components since the last airworthiness review certificate

(e) Aircraft survey
- a precise list of the areas of the aircraft that were surveyed and their status

(f) Findings
- a list of all the findings made during the airworthiness review with the corrective action carried out

(g) Statement

A statement signed by the airworthiness review staff recommending the issue of an airworthiness review certificate.

The statement should confirm that the aircraft in its current configuration complies with the following:
- airworthiness directives up to the latest published issue, and;
- type certificate datasheet;
- maintenance programme;
- component service life limitations;

- the valid weight and centre of gravity schedule reflecting the current configuration of the aircraft;
- MCAR-21 for all modifications and repairs;
- the current flight manual including supplements, and;
- operational requirements.

The above items should clearly state the exact reference of the data used in establishing compliance; for instance the number and issue of the type certificate data sheet used should be stated.

The statement should also confirm that all of the above is properly entered and certified in the aircraft continuing airworthiness record system and/or in the operator's technical log.

AMC M.A.901(g) Aircraft airworthiness review

The words "certifying staff" mean that the personnel meet at the time of the airworthiness review all the MCAR-66 requirements to be certifying staff for the aircraft subject to review (including also continuing experience requirements).

The formal acceptance of the certifying staff by the CAA should only be granted after verification of the qualifications and after the satisfactory performance of an airworthiness review under supervision of the CAA.

The sentence "shall not be issued for more than two consecutive years" means that every three years the airworthiness review has to be performed by the CAA or by an appropriately approved CAMO.

AMC M.A.901(j) Aircraft airworthiness review

Suitable accommodation should include:

(a) an office with normal office equipment such as desks, telephones, photocopying machines etc. whereby the continuing airworthiness records can be reviewed.

(b) a hangar when needed for the physical survey.

The support of personnel appropriately qualified in accordance with MCAR-66 is necessary when the CAA's airworthiness review staff is not appropriately qualified.

AMC M.A.901(l)1 Aircraft airworthiness review

Independence from the continuing airworthiness management process of the aircraft means being authorised to perform airworthiness reviews only on aircraft for which the person has not participated in their continuing airworthiness management.

This may not be relevant for most maintenance organisations (MCAR-145 or MCAR-M Subpart F). Since these organisations cannot perform the continuing airworthiness management of aircraft (this is a privilege of CAMOs), it needs to be considered by those maintenance organisations (MCAR-145 and MCAR-M Subpart F) intending to nominate as airworthiness review staff certifying staff who are also employed/contracted by a CAMO and who have been involved in the continuing airworthiness management of the aircraft being reviewed.

Nevertheless, such independence is not necessary if these airworthiness review staff (who are also employed/contracted by the CAMO) can show 'overall authority on the continuing airworthiness management process of the complete aircraft'. This may be achieved, among other ways, if this person is:

- the accountable manager or the nominated postholder of the CAMO.

- responsible for the complete continuing airworthiness management process of the aircraft being reviewed.

- the only person employed by an one-man CAMO.

GM M.A.901(l)5 Aircraft airworthiness review

The CAA Form 15c is only applicable to ELA1 aircraft not involved in commercial operations. As a consequence, a new CAA Form 15a or 15b has to be issued if the operation of the aircraft changes to commercial. This include the corresponding approval of the maintenance programme and the performance of an airworthiness review.

GM M.A.901(l)7 Aircraft airworthiness review

The objective of informing the CAA when the airworthiness review shows discrepancies linked to deficiencies in the content of the maintenance programme is to allow the CAA to take it into account when planning the ACAM inspections and to make sure that the CAA agrees on the amendments required in the maintenance programme as required by M.A.302(h)5.

MCAR-M.A.902 Validity of the airworthiness review certificate

(a) An airworthiness review certificate becomes invalid if:

1. suspended or revoked; or

2. the airworthiness certificate is suspended or revoked; or

3. the aircraft is not on the aircraft register of the Maldives; or

4. the type certificate under which the airworthiness certificate was issued is suspended or revoked.

(b) An aircraft must not fly if the airworthiness certificate 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 Regulation; or;

2. the aircraft does not remain in conformity with the type design approved by the State of Design; 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 is not in compliance with the MCAR-21.

(c) Upon surrender or revocation, the airworthiness review certificate shall be returned to the CAA.

MCAR-M.A.903 Transfer of registration within Maldives

(a) When transferring an aircraft registration within the Maldives, the applicant shall:
1. (reserved)
2. apply to the CAA for the issuance of a new airworthiness certificate with the new aircraft registration.

(b) Notwithstanding point (a), the former airworthiness review certificate shall remain valid until its expiry date.

AMC M.A.903(a)1 (Reserved)

AMC M.A.903(b) Transfer of aircraft registration within Maldives

In case of transfer of aircraft registration within Maldives, the aircraft owner/operator should verify that the CAA has entered the new aircraft registration on the existing airworthiness review certificate and validated the change.

MCAR-M.A.904 Airworthiness review of imported aircraft

(a) When importing an aircraft, the applicant shall:

1. apply to the CAA for the issuance of a new airworthiness certificate in accordance with MCAR-21; and
2. for aircraft other than new, have an airworthiness review carried out satisfactorily in accordance with point M.A.901; and
3. have all maintenance carried out to comply with the approved maintenance programme in accordance with point M.A.302.

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

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

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

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

AMC M.A.904 (a)(1) Airworthiness reviews of Imported aircraft

In order to allow for possible participation of authority personnel, the applicant should inform the CAA at least 10 working days in advance of the time and location of the airworthiness review.

AMC M.A.904 (a)(2) Airworthiness reviews of Imported aircraft

1. When performing an airworthiness review of aircraft imported, the aircraft and the relevant records should be reviewed to determine the work to be undertaken to establish the airworthiness of the aircraft.

2. In determining the work to be undertaken during the airworthiness review on the aircraft, the following should be taken into consideration:

   (a) the information from exporting country authorities such as export certificates, primary authority information;

   (b) the information on aircraft maintenance history such as continuing airworthiness records, aircraft, engine, propeller, rotor and life limited part log books or cards as appropriate, tech log/flight log/cabin log, list of deferred defects, total flight times and cycles since last maintenance, accident history, former maintenance schedule, former AD compliance status;

   (c) the information on aircraft such as aircraft, engine and propeller type certificate datasheets, noise and emission certificate data sheets, flight manual and supplements;

   (d) the aircraft continuing airworthiness status such as the aircraft and component AD status, the SB status, the maintenance status, the status of all service life limited components, weight and centre of gravity schedule including equipment list;

   (e) the modification and repair status of the aircraft detailing elements such as owner/operator designed modifications and repairs, STCs, and parts needing European Part Approval (EPA).

   (f) the aircraft cabin configuration such as emergency equipment fitted, cockpit configuration, placards, instrument limitations, cabin layout;

   (g) the maintenance needed for import, such as embodiment of modifications needed to comply with the type certificate, bridging check to comply with the new maintenance programme;

   (h) the avionics such as, but not limited to, radio and navigation equipment, instrument flight rules (IFR) equipment, digital flight data recorder (DFDR)/cockpit voice recorder (CVR) test, emergency locator transmitter (ELT) 406 MHz code and identification;

   (i) the compass compensation;

(j) special operating rules such as extended twin-engine operations (ETOPS)/long range operations (LROPS), reduced vertical separation minima (RVSM), minimum navigation performance specifications (MNPS), all weather operations (AWOPS), area navigation (RNAV);

(k) the aircraft survey including verification of conformity with the flight manual and the datasheet, presence of fire proof identification plates, conformity of markings including registration, presence and serviceability of emergency equipment, internal and external lighting systems, and

(l) check flight including check of control system/cockpit ground check/engine run up.

3. If there is no CAMO or maintenance organisation approved for the airworthiness review of the specific aircraft type available, the CAA may carry out the airworthiness review in accordance with this paragraph and the provisions M.A.901(h). In this case, the airworthiness review should be requested to the CAA within a 30-day notice.

AMC M.A.904(b) Airworthiness review of imported aircraft

The recommendation sent to the CAA should contain at least the items described below.

(a) All the information set forth by AMC M.A 901(d) & (g)

(b) Aircraft information
- aircraft assigned registration;
- state of manufacturer;
- previous registration;
- export certificate number;
- TC and TC data sheet numbers;
- noise and emissions TC and TC data sheet numbers;
- comparison of prior maintenance programme with the proposed new maintenance programme.

(c) Documents accompanying the recommendation
- copy of the application;
- original export certificate;
- copy of the approvals of the flight manual and its supplements;
- list of ADs incorporated up to the latest published issue;
- proposed new maintenance programme;
- status of all service life limited components;
- the valid weight and centre of gravity schedule reflecting the current configuration of the aircraft, and;
- MCAR-21 approval reference for all modifications and repairs.

(d) Maintenance

- a copy of the work packages requested by the CAMO including details of any bridging check to ensure all the necessary maintenance has been carried out.

(e) Aircraft check flight
- a copy of the check flight report

MCAR-M.A.905 Findings

(a) A level 1 finding is any significant non-compliance with MCAR-M requirements which lowers the safety standard and hazards seriously the flight safety.

(b) A level 2 finding is any non-compliance with requirements laid down in this Regulation which could lower the safety standard and possibly hazard the flight safety.

(c) 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 the CAA within a period agreed with this authority including appropriate corrective action to prevent reoccurrence of the finding and its root cause.

Section B – PROCEDURE FOR THE CAA

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APPENDICES TO THE RULES

Appendix I Continuing Airworthiness Management Contract

1. When an owner/operator contracts in accordance with M.A 201 a continuing airworthiness organisation approved pursuant MCAR-M Subpart G (CAMO) to carry out continuing airworthiness management tasks, upon request by the CAA a copy of the contract shall be sent by the owner/operator to the CAA once it has been signed by both parties.

2. The contract shall be developed taking into account the requirements of this Regulation and shall define the obligations of the signatories in relation to continuing airworthiness of the aircraft.

3. It shall contain as a minimum the:
   - aircraft registration,
   - aircraft type,
   - aircraft 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 the management of the continuing airworthiness of the aircraft, the development of a maintenance programme that shall be approved by the CAA, 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 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.

   In case of any non-conformity with this contract, by either of the signatories, it will become null. In such a case, the owner/operator will retain full responsibility for every task linked to the continuing airworthiness of the aircraft and the owner will undertake to inform the CAA within two full weeks."

5. When an owner/operator contracts a CAMO 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 to maintain the continuing airworthiness of the aircraft

listed below:

(a) develop a maintenance programme for the aircraft, including any reliability programme developed, if applicable;

(b) declare the maintenance tasks (in the maintenance programme) that may be carried out by the pilot-owner in accordance with point M.A.803(c);

(c) organise the approval of the aircraft's maintenance programme;

(d) once it has been approved, give a copy of the aircraft's maintenance programme to the owner/operator;

(e) organise a bridging inspection with the aircraft's prior 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 corrected by an approved maintenance organisation;

(i) coordinate scheduled maintenance, the application of airworthiness directives, the replacement of life limited parts, and component inspection requirements;

(j) inform the owner each time the aircraft shall be brought to an approved maintenance organisation;

(k) manage all technical records;

(l) archive all technical records;

3. organise the approval of any modification to the aircraft in accordance with MCAR-21 before it is embodied;

4. organise the approval of any repair to the aircraft in accordance MCAR-21 before it is carried out;

5. inform the CAA whenever the aircraft is not presented to the approved maintenance organisation by the owner as requested by the approved organisation;

6. inform the CAA 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 certificate is issued or a recommendation is sent to the CAA;

8. send within 10 days a copy of any airworthiness review certificate issued or extended to the CAA;

9. carry out all occurrence reporting mandated by applicable regulations;

10. inform the CAA 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 this regulation;

3. present the aircraft to the approved maintenance organisation agreed with the CAMO at the due time designated by the CAMO's request;

4. not modify the aircraft without first consulting the CAMO;

5. inform the CAMO of all maintenance exceptionally carried out without the knowledge and control of the CAMO;

6. report to the CAMO through the logbook all defects found during operations;

7. inform the CAA whenever the present contract is denounced by either party;

8. inform the CAA and CAMO whenever the aircraft is sold;

9. carry out all occurrence reporting mandated by applicable regulations;

10. inform on a regular basis the CAMO about the aircraft flying hours and any other utilisation data, as agreed with the CAMO;

11. enter the certificate of release to service in the logbooks as mentioned in point M.A.803(d) when performing pilot-owner maintenance without exceeding the limits of the maintenance tasks list as declared in the approved maintenance programme as laid down in point M.A.803(c);

12. inform the CAMO not later than 30 days after completion of any pilot-owner maintenance task in accordance with point M.A.305(a).

GM to Appendix I "Continuing airworthiness management contract"

An operator should establish adequate coordination between flight operations and the CAMO to ensure that both will receive all the necessary information on the condition of the aircraft to enable them perform their tasks.

Appendix II Authorised Release Certificate CAA Form 1

These instructions relate only to the use of the CAA Form 1 for maintenance purposes. Attention is drawn to MCAR-21 which covers the use of the CAA Form 1 for production 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 The Certificate is acceptable to many airworthiness authorities, but may be dependent on the existence of bilateral agreements and/or the policy of the airworthiness authority. The 'approved design data' mentioned in this Certificate then means approved by the airworthiness authority of the importing country.

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 the CAA.

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 should be in English, and if appropriate, in one or more other languages.

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, he 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 Competent Authority/Country

Enter "Maldives Civil Aviation Authority".

Block 2 CAA Form 1 header

"AUTHORISED RELEASE CERTIFICATE
CAA 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 (refer to CAA form 3) 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, 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 holder's, 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 the CAA. The applicable standard should 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 CAA 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 Subpart F of this Regulation (MCAR-M), the component certificate of release to service statement referred to in point M.A.613:

"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 Section A, Subpart F of MCAR-M and in respect to that work the item is considered ready for release to service. THIS IS NOT A RELEASE UNDER MCAR-145."

If printing the data from an electronic CAA 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 unauthorised 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 Section A, Subpart F of this Regulation, 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 the maintenance deviated from the standard required by this Regulation.

(c) Where the maintenance was carried out in accordance with a requirement other than that specified in this Regulation. In this case block 12 shall specify the particular regulation.

For all maintenance carried out by maintenance organisations approved in accordance with Section A of MCAR-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 MCAR-145.

(c) Where the maintenance was carried out in accordance with a requirement other than that specified in MCAR-145. In this case block 12 shall specify the particular 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 the CAA 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 the CAA.

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."

1. Approving Competent Authority/Country: Maldives Civil Aviation Authority	**2. AUTHORISED RELEASE CERTIFICATE** CAA FORM 1				3. Form Tracking Number:	
4. Organisation Name and Address:					5.Work Order/Contract/Invoice:	
6. Item	7. Description	8. Part No.	9. Qty.	10. Serial No.	11. Status/Work	
12. Remarks						

13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in a condition for safe operation ☐ non-approved design data specified in block 12		14a. ☐ MCAR-145.A.50 Release to Service ☐ Other regulations 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 MCAR-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:	14c. Certificate / Approval Ref. no.
13d. Name	13e. Date (dd/mm/yyyy)	14d. Name	14e. Date (dd/mm/yyyy)

USER/INSTALLER RESPONSIBILITIES

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.

CAA Form 1 – Issue 2.1, 01 June 2019

AMC to Appendix II to MCAR-M Use of the CAA Form 1 for maintenance

1. The following formats of an issued CAA Form 1 or equivalent certificate are acceptable:

- A paper certificate bearing a signature (both originals and copies are accepted);
- A paper certificate generated from an electronic system (printed from electronically stored data) when complying with the following subparagraph 2;
- An electronic CAA Form 1 or equivalent when complying with the following subparagraph 2.

2. Electronic signature and electronic exchange of the CAA Form 1

(a) Submission to the CAA

Any organisation intending to implement an electronic signature procedure to issue CAA Form 1 and/or to exchange electronically such data contained on the CAA Form 1, should document it and submit it to the CAA as part of the documents attached to its exposition.

(b) Characteristics of the electronic system generating the CAA Form 1

The electronic system should:

- guarantee secure access for each certifying staff;
- ensure integrity and accuracy of the data certified by the signature on the form and be able to show evidence of the authenticity of the CAA Form 1 (recording and record keeping) with suitable security, safeguards and backups;
- be active only at the location where the part is being released with an CAA Form 1;
- not permit to sign a blank form;
- provide a high degree of assurance that the data has not been modified after signature (if modification is necessary after issuance, i.e., re-certification of a part, a new form with a new number and reference to the initial issuance should be made).
- provide for a 'personal' electronic signature, identifying the signatory. The signature should be generated only in presence of the signatory.

An electronic signature means data in electronic form which is attached to or logically

associated with other electronic data and which serves as a method of authentication and should meet the following criteria:

- it is uniquely linked to the signatory;
- it is capable of identifying the signatory;
- it is created using means that the signatory can maintain under his sole control.

This electronic signature should be an electronically generated value based on a cryptographic algorithm and appended to data in a way to enable the verification of the data's source and integrity.

Organisation(s) are reminded that additional national requirements may need to be satisfied when operating electronic systems. 'Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures', as last amended, may constitute a reference.

The electronic system should be based on a policy and management structure (confidentiality, integrity and availability), such as:

- Administrators, signatories;
- Scope of authorisation, rights;
- Password and secure access, authentication, protections, confidentiality;
- Track changes;
- Minimum blocks to be completed, completeness of information;
- Archives;
- etc.

The electronic system generating the CAA Form 1 may contain additional data such as;

- Manufacturer code;
- Customer identification code;
- Workshop report;
- Inspection results;
- etc.

(c) Characteristics of the CAA Form 1 generated from the electronic system

To facilitate understanding and acceptance of the CAA Form 1 released with an electronic signature, the following statement should be in Block 14b: 'Electronic Signature on File'.

In addition to this statement, it is accepted to print or display a signature in any form, such as a representation of the hand-written signature of the person signing (i.e. scanned signature) or a representation of their name.

When printing the electronic form, the CAA Form 1 should meet the general format

as specified in Appendix II to MCAR-M. A watermark-type 'PRINTED FROM ELECTRONIC FILE' should be printed on the document.

When the electronic file contains a hyperlink to data required to determine the airworthiness of the item(s), the data associated to the hyperlink, when printed, should be in a legible format and be identified as a reference from the CAA Form 1.

Additional information not required by the CAA Form 1 completion instructions may be added to the printed copies of CAA Form 1, as long as the additional data do not prevent a person from filling out, issuing, printing, or reading any portion of the CAA Form 1. This additional data should be provided only in block 12 unless it is necessary to include it in another block to clarify the content of that block.

(d) Electronic exchange of the electronic CAA Form 1

The electronic exchange of the electronic CAA Form 1 should be accomplished on a voluntary basis. Both parties (issuer and receiver) should agree on electronic transfer of the CAA Form 1.

For that purpose, the exchange needs to include:

- all data of the CAA Form 1, including referenced data required by the CAA Form 1 completion instructions;

- all data required for authentication of the CAA Form 1.

In addition, the exchange may include:

- data necessary for the electronic format;

- additional data not required by the CAA Form 1 completion instructions, such as manufacturer code, customer identification code.

The system used for the exchange of the electronic CAA Form 1 should provide:

- A high level of digital security; the data should be protected, not altered or not corrupted;

- Traceability of data back to its source.

Trading partners wishing to exchange CAA Form 1 electronically should do so in accordance with the means of compliance stated in this document. It is recommended that they use an established, common, industry method such as Air Transport Association (ATA) Spec 2000 Chapter 16.

The organisation(s) are reminded that additional national requirements may need to

be satisfied when operating the electronic exchange of the electronic CAA Form 1.

The receiver should be capable of regenerating the CAA Form 1 from the received data without alteration; if not, the system should revert back to the paper system.

When the receiver needs to print the electronic form, refer to subparagraph c) here above.

GM to Appendix II to MCAR-M Use of the CAA Form 1 for maintenance

CAA Form 1 Block 12 'Remarks'

Examples of data to be entered in this block as appropriate:-

- Maintenance documentation used, including the revision status, for all work performed and not limited to the entry made in block 11. A statement such as 'in accordance with the CMM' is not acceptable.
- NDT methods with appropriate documentation used when relevant.
- Compliance with airworthiness directives or service bulletins.
- Repairs carried out.
- Modifications carried out.
- Replacement parts installed.
- Life-limited parts status.
- Shelf life limitations.
- Deviations from the customer work order.
- Release statements to satisfy a foreign Civil Aviation Authority maintenance requirement.
- Information needed to support shipment with shortages or re-assembly after delivery.
- References to aid traceability, such as batch numbers."

