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## MCAR-ML Continuing Airworthiness for Light Aircraft

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**Maldives Civil Aviation Authority**

**Republic of Maldives**

**Maldivian Civil Aviation Regulations**

# **MCAR-ML Continuing Airworthiness for Light Aircraft**

**Issue 1.00, 30 March 2022**

## **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-ML Continuing Airworthiness for Light Aircraft and shall come in to force on 30 March 2022.

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.





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## GENERAL

### MCAR-ML.1

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- (a) This Regulation applies to the following other than complex motor-powered aircraft not listed in the air operator certificate of an air carrier licensed in accordance with MCAR-Air Operations:
- (1) aeroplanes of 2730 kg maximum take-off mass (MTOM) or less;
  - (2) rotorcraft of 1200 kg MTOM or less, certified for a maximum of up to 4 occupants;
  - (3) other ELA2 aircraft.
- (b) (Reserved)
- (c) For the purpose of MCAR-ML, the following definitions shall apply:
- (1) 'independent certifying staff' means certifying staff who does not work on behalf of an approved maintenance organisation and who complies with:
    - (i) the requirements of MCAR-66;
    - (ii) (Reserved)
  - (2) 'maintenance organisation' means an organisation holding an approval issued in accordance with, alternatively :
    - (1) Subpart F of MCAR-M;
    - (2) Section A of MCAR-145;
    - (3) Section A of MCAR-CAO.
  - (3) 'owner' means the person responsible for the continuing airworthiness of the aircraft, including, alternatively:
    - (i) the registered owner of the aircraft;
    - (ii) the lessee in the case of a leasing contract;
    - (iii) the operator.

## **Section A – TECHNICAL REQUIREMENTS**

## **Subpart A — GENERAL**

### **MCAR-ML.A.101 Scope**

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This Section establishes the measures to be taken in order to ensure that the aircraft is airworthy. It also specifies the conditions to be met by the persons or organisations involved in the activities related to the airworthiness of the aircraft.

## **Subpart B — ACCOUNTABILITY**

### **MCAR-ML.A.201 Responsibilities**

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- (a) The owner of the aircraft shall be responsible for the continuing airworthiness of the aircraft and shall ensure that no flight takes place unless all of the following requirements are met:
- (1) the aircraft is maintained in an airworthy condition;
  - (2) any operational and emergency equipment fitted is correctly installed and serviceable or clearly identified as unserviceable;
  - (3) the airworthiness certificate is valid;
  - (4) the maintenance of the aircraft is performed in accordance with the maintenance programme ('AMP') as specified in ML.A.302.
- (b) By derogation from point (a), where the aircraft is leased, the responsibilities set out in point (a) shall apply to the lessee, if the lessee is identified either in the registration document of the aircraft or in the leasing contract.
- (c) Any person or organisation performing maintenance of aircraft and components shall be responsible for the maintenance tasks being performed.
- (d) The pilot-in-command of the aircraft shall be responsible for the satisfactory accomplishment of the pre-flight inspection. That inspection shall be carried out by the pilot or another qualified person but need not be carried out by an approved maintenance organisation or by certifying staff.
- (e) For aircraft operated by commercial Approved Training Organisations ('ATO') and commercial Declared Training Organisations ('DTO') referred to in MCAR-Air Crew or not operated in accordance with Annex VII to MCAR-Air Operations (Part-NCO) or engaged in commercial operations with balloons or engaged in commercial operations with sailplanes, the operator shall:
- (1) be approved as a CAMO or as a CAO for the management of the continuing airworthiness of its aircraft in accordance with MCAR-CAMO, Subpart G of MCAR-M or MCAR-CAO, or contract such an organisation using the contract set out in Appendix I to this Regulation;
  - (2) ensure that all maintenance is performed by maintenance organisations approved in accordance with ML.1(c)(2).;
  - (3) ensure that the requirements of point (a) are satisfied.
- (f) For aircraft not included in point (e), in order to satisfy the requirements of point (a), the

owner of the aircraft may contract the tasks associated with continuing airworthiness management to an organisation approved as a CAMO or CAO in accordance with MCAR-CAMO, Subpart G of MCAR-M or MCAR-CAO. In that case, the contracted organisation shall assume responsibility for the proper performance of those tasks and a written contract shall be concluded in accordance with Appendix I to this Regulation. If the owner does not contract such an organisation, the owner is responsible for the proper performance of the tasks associated with the continuing airworthiness management