Appendix III Airworthiness Review Certificate – CAA Form 15

Form 15a

بسم الله الرحمن الرحيم

MALDIVES CIVIL AVIATION AUTHORITY
REPUBLIC OF MALDIVES

ARC Reference
MV-MI-XXXX Issue X

AIRWORTHINESS REVIEW CERTIFICATE

Pursuant to Civil Aviation Regulations for the time being in force, the Civil Aviation Authority hereby certifies that the following aircraft:

Aircraft manufacturer:	
Manufacturer's designation:	
Aircraft registration:	
Aircraft Serial Number:	

is considered to be airworthy at the time of the review.

Date of Issue:		**Date of expiry:**	
Airframe Flight Hours (FH) at date of issue (**):			
Signed:		**Authorisation No:**	

1st Extension: The aircraft has remained in a controlled environment in accordance with MCAR-M.A. 901 of MCAR-M for the last year. The aircraft is considered to be airworthy of the time of the issue.

Date of Issue:		**Date of expiry:**	
Airframe Flight Hours (FH) at date of issue (**):			
Signed:		**Authorisation No:**	
Company name:		**Approval reference:**	

2nd Extension: The aircraft has remained in a controlled environment in accordance with MCAR-M.A. 901 of MCAR-M for the last year. The aircraft is considered to be airworthy of the time of the issue.

Date of Issue:		**Date of expiry:**	
Airframe Flight Hours (FH) at date of issue (**):			
Signed:		**Authorisation No:**	
Company name:		**Approval reference:**	

CAA Form 15a (Issue 4, 01 Jun 2019)

(**) Except for balloons and airships

ARC Form 15b

بسم الله الرحمن الرحيم

MALDIVES CIVIL AVIATION AUTHORITY
REPUBLIC OF MALDIVES

ARC Reference
MV-MI-XXXX Issue X

AIRWORTHINESS REVIEW CERTIFICATE

Pursuant to Civil Aviation Regulations for the time being in force, the following continuing airworthiness management organisation, approved in accordance with MCAR-M Section A Subpart G

[NAME OF THE ORGANISATION APPROVED]
[ADDRESS OF THE ORGANISATION]
Approval reference: MV.MG.[NNN]

hereby certifies that it has performed an airworthiness review in accordance with paragraph M.A.710 of MCAR-M on the following aircraft:

Aircraft manufacturer:	
Manufacturer's designation:	
Aircraft registration:	
Aircraft Serial Number:	

and this aircraft is considered to be airworthy at the time of the review.

Date of Issue:		**Date of expiry:**	
Airframe Flight Hours (FH) at date of issue (**):			
Signed:		**Authorisation No:**	

1st Extension: The aircraft has remained in a controlled environment in accordance with MCAR-M.A. 901 of MCAR-M for the last year. The aircraft is considered to be airworthy of the time of the issue.

Date of Issue:		**Date of expiry:**	
Airframe Flight Hours (FH) at date of issue (**):			
Signed:		**Authorisation No:**	
Company name:		**Approval reference:**	

2nd Extension: The aircraft has remained in a controlled environment in accordance with MCAR-M.A. 901 of MCAR-M for the last year. The aircraft is considered to be airworthy of the time of the issue.

Date of Issue:		**Date of expiry:**	
Airframe Flight Hours (FH) at date of issue (**):			
Signed:		**Authorisation No:**	
Company name:		**Approval reference:**	

CAA Form 15b (Issue 4, 01 Jun 2019)

(**) Except for balloons and airships

ARC Form 15c

بسم الله الرحمن الرحيم

MALDIVES CIVIL AVIATION AUTHORITY
REPUBLIC OF MALDIVES

ARC Reference
MV-MI-XXXX Issue X

AIRWORTHINESS REVIEW CERTIFICATE (**)

Pursuant to Civil Aviation Regulations for the time being in force, the following maintenance organisation, approved in accordance with (mark as applicable):

☐ Section A, Subpart F of MCAR-M, or
☐ Section A of MCAR-145

[NAME OF THE ORGANISATION APPROVED]
[ADDRESS OF THE ORGANISATION]
Approval reference: MV.[MF or 145].[NNN]

hereby certifies that it has performed an airworthiness review in accordance with point M.A.901(l) of MCAR-M on the following aircraft:

Aircraft manufacturer:	
Manufacturer's designation:	
Aircraft registration:	
Aircraft Serial Number:	

and this aircraft is considered to be airworthy at the time of the review.

Date of Issue:		**Date of expiry:**	
Airframe Flight Hours (FH) at date of issue (***):			
Signed:		**Authorisation No:**	

CAA Form 15c (Issue 1, 01 Jun 2019)
(**) Applicable only to ELA1 aircraft not involved in commercial operations
(***) Except for balloons and airships

Appendix IV Class and Ratings System to be used for the Approval of Maintenance Organisations referred to in this Regulation (MCAR-M) Subpart F and MCAR-145

1. Except as stated otherwise for the smallest organisations in paragraph 12, the table referred to in point 13 provides the standard system for the approval of maintenance organisation under Subpart F of this Regulation (MCAR-M) and MCAR-145. An organisation must be granted an approval ranging from a single class and rating with limitations to all classes and ratings with limitations.

2. In addition to the table referred to in point 13, the approved maintenance organisation is required to indicate its scope of work in its maintenance organisation manual/exposition. See also paragraph 11.

3. Within the approval class(es) and rating(s) granted by the CAA, the scope of work specified in the maintenance organisation exposition defines the exact limits of approval. It is therefore essential that the approval class(es) and rating(s) and the organisations scope of work are matching.

4. A category A class rating means that the approved maintenance organisation may carry out maintenance on the aircraft and any component (including engines and/or Auxiliary Power Units (APUs), in accordance with aircraft maintenance data or, if agreed by the CAA, in accordance with component maintenance data, only whilst such components are fitted to the aircraft. Nevertheless, such A-rated approved maintenance organisation may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance not eligible for the provisions of this point. This will be subject to a control procedure in the maintenance organisation exposition to be approved by the CAA. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.

5. A category B class rating means that the approved maintenance organisation may carry out maintenance on the uninstalled engine and/or APU and engine and/or APU components, in accordance with engine and/or APU maintenance data or, if agreed by the CAA, in accordance with component maintenance data, only whilst such components are fitted to the engine and/or APU. Nevertheless, such B-rated approved maintenance organisation may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance not eligible for the provisions of this point. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A maintenance organisation approved with a category B class rating may also carry out maintenance on an installed engine during 'base' and 'line' maintenance subject to a control procedure in the maintenance organisation exposition to be approved by the CAA. The maintenance organisation exposition scope of work shall reflect such activity where permitted by the CAA.

6. A category C class rating means that the approved maintenance organisation may carry out maintenance on uninstalled components (excluding engines and APUs) intended for

fitment to the aircraft or engine/APU. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A maintenance organisation approved with a category C class rating may also carry out maintenance on an installed component during base and line maintenance or at an engine/APU maintenance facility subject to a control procedure in the maintenance organisation exposition to be approved by the CAA. The maintenance organisation exposition scope of work shall reflect such activity where permitted by the CAA.

7. A category D class rating is a self contained class rating not necessarily related to a specific aircraft, engine or other component. The D1 – Non Destructive Testing (NDT) rating is only necessary for an approved maintenance organisation that carries out NDT as a particular task for another organisation. A maintenance organisation approved with a class rating in A or B or C category may carry out NDT on products it is maintaining subject to the maintenance organisation exposition containing NDT procedures, without the need for a D1 class rating.

8. In the case of maintenance organisations approved in accordance with MCAR-145, category A class ratings are subdivided into 'Base' or 'Line' maintenance. Such an organisation may be approved for either 'Base' or 'Line' maintenance or both. It should be noted that a 'Line' facility located at a main base facility requires a 'Line' maintenance approval.

9. The limitation section is intended to give the CAA the flexibility to customise the approval to any particular organisation. Ratings shall be mentioned on the approval only when appropriately limited. The table referred to in point 13 specifies the types of limitation possible. Whilst maintenance is listed last in each class rating it is acceptable to stress the maintenance task rather than the aircraft or engine type or manufacturer, if this is more appropriate to the organisation (an example could be avionic systems installations and related maintenance). Such mention in the limitation section indicates that the maintenance organisation is approved to carry out maintenance up to and including this particular type/task.

10. When reference is made to series, type and group in the limitation section of class A and B, series means a specific type series such as Airbus 300 or 310 or 319 or Boeing 737-300 series or RB211-524 series or Cessna 150 or Cessna 172 or Beech 55 series or continental O-200 series etc; type means a specific type or model such as Airbus 310-240 type or RB 211-524 B4 type or Cessna 172RG type; any number of series or types may be quoted; group means for example Cessna single piston engine aircraft or Lycoming non-supercharged piston engines etc.

11. When a lengthy capability list is used which could be subject to frequent amendment, then such amendment may be in accordance with the indirect approval procedure referred to in points M.A.604(c) or 145.A.70(c), as applicable.

12. A maintenance organisation which employs only one person to both plan and carry out all maintenance can only hold a limited scope of approval rating. The maximum permissible limits are:

CLASS	RATING	LIMITATION
CLASS AIRCRAFT	RATING A2 AEROPLANES 5700 KG AND BELOW	PISTON ENGINE 5700 KG AND BELOW
CLASS AIRCRAFT	RATING A3 HELICOPTERS	SINGLE PISTON ENGINE 3175 KG AND BELOW
CLASS AIRCRAFT	RATING A4 AIRCRAFT OTHER THAN A1, A2 AND A3	NO LIMITATION
CLASS ENGINES	RATING B2 PISTON	LESS THAN 450 HP
CLASS COMPONENTS RATING OTHER THAN COMPLETE ENGINES OR APU'S.	C1 TO C22	AS PER CAPABILITY LIST
CLASS SPECIALISED	D1 NDT	NDT METHOD(S) TO BE SPECIFIED.

It should be noted that such an organisation may be further limited by the CAA in the scope of approval dependent upon the capability of the particular organisation.

13. Table

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT	A1 Aeroplanes above 5700 kg	[Rating reserved to Maintenance Organisations approved in accordance with MCAR-145] [Shall state aeroplane manufacturer or group or series or type and/or the maintenance tasks] *Example: Airbus A320 Series*	[YES/NO] *	[YES/NO] *
	A2 Aeroplanes 5700 kg and below	[Shall state aeroplane manufacturer or group or series or type and/or the maintenance tasks] *Example: DHC-6 Twin Otter Series* State whether the issue of recommendations and airworthiness review certificate is authorised or not (only possible for ELA1 aircraft not involved in commercial operations)	[YES/NO] *	[YES/NO] *
	A3 Helicopters	[Shall state helicopter manufacturer or group or series or type and/or the maintenance task(s)] *Example: Robinson R44*	[YES/NO] *	[YES/NO] *
	A4 Aircraft other than A1, A2 and A3	[Shall state aircraft category (sailplane, balloon, airship, etc), manufacturer or group or series or type and/or the maintenance task(s).] State whether the issue of recommendations and airworthiness review certificates is authorised or not (only possible for ELA1 aircraft not involved in commercial operations)	[YES/NO] *	[YES/NO] *
ENGINES	B1 Turbine	[State engine series or type and/or the maintenance task(s)] Example: PT6A Series		
	B2 Piston	[State engine manufacturer or group or series or type and/or the maintenance task(s)]		
	B3 APU	[State engine manufacturer or series or type and/or the maintenance task(s)]		
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	[State aircraft type or aircraft manufacturer or component manufacturer or the particular component and/or cross refer to a capability list in the exposition and/or the maintenance task(s).] Example: PT6A Fuel Control		
	C2 Auto Flight			
	C3 Comms and Nav			
	C4 Doors – Hatches			
	C5 Electrical Power & Lights			
	C6 Equipment			
	C7 Engine – APU			
	C8 Flight Controls			
	C9 Fuel			
	C10 Helicopter – Rotors			

	C11 Helicopter – Trans	
	C12 Hydraulic Power	
	C13 Indicating-recording system	
	C14 Landing Gear	
	C15 Oxygen	
	C16 Propellers	
	C17 Pneumatic & Vacuum	
	C18 Protection ice/ rain/fire	
	C19 Windows	
	C20 Structural	
	C21 Water ballast	
	C22 Propulsion Augmentation	
SPECIALISED SERVICES	D1 Non Destructive Testing	[State particular NDT methods)]

(*) Delete as appropriate

Appendix V Maintenance Organisation Approval referred to in MCAR-M Subpart F

بسم الله الرحمن الرحيم

MALDIVES CIVIL AVIATION AUTHORITY
REPUBLIC OF MALDIVES

Reference:
MV.MF.XXXX

MAINTENANCE ORGANISATION APPROVAL CERTIFICATE

Pursuant to Civil Aviation Regulations for the time being in force and subject to the conditions specified below, the Civil Aviation Authority hereby certifies:

[COMPANY NAME]
[COMPANY ADDRESS]

as a maintenance organisation in compliance with MCAR-M Section A Subpart F, approved to maintain the products, parts and appliances listed in the attached approval schedule and issue related certificates of release to service using the above references and, when stipulated, to issue recommendations and airworthiness review certificates after an airworthiness review as specified in paragraph M.A.901 (l) of MCAR-M for those aircraft listed in the attached approval schedule.

CONDITIONS

1. This approval in limited to that specified in the scope of work section of the approved maintenance organisation manual as referred to in Section A of Subpart F of MCAR-M, and

2. This approval requires compliance with the procedures specified in the approved maintenance organisation manual, and

3. This approval is valid whilst the approved maintenance organisation remains in compliance with MCAR-M.

4. Subject to compliance with the foregoing conditions, this approval shall remain valid for an unlimited duration unless the approval has previously been surrendered, superseded, suspended or revoked.

Revision Number:
Date of this Revision: **Signed:**
Date of Original Issue: **For the Civil Aviation Authority**

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MAINTENANCE ORGANISATION APPROVAL SCHEDULE

Reference: **MV.MF.XXXX**

Organisation: **[COMPANY NAME]**
[COMPANY ADDRESS]

CLASS	RATING	LIMITATION
AIRCRAFT (**)	(***)	(****)
	(***)	(****)
ENGINES (**)	(***)	(***)
	(***)	(***)
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs (**)	(***)	(***)
	(***)	(***)
	(***)	(***)
	(***)	(***)
	(***)	(***)
	(***)	(***)
SPECIALISED SERVICES (**)	(***)	(***)
	(***)	(***)

This approval is limited to the products, parts and appliances and to the activities specified in the scope of work section of the approved maintenance organisation manual.

Maintenance Organisation Manual Reference:

Revision Number:

Date of last revision approved : **Signed:**

Date of Original Issue: **For the Civil Aviation Authority**

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** Delete as appropriate if the organisation is not approved

*** Complete with the appropriate rating and limitation

**** Complete with the appropriate limitation and state whether the issue of recommendations and airworthiness review certificates is authorised or not (only possible for ELA1 aircraft not involved in commercial operations when the organisation performs the airworthiness review together with the annual inspection contained in the maintenance programme)

AMC to Appendix V to MCAR-M Maintenance Organisation Approval referred to in MCAR-M Subpart F

The following fields on page 2 "Maintenance Organisation Approval Schedule" of the maintenance organisation approval certificate should be completed as follows:

- Date of original issue: It refers to the date of the original issue of the maintenance organisation manual

- Date of last revision approved: It refers to the date of the last revision of the maintenance organisation manual affecting the content of the certificate. Changes to the maintenance organisation manual which do not affect the content of the certificate do not require the reissuance of the certificate.

- Revision No: It refers to the revision No of the last revision of the maintenance organisation manual affecting the content of the certificate. Changes to the maintenance organisation manual which do not affect the content of the certificate do not require the reissuance of the certificate.

Appendix VI Continuing Airworthiness Management Organisation Approval referred to in MCAR-M Subpart G

بسم الله الرحمن الرحيم

MALDIVES CIVIL AVIATION AUTHORITY
REPUBLIC OF MALDIVES

Reference:
MV.MG.XXXX (REF. AOC.MV.XXXX)

CONTINUING AIRWORTHINESS MANAGEMENT ORGANIZATION APPROVAL CERTIFICATE

Pursuant to Civil Aviation Regulations for the time being in force and subject to the conditions specified below, the Civil Aviation Authority hereby certifies:

[COMPANY NAME]
[COMPANY ADDRESS]

as a continuing airworthiness management organisation in compliance with Section A, Subpart G of MCAR-M, approved to manage the continuing airworthiness of the aircraft listed in the attached schedule of approval and, when stipulated, to issue recommendations and airworthiness review certificates after an airworthiness review as specified in point M.A.710 of MCAR-M, and, when stipulated, to issue permits to fly as specified in point M.A.711(c) of MCAR-M

CONDITIONS

1. This approval is limited to that specified in the scope of approval section of the approved continuing airworthiness management exposition as referred to in Section A, Subpart G of MCAR-M.
2. This approval requires compliance with the approved continuing airworthiness management exposition procedures specified in the MCAR-M.
3. This approval is valid whilst the approved continuing airworthiness management organisation remains in compliance with MCAR-M.
4. Where the continuing airworthiness management organisation contracts under its Quality System the service of an/several organisation(s), this approval remains valid subject to such organisation(s) fulfilling applicable contractual obligations.
5. Subject to compliance with the condition 1 to 4 above, this approval shall remain valid for an unlimited duration unless the approval has previously been surrendered, superseded, suspended or revoked. [If this form is also used for licenced air carriers, the Air Operator Certificate (AOC) number shall be added to the reference, in addition to the standard number, and the condition 5 shall be replaced by the following extra conditions:]
6. This approval does not constitute an authorisation to operate the types of aircraft referred in paragraph 1. The authorisation to operate the aircraft is the AOC.
7. Termination, suspension or revocation of the AOC automatically invalidates the present approval in relations to the aircraft registrations specified in the AOC, unless otherwise explicitly stated by the CAA.
8.. Subject to compliance with the previous conditions, this approval shall remain valid for an unlimited duration unless the approval has previously been surrendered, superseded, suspended or revoked.

Revision No:
Date of this revision:
Date of original issue:

Signed:
For the Civil Aviation Authority

CAA Form 14, Issue 04, 01 June 2019

CONTINUING AIRWORTHINESS MANAGEMENT ORGANIZATION APPROVAL SCHEDULE

Reference: **MV.MG.XXXX (Ref. AOC.MV.XXXX)**

Organisation: **[COMPANY NAME]**
[COMPANY ADDRESS]

AIRCRAFT TYPE/SERIES/GROUP	AIRWORTHINESS REVIEW AUTHORISED	PERMITS TO FLY AUTHORISED	ORGANISATION(S) WORKING UNDER QUALITY SYSTEM
	[YES / NO] (***)	[YES / NO] (***)	
	[YES / NO] (***)	[YES / NO] (***)	
	[YES / NO] (***)	[YES / NO] (***)	
	[YES / NO] (***)	[YES / NO] (***)	

This approval Schedule is limited to that specified in the scope of approval contained in the approved Continuing Airworthiness Management Exposition section ----------

Continuing Airworthiness Management Exposition reference: -------

Revision No:
Date of this revision: **Signed:**
Date of original issue: **For the Civil Aviation Authority**

CAA Form 14, Issue 04, 01 June 2019 Page 1 of 2
(***) Delete as appropriate if the organisation is not approved

AMC to Appendix VI to MCAR-MContinuing Airworthiness Management Organisation Approval referred to in MCAR-M Subpart G

The following fields on page 2 "Continuing Airworthiness Management Organisation Approval Schedule" of the continuing airworthiness management organisation approval certificate should be completed as follows:

- Date of original issue: It refers to the date of the original issue of the continuing airworthiness management exposition

- Date of last revision: It refers to the date of the last revision of the continuing airworthiness management exposition affecting the content of the certificate. Changes to the continuing airworthiness management exposition which do not affect the content of the certificate do not require the reissuance of the certificate.

- Revision No: It refers to the revision No of the last revision of the continuing airworthiness management exposition affecting the content of the certificate. Changes to the continuing airworthiness management exposition which do not affect the content of the certificate do not require the reissuance of the certificate.

Appendix VII Complex Maintenance Tasks

The following constitutes the complex maintenance tasks referred to in M.A.502(d)3, 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 pressurization 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) specialized tooling, equipment or facilities; or

   (b) significant coordination procedures because of the extensive duration of the tasks and the involvement of several persons.

AMC to Appendix VII "Complex Maintenance Tasks"

The sentence "suitably approved or authorised welder" contained in Appendix VII, paragraph 3(c), means that the qualification should meet an officially recognised standard or, otherwise, should be accepted by the CAA.

Appendix VIII Limited Pilot-Owner Maintenance

In addition to the requirements laid down in this regulation, 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. The Pilot-owner is always responsible for any maintenance that he performs.