- (g) The owner shall grant the CAA access to the aircraft and the aircraft records, in order for the CAA to determine whether the aircraft complies with the requirements of this Regulation.
- (h) In the case of an aircraft included in an air operator certificate is used for non-commercial or specialised operations under point ORO.GEN.310 of Annex III or point NCO.GEN.104 of Annex VII to MCAR-Air Operations, the operator shall ensure that the tasks associated with continuing airworthiness are performed by the CAMO approved in accordance with MCAR-CAMO or Subpart G of MCAR-M or the combined airworthiness organisation (“CAO”) approved in accordance with MCAR-CAO, whichever applicable, of the air operator certificate holder.

**GM1 ML.A.201 Responsibilities**

The following tables provide a summary of MCAR-ML main provisions and alleviations established in ML.A.201, ML.A.302, ML.A.801 and ML.A.901.

In the tables, the term ‘CAO(-CAM)’ designate a CAO with continuing airworthiness management privileges.

	Balloon		
	Commercial operations	ATO/DTO operations and non-commercial operations	
		commercial ATO/DTO	Non-ATO/DTO or non-commercial ATO/DTO
Contract with CAMO/CAO (CAM) required?	Yes	Yes	No*
Aircraft maintenance programme (AMP)	The AMP document must be approved by the contracted CAMO/CAO(-CAM)		If there is no CAMO/CAO(-CAM), the AMP must be declared by the owner.
			If there is a contracted CAMO/CAO(-CAM), the AMP must be approved by the CAMO/CAO(-CAM).
If ML.A.302(e) conditions are met, producing an AMP document is not required.			
Maintenance	By a maintenance organisation		By a maintenance organisation or by independent certifying staff or the pilot-owner**
Airworthiness review (AR) and airworthiness review certificate (ARC)	By a maintenance organisation*** or by the contracted CAMO/CAO (-CAM) or by the CAA		By a maintenance organisation*** or independent certifying staff*** or by the CAMO/CAO(-CAM) (if contracted) or by the CAA

	Sailplane		
	Commercial operations	ATO/DTO operations and non-commercial operations	
		commercial ATO/DTO	Non-ATO/DTO or non-commercial ATO/DTO
Contract with CAMO/CAO (CAM) required?	Yes	Yes	No*
AMP	The AMP document must be approved by the contracted CAMO/CAO(-CAM)		If there is no CAMO/CAO(-CAM), the AMP must be declared by the owner.
			If there is a contracted CAMO/CAO(-CAM), the AMP must be approved by the CAMO/CAO(-CAM).
If ML.A.302(e) conditions are met, producing an AMP document is not required.			
Maintenance	By a maintenance organisation		By a maintenance organisation or by independent certifying staff or the pilot-owner**
AR and ARC	By a maintenance organisation*** or by the contracted CAMO/CAO (-CAM) or by the CAA		By a maintenance organisation*** or independent certifying staff*** or by the CAMO/CAO(-CAM) (if contracted) or by the CAA

	Aircraft (other than balloons and sailplanes)		
	Non Part-NCO	Part-NCO	
		commercial ATO/DTO	Non-ATO/DTO or non-commercial ATO/DTO

Contract with CAMO/CAO (CAM) required?	Yes	Yes	No*
AMP	The AMP document must be approved by the contracted CAMO/CAO(-CAM)		If there is no CAMO/CAO(-CAM), the AMP must be declared by the owner.
			If there is a contracted CAMO/CAO(-CAM), the AMP must be approved by the CAMO/CAO(-CAM).
	If ML.A.302(e) conditions are met, producing an AMP document is not required.		
Maintenance	By a maintenance organisation		By a maintenance organisation or by independent certifying staff or the pilot-owner**
AR and ARC	By a maintenance organisation*** or by the contracted CAMO/CAO (-CAM) or by the CAA		By a maintenance organisation*** or independent certifying staff*** or by the CAMO/CAO(-CAM) (if contracted) or by the CAA

\*: A CAMO/CAO(-CAM) is not required but the owner may decide to contract a CAMO/CAO(-CAM).

\*\* : in the limit of their privileges

\*\*\*: together with the 100-h/annual inspection

**GM1 ML.A.201(e) Responsibilities**

**COMMERCIAL ATO/DTO**

According to industry practice, the following are examples of aircraft not considered to be operated by a commercial ATO or a commercial DTO:

- (a) Aircraft operated by an organisation holding an ATO certificate or a DTO declaration, created with the aim of promoting aerial sport or leisure aviation, on the conditions that:
  - (1) the aircraft is operated by the organisation on the basis of ownership or dry lease;
  - (2) the ATO/DTO is a non-profit organisation; and
  - (3) whenever non-members of the organisation are involved, such flights represent only a marginal activity of the organisation.
- (b) Aircraft operated under Part-NCO by its owner together with an ATO or a DTO flight instructor for the purpose of training, when the contract between the owner and the training organisation and the procedures of the training organisation allow it. The continuing airworthiness of such aircraft remains under the responsibility of the owner, or of the CAMO or CAO contracted by the owner, if the owner has elected to contract a CAMO or CAO in accordance with ML.A.201(f).
- (c) Aircraft used for very limited training flights due to the specific configuration of the aircraft and limited need for such flights.

### **GM1 ML.A.201(f) Responsibilities**

If an owner (see definition in point ML.1(c)(3)) decides not to make a contract with a CAMO or CAO, the owner is fully responsible for the proper accomplishment of the corresponding continuing airworthiness management tasks. As a consequence, it is expected that the owner properly and realistically self-assesses his or her own competence to accomplish those tasks or otherwise seek the necessary expertise.

### **GM1 ML.A.201(h) Responsibilities**

#### **USE OF AIRCRAFT INCLUDED IN AN AOC FOR NON-COMMERCIAL OPERATIONS OR SPECIALISED OPERATIONS**

As point (h) is not a derogation, points ML.A.201(e) and (f) are still applicable. Therefore, the management of continuing airworthiness of the aircraft by the CAMO or CAO of the AOC holder means that the other operator has established a written contract as per Appendix I to MCAR-ML with this CAMO or CAO.

### **MCAR-ML.A.202 Occurrence reporting**

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- (a) Without prejudice to the reporting requirements set out in MCAR-145 and MCAR-CAMO, any person or organisation responsible in accordance with point ML.A.201 shall report any identified condition of an aircraft or component which endangers flight safety to:
- (1) the CAA;
  - (2) to the organisation responsible for the type design or supplemental type design.
- (b) The reports referred to in point (a) shall be made in a manner determined by the CAA and shall contain all pertinent information about the condition known to the person or organisation making the report.
- (c) Where the maintenance or the airworthiness review of the aircraft is carried out on the basis of a written contract, the person or the organisation responsible for those activities shall also report any condition referred to in point (a) to the owner of the aircraft and, when different, to the CAMO or CAO concerned.
- (d) The person or organisation shall submit the reports referred to in points (a) and (c) as soon as possible, but no later than 72 hours from the moment when the person or organisation identified the condition to which the report relates, unless exceptional circumstances prevent this.

### **AMC1 ML.A.202 Occurrence reporting**



Accountable persons or organisations should ensure that the design approval holder (DAH) receives adequate reports of occurrences for that aircraft or component, to enable the DAH to issue appropriate service instructions and recommendations to all owners or operators.

Accountable persons or organisations should establish a liaison with the DAH to determine whether published or proposed service information will resolve the problem or to obtain a solution to a particular problem.

MCAR-13B provides further details on occurrence reporting.