2. Before carrying out any Pilot-owner maintenance tasks, the Pilot-owner must satisfy himself that he is competent to do the task. It is the responsibility of Pilot-owners to familiarize 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 his contracted continuing airworthiness management organisation referred to in Subpart G, Section A of this regulation) 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

The Pilot-owner 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 the Pilot-owner 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 AD 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 effecting systems essential for the IFR operations and/or;

8. is listed in Appendix VII to this Regulation or is a component maintenance task in accordance with points M.A.502(a), (b), (c) or (d).

9. is part of the annual or 100h check contained in the Minimum Inspection Programme described in M.A.302(i).

The criteria 1 to 9 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).

AMC to Appendix VIII "Limited Pilot Owner Maintenance"

1. The lists here below specify items that can be expected to be completed by an owner who holds a current and valid pilot licence for the aircraft type involved and who meets the competence and responsibility requirements of Appendix VIII to MCAR-M.

2. The list of tasks may not address in a detailed manner the specific needs of the various aircraft categories. In addition, the development of technology and the nature of the operations undertaken by these categories of aircraft cannot be always adequately considered.

3. Therefore, the following lists are considered to be the representative scope of limited Pilot-owner maintenance referred to in M.A.803 and Appendix VIII:

   - Part A applies to aeroplanes;
   - Part B applies to rotorcraft;
   - Part C applies to sailplanes and powered sailplanes;
   - Part D applies to balloons and airships.

4. Inspection tasks/checks of any periodicity included in an approved maintenance programme can be carried out providing that the specified tasks are included in the generic lists of Parts A to D of this AMC and remains compliant with MCAR-M Appendix VIII basic principles.

   The content of periodic inspections/checks as well as their periodicity is not regulated or standardised in an aviation specification. It is the decision of the manufacturer/Type Certificate Holder (TCH) to recommend a schedule for each specific type of inspection/check.

   For an inspection/check with the same periodicity for different TCHs, the content may differ, and in some cases may be critically safety-related and may need the use of special tools or knowledge and thus would not qualify for Pilot-owner maintenance. Therefore, the maintenance carried out by the Pilot-owner cannot be generalised to specific inspections such as 50 Hrs, 100 Hrs or 6 Month periodicity.

   The Inspections to be carried out are limited to those areas and tasks listed in this AMC to Appendix VIII; this allows flexibility in the development of the maintenance programme and does not limit the inspection to certain specific periodic inspections. A 50 Hrs/6 Month periodic inspection for a fixed wing aeroplane as well as the one-year inspection on a glider may normally be eligible for Pilot-owner maintenance.

TABLES

Note: Tasks in Part A or Part B shown with ** exclude IFR operations following Pilot-owner maintenance. For these aircraft to operate under IFR operations, these tasks should be released by an appropriate licensed engineer.

Part A/ PILOT-OWNER MAINTENANCE TASKS for POWERED AIRCRAFT (AEROPLANES)

ATA	Area	Task	Aeroplanes <=2730 kg
09	Towing	Tow release unit and tow cable retraction mechanism – Cleaning, lubrication and tow cable replacement (including weak links).	Yes
		Mirror –Installation and replacement of mirrors.	Yes
11	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM.	Yes
12	Servicing	Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings.	Yes
20	Standard Practices	Safety Wiring – Replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems.	Yes
		Simple Non-Structural Standard Fasteners – Replacement and adjustment, excluding the replacement of receptacles and anchor nuts requiring riveting.	Yes
21	Air Conditioning	Replacement of flexible hoses and ducts.	Yes
23	Communication.	Communication devices – Remove and replace self contained, instrument panel mount communication devices with quick disconnect connectors, excluding IFR operations.	Yes**
24	Electrical power	Batteries – Replacement and servicing, excluding servicing of Ni-Cd batteries and IFR operations.	Yes**
		Wiring – Repairing broken circuits in non critical equipment, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes
		Bonding – Replacement of broken bonding cable.	Yes
		Fuses – Replacement with the correct rating.	Yes
25	Equipment	Safety Belts – Replacement of safety belts and harnesses excluding belts fitted with airbag systems.	Yes

ATA	Area	Task	Aeroplanes <=2730 kg
		Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system.	Yes
		Non-essential instruments and/or equipment – Replacement of self contained, instrument panel mount equipment with quick disconnect connectors.	Yes
		Oxygen System – Replacement of portable oxygen bottles and systems in approved mountings, excluding permanently installed bottles and systems.	Yes
		ELT – Removal/Reinstallation.	Yes
27	Flight controls	Removal or reinstallation of co-pilot control column and rudder pedals where provision for quick disconnect is made by design.	Yes
28	Fuel System	Fuel Filter elements – Cleaning and/or replacement.	Yes
30	Ice and Rain Protection	Windscreen Wiper – Replacement of wiper blade.	Yes
31	Instruments	Instrument Panel – Removal and reinstallation provided this it is a design feature with quick disconnect connectors, excluding IFR operations.	Yes**
		Pitot Static System – Simple sense and leak check, excluding IFR operations.	Yes**
		Drainage – Drainage of water drainage traps or filters within the Pitot Static system excluding IFR operations.	Yes**
		Instruments – Check for legibility of markings and those readings are consistent with ambient conditions.	Yes
32	Landing Gear	Wheels – Removal, replacement and servicing, including replacement of wheel bearings and lubrication.	Yes
		Servicing – Replenishment of hydraulic fluid	Yes
		Shock Absorber – Replacement of elastic cords or rubber dampers.	Yes
		Shock Struts – Replenishment of oil or air.	Yes
		Skis – Changing between wheel and ski landing gear.	Yes
		Landing skids – Replacement of landing skids and skid shoes.	Yes
		Wheel fairings (spats) – Removal and reinstallation.	Yes

ATA	Area	Task	Aeroplanes <=2730 kg
		Mechanical brakes – Adjustment of simple cable operated systems.	Yes
		Brake – Replacement of worn brake pads.	Yes
33	Lights	Lights – Replacements of internal and external bulbs, filaments, reflectors and lenses.	Yes
34	Navigation	Software – Updating self contained, instrument panel mount navigational software databases, excluding automatic flight control systems and transponders.	Yes
		Navigation devices – Removal and replacement of self contained, instrument panel mount navigation devices with quick disconnect connectors, excluding automatic flight control systems, transponders, primary flight control system and IFR operations.	Yes**
		Self contained data logger – Installation, data restoration.	Yes
51	Structure	Fabric patches – Simple patches extending over not more than one rib and not requiring rib stitching or removal of structural parts or control surfaces.	Yes
		Protective Coating – Applying preservative material or coatings where no disassembly of any primary structure or operating system is involved.	Yes
		Surface finish – Minor restoration where no disassembly of any primary structure or operating system is involved This includes application of signal coatings or thin foils as well as registration markings.	Yes
		Fairings – Simple repairs to non-structural fairings and cover plates which do not change the contour	Yes
52	Doors and Hatches	Doors – Removal and reinstallation	Yes
53	Fuselage	Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems.	Yes
56	Windows	Side Windows – Replacement if it does not require riveting, bonding or any special process	Yes
61	Propeller	Spinner – Removal and reinstallation.	Yes

ATA	Area	Task	Aeroplanes <=2730 kg
71	Powerplant installation	Cowling – Removal and reinstallation not requiring removal of propeller or disconnection of flight controls.	Yes
		Induction System – Inspection and replacement of induction air filter.	Yes
72	Engine	Chip detectors – Removal, checking and reinstallation provided the chip detector is a self-sealing type and not electrically indicated.	Yes
73	Engine fuel	Strainer or Filter elements – Cleaning and/or replacement.	Yes
		Fuel – Mixing of required oil into fuel.	Yes
74	Ignition	Spark Plugs – Removal, cleaning, adjustment and reinstallation.	Yes
75	Cooling	Coolant – Replenishment of coolant fluid.	Yes
77	Engine Indicating	Engine Indicating – Removal and replacement of self contained, instrument panel mount indicators that have quick-release connectors and do not employ direct reading connections.	Yes
79	Oil System	Strainer or filter elements – Cleaning and/or replacement.	Yes
		Oil – Changing or replenishment of engine oil and gearbox fluid.	Yes

Part B/ PILOT-OWNER MAINTENANCE TASKS for ROTORCRAFT

ATA	Area	Task	Single Engine Rotorcraft <=2730 kg
11	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM.	Yes
12	Servicing	Fuel, oil, hydraulic, de-iced and windshield liquid replenishment.	Yes
		Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings.	Yes
20	Standard Practices	Safety Wiring – Replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems.	Yes
		Simple non-structural standard fasteners – Replacement and adjustment, excluding latches and the replacement of receptacles and anchor nuts requiring riveting.	Yes
21	Air Conditioning	Replacement of flexible hoses and ducts.	Yes
23	Communication	Communication devices – Remove and replace self contained, instrument panel mount communication devices with quick disconnect connectors, excluding IFR operations.	Yes**
24	Electrical power	Batteries – Replacement and servicing, excluding servicing of Ni-Cd batteries and IFR operations.	Yes**
		Wiring – Repairing broken circuits in noncritical equipment, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes
		Bonding – Replacement of broken bonding cable excluding bonding on rotating parts and flying controls.	Yes
		Fuses – Replacement with the correct rating.	Yes
25	Equipment	Safety Belts – Replacement of safety belts and harnesses excluding belts fitted with airbag systems.	Yes
		Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system excluding flight crew seats.	Yes
		Removal/installation of emergency flotation gears with quick disconnect connectors.	Yes

ATA	Area	Task	Single Engine Rotorcraft <=2730 kg
		Non-essential instruments and/or equipment – Replacement of self contained, instrument panel mount equipment with quick disconnect connectors.	Yes
		ELT – Removal/Reinstallation.	Yes
30	Ice and rain protection	Windshield wiper replacement	Yes
31	Instruments	Instrument Panel– Removal and reinstallation provided this it is a design feature with quick disconnect connectors, excluding IFR operations.	Yes**
		Pitot Static System – Simple sense and leak check, excluding IFR operations.	Yes**
		Drainage – Drainage of water drainage traps or filters within the Pitot Static system excluding IFR operations.	Yes**
		Instruments – Check for legibility of markings and those readings are consistent with ambient conditions.	Yes
32	Landing Gears	Wheels – Removal, replacement and servicing, including replacement of wheel bearings and lubrication.	Yes
		Replacement of skid wear shoes.	Yes
		Fit and remove snow landing pads.	Yes
		Servicing – Replenishment of hydraulic fluid.	Yes
		Brake – Replacement of worn brake pads.	Yes
33	Lights	Lights – replacement of internal and external bulbs, filaments, reflectors and lenses.	Yes
34	Navigation	Software – Updating self contained, instrument panel mount navigational software databases, excluding automatic flight control systems and transponders.	Yes
		Navigation devices – Remove and replace self contained, instrument panel mount navigation devices with quick disconnect connectors, excluding automatic flight control systems, transponders, primary flight control system and IFR operations.	Yes**
		Self contained data logger – Installation, data restoration.	Yes
51	Structure	Protective Coating – Applying preservative material or coatings where no disassembly of	Yes

ATA	Area	Task	Single Engine Rotorcraft <=2730 kg
		any primary structure or operating system is involved.	
		Surface finish – Minor restoration where no disassembly of any primary structure or operating system is involved, excluding intervention on main and tail rotors. This includes application of signal coatings or thin foils as well as Registration markings.	Yes
		Fairings – Simple repairs to non-structural fairings and cover plates which do not change the contour.	Yes
52	Doors	Doors – Removal and reinstallation.	Yes
53	Fuselage	Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems.	Yes
56	Windows	Side Windows – Replacement if it does not require riveting, bonding or any special process.	Yes
62	Main rotor	Removal/installation of main rotor blades that are designed for removal where special tools are not required (tail rotor blades excluded) limited to installation of the same blades previously removed refitted in the original position.	Yes
63 65	Transmission	Chip detectors – Remove, check and replace provided the chip detector is a self-sealing type and not electrically indicated.	Yes
67	Flight control	Removal or reinstallation of co-pilot cyclic and collective controls and yaw pedals where provision for quick disconnect is made by design.	Yes
71	Powerplant installation	Cowlings – Removal and re-fitment.	Yes
72	Engine	Chip detectors –removal, checking and reinstallation provided the chip detector is a self sealing type and not electrically indicated.	Yes
79	Oil System	Filter elements – Replacement, provided that the element is of the “spin on/off” type.	Yes
		Oil – Changing or replenishment of engine oil.	Yes

Part C/ PILOT-OWNER MAINTENANCE TASKS for SAILPLANES AND POWERED SAILPLANES

Abbreviations applicable to this Part:

N/A not applicable for this category
SP sailplane
SSPS self-sustained powered sailplane
SLPS/TM self-launching powered sailplane/touring motorglider

ATA	Area	Task	SP	SSPS	SLPS / TM
08	Weighing	Recalculation – Small changes of the Trim plan without needing a reweighing.	Yes	Yes	Yes
09	Towing	Tow release unit and tow cable retraction mechanism – Cleaning, lubrication and tow cable replacement (including weak links).	Yes	Yes	Yes
		Mirror – Installation and replacement of mirrors.	Yes	Yes	Yes
11	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM.	Yes	Yes	Yes
12	Servicing	Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings.	Yes	Yes	Yes
20	Standard. Practices	Safety Wiring – Replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems.	Yes	Yes	Yes
		Simple Non-Structural Standard Fasteners – Replacement and adjustment, excluding the replacement of receptacles and anchor nuts requiring riveting.	Yes	Yes	Yes
		Free play – Measurement of the free play in the control system and the wing to fuselage attachment including minor adjustments by simple means provided by the manufacturer.	Yes	Yes	Yes
21	Air Conditioning	Replacement of flexible hoses and ducts.	Yes	Yes	Yes
23	Communication	Communication devices – Remove and replace self contained, instrument panel mount communication devices with quick disconnect connectors.	Yes	Yes	Yes
24	Electrical power	Batteries and solar panels – Replacement and servicing.	Yes	Yes	Yes

ATA	Area	Task	SP	SSPS	SLPS / TM
		Wiring – Installation of simple wiring connections to the existing wiring for additional non-required equipment such as electric variometers, flight computers but excluding required communication, navigation systems and engine wiring.	Yes	Yes	Yes
		Wiring – Repairing broken circuits in landing light and any other wiring for non-required equipment such as electrical variometers or flight computers, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes	Yes	Yes
		Bonding – Replacement of broken bonding cable.	Yes	Yes	Yes
		Switches – This includes soldering and crimping of non- required equipment such as electrical variometers or flight computers, but excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes	Yes	Yes
		Fuses – Replacement with the correct rating.	Yes	Yes	Yes
25	Equipment	Safety Belts – Replacement of safety belt and harnesses.	Yes	Yes	Yes
		Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system.	Yes	Yes	Yes
		Non-essential instruments and/or equipment – Replacement of self contained, instrument panel mount equipment with quick disconnect connectors.	Yes	Yes	Yes
		Removal and installation of non-required instruments and/or equipment.	Yes	Yes	Yes
		Wing Wiper, Cleaner – Servicing, removal and reinstallation not involving disassembly or modification of any primary structure, control.	Yes	Yes	Yes
		Static Probes – Removal or reinstallation of variometer static and total energy compensation probes.	Yes	Yes	Yes

ATA	Area	Task	SP	SSPS	SLPS / TM
		Oxygen System – Replacement of portable oxygen bottles and systems in approved mountings, excluding permanently installed bottles and systems.	Yes	Yes	Yes
		Air Brake Chute – Installation and servicing	Yes	Yes	Yes
		ELT – Removal / Reinstallation.	Yes	Yes	Yes
26	Fire Protection	Fire Warning – Replacement of sensors and indicators.	N/A	Yes	Yes
27	Flight Control	Gap Seals – Installation and servicing if it does not require complete flight control removal.	Yes	Yes	Yes
		Control System – Measurement of the control system travel without removing the control surfaces.	Yes	Yes	Yes
		Control Cables – Simple optical Inspection for Condition.	Yes	Yes	Yes
		Gas Dampener – Replacement of Gas Dampener in the Control or Air Brake System.	Yes	Yes	Yes
		Co-pilot stick and pedals – Removal or reinstallation where provision for quick disconnect is made by design.	Yes	Yes	Yes
28	Fuel System	Fuel lines – Replacement of prefabricated fuel lines fitted with self-sealing couplings.	N/A	Yes	NO
		Fuel Filter – Cleaning and/or replacement.	N/A	Yes	Yes
31	Instruments	Instrument Panel– Removal and reinstallation provided this is a design feature with quick disconnect, excluding IFR operations.	Yes	Yes	Yes
		Pitot Static System – Simple sense and leak check.	Yes	Yes	Yes
		Instrument Panel vibration damper/shock absorbers- Replacement.	Yes	Yes	Yes
		Drainage – Drainage of water drainage traps or filters within the Pitot static system.	Yes	Yes	Yes
		Flexible tubes – Replacement of damaged tubes.	Yes	Yes	Yes
32	Landing Gear	Wheels – Removal, replacement and servicing, including replacement of wheel bearings and lubrication.	Yes	Yes	Yes
		Servicing – Replenishment of hydraulic fluid	Yes	Yes	Yes

ATA	Area	Task	SP	SSPS	SLPS / TM
		Shock Absorber – Replacement or servicing of elastic cords or rubber dampers.	Yes	Yes	Yes
		Shock Struts – Replenishment of oil or air.	Yes	Yes	Yes
		Landing gear doors – Removal or reinstallation and repair including operating straps.	Yes	Yes	Yes
		Skis – Changing between wheel and ski landing gear.	Yes	Yes	Yes
		Skids – Removal or reinstallation and servicing of main, wing and tail skids.	Yes	Yes	Yes
		Wheels fairing (spats) – Removal and reinstallation.	Yes	Yes	Yes
		Mechanical brakes – Adjustment of simple cable operated systems.	Yes	Yes	Yes
		Brake – Replacement of worn brake pads.	Yes	Yes	Yes
		Springs – Replacement of worn or aged springs.	Yes	Yes	Yes
		Gear Warning –Removal or reinstallation of simple gear warning systems.	Yes	Yes	Yes
33	Lights	Lights – Replacement of internal and external bulbs, filaments, reflectors and lenses.	N/A	N/A	Yes
34	Navigation	Software – Updating self contained, instrument panel mount navigational software databases, excluding automatic flight control systems and transponders and including update of non- required instruments/equipment.	Yes	Yes	Yes
		Navigation devices – Removal and replacement of self contained, instrument panel mount navigation devices with quick disconnect connectors, excluding automatic flight control systems, transponders, primary flight control system.	Yes	Yes	Yes
		Self contained data logger – Installation, data restoration.	Yes	Yes	Yes
51	Structure	Fabric patches – Simple patches extending over not more than one rib and not requiring rib stitching or removal of structural parts or control surfaces.	Yes	Yes	Yes
		Protective Coating – Applying preservative material or coatings where no disassembly	Yes	Yes	Yes

ATA	Area	Task	SP	SSPS	SLPS / TM
		of any primary structure or operating system is involved.			
		Surface finish – Minor restoration of paint or coating where the underlying primary structure is not affected. This includes application of signal coatings or thin foils as well as Registration markings.	Yes	Yes	Yes
		Fairings – Simple repairs to non-structural fairings and cover plates which do not change the contour.	Yes	Yes	Yes
52	Doors	Doors – Removal and reinstallation.	Yes	Yes	Yes
53	Fuselage	Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems.	Yes	Yes	Yes
56	Windows	Side Windows – Replacement if it does not require riveting, bonding or any special process.	Yes	Yes	Yes
		Canopies – Removal and re-fitment.	Yes	Yes	Yes
		Gas dampener – Replacement of Canopy Gas dampener.	Yes	Yes	Yes
57	Wings	Wing Skids – Removal or reinstallation and service of lower wing skids or wing roller including spring assembly.	Yes	Yes	Yes
		Water ballast – Removal or reinstallation of flexible tanks.	Yes	Yes	Yes
		Turbulator and sealing tapes – Removal or reinstallation of approved sealing tapes and turbulator tapes.	Yes	Yes	Yes
61	Propeller	Spinner – Removal and reinstallation.	N/A	Yes	Yes
71	Powerplant installation	Removal or installation of Powerplant unit including engine and propeller.	N/A	Yes	NO
		Cowling – Removal and reinstallation not requiring removal of propeller or disconnection of flight controls.	N/A	Yes	Yes
		Induction System – Inspection and replacement of induction air filter.	N/A	Yes	Yes
72	Engine	Chip detectors – Removal, checking and reinstallation provided the chip detector is a self sealing type and not electrically indicated.	N/A	Yes	Yes
73	Engine fuel	Strainer or Filter elements – Cleaning and/or replacement.	N/A	Yes	Yes
		Fuel – Mixing of required oil into fuel.	N/A	Yes	Yes

ATA	Area	Task	SP	SSPS	SLPS / TM
74	Ignition	Spark Plugs – Removal, cleaning, adjustment and reinstallation.	N/A	Yes	Yes
75	Cooling	Coolant – Replenishment of coolant fluid.	N/A	Yes	Yes
76	Engine Controls	Controls – Minor adjustments of non-flight or propulsion controls whose operation is not critical for any phase of flight.	N/A	Yes	NO
77	Engine Indicating	Engine Indicating – Removal and replacement of self contained instrument panel mount indicators that have quick-release connectors and do not employ direct reading connections.	N/A	Yes	Yes
79	Oil System	Strainer or Filter elements – Cleaning and/or replacement.	N/A	Yes	Yes
		Oil – Changing or replenishment of engine oil and gearbox fluid.	N/A	Yes	Yes

Part D/ PILOT-OWNER MAINTENANCE TASKS for BALLOONS/AIRSHIPS

Area	Hot Air Airship	Hot Air Balloon	Gas Balloon
A) ENVELOPE			
1- Fabric repairs – excluding complete panels (as defined in, and in accordance with, Type Certificate holders' instructions) not requiring load tape repair or replacement.	Yes	Yes	NO
2- Nose line – Replacement	Yes	N/A	N/A
3- Banners – fitment, replacement or repair (without sewing).	Yes	Yes	Yes
4- Melting link (temperature flag) – replacement.	Yes	Yes	N/A
5-Temperature transmitter and temperature indication cables – removal or reinstallation.	Yes	Yes	N/A
6- Crown line – replacement (where permanently attached to the crown ring).	No	Yes	N/A
7- Scoop or skirt-replacement or repair of (including fasteners).	Yes	Yes	N/A
B) BURNER			
8- Burner – cleaning and lubrication.	Yes	Yes	N/A
9- Piezo igniters – adjustment.	Yes	Yes	N/A
10- Burner jets – cleaning and replacement.	Yes	Yes	N/A
11- Burner frame corner buffers – replacement or reinstallation.	Yes	Yes	N/A
12- Burner Valves – adjustment of closing valve not requiring special tools or test equipment.	Yes	Yes	N/A
C) BASKET AND GONDOLA			
13- Basket/gondola frame trim – repair or replacement.	Yes	Yes	Yes
14- Basket/gondola runners (including wheels) – repair or replacement.	Yes	Yes	Yes
15- External rope handles – repair.	Yes	Yes	Yes
16- Replacement of seat covers – upholsteries and safety belts.	Yes	Yes	Yes
D) FUEL CYLINDER			
17- Liquid valve – replacement of O-rings in the outlet.	Yes	Yes	No
E) INSTRUMENTS AND EQUIPMENT			
18- Batteries – replacement of for self contained instruments and communication equipment.	Yes	Yes	Yes
19- Communication, navigation devices, instruments and/or equipment – Remove and replace self contained, instrument panel mounted communication devices with quick disconnect connectors.	Yes	Yes	Yes
F) ENGINES			
20- Cleaning and Lubrication not requiring disassembly other than removal of non-structural items such as cover plates, cowlings and fairings.	Yes	N/A	N/A

Area	Hot Air Airship	Hot Air Balloon	Gas Balloon
21- Cowling-removal and re-fitment not requiring removal of the propeller	Yes	N/A	N/A
22- Fuel and oil strainers and/or filter elements – Removal, cleaning and/or replacement	Yes	N/A	N/A
23- Batteries – replacing and servicing (excluding servicing of Ni-Cd batteries).	Yes	N/A	N/A
24- Propeller Spinner – removal and installation for inspection.	Yes	N/A	N/A
25- Powerplant – Removal or installation of powerplant unit including engine and propeller.	Yes	N/A	N/A
26- Engine- Chip detectors – remove, check and replace.	Yes	N/A	N/A
27- Ignition Spark Plug – removal or installation and adjustment including gap clearance.	Yes	N/A	N/A
28- Coolant fluid – replenishment.	Yes	N/A	N/A
29- Engine Controls – minor adjustments of non-flight or propulsion controls whose operation is not critical for any phase of flight.	Yes	N/A	N/A
30- Engine instruments – removal and replacement.	Yes	N/A	N/A
31- Lubrication oil – changing or replenishment of engine oil and gearbox fluid.	Yes	N/A	N/A
32- Fuel lines – replacement of prefabricated hoses with self-sealing couplings.	Yes	N/A	N/A
33- Air filters (if installed) – removal, cleaning and replacement.	Yes	N/A	N/A

APPENDICES TO THE AMC's

Appendix I to AMC M.A.302 Content of the maintenance programme

1. General requirements

1.1 The maintenance programme should contain the following basic information.

1.1.1. The type/model and registration number of the aircraft, engines and, where applicable, auxiliary power units and propellers

1.1.2. The name and address of the owner, operator or CAMO managing the aircraft airworthiness.

1.1.3. The reference, the date of issue and issue number of the approved maintenance programme.

1.1.4. A statement signed by the owner, operator or CAMO managing the aircraft airworthiness to the effect that the specified aircraft will be maintained to the programme and that the programme will be reviewed and updated as required.

1.1.5. Contents/list of effective pages and their revision status of the document.

1.1.6. Check periods, which reflect the anticipated utilisation of the aircraft. Such utilisation should be stated and include a tolerance of not more than 25%. Where utilisation cannot be anticipated, calendar time limits should also be included.

1.1.7. Procedures for the escalation of established check periods, where applicable and acceptable to the CAA.

1.1.8. Provision to record the date and reference of approved amendments incorporated in the maintenance programme.

1.1.9. Details of pre-flight maintenance tasks that are accomplished by maintenance staff.

1.1.10. The tasks and the periods (intervals/frequencies) at which each part of the aircraft, engines, APU's, propellers, components, accessories, equipment, instruments, electrical and radio apparatus, together with the associated systems and installations should be inspected. This should include the type and degree of inspection required.

1.1.11. The periods at which components should be checked, cleaned, lubricated, replenished, adjusted and tested.

1.1.12. If applicable details of ageing aircraft system requirements together with any specified sampling programmes.

1.1.13. If applicable details of specific structural maintenance programmes where issued by the type certificate holder including but not limited to:

a. Maintenance of structural Integrity by damage Tolerance and Supplemental Structural Inspection Programmes (SSID).

b. Structural maintenance programmes resulting from the SB review performed by the TC holder.

c. Corrosion prevention and control.

d. Repair Assessment.

e. Widespread Fatigue Damage

1.1.14. If applicable, details of Critical Design Configuration Control Limitations together with appropriate procedures.

1.1.15. If applicable a statement of the limit of validity in terms of total flight cycles/calendar date/flight hours for the structural programme in 1.1.13.

1.1.16. The periods at which overhauls and/or replacements by new or overhauled components should be made.

1.1.17. A cross-reference to other documents approved by the state of design which contain the details of maintenance tasks related to mandatory life limitations, Certification Maintenance Requirements (CMR's) and ADs.

Note: To prevent inadvertent variations to such tasks or intervals these items should not be included in the main portion of the maintenance programme document, or any planning control system, without specific identification of their mandatory status.

1.1.18. Details of, or cross-reference to, any required reliability programme or statistical methods of continuous Surveillance.

1.1.19. A statement that practices and procedures to satisfy the programme should be to the standards specified in the TC holder's Maintenance Instructions. In the case of approved practices and procedures that differ, the statement should refer to them.

1.1.20. Each maintenance task quoted should be defined in a definition section of the programme.

2. Programme basis

2.1 An owner or a CAMO aircraft maintenance programme should normally be based upon the MRB report, where applicable, and the TC holder's maintenance planning document or Chapter 5 of the maintenance manual, (i.e. the manufacturer's recommended maintenance programme).

The structure and format of these maintenance recommendations may be re-written by the owner or the CAMO to better suit the operation and control of the particular maintenance programme.

2.2 For a newly type-certificated aircraft where no previously approved maintenance programme exists, it will be necessary for the owner or the CAMO to comprehensively appraise the manufacturer's recommendations (and the MRB report where applicable), together with other airworthiness information, in order to produce a realistic programme for approval.

2.3 For existing aircraft types it is permissible for the owner or CAMO to make comparisons with maintenance programmes previously approved. It should not be assumed that a programme approved for one owner or the CAMO would automatically be approved for another.

Evaluation should be made of the aircraft/fleet utilisation, landing rate, equipment fit and, in particular, the experience of the owner or the CAMO when assessing an existing programme.

Where the CAA is not satisfied that the proposed maintenance programme can be used as is, the CAA should request appropriate changes such as additional maintenance tasks or de-escalation of check frequencies as necessary.

2.4 Critical Design Configuration Control Limitations (CDCCL)

If CDCCL have been identified for the aircraft type by the TC/STC holder, maintenance instructions should be developed. CDCCL's are characterised by features in an aircraft installation or component that should be retained during modification, change, repair, or scheduled maintenance for the operational life of the aircraft or applicable component or part

3. Amendments

Amendments (revisions) to the approved maintenance programme should be made by the owner or the CAMO, to reflect changes in the TC holder's recommendations, modifications, service experience, or as required by the CAA.

4. Permitted variations to maintenance periods

The owner or the CAMO may only vary the periods prescribed by the programme with the approval of the CAA or through a procedure developed in the maintenance programme and approved by the CAA.

5. Periodic review of maintenance programme contents

5.1 The owner or the CAMO approved maintenance programmes should be subject to periodic review to ensure that they reflect current TC holder's recommendations, revisions to the MRB report if applicable, mandatory requirements and the maintenance needs of the aircraft.

5.2 The owner or the CAMO should review the detailed requirements at least annually for continued validity in the light of operating experience.

6. Reliability Programmes

6.1 Applicability

6.1.1. A reliability programme should be developed in the following cases:

(a) the aircraft maintenance programme is based upon MSG-3 logic;

(b) the aircraft maintenance programme includes condition monitored components;

(c) the aircraft maintenance programme does not contain overhaul time periods for all significant system components;

(d) when specified by the Manufacturer's maintenance planning document or MRB.

6.1.2. A reliability Programme need not be developed in the following cases:

(a) the maintenance programme is based upon the MSG-1 or 2 logic but only contains hard time or on condition items

(b) the aircraft is not a complex motor-powered aircraft according to MCAR-M

(c) the aircraft maintenance programme provides overhaul time periods for all significant system components.

Note: for the purpose of this paragraph, a significant system is a system the failure of which could hazard the aircraft safety.

6.1.3. Notwithstanding paragraphs 6.1.1 and 6.1.2 above, a CAMO may however, develop its own reliability monitoring programme when it may be deemed beneficial from a maintenance planning point of view.

6.2 Applicability for CAMO/operator of small fleets of aircraft

6.2.1. For the purpose of this paragraph, a small fleet of aircraft is a fleet of less than 6 aircraft of the same type.

6.2.2. The requirement for a reliability programme is irrespective of the CAMO fleet size.

6.2.3. Complex reliability programmes could be inappropriate for a small fleet. It is recommended that such CAMOs tailor their reliability programmes to suit the size and complexity of operation.

6.2.4. One difficulty with a small fleet of aircraft consists in the amount of available data which can be processed: when this amount is too low, the calculation of alert level is very coarse. Therefore "alert levels" should be used carefully.

6.2.5. A CAMO of a small fleet of aircraft, when establishing a reliability programme, should consider the following:

(a) The programme should focus on areas where a sufficient amount of data is likely to be processed.

(b) When the amount of available data is very limited, the CAMO engineering judgement is then a vital element. In the following examples, careful engineering analysis should be exercised before taking decisions:

- A "0" rate in the statistical calculation may possibly simply reveal that enough statistical data is missing, rather that there is no potential problem.

- When alert levels are used, a single event may have the figures reach the alert level. Engineering judgement is necessary so as to discriminate an artefact from an actual need for a corrective action.

- In making this engineering judgement, a CAMO is encouraged to establish contact and make comparisons with other CAMOs of the same aircraft, where possible and relevant. Making comparison with data provided by the manufacturer may also be possible.

6.2.6. In order to obtain accurate reliability data, it should be recommended to pool data and analysis with one or more other CAMO(s). Paragraph 6.6 of this paragraph specifies under which conditions it is acceptable that CAMOs share reliability data.

6.2.7. Notwithstanding the above there are cases where the CAMO will be unable to pool data with other CAMO, e.g. at the introduction to service of a new

type. In that case the CAA should impose additional restrictions on the MRB/MPD tasks intervals (e.g. no variations or only minor evolution are possible, and with the CAA approval).

6.3 Engineering judgement

6.3.1. Engineering judgement is itself inherent to reliability programmes as no interpretation of data is possible without judgement. In approving the CAMO maintenance and reliability programmes, the CAA is expected to ensure that the organisation which runs the programme (it may be CAMO, or an MCAR-145 organisation under contract) hires sufficiently qualified personnel with appropriate engineering experience and understanding of reliability concept (see AMC M.A.706)

6.3.2. It follows that failure to provide appropriately qualified personnel for the reliability programme may lead the CAA to reject the approval of the reliability programme and therefore the aircraft maintenance programme.

6.4 Contracted maintenance

6.4.1. Whereas M.A.302 specifies that, the aircraft maintenance programme – which includes the associated reliability programme-, should be managed and presented by the CAMO to the CAA, the CAMO may subcontract certain functions to the maintenance organisation under contract, provided this organisation proves to have the appropriate expertise.

6.4.2. These functions are:

(a) Developing the aircraft maintenance and reliability programmes,

(b) Performing the collection and analysis of the reliability data,

(c) Providing reliability reports, and

(d) Proposing corrective actions to the CAMO.

6.4.3. Notwithstanding the above, decision to implement a corrective action (or the decision to request from the CAA the approval to implement a corrective action) remains the CAMO prerogative and responsibility. In relation to paragraph 6.4.2(d) above, a decision not to implement a corrective action should be justified and documented.

6.4.4. The arrangement between the CAMO and the maintenance organisation should be specified in the maintenance contract (see appendix XI to AMC M.A.708(c)) and the relevant CAME, and maintenance organisation procedures.

6.5 Reliability programme

In preparing the programme details, account should be taken of this paragraph. All associated procedures should be clearly defined.

6.5.1. Objectives

6.5.1.1. A statement should be included summarising as precisely as possible the prime objectives of the programme. To the minimum it should include the following:

(a) to recognise the need for corrective action,

(b) to establish what corrective action is needed and,

(c) to determine the effectiveness of that action

6.5.1.2. The extent of the objectives should be directly related to the scope of the programme. Its scope could vary from a component defect monitoring system for a small CAMO, to an integrated maintenance management programme for a big CAMO. The manufacturer's maintenance planning documents may give guidance on the objectives and should be consulted in every case.

6.5.1.3. In case of a MSG-3 based maintenance programme, the reliability programme should provide a monitor that all MSG-3 related tasks from the maintenance programme are effective and their periodicity is adequate.

6.5.2. Identification of items.

The items controlled by the programme should be stated, e.g. by ATA Chapters. Where some items (e.g. aircraft structure, engines, APU) are controlled by separate programmes, the associated procedures (e.g. individual sampling or life development programmes, constructor's structure sampling programmes) should be cross referenced in the programme.

6.5.3. Terms and definitions.

The significant terms and definitions applicable to the Programme should be clearly identified. Terms are already defined in MSG-3, MCAR-145 and MCAR-M.

6.5.4. Information sources and collection.

6.5.4.1. Sources of information should be listed and procedures for the transmission of information from the sources, together with the procedure for collecting and receiving it, should be set out in detail in the CAME or MOE as appropriate.

6.5.4.2. The type of information to be collected should be related to the objectives of the Programme and should be such that it enables both an overall broad based assessment of the information to be made and also allow for assessments to be made as to whether any reaction, both to trends and to individual events, is necessary. The following are examples of the normal prime sources:

(a) Pilots Reports.

(b) Technical Logs.

(c) Aircraft Maintenance Access Terminal / On-board Maintenance System readouts.

(d) Maintenance Worksheets.

(e) Workshop Reports.

(f) Reports on Functional Checks.

(g) Reports on Special Inspections

(h) Stores Issues/Reports.

(i) Air Safety Reports.

(j) Reports on Technical Delays and Incidents.

(k) Other sources: ETOPS, RVSM, CAT II/III.

6.5.4.3. In addition to the normal prime sources of information, due account should be taken of continuing airworthiness and safety information promulgated under MCAR-21

6.5.5. Display of information.

Collected information may be displayed graphically or in a tabular format or a combination of both. The rules governing any separation or discarding of information prior to incorporation into these formats should be stated. The format should be such that the identification of trends, specific highlights

and related events would be readily apparent.

6.5.5.1. The above display of information should include provisions for "nil returns" to aid the examination of the total information.

6.5.5.2. Where "standards" or "alert levels" are included in the programme, the display of information should be oriented accordingly.

6.5.6. Examination, analysis and interpretation of the information.

The method employed for examining, analysing and interpreting the programme information should be explained.

6.5.6.1. Examination.

Methods of examination of information may be varied according to the content and quantity of information of individual programmes. These can range from examination of the initial indication of performance variations to formalised detailed procedures at specific periods, and the methods should be fully described in the programme documentation.

6.5.6.2. Analysis and Interpretation.

The procedures for analysis and interpretation of information should be such as to enable the performance of the items controlled by the programme to be measured; they should also facilitate recognition, diagnosis and recording of significant problems. The whole process should be such as to enable a critical assessment to be made of the effectiveness of the programme as a total activity. Such a process may involve:

(a) Comparisons of operational reliability with established or allocated standards (in the initial period these could be obtained from in-service experience of similar equipment of aircraft types).

(b) Analysis and interpretation of trends.

(c) The evaluation of repetitive defects.

(d) Confidence testing of expected and achieved results.

(e) Studies of life-bands and survival characteristics.

(f) Reliability predictions.

(g) Other methods of assessment.

6.5.6.3. The range and depth of engineering analysis and interpretation should be related to the particular programme and to the facilities available. The following, at least, should be taken into account:

(a) Flight defects and reductions in operational reliability.

(b) Defects occurring on-line and at main base.

(c) Deterioration observed during routine maintenance.

(d) Workshop and overhaul facility findings.

(e) Modification evaluations.

(f) Sampling programmes.

(g) The adequacy of maintenance equipment and publications.

(h) The effectiveness of maintenance procedures.

(i) Staff training.

(j) Service bulletins, technical instructions, etc.

6.5.6.4. Where the CAMO relies upon contracted maintenance and/or overhaul facilities as an information input to the programme, the arrangements for availability and continuity of such information should be established and details should be included.

6.5.7. Corrective Actions.

6.5.7.1. The procedures and time scales both for implementing corrective actions and for monitoring the effects of corrective actions should be fully described. Corrective actions shall correct any reduction in reliability revealed by the programme and could take the form of:

(a) Changes to maintenance, operational procedures or techniques.

(b) Maintenance changes involving inspection frequency and content, function checks, overhaul requirements and time limits, which will require amendment of the scheduled maintenance periods or tasks in the approved maintenance

programme. This may include escalation or de-escalation of tasks, addition, modification or deletion of tasks.

(c) Amendments to approved manuals (e.g. maintenance manual, crew manual).

(d) Initiation of modifications.

(e) Special inspections of fleet campaigns.

(f) Spares provisioning.

(g) Staff training.

(h) Manpower and equipment planning.

Note: Some of the above corrective actions may need the CAA approval before implementation.

6.5.7.2. The procedures for effecting changes to the maintenance programme should be described, and the associated documentation should include a planned completion date for each corrective action, where applicable.

6.5.8. Organisational Responsibilities.

The organisational structure and the department responsible for the administration of the programme should be stated. The chains of responsibility for individuals and departments (Engineering, Production, Quality, Operations etc.) in respect of the programme, together with the information and functions of any programme control committees (reliability group), should be defined. Participation of the CAA should be stated. This information should be contained in the CAME as appropriate.

6.5.9. Presentation of information to the CAA.

The following information should be submitted to the CAA for approval as part of the reliability programme:

(a) The format and content of routine reports.

(b) The time scales for the production of reports together with their distribution.

(c) The format and content of reports supporting request for increases in periods between maintenance (escalation) and for amendments to the

approved maintenance programme. These reports should contain sufficient detailed information to enable the CAA to make its own evaluation where necessary.

6.5.10. Evaluation and review.

Each programme should describe the procedures and individual responsibilities in respect of continuous monitoring of the effectiveness of the programme as a whole. The time periods and the procedures for both routine and non-routine reviews of maintenance control should be detailed (progressive, monthly, quarterly, or annual reviews, procedures following reliability "standards" or "alert levels" being exceeded, etc.).

6.5.10.1. Each Programme should contain procedures for monitoring and, as necessary, revising the reliability "standards" or "alert levels". The organisational responsibilities for monitoring and revising the "standards" should be specified together with associated time scales.

6.5.10.2. Although not exclusive, the following list gives guidance on the criteria to be taken into account during the review.

(a) Utilisation (high/low/seasonal).

(b) Fleet commonality.

(c) Alert Level adjustment criteria.

(d) Adequacy of data.

(e) Reliability procedure audit.

(f) Staff training.

(g) Operational and maintenance procedures.

6.5.11. Approval of maintenance programme amendment

The CAA may authorise the CAMO to implement in the maintenance programme changes arising from the reliability programme results prior to their formal approval by the authority when satisfied that;

(a) the Reliability Programme monitors the content of the Maintenance Programme in a comprehensive manner, and

(b) the procedures associated with the functioning of the "Reliability

Group" provide the assurance that appropriate control is exercised by the CAMO over the internal validation of such changes.

6.6 Pooling Arrangements.

6.6.1. In some cases, in order that sufficient data may be analysed it may be desirable to 'pool' data: i.e. collate data from a number of CAMOs of the same type of aircraft. For the analysis to be valid, the aircraft concerned, mode of operation, and maintenance procedures applied should be substantially the same: variations in utilisation between two CAMOs may, more than anything, fundamentally corrupt the analysis. Although not exhaustive, the following list gives guidance on the primary factors which need to be taken into account.

1 Certification factors, such as: aircraft TCDS compliance (variant)/modification status, including SB compliance.

2 Operational Factors, such as: operational environment/utilisation, e.g. low/high/seasonal, etc./respective fleet size operating rules applicable (e.g. ETOPS/RVSM/All Weather etc.)/operating procedures/MEL and MEL utilisation.

3 Maintenance factors, such as: aircraft age maintenance procedures; maintenance standards applicable; lubrication procedures and programme; MPD revision or escalation applied or maintenance programme applicable.

6.6.2. Although it may not be necessary for all of the foregoing to be completely common, it is necessary for a substantial amount of commonality to prevail. Decision should be taken by the CAA on a case by case basis.

6.6.3. In case of a short term lease agreement (less than 6 month) more flexibility against the para 6.6.1 criteria may be granted by the CAA, so as to allow the owner/CAMO to operate the aircraft under the same programme during the lease agreement effectivity.

6.6.4. Changes by any one of the CAMO to the above, requires assessment in order that the pooling benefits can be maintained. Where a CAMO wishes to pool data in this way, the approval of the CAA should be sought prior to any formal agreement being signed between CAMOs.

6.6.5. Whereas this paragraph 6.6 is intended to address the pooling of data directly between CAMOs, it is acceptable that the CAMO participates in a reliability programme managed by the aircraft manufacturer, when the CAA is satisfied that the manufacturer manages a reliability programme which complies with the intent of this paragraph.

Appendix II to AMC M.A.711(a)(3) Sub-contracting of continuing airworthiness management tasks

1. SUBCONTRACTED CONTINUING AIRWORTHINESS MANAGEMENT TASKS

1.1 To actively control the standards of the sub-contracted organisation, the CAMO should employ a person or group of persons who are trained and competent in the disciplines associated with M.A Subpart G. As such they are responsible for determining what maintenance is required, when it has to be performed and by whom and to what standard in order to ensure the continued airworthiness of the aircraft to be operated.

1.2 The CAMO should conduct a pre-subcontract audit to establish that the organisation to be subcontracted can achieve the standards required by M.A Subpart G in connection with those activities to be sub-contracted.

1.3 The CAMO should ensure that the organisation to be subcontracted has sufficient and qualified personnel who are trained and competent in the functions to be subcontracted. In assessing the adequacy of personnel resources, the CAMO should consider the particular needs of those activities that are to be subcontracted, while taking into account the subcontracted organisations existing commitments.

1.4 To be appropriately approved to subcontract continuing airworthiness management tasks, the CAMO should have procedures for the management control of these arrangements. The continuing airworthiness management exposition should contain relevant procedures to reflect its control of those arrangements made with the subcontracted organisation.

1.5 Subcontracted continuing airworthiness management tasks should be addressed in a contract between the CAMO and the subcontracted organisation. The contract should also specify that the subcontracted organisation is responsible for informing the CAMO, that is in turn responsible for notifying the CAA, of any subsequent changes that affect their ability to fulfil the contract.

1.6 The subcontracted organisation should use procedures which set out the manner of fulfilling its responsibilities with regard to the subcontracted activities. Such procedures may be developed by either the subcontracted organisation or the CAMO.

1.7 Where the subcontracted organisation develops its own procedures, they should be compatible with the continuing airworthiness management exposition and the terms of the contract. These should be accepted by the CAA as extended procedures of the CAMO and as such should be cross-referenced from the continuing airworthiness management exposition. One current copy of the subcontracted organisation's relevant procedures should be kept by the CAMO and should be accessible to the

CAA when needed.

Note: Should any conflict arise between the subcontracted organisation's procedures and those of the CAMO, then the policy and procedures of the continuing airworthiness management exposition will prevail.

1.8 The contract should also specify that the subcontracted organisation's procedures may only be amended with the agreement of the CAMO. The CAMO should ensure that these amendments are compatible with their continuing airworthiness management exposition and comply with M.A Subpart G.

The CAMO should nominate the person responsible for continued monitoring and acceptance of the subcontracted organisation's procedures and their amendments. The controls used to fulfil this function should be clearly set out in the amendment section of the continuing airworthiness management exposition detailing the level of CAMO involvement.

1.9 Whenever any elements of continuing airworthiness management tasks are subcontracted, the CAMO personnel should have access to all relevant data in order to fulfil their responsibilities.

Note: The CAMO retains authority to override, whenever necessary for the continuing airworthiness of their aircraft, any recommendation of the subcontracted organisation.

1.10 The CAMO should ensure that the subcontracted organisation continues to have qualified technical expertise and sufficient resources to perform the subcontracted tasks while complying with the relevant procedures. Failure to do so may invalidate the CAMO approval.

1.11 The contract should provide for CAA monitoring.

1.12 The contract should address the respective responsibilities to ensure that any findings arising from the CAA monitoring will be closed to the satisfaction of the CAA.

2. ACCOMPLISHMENT

This paragraph describes topics, which may be applicable in such a subcontract arrangements.

2.1 Scope of work

The type of aircraft and their registrations, engine types and/or components subject to the continuing airworthiness management tasks contract should be specified.

2.2 Maintenance programme development and amendment

The CAMO may subcontract the preparation of the draft maintenance programme and any subsequent amendments. However, the CAMO remains responsible for assessing that the draft proposals meet its needs and obtaining CAA approval; the relevant procedures should specify these responsibilities. The contract should also stipulate that any data necessary to substantiate the approval of the initial programme or an amendment to this programme should be provided for CAMO agreement and/or CAA upon request.

2.3 Maintenance programme effectiveness and reliability

The CAMO should have a system in place to monitor and assess the effectiveness of the maintenance programme based on maintenance and operational experience. The collection of data and initial assessment may be made by the subcontracted organisation; the required actions are to be endorsed by the CAMO.

Where reliability monitoring is used to establish the effectiveness of the maintenance programme, this may be provided by the subcontracted organisation and should be specified in the relevant procedures. Reference should be made to the approved maintenance and reliability programme. Participation of the CAMO's personnel in reliability meetings with the subcontracted organisation should also be specified.

When providing reliability data, the subcontracted organisation is limited to working with primary data/documents provided by the CAMO or data provided by the CAMO's contracted maintenance organisation(s) from which the reports are derived. The pooling of reliability data is permitted if it is acceptable to the CAA.

2.4 Permitted variations to maintenance programme.

The reasons and justification for any proposed variation to scheduled maintenance may be prepared by the subcontracted organisation. Acceptance of the proposed variation should be granted by the CAMO. The means by which the CAMO acceptance is given should be specified in the relevant procedures. When outside the limits set out in the maintenance programme, the CAMO is required to obtain approval by the CAA.

2.5 Scheduled maintenance

Where the subcontracted organisation plans and defines maintenance checks or inspections in accordance with the approved maintenance programme, the required liaison with the CAMO, including feedback should be defined.

The planning control and documentation should be specified in the appropriate supporting procedures. These procedures should typically set out the CAMO's level of involvement in each type of check. This will normally involve the CAMO assessing and agreeing to a work specification on a case–by-case basis for base maintenance

checks. For routine line maintenance checks, this may be controlled on a day-to-day basis by the subcontracted organisation subject to appropriate liaison and CAMO controls to ensure timely compliance. This may typically include, but is not necessarily limited to:

- applicable work package, including job cards,
- scheduled component removal list,
- ADs to be incorporated,
- modifications to be incorporated

The associated procedures should ensure that the CAMO is informed in a timely manner on the accomplishment of such tasks.

2.6 Quality monitoring

The CAMO's quality system should monitor the adequacy of the subcontracted continuing airworthiness management task performance for compliance with the contract and with M.A Subpart G. The terms of the contract should therefore include a provision allowing the CAMO to perform a quality surveillance (including audits) of the subcontracted organisation. The aim of the surveillance is primarily to investigate and judge the effectiveness of those subcontracted activities and thereby to ensure compliance with M.A Subpart G and the contract. Audit reports may be subject to review when requested by the CAA.

2.7 Access to the CAA

The contract should specify that the subcontracted organisation should always grant access to the CAA.

2.8 Maintenance data

The maintenance data used for the purpose of the contract should be specified, together with those responsible for providing such documentation and the competent authority responsible for the acceptance/approval of such data, when applicable. The CAMO should ensure that such data, including revisions, is readily available to the CAMO personnel and to those in the subcontracted organisation who may be required to assess such data. The CAMO should establish a 'fast track' means to ensure that urgent data is transmitted to the subcontractor in a timely manner. Maintenance data may include, but is not necessarily limited to:

- the maintenance programme,
- airworthiness directives,

- service bulletins,
- major repairs/modification data,
- aircraft Maintenance Manual,
- engine overhaul manual,
- aircraft illustrated parts catalogue ,
- wiring diagrams,
- trouble shooting manual,

2.9 Airworthiness directives (ADs)

While the various aspects of AD assessment, planning and follow-up may be accomplished by the subcontracted organisation, AD embodiment is performed by a maintenance organisation. The CAMO is responsible for ensuring timely embodiment of applicable ADs and is to be provided with notification of compliance. It, therefore, follows that the CAMO should have clear policies and procedures on AD embodiment supported by defined procedures which will ensure that the CAMO agrees to the proposed means of compliance.

The relevant procedures should specify:

- What information (e.g. AD publications, continuing airworthiness records, flight hours/cycles, etc.) the subcontracted organisation needs from the CAMO.
- What information (e.g. AD planning listing, detailed engineering order, etc) the CAMO needs from the subcontracted organisation in order to ensure timely compliance with the ADs.

To fulfil the above responsibility, the CAMO should ensure that it receives current mandatory continued airworthiness information for the aircraft and equipment it is managing.

2.10 Service bulletin (SB) modifications

The subcontracted organisation may be required to review and make recommendations on the embodiment of an SB and other associated non-mandatory material based on a clear policy established by the CAMO. This should be specified in the contract.

2.11 Service life limit controls & component control/removal forecast.

Where the subcontracted organisation performs planning activities, it should be specified that the organisation should be receive the current flight cycles; flight hours; landings and/or calendar controlled details, as applicable, at a frequency to be specified in the contract. The frequency should be such that it allows the organisation to properly perform the subcontracted planning functions. It ,therefore, follows that there will need to be adequate liaison between the CAMO, the contracted maintenance organisation(s) and the subcontracted organisation. Additionally, the contract should specify how the CAMO will be in possession of all current flight cycles, flight hours, etc., so that it may assure the timely accomplishment of the required maintenance.

2.12 Engine health monitoring

If the CAMO subcontracts the on-wing engine health monitoring, the subcontracted organisation should receive all the relevant information to perform this task, including any parameter reading deemed necessary to be supplied by the CAMO for this control. The contract should also specify what kind of feedback information (such as engine limitation, appropriate technical advice, etc.) the organisation should provide to the CAMO.

2.13 Defect control

Where the CAMO has subcontracted the day-to-day control of technical log deferred defects, this should be specified in the contract and should be adequately described in the appropriate procedures. The operator's MEL/CDL provides the basis for establishing which defects may be deferred and associated limits. The procedures should also define the responsibilities and actions to be taken for defects such as AOG situations, repetitive defects, and damage beyond the type certificate holder's limits.

For all other defects identified during maintenance, the information should be brought to the attention of the CAMO which, depending upon the procedural authority granted by the CAA, may determine that some defects can be deferred. Therefore, adequate liaison between the CAMO, its subcontracted organisation and contracted maintenance organisation should be ensured.

The subcontracted organisation should make a positive assessment of potential deferred defects and consider potential hazards arising from the cumulative effect of any combination of defects. The subcontracted organisations should liaise with the CAMO to get its agreement following this assessment.

Deferment of MEL/CDL allowable defects can be accomplished by a contracted maintenance organisation in compliance with the relevant technical log procedures, subject to the acceptance by the aircraft commander.

2.14 Mandatory occurrence reporting

All incidents and occurrences that meet the reporting criteria defined in MCAR-M and MCAR-145 should be reported as required by the respective requirements. The CAMO should ensure that adequate liaison exists with the subcontracted organisation and the maintenance organisation.

2.15 Continuing airworthiness records

They may be maintained and kept by the subcontracted organisation on behalf of the CAMO which remains the owner of these documents. However, the CAMO should be provided with the current status of AD compliance and service life-limited components in accordance with agreed procedures. The CAMO should also be granted unrestricted and timely access to original records as and when needed. Online access to the appropriate information systems is acceptable.

The record-keeping requirements of MCAR-M should be met. Access to the records by duly authorised members of the CAA should be granted upon request.

2.16 Check flight procedures

Check Flights are performed under the control of the CAMO. Check flight requirements from the subcontracted organisation or contracted maintenance organisation should be agreed by the CAMO.

2.17 Communication between the CAMO and the subcontracted organisation

2.17.1. In order to fulfil its airworthiness responsibility, the CAMO needs to receive all the relevant reports and relevant maintenance data. The contract should specify what information should be provided and when.

2.17.2. Meetings provide one important corner stone whereby the CAMO can fulfil part of its responsibility for ensuring the airworthiness of the operated aircraft. They should be used to establish good communication between the CAMO, the subcontracted organisation and the contracted maintenance organisation. The terms of the contract should include, whenever appropriate, the provision for a certain number of meetings to be held between involved parties. Details of the types of liaison meetings and associated terms of reference of each meeting should be documented. The meetings may include but are not limited to all or a combination of:

a – Contract review

Before the contract is enforced, it is very important that the technical personnel of both parties, that are involved in the fulfilment of the contract, meet in order to be sure that every point leads to a common understanding of the duties of both parties.

b – Work scope planning meeting

Work scope planning meetings may be organised so that the tasks to be performed may be commonly agreed.

c – Technical meeting

Scheduled meetings should be organised in order to review on a regular basis and agree actions on technical matters such as ADs, SBs, future modifications, major defects found during shop visit, reliability, etc...

d – Quality meeting

Quality meetings should be organised in order to examine matters raised by the CAMO's quality surveillance and the CAA's monitoring activity and to agree upon necessary corrective actions.

e – Reliability meeting

When a reliability programme exists, the contract should specify the involvement of the CAMO and of the subcontracted organisation in that programme, including their participation in reliability meetings. Provision to enable the CAA participation in the periodical reliability meetings should also be made.

Appendix III (Reserved)

Appendix IV to AMC M.A.604 Maintenance Organisation Manual

1. Purpose

The maintenance organisation manual is the reference for all the work carried out by the approved maintenance organisation. It should contain all the means established by the organisation to ensure compliance with MCAR-M according to the extent of approval and the privileges granted to the organisation.

The maintenance organisation manual should define precisely the work that the approved maintenance organisation is authorised to carry out and the subcontracted work. It should detail the resources used by the organisation, its structure and its procedures.

2. Content

A typical Maintenance Organisation Manual for a small organisation (less than 10 maintenance staff) should be designed to be used directly on a day to day basis. The working documents and lists should be directly included into the manual. It should contain the following:

Part A — General

— **Table of contents**

— **List of effective pages**

— **Record of amendments**

— **Amendment procedure**

- Drafting
- Amendments requiring direct approval by the CAA
- Approval

— **Distribution**

- Name or title of each person holding a copy of the manual

— **Accountable manager statement**

- Approval of the manual

- Statement that the maintenance organisation manual and any incorporated document identified therein reflect the organisation's means of compliance with MCAR-M

- Commitment to work according to the manual

- Commitment to amend the manual when necessary

Part B — Description

— **Organisation's scope of work**

- Description of the work carried out by the organisation (type of product, type of work) and subcontracted work

- Identification of the level of work which can be performed at each facility.

— **General presentation of the organisation**

- Legal name and social status

— **Name and title of management personnel**

- Accountable manager

- Senior managers

- Duties and responsibilities

— **Organisation chart**

— **Certifying staff and airworthiness review staff**

- Minimum qualification and experience

- List of authorised certifying staff and airworthiness review staff, their scope of qualification and the personal authorisation reference

— **Personnel**

- Technical personnel (number, qualifications and experience)

- Administrative personnel (number)

— **General description of the facility**

- Geographical location (map)

- Plan of hangars
- Specialised workshops
- Office accommodation
- Stores
- Availability of all leased facilities.

— **Tools, equipment and material**

- List of tools, equipment and material used (including access to tools used on occasional basis)
- Test apparatus
- Calibration frequencies

— **Maintenance data**

- List of maintenance data used in accordance with M.A.402, and appropriate amendment subscription information (including access to data used on occasional basis).

Part C — General Procedures

— **Organisational review**

- Purpose (to insure that the approved maintenance organisation continues to meet the requirements of MCAR-M)
- Responsibility
- Organisation, frequency, scope and content (including processing of authority's findings)
- Planning and performance of the review
- Organisational review checklist and forms
- Processing and correction of review findings

- Reporting
- Review of subcontracted work

— **Training**

- Description of the methods used to ensure compliance with the personnel qualification and training requirements (certifying staff training, specialised training)
- Description of the personnel records to be retained

— **Subcontracting of specialised services**

- Selection criteria and control
- Nature of subcontracted work
- List of subcontractors
- Nature of arrangements
- Assignment of responsibilities for the certification of the work performed

— **One time authorisations**

- Maintenance checks
- Certifying staff

Part D — Working Procedures

— **Work order acceptance**

— **Preparation and issue of the work package**

- Control of the work order
- Preparation of the planned work
- Work package content (copy of forms, work cards, procedure for their use, distribution)
- Responsibilities and signatures needed for the authorisation of the work

— **Logistics**

- Persons/functions involved
- Criteria for choosing suppliers
- Procedures used for incoming inspection and storage of parts, tools and materials
- Copy of forms and procedure for their use and distribution

— **Execution**

- Persons/functions involved and respective role
- Documentation (work package and work cards)
- Copy of forms and procedure for their use and distribution
- Use of work cards or manufacturer's documentation
- Procedures for accepting components from stores including eligibility check
- Procedures for returning unserviceable components to stores

— **Release to Service – Certifying staff**

- Authorised certifying staff functions and responsibilities

— **Release to Service – Supervision**

Detailed description of the system used to ensure that all maintenance tasks, applicable to the work requested of the approved maintenance organisation, have been completed as required.

- Supervision content
- Copy of forms and procedure for their use and distribution
- Control of the work package

— **Release to Service – Certificate of release to service**

- Procedure for signing the CRS (including preliminary actions)
- Certificate of release to service wording and standardised form

- Completion of the aircraft continuing airworthiness record system
- Completion of CAA Form 1
- Incomplete maintenance
- Check flight authorisation
- Copy of CRS and CAA Form 1

— **Records**

— **Airworthiness review procedures and records for ELA1 aircraft not involved in commercial operations**

— **Development and approval processing for maintenance programme for ELA2 aircraft not involved in commercial operations.**

— **Special procedures**

Such as specialised tasks, disposal of unsalvageable components, re-certification of parts not having an CAA Form 1, etc.

— **Occurrence reporting**

- Occurrences to be reported
- Timeframe of reports
- Information to be reported
- Recipients

— **Management of indirect approval of the manual**

- Amendments content eligible for indirect approval
- Responsibility
- Traceability
- Information to the CAA
- Final validation

Part E – Appendices

— **Sample of all documents used.**

— **List of maintenance locations.**

— **List of MCAR-145 or M.A. Subpart F organisations.**

— **List of subcontracted specialised services.**

3. Approval

The CAA should approve the manual in writing. This will normally be done by approving a list of effective pages.

Minor amendments, or amendments to a large capability list, can be approved indirectly, through a procedure approved by CAA.

4. Continuous compliance with MCAR-M

When a maintenance organisation manual no longer meets the requirements of this MCAR-M, whether through a change in MCAR-M, a change in the organisation or its activities, or through an inadequacy shown to exist by verification inspections conducted under the organisational review, or any other reason that affects the manuals conformity to requirements, the approved maintenance organisation is responsible to prepare and have approved an amendment to its manual.

5. Distribution

The manual describes how the organisation works therefore the manual or relevant parts thereof need to be distributed to all concerned staff in the organisation and contracted organisations.

Appendix V to AMC M.A.704 Continuing airworthiness management exposition

CONTINUING AIRWORTHINESS MANAGEMENT EXPOSITION (CAME)
TABLE OF CONTENT

LIST OF EFFECTIVE PAGES

Page	Revision
1	Original
2	Original

Page	Revision
3	Original
4	Original

Page	Revision
5	Original
.....	.....

DISTRIBUTION LIST

(The document should include a distribution list to ensure proper distribution of the manual and to demonstrate to the CAA that all personnel involved in continuing airworthiness activities have access to the relevant information. This does not mean that all personnel have to receive a manual, but that a reasonable amount of manuals is distributed within the organisation(s) so that personnel concerned have quick and easy access to the manual.

Accordingly, the continuing airworthiness management exposition should be distributed to:

- *the operator's or the organisation's management personnel and any person at a lower level as necessary; and,*

- *the MCAR-145 or M.A. Subpart F contracted maintenance organisation(s); and,*

- *the CAA.)*

PART 0 GENERAL ORGANISATION

0.1 Corporate commitment by the accountable manager

(The accountable manager's exposition statement should embrace the intent of the following paragraph, and in fact this statement may be used without amendment. Any amendment to the statement should not alter its intent.)

'This exposition defines the organisation and procedures upon which the M.A. Subpart G approval of Joe Bloggs under MCAR-M is based.

These procedures are approved by the undersigned and must be complied with, as applicable, in order to ensure that all continuing airworthiness activities, including maintenance of aircraft managed by Joe Bloggs, are carried out on time to an approved standard.

It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published by the CAA from time to time where these new or amended regulations are in conflict with these procedures.

The CAA will approve this organisation whilst it is satisfied that the procedures are followed. It is understood that the CAA reserves the right to suspend, limit or revoke the M.A. Subpart G continuing airworthiness management approval of the organisation, as applicable, if the CAA has evidence that the procedures are not followed and the standards not upheld.

In the case of licenced air carriers, suspension or revocation of the approval of the M.A. Subpart G continuing airworthiness management organisation would invalidate the AOC.

0.2 General Information

a. Brief description of the organisation

(This paragraph should describe broadly how the whole organisation [i.e. including the whole operator in the case of licenced air carriers or the whole organisation when other approvals are held] is organised under the management of the accountable manager, and should refer to the organisation charts of paragraph 0.4.)

b. Relationship with other organisations

(This paragraph may not be applicable to every organisation.)

(1) Subsidiaries / mother company

(For clarity purpose, where the organisation belongs to a group, this paragraph should explain the specific relationship the organisation may have with other

members of that group, e.g. links between Joe Bloggs Airlines, Joe Bloggs Finance, Joe Bloggs Leasing, Joe Bloggs Maintenance, etc...)

(2) Consortia

(Where the organisation belongs to a consortium, it should be indicated here. The other members of the consortium should be specified, as well as the scope of organisation of the consortium [e.g. operations, maintenance, design (modifications and repairs), production etc...]. The reason for specifying this is that consortium maintenance may be controlled through specific contracts and through consortium's policy and/or procedures manuals that might unintentionally override the maintenance contracts. In addition, in respect of international consortia, the respective competent authorities should be consulted and their agreement to the arrangement should be clearly stated. This paragraph should then make reference to any consortium's continuing airworthiness related manual or procedure and to any competent authority agreement that would apply.)

c. Scope of work - Aircraft managed

(This paragraph should specify the scope of the work for which the CAMO is approved. This paragraph may include aircraft types/series, aircraft registrations, owner/operator, contract references, etc. The following is given as an example :)

Aircraft type/ series	Date included in the scope of work	Aircraft maintenance programme or "generic/base line" maintenance programme	Aircraft registration(s)	Owner/ operator	CAMO contract reference

For licenced air carriers, this paragraph can make reference to the operations specifications or operations manual where the aircraft registrations are listed.

(Depending on the number of aircraft, this paragraph may be updated as follows:

-1) the paragraph is revised each time an aircraft is removed from or added in the list.

-2) the paragraph is revised each time a type of aircraft or a significant number of aircraft is removed from or added to the list; in that case, the paragraph should explain where the current list of aircraft managed is available for consultation.)

d. Type of operation

(This paragraph should give broad information on the type of operations such as: commercial air transport operations, (commercial) specialised operations, training

organisation, NCC, NCO, long haul/short haul/regional, scheduled/charter, regions / countries / continents flown, etc)

0.3 Management personnel

a. Accountable manager

(This paragraph should address the duties and responsibilities of the accountable manager as regards M.A. Subpart G approvals and should demonstrate that he/she has corporate authority for ensuring that all continuing airworthiness activities can be financed and carried out to the required standard.)

b. Nominated post holder for continuing airworthiness referred to in M.A.706(d)

(This paragraph should:

- *emphasise that the nominated postholder for continuing airworthiness is responsible to ensure that all maintenance is carried out on time to an approved standard; and*

- *describe the extent of his/her authority as regards his/her MCAR-M responsibility for continuing airworthiness.*

c. Continuing airworthiness coordination

(This paragraph should list in sufficient detail the job functions that constitute the "group of persons" as required by M.A.706(c) so as to show that all the continuing airworthiness responsibilities as described in MCAR-M are covered by the persons that constitute that group. In the case of small operators where the "nominated post-holder" for continuing airworthiness constitutes himself/herself the "group of persons", this paragraph may be merged with the previous one.)

d. Duties and responsibilities

(This paragraph should further elaborate the duties and responsibilities of all the nominated persons and of any other management personnel.)

e. Manpower resources and training policy

(1) Manpower resources

(This paragraph should give broad figures to show that the number of people assigned to the performance of the approved continuing airworthiness activity is adequate. It is not necessary to give the detailed number of employees of the whole company, but only the number of those involved in continuing airworthiness. This could be presented as follows:)

As of 28 November 2003, the number of employees assigned to the performance of the continuing airworthiness management system is the following:

	Full-time	Part-time in equivalent full-time
Quality monitoring	AA	aa = AA'
Continuing airworthiness management	BB	bb = BB'
(Detailed information about the	BB1	bb1 = BB1'
Management of group of persons)	BB2	bb2 = BB2'
Other...	CC	cc =CC'
Total	TT	tt = TT'
Total man-hours	TT + TT'	

(Note: According to the size and complexity of the organisation, this table may be further developed or simplified)

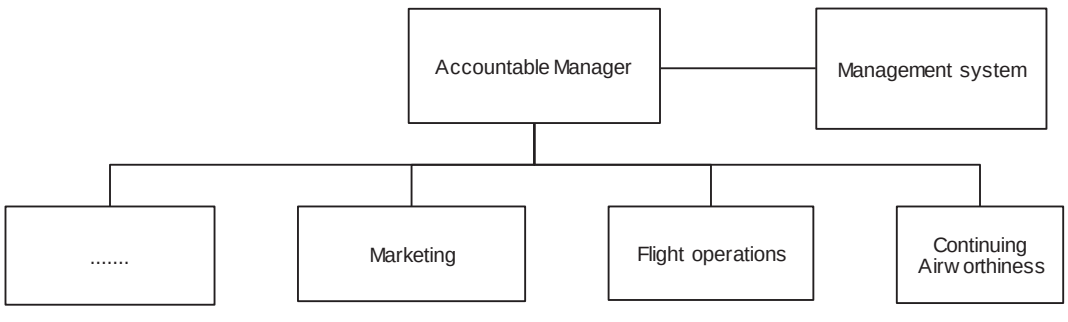
(2) Training policy

(This paragraph should show that the training and qualification standards for the personnel mentioned above are consistent with the size and complexity of the organisation. It should also explain how the need for recurrent training is assessed and how the training recording and follow-up is performed)

0.4 Management organisation charts

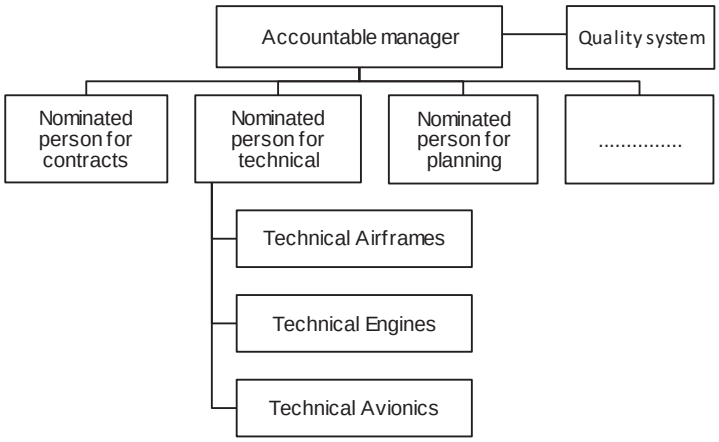
a. General organisation chart

This flow chart should provide a comprehensive understanding of the whole company's organisation. For example, the case of a licenced air carriers:



b. Continuing airworthiness management organisation chart

This flow chart should give further details on the continuing airworthiness management system, and should clearly show the independence of the quality monitoring system, including the links between the quality department and the other departments (see example below). This flow chart may be combined with the one above or subdivided as necessary, depending on the size and complexity of the organisation.



0.5 Procedure to notify the CAA of changes to the organisation's activities / approval / location / personnel

(This paragraph should explain the cases where the company should inform the CAA prior to incorporating proposed changes, for instance:

The accountable manager (or any nominated person such as the nominated postholder or the quality manager) will notify the CAA of any change concerning:

(1) the company's name and location(s)

(2) the group of persons as specified in paragraph 0.3.c); and

(3) operations, procedures and technical arrangements, as far as they may affect the approval.

Joe Bloggs will not incorporate such changes until they have been assessed and approved by the CAA.)

0.6 Exposition amendment procedure

(This paragraph should explain who is responsible for the amendment of the exposition and its submission to the CAA for approval. This may include, if agreed by the CAA, the possibility for the approved organisation to approve internally minor amendments that have no impact

on the approval held. The paragraph should then specify what types of amendments are considered as minor and major, and what the approval procedures for both cases are.)

PART 1 CONTINUING AIRWORTHINESS MANAGEMENT PROCEDURES

1.1 Aircraft technical log utilisation and MEL application
or
1.1 Aircraft continuing airworthiness record system utilisation

a. Aircraft technical log and/or continuing airworthiness record system

1. General

(It may be useful to recall, in this introductory paragraph, the purpose of the aircraft technical log system and/or continuing airworthiness record system, with special attention to the options of M.A.305 and M.A.306.

For that purpose, the paragraphs of M.A.305 and M.A.306 may be quoted or further explained.)

2. Instructions for use

(This paragraph should provide instructions for using the aircraft technical log and/or continuing airworthiness record system. It should emphasise the respective responsibilities of the maintenance personnel and operating crew. Samples of the technical log and/or continuing airworthiness record system should be included in Part 5 "Appendices" in order to provide enough detailed instructions.)

3. Aircraft technical log approval

(This paragraph should explain who is responsible for submitting the aircraft technical log, and any subsequent amendment thereto, to the CAA for approval and what is the procedure to be followed)

b. MEL application

(The MEL is a document not controlled by the CAMO and the decision of whether accepting or not the operation with a defect deferred in accordance with the MEL is normally the responsibility of the operating crew. This paragraph should explain in sufficient detail the MEL application procedure, because the MEL is a tool that the personnel involved in continuing airworthiness and maintenance have to be familiar with in order to ensure proper and efficient communication with the crew in case of a defect rectification to be deferred.)

(This paragraph does not apply to those types of aircraft that do not have an MEL)

1. General

(This paragraph should explain broadly what a MEL document is. The information could be extracted from the aircraft flight manual.)

2. MEL categories

(Where an owner/operator uses a classification system placing a time constraint on the rectification of defects, it should be explained here what are the general principles of such a system. It is essential for the personnel involved in maintenance to be familiar with it for the management of MEL's deferred defect rectification.)

3. Application

(This paragraph should explain how the continuing airworthiness and maintenance personnel make the flight crew aware of an MEL limitation. This should refer to the technical log procedures)

4. Acceptance by the crew

(This paragraph should explain how the crew notifies their acceptance or non-acceptance of the MEL deferment in the technical log)

5. Management of the MEL time limits

(Once a technical limitation is accepted by the crew, the defect must be rectified within the time limit specified in the MEL. There should be a system to ensure that the defect will actually be rectified before that time limit. This system could be the aircraft technical log for those [small] operators that use it as a planning document, or a specific follow-up system where control of the maintenance time limit is ensured by other means such as data processed planning systems.)

6. MEL time limitation overrun

(The CAA may allow the owner/operator to overrun MEL time limitation under specific conditions. Where applicable, this paragraph should describe the specific duties and responsibilities with regard to controlling these extensions.)

1.2 Aircraft maintenance programme - development and amendment

a. General

(This introductory paragraph should recall that the purpose of a maintenance programme is to provide maintenance planning instructions necessary for the safe operation of the aircraft.)

b. Content

(This paragraph should explain what is [are] the format[s] of the aircraft maintenance programme[s]. Appendix I to AMC M.A.302 (a) should be used as a guideline to develop this paragraph.)

c. Development

1. Sources

(This paragraph should explain what are the sources [MRB, MPD, Maintenance Manual, etc..] used for the development of an aircraft maintenance programme.)

2. Responsibilities

(This paragraph should explain who is responsible for the development of an aircraft maintenance programme)

3. Manual amendments

(This paragraph should demonstrate that there is a system for ensuring the continuing validity of the aircraft maintenance programme. Particularly, it should show how any relevant information is used to update the aircraft maintenance programme. This should include, as applicable, MRB report revisions, consequences of modifications, manufacturer and CAA recommendations, in service experience, and reliability reports.)

4. Acceptance by the authority

(This paragraph should explain who is responsible for the submission of the maintenance programme to the CAA and what the procedure to follow is. This should in particular address the issue of the approval for variation to maintenance periods either by the CAA or by a procedure in the maintenance programme for the organisation to approve internally certain changes.)

1.3 Time and continuing airworthiness records, responsibilities, retention and access

a. Hours and cycles recording

(The recording of flight hours and cycles is essential for the planning of maintenance tasks. This paragraph should explain how the continuing airworthiness management organisation has access to the current flight hours and cycles information and how it is processed through the organisation.)

b. Records

(This paragraph should give in detail the type of company documents that are required to be recorded and what are the recording period requirements for each of them. This can be provided by a table or series of tables that would include the following:

- Family of document [if necessary],
- Name of document,
- Retention period,
- Responsible person for retention,
- Place of retention,)

c. Preservation of records

(This paragraph should set out the means provided to protect the records from fire, floods, etc.. as well as the specific procedures in place to ensure that the records will not be altered during the retention period [especially computer records].)

d. Transfer of continuing airworthiness records

(This paragraph should set out the procedure for the transfer of records, in case of purchase/lease-in, sale/lease-out and transfer to another organisation. In particular, it should specify which records have to be transferred and who is responsible for the coordination [if necessary] of the transfer.)

1.4 Accomplishment and control of Airworthiness Directives

(This paragraph should demonstrate that there is a comprehensive system in place for the management of airworthiness directives. This paragraph may, for instance, include the following subparagraphs:)

a. Airworthiness directive information

(This paragraph should explain what the AD information sources are and who receives them in the company. Where available, multiple sources [e.g. CAA of state of design + CAA + manufacturer or association] may be useful.)

b. Airworthiness directive decision

(This paragraph should explain how and by whom the AD information is analysed and what kind of information is provided to the contracted maintenance organisations in order to plan and perform the airworthiness directive. This should include as necessary a specific procedure for the management of emergency airworthiness directives)

c. Airworthiness directive control

(This paragraph should specify how the organisation manages to ensure that all the applicable airworthiness directives are accomplished and that they are accomplished on

time. This should include a closed-loop system that allows verifying that for each new or revised airworthiness directive and for each aircraft:

- *the AD is not applicable or,*
- *if the AD is applicable:*

the AD is not yet accomplished but the time limit is not overdue,
the AD is accomplished, and any repetitive inspection is identified and performed.

This may be a continuous process or may be based on scheduled reviews.)

1.5 Analysis of the effectiveness of the maintenance programme

(this paragraph should show what tools are used in order to analyse the efficiency of the maintenance programme, such as:

- *pilot report (PIREPS),*
- *air turnbacks*
- *spare consumption,*
- *repetitive technical occurrence and defect,*
- *technical delays analysis [through statistics, if relevant],*
- *technical incidents analysis [through statistics, if relevant],*
- *etc...*

This paragraph should also indicate by whom and how this data is analysed, what is the decision process to take action and what kind of action could be taken. This may include:

- *amendment of the maintenance programme,*
- *amendment of maintenance or operational procedures,*
- *etc...)*

1.6 Non-mandatory modification embodiment policy

(This paragraph should specify how the non-mandatory modification information is processed through the organisation, who is responsible for its assessment against the operator's/owner's own needs and operational experience, what are the main criteria for decision and who takes the decision of implementing [or not] a non-mandatory modification)

1.7 Major repair and modification standards

(This paragraph should set out a procedure for the assessment of the approval status of any major repair or modification before embodiment. This will include the assessment of the need of CAA or design organisation approval. It should also identify the type of approval required, and the procedure to follow to have a repair or modification approved by the CAA or design organisation.)

1.8 Defect reports

a. Analysis

(This paragraph should explain how the defect reports provided by the contracted maintenance organisations are processed by the continuing airworthiness management organisation. Analysis should be conducted in order to give elements to activities such as maintenance programme evolution and non-mandatory modification policy.)

b. Liaison with manufacturers and regulatory authorities

(Where a defect report shows that such defect is likely to occur to other aircraft, a liaison should be established with the manufacturer and the certification competent authority so that they may take all the necessary action.)

c. Deferred defect policy

(Defects such as cracks and structural defect are not addressed in the MEL and CDL. However, it may be necessary in certain cases to defer the rectification of a defect. This paragraph should establish the procedure to be followed in order to be sure that the deferment of any defect will not lead to any safety concern. This will include appropriate liaison with the manufacturer.)

1.9 Engineering activity

(Where applicable, this paragraph should present the scope of the organisation's engineering activity in terms of approval of modifications and repairs. It should set out a procedure for developing and submitting a modification/repair design for approval to the CAA and include reference to the supporting documentation and forms used. It should identify the person in charge of accepting the design before submission to the CAA.

Where the organisation has a DOA capability under EASA Part 21, it should be indicated here and the related manuals should be referred to.)

1.10 Reliability programmes

(This paragraph should explain appropriately the management of a reliability programme. It should at least address the following:

- *extent and scope of the reliability programme,*
- *specific organisational structure, duties and responsibilities,*
- *establishment of reliability data,*
- *analysis of the reliability data,*
- *corrective action system (maintenance programme amendment),*
- *scheduled reviews (reliability meetings and when the participation of the CAA is needed.)*

(This paragraph may, where necessary, be subdivided as follows:)

a. Airframe
b. Propulsion
c. Component

1.11 Pre-flight inspections

(This paragraph should show how the scope and definition of pre-flight inspection, that is usually performed by the operating crew , are kept consistent with the scope of the maintenance performed by the contracted maintenance organisations. It should show how the evolution of the content of the pre-flight inspection and of the maintenance programme are concurrent.)

(The following paragraphs are self-explanatory. Although these activities are normally not performed by continuing airworthiness personnel, these paragraphs have been placed here in order to ensure that the related procedures are consistent with the continuing airworthiness activity procedures.)

a. Preparation of aircraft for flight
b. Subcontracted ground handling function
c. Security of Cargo and Baggage loading
d. Control of refueling, Quantity/Quality
e. Control of snow, ice, residues from de-icing or anti-icing operations, dust and sand contamination to an approved standard

1.12 Aircraft weighing

(This paragraph should state the cases where an aircraft has to be weighed [for instance, after a major modification because of weight and balance operational requirements, etc.], who performs it, according to which procedure, who calculates the new weight and balance, and how the result is processed in the organisation.)

1.13 Check flight procedures

(The criteria for performing a check flight are normally included in the aircraft maintenance programme. This paragraph should explain how the check flight procedure is established in order to meet its intended purpose [for instance, after a heavy maintenance check, after engine or flight control removal installation, etc..], and the release procedures to authorise such a check flight.)

PART 2 QUALITY SYSTEM

2.1 Continuing airworthiness quality policy, plan and audits procedure

a. Continuing airworthiness quality policy

(This paragraph should include a formal Quality Policy statement - that is a commitment to what the Quality System is intended to achieve. It should include as a minimum the monitoring of compliance with MCAR-M and with any additional standards specified by the organisation.)

b. Continuing airworthiness quality plan

(This paragraph should show how the quality plan is established. The quality plan will consist of a quality audit and sampling schedule that should cover all the areas specific to MCAR-M in a definite period of time. However, the scheduling process should also be dynamic and allow for special evaluations when trends or concerns are identified. In case of subcontracting, this paragraph should also address the planning of the auditing of subcontractors at the same frequency as the rest of the organisation.)

c. Continuing airworthiness quality audit procedure

(Quality audit is a key element of the quality system. Therefore, the quality audit procedure should be sufficiently detailed to address all the steps of an audit from preparation to conclusion; it should show the audit report format [e.g. by reference to paragraph 5.1 "sample of document"], and should explain the rules for the distribution of audits reports in the organisation [e.g.: involvement of the Quality Manager, Accountable Manager, Nominated Postholder, etc...].)

d. Continuing airworthiness quality audit remedial action procedure

(This paragraph should explain what system is put in place in order to ensure that the corrective actions are implemented on time and that the result of the corrective actions meets the intended purpose. For instance, where this system consists in periodical corrective actions review, instructions should be given how such reviews should be conducted and what should be evaluated.)

2.2 Monitoring of continuing airworthiness management activities

(This paragraph should set out a procedure to periodically review the activities of the continuing airworthiness management personnel and how they fulfil their responsibilities, as defined in Part 0.)

2.3 Monitoring of the effectiveness of the maintenance programme(s)

(This paragraph should set out a procedure to periodically review that the effectiveness of the maintenance programme(s) is actually analysed as defined in Part 1.)

2.4 Monitoring that all maintenance is carried out by an appropriate maintenance organisation

(This paragraph should set out a procedure to periodically review that the approval of the contracted maintenance organisations is relevant for the maintenance of the operator's fleet. This may include feedback information from any contracted organisation on any actual or contemplated amendment in order to ensure that the maintenance system remains valid and to anticipate any necessary change in the maintenance agreements.

If necessary, the procedure may be subdivided as follows:

a. Aircraft maintenance
b. Engines
c. Components)

2.5 Monitoring that all contracted maintenance is carried out in accordance with the contract, including subcontractors used by the maintenance contractor

(This paragraph should set out a procedure to periodically review that the continuing airworthiness management personnel are satisfied that all contracted maintenance is carried out in accordance with the contract. This may include a procedure to ensure that the system allows all the personnel involved in the contract (including the contractors and their subcontractors) to familiarise themselves with its terms and that, for any contract amendment, relevant information is distributed in the organisation and to the contractor.)

2.6 Quality audit personnel

(This paragraph should establish the required training and qualification standards for auditors. Where persons act as part-time auditors, it should be emphasised that they must not be directly involved in the activity they are auditing.)

PART 3 CONTRACTED MAINTENANCE

3.1 Procedures for contracted maintenance

a. Procedures for the development of maintenance contracts

(This paragraph should explain the procedures that the organisation follows to develop the maintenance contract. The CAMO processes to implement the different elements described in Appendix XI to AMC M.A.708(c) should be explained. In particular, it should cover responsibilities, tasks and interaction with the maintenance organisation and with the owner/operator.

This paragraph should also describe, when necessary, the use of work orders for unscheduled line maintenance and component maintenance as per M.A.708(d). The organisation may develop a work order template to ensure that the applicable elements of Appendix XI to AMC M.A.708(c) are considered. Such a template should be included in Part 5.1.)

b. Maintenance contractor selection procedure

(This paragraph should explain how a maintenance contractor is selected by the CAMO. Selection should not be limited to the verification that the contractor is appropriately approved for the specific type of aircraft, but also that the contractor has the industrial capacity to undertake the required maintenance. The selection procedure should preferably include a contract review process in order to ensure that:

- *the contract is comprehensive and that it has no gaps or unclear areas,*
- *everyone involved in the contract [both at the continuing airworthiness management organisation and at the maintenance contractor] agrees with the terms of the contract and fully understands their responsibilities.*
- *that functional responsibilities of all parties are clearly identified.*

The CAMO should agree with the operator on the process to select a maintenance organisation before concluding any contract with a maintenance organisation.)

3.2 Quality audit of aircraft

(This paragraph should set out the procedure when performing a quality audit of an aircraft. It should set out the differences between an airworthiness review and a quality audit. This procedure may include:

- *compliance with approved procedures;*
- *contracted maintenance is carried out in accordance with the contract;*
- *continued compliance with MCAR-M.)*

PART 4 AIRWORTHINESS REVIEW PROCEDURES

4.1 Airworthiness review staff

(This paragraph should establish the working procedures for the assessment of the airworthiness review staff. The assessment addresses experience, qualification, training, etc. A description should be given regarding the issuance of authorisations for the airworthiness review staff and how records are kept and maintained.)

4.2 Review of aircraft records

(This paragraph should describe in detail the aircraft records that are required to be reviewed during the airworthiness review. The level of detail that needs to be reviewed as well as the number of records that needs to be reviewed during a sample check should be described.)

4.3 Physical survey

(This paragraph should describe how the physical survey needs to be performed. It should list the topics that need to be reviewed, the physical areas of the aircraft to be inspected, which documents on board the aircraft that need to be reviewed, etc.)

4.4 Additional procedures for recommendations to CAA for the import of aircraft

(This paragraph should describe the additional tasks regarding the recommendation for the issuance of an airworthiness review certificate in the case of import of aircraft. This should include: communication with the CAA, additional items to be reviewed during the airworthiness review of the aircraft, specification of maintenance required to be carried out, etc.)

4.5 Recommendations to the CAA for the issue of airworthiness review certificates (ARCs)

(This paragraph should stipulate the communication procedures with the CAA in case of a recommendation for the issuance of an airworthiness review certificate. In addition, the content of the recommendation should be described.)

4.6 Issuance of airworthiness review certificates (ARCs)

(This paragraph should set out the procedure for the issuance of the ARCs. It should address record-keeping, distribution of the ARC copies, etc. The procedure should ensure that an ARC is issued only after an airworthiness review that has been properly carried out.)

4.7 Airworthiness review records, responsibilities, retention and access

(This paragraph should describe how records are kept, duration of record-keeping, location where records are stored, access to records, and responsibilities.)

PART 4B PERMIT TO FLY PROCEDURES

4B.1 Conformity with approved flight conditions

(The procedure should indicate how conformity with approved flight conditions is established, documented and attested by an authorised person.)

4B.2 Issue of the permit to fly under the CAMO privilege

(The procedure should describe the process to complete the CAA Form 20b (see Appendix IV to MCAR-21) and how compliance with 21.A.711(d) and (e) is established before signing off the permit to fly. It should also describe how the organisation ensures compliance with 21.A.711(g) for the revocation of the permit to fly)

4B.3 Permit to fly authorised signatories

(The person(s) authorised to sign off the permit to fly under the privilege of M.A.711(c) should be identified (name, signature and scope of authority) in the procedure, or in an appropriate document linked to the CAME.)

4B.4 Interface with the local authority for the flight

(The procedure should include provisions describing the communication with the local authority for flight clearance and compliance with the local requirements, since those elements are outside the scope of the conditions of 21.A.708(b) (see MCAR 21.A.711(e)))

4B.5 Permit to fly records, responsibilities, retention and access

(This paragraph should describe how records are kept, duration of record-keeping, location where records are stored, access to records, and responsibilities.)

PART 5 APPENDICES

5.1 Sample documents

(A self-explanatory paragraph)

5.2 List of airworthiness review staff

(A self-explanatory paragraph)

5.3 List of subcontractors as per AMC M.A.711(a) (3).

(A self-explanatory paragraph; in addition it should set out that the list should be periodically reviewed.)

5.4 List of approved maintenance organisations contracted

(This paragraph should include the list of contracted maintenance organisations, detailing the scope of the contracted work. In addition, it should set out that the list should be periodically reviewed)

5.5 Copy of contracts for subcontracted work (Appendix II to AMC M.A.711(a) (3))

(A self-explanatory paragraph)

Appendix VI (Reserved)

Appendix VII (Reserved)

Appendix VIII to AMC M.A.616 Organisational Review

This is only applicable to organisations with less than 10 maintenance staff members. For larger organisations, the principles and practices of an independent quality system should be used.

Depending on the complexity of the small organisation (number and type of aircraft, number of different fleets, subcontracting of specialised services, etc.), the organisational review system may vary from a system using the principles and practices of a quality system (except for the requirement of independence) to a simplified system adapted to the low complexity of the organisation and the aircraft managed.

As a core minimum, the organisational review system should have the following features, which should be described in the Maintenance Organisation Manual (MOM):

a. Identification of the person responsible for the organisational review programme.

   By default, this person should be the accountable manager, unless he delegates this responsibility to (one of) the M.A.606(b) person(s).

b. Identification and qualification criteria for the person(s) responsible for performing the organisational reviews.

   These persons should have a thorough knowledge of the regulations and of the maintenance organisation procedures. They should also have knowledge of audits, acquired through training or through experience (preferably as an auditor, but also possibly because they actively participated in several audits conducted by the CAA).

c. Elaboration of the organisational review programme:

   - Checklist(s) covering all items necessary to be satisfied that the organisation delivers a safe product and complies with the regulation. All procedures described in the MOM should be addressed.

   - A schedule for the accomplishment of the checklist items. Each item should be checked at least every 12 months. The organisation may choose to conduct one full review annually or to conduct several partial reviews.

d. Performance of organisational reviews

   Each checklist item should be answered using an appropriate combination of:

   - review of records, documentation, etc.

   - sample check of aircraft under contract or being maintained under a work order.

- interview of personnel involved.

- review of discrepancies and difficulty internal reports (e.g. notified difficulties in using current procedures and tools, systematic deviations from procedures, etc.).

- review of complaints filed by customers after delivery.

e. Management of findings and occurrence reports.

- All findings should be recorded and notified to the affected persons.

- All level 1 findings, in the sense of M.A.619(a), should be immediately notified to the CAA and all necessary actions on aircraft in service should be immediately taken.

- All occurrence reports should be reviewed with the aim for continuous improvement of the system by identifying possible corrective and preventive actions. This should be done in order to find prior indicators (e.g., notified difficulties in using current procedures and tools, systematic deviations from procedures, unsafe behaviours, etc.), and dismissed alerts that, had they been recognised and appropriately managed before the event, could have resulted in the undesired event being prevented.

- Corrective and preventive actions should be approved by the person responsible for the organisational review programme and implemented within a specified time frame.

- Once the person responsible for the organisational review programme is satisfied that the corrective action is effective, closure of the finding should be recorded along with a summary of the corrective action.

- The accountable manager should be notified of all significant findings and, on a regular basis, of the global results of the organisational review programme.

Following is a typical example of a simplified organisational review checklist**, to be adapted as necessary to cover the MOM procedures:**

1 – Scope of work

Check that

- All aircraft and components under maintenance or under contract are covered in the CAA Form 3.
- The scope of work in the MOM does not disagree with the CAA Form 3.
- No work has been performed outside the scope of the CAA Form 3 and the MOM.

2 – Maintenance data

- Check that maintenance data to cover the aircraft in the scope of work of the MOM are present and up-to-date.
- Check that no change has been made to the maintenance data from the TC holder without being notified.

3 – Equipment and Tools

- Check the equipment and tools against the lists in the MOM and check if still appropriate to the TC holder's instructions.
- Check tools for proper calibration (sample check).

4 – Stores

- Do the stores meet the criteria in the procedures of the MOM?
- Check by sampling some items in the store for presence of proper documentation and any overdue items.

5 – Certification of maintenance, airworthiness review and development and approval processing of maintenance programmes

- Has maintenance on products and components been properly certified?
- Have implementation of modifications/repairs been carried out with appropriate approval of such modifications/repairs (sample check)?
- Have airworthiness reviews been properly performed and the airworthiness review certificate properly been issued?
- Have maintenance programmes for ELA2 aircraft not involved in commercial operations been properly developed?

6 – Relations with the owners/operators

- Has maintenance been carried out with suitable work orders?
- When a contract has been signed with an owner/operator, has the obligations of the contracts been respected on each side?

7 – Personnel

- Check that the current accountable manager and other nominated persons are correctly identified in the approved MOM.
- If the number of personnel has decreased or if the activity has increased, check that the staff are still adequate to ensure a safe product.
- Check that the qualification of all new personnel (or personnel with new functions) has been appropriately assessed.
- Check that the staff have been trained, as necessary, to cover changes in:
  - regulations,
  - CAA publications,

- the MOM and associated procedures,
- the products in the scope of work,
- maintenance data (significant ADs, SBs, etc.).

8 – Maintenance contracted

- Sample check of maintenance records:
  - Existence and adequacy of the work order,
  - Data received from the maintenance organisation:
    - Valid CRS including any deferred maintenance,
    - List of removed and installed equipment and copy of the associated CAA Form 1 or equivalent.
- Obtain a copy of the current approval certificate (CAA Form 3) of the maintenance organisations contracted.

9 – Maintenance subcontracted

- Check that subcontractors for specialised services are properly controlled by the organisation.

10 – Technical records and record-keeping

- Have the maintenance actions been properly recorded?
- Have the certificates (CAA Form 1 and Conformity certificates) been properly collected and recorded?
- Perform a sample check of technical records to ensure completeness and storage during the appropriate periods.
- Is storage of computerised data properly ensured?

11 – Occurrence reporting procedures

- Check that reporting is properly performed.
- Actions taken and recorded.

Appendix IX to AMC M.A.602 and AMC M.A.702 CAA Form 2

بسم الله الرحمن الرحيم

Civil Aviation Authority
Republic of Maldives

CAA Form 2

APPLICATION FOR

☐ MCAR-145 Approval	☐ Initial grant	☐ Change	☐ Renewal
☐ MCAR-M Subpart F Approval	☐ Initial grant	☐ Change	
☐ MCAR-M Subpart G Approval	☐ Initial grant	☐ Change	

APPLICANT DETAILS

1. Registered name of applicant: _____

1a. Company Registration No: _____ 1b. CAA Approval Ref (if known): _____

2. Trading Name (if different): _____

3.1. Primary address requiring approval:

Name/ No & Street Name: _____

Town/City: _____ Telephone: _____

Country: _____ Fax: _____

Corporate E-mail: _____

3.2. Other address requiring approval: (please use additional paper if required)

Name/ No & Street Name: _____

Town/City: _____ Telephone: _____

Country: _____ Fax: _____

4. Contact Details:

Name: _____ Position: _____

Tel: _____ Fax: _____

E-mail(s): _____

5. Scope of Approval relevant to this application (see page 2 for possibilities in the case of a Subpart F/MCAR-145 approval):

	Rating(s):	Limitation(s):
1.		
2.		
3.		

6. Does the company hold approvals from other regulatory bodies? ☐Yes ☐No. If yes please provide details:

	Approval Ref:	Regulator:	Rating(s):
1.			
2.			
3.			

7. Name and position of the (proposed*) Accountable Manager: _____

8. Signature of the (proposed*) Accountable Manager: _____

9. Place: _____

10. Date: _____

*'proposed' applicable only in the case of new applicant

CAA Form 2, Issue 2.1, 01 June 2019

SUBMISSION AND CHARGES

Please submit the completed application form to Maldives Civil Aviation Authority, 11th Floor Velaanaage, Ameeru Ahmed Magu, Male', 20096, Republic of Maldives together with MRF/US$ ..... being the fee payable in accordance with MCAR-187.

Invoice/ Receipt No: _____ Date: _____	**CAA use only**

SCOPE OF APPROVAL AVAILABLE

CLASS AIRCRAFT	RATING	LIMITATION	BASE	LINE
	A1 Aeroplanes above 5700 kg	[Rating reserved to Maintenance Organisations approved in accordance with MCAR-145] [State aeroplane manufacturer or group or series or series or type and/or the maintenance tasks] Example: Airbus A320 Series	YES ☐ NO ☐	YES ☐ NO ☐
	A2 Aeroplanes 5700 kg and below	[State aeroplane manufacturer or group or series or type and/or the maintenance tasks] Example: DHC-6 Twin Otter Series State whether the issue of airworthiness review certificates is requested or not involved in commercial operations)	YES ☐ NO ☐	YES ☐ NO ☐
	A3 Helicopters	[State helicopter manufacturer or group or series or type and/or the maintenance task(s)] Example: Robinson R44	YES ☐ NO ☐	YES ☐ NO ☐
	A4 Aircraft other than A1, A2 and A3	[State aircraft category (sailplane, balloon, airship, etc.), manufacturer or group or series or type and/or the maintenance task(s).] State whether the issue of airworthiness review certificate is requested or not (only possible for ELA1 aircraft not involved in commercial operations)	YES ☐ NO ☐	YES ☐ NO ☐
ENGINES	B1 Turbine	[State engine series or type and/or the maintenance task(s)] Example: PT6A Series		
	B2 Piston	[State engine manufacturer or group or series or type and/or the maintenance task(s)]		
	B3 APU	[State engine manufacturer or series or type and/or the maintenance task(s)]		
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	[State aircraft type or aircraft manufacturer or component manufacturer or the particular component and/or cross refer to a capability list in the exposition and/or the maintenance task(s).] Example: PT6A Fuel Control		
	C2 Auto Flight			
	C3 Comms and Nav			
	C4 Doors – Hatches			
	C5 Electrical Power & Lights			
	C6 Equipment			
	C7 Engine – APU			
	C8 Flight Controls			
	C9 Fuel			
	C10 Helicopter – Rotors			
	C11 Helicopter – Trans			
	C12 Hydraulic Power			
	C13 Indicating-recording system			
	C14 Landing Gear			
	C15 Oxygen			
	C16 Propellers			
	C17 Pneumatic & Vacuum			
	C18 Protection ice/ rain/fire			
	C19 Windows			
	C20 Structural			
	C21 Water ballast			
	C22 Propulsion Augmentation			
SPECIALISED SERVICES	D1 Non-Destructive Testing	[State particular NDT method(s)]		

CAA Form 2, Issue 2.1, 01 June 2019

Appendix X CAA Form 4

بسم الله الرحمن الرحيم

Civil Aviation Authority
Republic of Maldives

CAA Form 4

This form can be completed online, then printed and signed. If filled in by hand, please use black or dark blue ink.

Details of Management Personnel required to be accepted as specified in MCAR-_____

1. Title / Name: .....
2. Position within the Organisation: .....
3. Qualifications relevant to the item (2) position:

.....

4. Work experience relevant to the item (2) position:

.....

5. Organisation: .....
6. Approval Number relevant to the item .....

Signature: ..... Date: .....

CAA use only:

Name(s) and signature(s) of authorised Civil Aviation Authority staff member(s) accepting this person:

Flight Operations		**Airworthiness**	
Signature	.....	Signature	.....
Name	.....	Name	.....
Date	.....	Date	.....

Once authorised, a copy of the completed CAA Form 4 must be returned to the nominee.

CAA Form 4, Issue 4.01, 01 June 2019

Appendix XI to AMC to M.A.708(c) Contracted Maintenance

1. Maintenance contracts

The following paragraphs are not intended to provide a standard maintenance contract, but to provide a list of the main points that should be addressed, when applicable, in a maintenance contract between the CMAO and the maintenance organisation. The following paragraphs only address technical matters and exclude matters such as costs, delay, warranty, etc.

When maintenance is contracted to more than one maintenance organisation (for example, aircraft base maintenance to X, engine maintenance to Y, and line maintenance to Z1, Z2 and Z3), attention should be paid to the consistency of the different maintenance contracts.

A maintenance contract is not normally intended to provide appropriate detailed work instructions to personnel. Accordingly, there should be established organisational responsibilities, procedures and routines in the CAMO and the maintenance organisation to cover these functions in a satisfactory way such that any person involved is informed about his/her responsibilities and the procedures that apply. These procedures and routines can be included/appended to the CAME and to the maintenance organisation's manual/MOE, or can consist in separate procedures. In other words, procedures and routines should reflect the conditions of the contract.

2. Aircraft/Engine maintenance

The following subparagraphs may be adapted to a maintenance contract that applies to aircraft base maintenance, aircraft line maintenance and engine maintenance.

Aircraft maintenance also includes the maintenance of the engines and APU while they are installed on the aircraft.

2.1. Scope of work

The type of maintenance to be performed by the maintenance organisation should be specified unambiguously. In case of line and/or base maintenance, the contract should specify the aircraft type and, preferably, should include the aircraft's registrations.

In case of engine maintenance, the contract should specify the engine type.

2.2. Locations identified for the performance of maintenance/ Certificates held

The place(s) where base, line or engine maintenance, as applicable, will be performed should be specified. The certificate held by the maintenance organisation at the place(s) where maintenance will be performed should be referred to in the contract.

If necessary, the contract may address the possibility of performing maintenance at any location subject to the need for such maintenance arising either from the unserviceability of the aircraft or from the necessity of supporting occasional line maintenance.

2.3. Subcontracting

The maintenance contract should specify under which conditions the maintenance organisation may subcontract tasks to a third party (regardless if this third party is approved or not). At least the contract should make reference to M.A.615 and 145.A.75. Additional guidance is provided by the associated AMC/GM. In addition, the CAMO may require the maintenance organisation to obtain the CAMO approval before subcontracting to a third party. Access should be given to the CAMO to any information (especially the quality monitoring information) about the maintenance organisation's subcontractors involved in the contract. It should, however, be noted that under the CAMO responsibility both the CAMO and its CAA are entitled to be fully informed about subcontracting, although the CAA will normally only be concerned with aircraft, engine and APU subcontracting.

2.4. Maintenance programme

The maintenance programme, under which the maintenance has to be performed, has to be specified. The CAMO should have that maintenance programme approved by the CAA.

2.5. Quality monitoring

The terms of the contract should include a provision allowing the CAMO to perform a quality surveillance (including audits) of the maintenance organisation. The maintenance contract should specify how the results of the quality surveillance are taken into account by the maintenance organisation (See also paragraph 2.22. 'Meetings').

2.6. CAA involvement

The contract should identify the CAA for the oversight of the aircraft, the operator, the CAMO, the maintenance organisation. Additionally, the contract should allow the CAA to access the maintenance organisation.

2.7. Maintenance data

The contract should specify the maintenance data and any other manual required for the fulfilment of the contract, and how these data and manuals are made available and kept current (regardless if they are provided by the CAMO or by the maintenance organisation).

This may include but may not be limited to:

- maintenance programme,
- airworthiness directives,
- major repairs/modification data,
- aircraft maintenance manual,
- aircraft illustrated parts catalogue (IPC),
- wiring diagrams,
- troubleshooting manual,
- Minimum Equipment List (normally on board the aircraft),
- operator's manual,
- flight manual,
- engine maintenance manual,
- engine overhaul manual.

2.8. Incoming Conditions

The contract should specify in which condition the aircraft should be made available to the maintenance organisation. For extensive maintenance, it may be beneficial that a work scope planning meeting be organised so that the tasks to be performed may be commonly agreed (see also paragraph 2.23: 'Meetings').

2.9. Airworthiness Directives and Service Bulletins/Modifications

The contract should specify the information that the CAMO is responsible to provide to the maintenance organisation, such as:

- status of the ADs including the due date and the selected means of compliance, if applicable; and
- status of modifications and decision to embody a modification or an SB.

In addition, the contract should specify the type of information the CAMO will need in return to complete the control of ADs and modification status.

2.10. Hours & Cycles control

Hours and cycles control is the responsibility of the CAMO, and the contract should specify how the CAMO should provide the current hours and cycles to the maintenance organisation and whether the maintenance organisation should receive the current flight hours and cycles on a regular basis so that it may update the records for its own planning functions (see also paragraph 2.22: 'Exchange of information').

2.11. Service life-limited components

The control of service life-limited components is the responsibility of the CAMO. The contract should specify whether the CAMO should provide the status of service life-limited parts to the maintenance organisation, and the information that the approved

organisation will have to provide to the CAMO about the service life-limited components' removal/installation so that the CAMO may update its records (see also paragraph 2.22 'Exchange of information').

2.12. Supply of parts

The contract should specify whether a particular type of material or component is supplied by the CAMO or by the maintenance organisation, which type of component is pooled, etc. The contract should clearly state that it is the maintenance organisation's responsibility to be in any case satisfied that the component in question meets the approved data/standard and to ensure that the aircraft component is in a satisfactory condition for installation. Additional guidance on the acceptance of components is provided in M.A.402 and 145.A.42.

2.13. Pooled parts at line stations

If applicable, the contract should specify how the subject of pooled parts at line stations should be addressed.

2.14. Scheduled maintenance

For planning scheduled maintenance checks, the support documentation to be given to the maintenance organisation should be specified. This may include but is not limited to:

- applicable work package, including job cards;
- scheduled component removal list;
- modifications to be incorporated.

When the maintenance organisation determines, for any reason, to defer a maintenance task, it has to be formally agreed with the CAMO. If the deferment goes beyond an approved limit, please refer to paragraph 2.17 'Deviation from the maintenance schedule'. This should be addressed, where applicable, in the maintenance contract.

2.15. Unscheduled maintenance/Defect rectification

The contract should specify to which level the maintenance organisation may rectify a defect without reference to the CAMO. It should describe, as a minimum, the management of approval of repairs and incorporation of major repairs. The deferment of any defect rectification should be submitted to the CAMO.

2.16. Deferred tasks

See paragraphs 2.14 and 2.15 above and AMC 145.A.50 (e) and M.A.801(g). In addition, for aircraft line and base maintenance, the use of the operator's MEL and

the liaison with the CAMO in case of a defect that cannot be rectified at the line station should be addressed.

2.17. Deviation from the maintenance schedule

Deviations from the maintenance schedule have to be managed by the CAMO in accordance with the procedures established in the maintenance programme. The contract should specify the support the maintenance organisation may provide to the operator in order to substantiate the deviation request.

2.18. Test flight

If any test flight is required after aircraft maintenance, it should be performed in accordance with the procedures established in the continuing airworthiness management exposition or the operator's manual.

2.19. Bench Test

The contract should specify the acceptability criterion and whether a representative of the CAMO should witness an engine undergoing test.

2.20. Release to service documentation

The release to service has to be performed by the maintenance organisation in accordance with its maintenance organisation procedures. The contract should, however, specify which support forms have to be used (aircraft technical log, maintenance organisation's release format, etc.) and the documentation that the maintenance organisation should provide to the CAMO upon delivery of the aircraft. This may include but is not limited to:

- certificate of release to service,
- flight test report,
- list of modifications embodied,
- list of repairs,
- list of ADs incorporated,
- maintenance visit report,
- test bench report.

2.21. Maintenance record-keeping

The CAMO may contract the maintenance organisation to retain some of the maintenance records required by MCAR-M Subpart C. This means that the CAMO subcontracts under its quality system part of its record-keeping tasks and, therefore, the provisions of M.A.711(a)(3) apply.

2.22. Exchange of information

Each time exchange of information between the CAMO and the maintenance organisation is necessary, the contract should specify what information should be provided and when (i.e. in which case or at what frequency), how, by whom and to whom it has to be transmitted.

2.23. Meetings

The maintenance contract should include the provision for a certain number of meetings to be held between the CAMO and the maintenance organisation.

2.23.1. Contract review

Before the contract is enforced, it is very important that the technical personnel of both parties, that are involved in the fulfilment of the contract, meet in order to be sure that every point leads to a common understanding of the duties of both parties.

2.23.2. Work scope planning meeting

Work scope planning meetings may be organised so that the tasks to be performed may be commonly agreed.

2.23.3. Technical meeting

Scheduled meetings may be organised in order to review on a regular basis technical matters such as ADs, SBs, future modifications, major defects found during maintenance check, aircraft and component reliability, etc.

2.23.4. Quality meeting

Quality meetings may be organised in order to examine matters raised by the CAMO's quality surveillance and to agree upon necessary corrective actions.

2.23.5. Reliability meeting

When a reliability programme exists, the contract should specify the CAMO's and maintenance organisation's respective involvement in that programme, including the participation in reliability meetings.

Appendix XII to AMC M.A.706(f) Fuel Tank Safety training

This appendix includes general instructions for providing training on Fuel Tank Safety issues.

A. Effectivity:

- Large aeroplanes as defined in MCAR-1.

B. Affected organisations:

- CAMOs involved in the continuing airworthiness management of aeroplanes specified in paragraph A).

- CAA when responsible for the oversight of aeroplanes specified in paragraph A) and for the oversight of the CAMO specified in this paragraph B).

C. Persons from affected organisations who should receive training:

Phase 1 only:

- The quality manager and quality personnel.

- Personnel of the CAA of aeroplanes specified in paragraph A) and in the oversight of CAMOs specified in paragraph B).

Phase 1 + Phase 2 + Continuation training:

- Personnel of the CAMO involved in the management and review of the continuing airworthiness of aircraft specified in paragraph A);

D. General requirements of the training courses

Phase 1 – Awareness

The training should be carried out before the person starts to work without supervision but not later than 6 months after joining the organisation. The persons who have already attended the Level 1 Familiarisation course in compliance with EASA ED decision 2007/001/R Appendix XII are already in compliance with Phase 1.

Type: Should be an awareness course with the principal elements of the subject. It may take the form of a training bulletin, or other self-study or informative session. Signature of the reader is required to ensure that the person has passed the training.

Level: It should be a course at the level of familiarisation with the principal elements of the subject.

Objectives: The trainee should, after the completion of the training:

1. Be familiar with the basic elements of the fuel tank safety issues.
2. Be able to give a simple description of the historical background and the elements requiring a safety consideration, using common words and showing examples of non-conformities.
3. Be able to use typical terms.

Content: The course should include:

- a short background showing examples of FTS accidents or incidents,
- the description of concept of fuel tank safety and CDCCL,
- some examples of manufacturers documents showing CDCCL items,
- typical examples of FTS defects,
- some examples of TC holders repair data
- some examples of maintenance instructions for inspection.

Phase 2 - Detailed training

A flexible period may be allowed by the CAA to allow organisations to set the necessary courses and impart the training to the personnel, taking into account the organisation's training schemes/means/practices. This flexible period should not extend beyond 31 December 2010.

The persons who have already attended the Level 2 Detailed training course in compliance with EASA ED decision 2007/001/R Appendix XII either from a CAMO or from a Part-147 training organisation are already in compliance with Phase 2 with the exception of continuation training.

Staff should have received Phase 2 training by 31 December 2010 or within 12 months of joining the organization, whichever comes later.

Type: Should be a more in-depth internal or external course. It should not take the form of a training bulletin or other self-study. An examination should be required at the end, which should be in the form of a multi choice question, and the pass mark of the examination should be 75%.

Level: It should be a detailed course on the theoretical and practical elements of the subject.

The training may be made either:

- in appropriate facilities containing examples of components, systems and parts affected by Fuel Tank Safety (FTS) issues. The use of films, pictures and practical examples on FTS is recommended; or

- by attending a distance course (e-learning or computer based training) including a film when such film meets the intent of the objectives and content here below. An e-learning or computer based training should meet the following criteria:

  - A continuous evaluation process should ensure the effectiveness of the training and its relevance;
  - Some questions at intermediate steps of the training should be proposed to ensure that the trainee is authorized to move to the next step;
  - The content and results of examinations should be recorded;
  - Access to an instructor in person or at distance should be possible in case support is needed.

A duration of 8 hours for phase 2 is an acceptable compliance.

When the course is provided in a classroom, the instructor should be very familiar with the data in Objectives and Guidelines. To be familiar, an instructor should have attended himself a similar course in a classroom and made additionally some lecture of related subjects.

Objectives: The attendant should, after the completion of the training:

- have knowledge of the history of events related to fuel tank safety issues and the theoretical and practical elements of the subject, have an overview of the FAA regulations known as SFAR (Special FAR) 88 of the FAA and of JAA Temporary Guidance Leaflet TGL 47, be able to give a detailed description of the concept of fuel tank system ALI (including Critical Design Configuration Control Limitations CDCCL, and using theoretical fundamentals and specific examples;
- have the capacity to combine and apply the separate elements of knowledge in a logical and comprehensive manner;
- have knowledge on how the above items affect the aircraft;
- be able to identify the components or parts or the aircraft subject to FTS from the manufacturer's documentation,
- be able to plan the action or apply a Service Bulletin and an Airworthiness Directive.

Content: Following the guidelines described in paragraph E).

Continuation training:

The organisation should ensure that the continuation training is performed in each two years period. The syllabus of the training programme referred to in the Training policy of the Continuing Airworthiness Management Exposition (CAME) should contain the additional syllabus for this continuation training.

The continuation training may be combined with the phase 2 training in a classroom or at distance.

The continuing training should be updated when new instructions are issued which are related to the material, tools, documentation and manufacturer's or CAA's directives.

E. Guidelines for preparing the content of Phase 2 courses.

The following guidelines should be taken into consideration when the phase 2 training programme are being established:

a. understanding of the background and the concept of fuel tank safety,
b. how the mechanics can recognise, interpret and handle the improvements in the instructions for continuing airworthiness that have been made or are being made regarding fuel tank systems,
c. awareness of any hazards especially when working on the fuel system, and when the Flammability Reduction System using nitrogen is installed.

Paragraphs a) b) and c) above should be introduced in the training programme addressing the following issues:

i) The theoretical background behind the risk of fuel tank safety: the explosions of mixtures of fuel and air, the behavior of those mixtures in an aviation environment, the effects of temperature and pressure, energy needed for ignition, etc, the 'fire triangle', - Explain 2 concepts to prevent explosions:

(1) ignition source prevention and

(2) flammability reduction,

ii) The major accidents related to fuel tank systems, the accident investigations and their conclusions,

iii) SFAR 88 of the FAA and JAA Interim Policy INT POL 25/12: ignition prevention program initiatives and goals, to identify unsafe conditions and to correct them, to systematically improve fuel tank maintenance),

iv) Explain briefly the concepts that are being used: the results of SFAR 88 of the FAA and JAA INT/POL 25/12: modifications, airworthiness limitations items and CDCCL,

v) Where relevant information can be found and how to use and interpret this information in the various instructions for continuing airworthiness (aircraft maintenance manuals, component maintenance manuals, etc...),

vi) Fuel Tank Safety during maintenance: fuel tank entry and exit procedures, clean working environment, what is meant by configuration control, wire separation, bonding of components etc.,

vii) Flammability reduction systems when installed: reason for their presence, their effects, the hazards of a Flammability Reduction System (FRS) using nitrogen for maintenance, safety precautions in maintenance/working with an FRS,

viii) Recording maintenance actions, recording measures and results of inspections.

The training should include a representative number of examples of defects and the associated repairs as required by the TC / STC holders maintenance data.

F. Approval of training

For CAMOs the approval of the initial and continuation training programme and the content of the examination can be achieved by the change of the CAME exposition. The modification of the CAME should be approved as required by M.A. 704(b). The necessary changes to the CAME to meet the content of this decision should be made and implemented at the time requested by the CAA.

Appendix XIII to AMC M.A.712(f) Organisational review

Organisational reviews may replace a full quality system in accordance with the provisions of M.A.712 (f) and AMC M.A.712 (f) and as described in the continuing airworthiness management exposition (CAME)

Depending on the complexity of the small organisation (number and type of aircraft, number of different fleets, privilege to perform airworthiness reviews, etc.), the organisational review system may vary from a system using the principles and practices of a quality system (except for the requirement of independence) to a simplified system adapted to the low complexity of the organisation and the aircraft managed.

As a core minimum, the organisational review system should have the following features, which should be described in the CAME:

a. Identification of the person responsible for the organisational review programme:

   By default, this person should be the accountable manager, unless he delegates this responsibility to (one of) the M.A.706(c) person(s).

b. Identification and qualification criteria for the person(s) responsible for performing the organisational reviews:

   These persons should have a thorough knowledge of the regulations and of the continuing airworthiness management organisation (CAMO) procedures. They should also have knowledge of audits, acquired through training or through experience (preferably as an auditor, but also possibly because they actively participated in several audits conducted by the CAA).

c. Elaboration of the organisational review programme:

   - Checklist(s) covering all items necessary to be satisfied that the organisation delivers a safe product and complies with the regulation. All procedures described in the CAME should be addressed.

   - A schedule for the accomplishment of the checklist items. Each item should be checked at least every 12 months. The organisation may choose to conduct one full review annually or to conduct several partial reviews.

d. Performance of organisational reviews:

   Each checklist item should be answered using an appropriate combination of:

   - review of records, documentation, etc.
   - sample check of aircraft under contract.
   - interview of personnel involved.

- review of discrepancies and difficulty internal reports (e.g., notified difficulties in using current procedures and tools, systematic deviations from procedures, etc.).
- review of complaints filed by customers.

e. Management of findings and occurrence reports:

- All findings should be recorded and notified to the affected persons.
- All level 1 findings, in the sense of M.A.716(a), should be immediately notified to the CAA and all necessary actions on aircraft in service should be immediately taken.
- All occurrence reports should be reviewed with the aim for continuous improvement of the system by identifying possible corrective and preventive actions. This should be done in order to find prior indicators (e.g., notified difficulties in using current procedures and tools, systematic deviations from procedures, unsafe behaviours, etc.), and dismissed alerts that, had they been recognised and appropriately managed before the event, could have resulted in the undesired event being prevented.
- Corrective and preventive actions should be approved by the person responsible for the organisational review programme and implemented within a specified time frame.
- Once the person responsible for the organisational review programme is satisfied that the corrective action is effective, closure of the finding should be recorded along with a summary of the corrective action.
- The accountable manager should be notified of all significant findings and, on a regular basis, of the global results of the organisational review programme.

Following is a typical example of a simplified organisational review checklist, **to be adapted as necessary to cover the CAME procedures:**

1 – Scope of work

- All aircraft under contract are covered in the CAA Form 14.
- The scope of work in the CAME does not disagree with the CAA Form 14.
- No work has been performed outside the scope of the CAA Form 14 and the CAME.
- Is it justified to retain in the approved scope of work aircraft types for which the organisation has no longer aircraft under contract?

2 – Airworthiness situation of the fleet

- Does the continuing airworthiness status (AD, maintenance programme, life limited components, deferred maintenance, ARC validity) show any expired items? If so, are the aircraft grounded?

3 – Aircraft maintenance programme

- Check that all revisions to the TC/STC holders Instructions for Continuing Airworthiness, since the last review, have been (or are planned to be) incorporated in the maintenance programme, unless otherwise approved by the CAA.
- Has the maintenance programme been revised to take into account all modifications or repairs impacting the maintenance programme?
- Have all maintenance programme amendments been approved at the right level (CAA or indirect approval)?
- Does the status of compliance with the maintenance programme reflect the latest approved maintenance programme?
- Has the use of maintenance programme deviations and tolerances been properly managed and approved?

4 – Airworthiness Directives (and other mandatory measures issued by the CAA)

- Have all ADs issued since the last review been incorporated into the AD status?
- Does the AD status correctly reflect the AD content: applicability, compliance date, periodicity…? (sample check on ADs)

5 – Modifications/repairs

- Are all modifications/repairs listed in the corresponding status approved in accordance with M.A.304? (sample check on modifications/repairs)
- Have all the modifications/repairs which have been installed since the last review been incorporated in the corresponding status? (sample check from the aircraft/component logbooks)

6 – Relations with the owners/operators

- Has a contract (in accordance with Annex I to Part M) been signed with each external owner/operator, covering all the aircraft whose airworthiness is managed by the CAMO?

- Have the owners/operators under contract fulfilled their obligations identified in the contract? As appropriate:

    - Are the pre-flight checks correctly performed? (interview of pilots)
    - Are the technical log or equivalent correctly used (record of flight hours/cycles, defects reported by the pilot, identification of what maintenance is next due etc.)?
    - Did flights occur with overdue maintenance or with defects not properly rectified or deferred? (sample check from the aircraft records)
    - Has maintenance been performed without notifying the CAMO (sample check from the aircraft records, interview of the owner/operator)?

7 – Personnel

- Check that the current accountable manager and other nominated persons are correctly identified in the approved CAME.
- If the number of personnel has decreased or if the activity has increased, check that the organisation still has sufficient staff.
- Check that the qualification of all new personnel (or personnel with new functions) has been appropriately assessed.
- Check that the staff has been trained, as necessary, to cover changes in:

    - regulations,
    - CAA publications,
    - the CAME and associated procedures,
    - the approved scope of work,
    - maintenance data (significant ADs, SBs, ICA amendments, etc.).

8 – Maintenance contracted

- Sample check of maintenance records:
    - Existence and adequacy of the work order,
    - Data received from the maintenance organisation:
        - Valid CRS including any deferred maintenance
        - List of removed and installed equipment and copy of the associated CAA Form 1 or equivalent.
- Obtain a copy of the current approval certificate (CAA Form 3) of the maintenance organisations contracted.

9 – Technical records and record-keeping

- Have the certificates (CAA Form 1 and Conformity certificates) been properly collected and recorded?
- Perform a sample check of technical records to ensure completeness and storage during the appropriate periods.
- Is storage of computerised data properly ensured?

10 – Occurrence reporting procedures

- Check that reporting is properly performed,
- Actions taken and recorded.

11 – Airworthiness review