### **Subpart C — CONTINUING AIRWORTHINESS**

#### **MCAR-ML.A.301 Continuing airworthiness tasks**

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

- (a) the accomplishment of pre-flight inspections;
- (b) the rectification of any defect and damage affecting safe operation in accordance with data specified in points ML.A.304 and ML.A.401, as applicable, while taking into account the minimum equipment list ('MEL') and configuration deviation list, when they exist;
- (c) the accomplishment of all maintenance in accordance with the AMP referred to in point ML.A.302;
- (d) the accomplishment of any applicable:
  - (1) airworthiness directive ('AD');
  - (2) operational directive with a continuing airworthiness impact,
  - (3) continuing airworthiness requirement established by the CAA and the State of Design,
  - (4) measures mandated by the CAA in immediate reaction to a safety problem;
- (e) the accomplishment of modifications and repairs in accordance with ML.A.304;
- (f) maintenance check flights, when necessary.

## **GM1 ML.A.301(f) Continuing airworthiness tasks**

### **MAINTENANCE CHECK FLIGHTS (MCFs)**

- (a) The definition of and operational requirements for MCFs are laid down in the MCAR-Air Operations and are carried out under the control and responsibility of the aircraft operator. During the flight preparation, the flight and the post-flight activities as well as for the aircraft handover, the processes requiring the involvement of maintenance personnel or organisations should be agreed in advance with the operator. The operator should consult as necessary with the person or organisation in charge of the airworthiness of the aircraft.
- (b) Depending on the aircraft defect and the status of the maintenance activity performed before the flight, different scenarios are possible and are described below:
- (1) The aircraft maintenance manual (AMM), or any other maintenance data issued by the DAH, requires that an MCF be performed before completion of the maintenance ordered. In this scenario, a certificate after incomplete maintenance, when in compliance with ML.A.801(f) or MCAR-145.A.50(e), should be issued and the aircraft can be flown for this purpose under its airworthiness certificate.

Due to incomplete maintenance, it is advisable to open a new entry into the ML.A.305 aircraft logbook, to identify the need for an MCF. This new entry should contain or refer to, as necessary, data relevant to perform the MCF, such as aircraft limitations and any potential effect on operational and emergency equipment due to incomplete maintenance, maintenance data reference and maintenance actions to be performed after the flight.

After a successful MCF, the maintenance records should be completed, the remaining maintenance actions finalised and a certificate of release to service (CRS) issued.

- (2) Based on its own experience and for reliability considerations and/or quality assurance, an operator, owner, CAO or CAMO may wish to perform an MCF after the aircraft has undergone certain maintenance while maintenance data does not call for such a flight. Therefore, after the maintenance has been properly carried out, a CRS is issued and the aircraft airworthiness certificate remains valid for this flight.
- (3) After troubleshooting of a system on the ground, an MCF is proposed by the maintenance personnel or organisation as confirmation that the solution applied has restored the normal system operation. During the maintenance performed, the maintenance instructions are followed for the complete restoration of the system and therefore a CRS is issued before the flight. The airworthiness certificate is valid for the flight. An open entry requesting this flight may be recorded in the aircraft logbook.
- (4) An aircraft system has been found to fail, the dispatch of the aircraft is not possible in accordance with the maintenance data, and the satisfactory diagnosis of the cause of the fault can only be made in flight. The process for this troubleshooting is not described in the maintenance data and therefore scenario (1) does not apply. Since the aircraft cannot

fly under its airworthiness certificate because it has not been released to service after maintenance, a permit to fly issued in accordance with MCAR-21 is required.

After the flight and the corresponding maintenance work, the aircraft can be released to service and continue to operate under its original certificate of airworthiness.

- (c) For certain MCFs, the data obtained or verified in flight will be necessary for assessment or consideration after the flight by the maintenance personnel or organisation prior to issuing the maintenance release. For this purpose, when the maintenance staff cannot perform these functions in flight, it may rely on the crew performing the flight to complete this data or to make statements about in-flight verifications. In this case, the maintenance staff should appoint the crew personnel to play such a role on their behalf and, before the flight, brief the appointed crew personnel on the scope, functions and the detailed process to be followed, including required reporting information after the flight and reporting means, in support of the final release to service to be issued by the certifying staff.

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**MCAR-ML.A.302 Aircraft Maintenance programme**

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- (a) Maintenance of each aircraft shall be organised in accordance with an AMP.
- (b) The AMP and any subsequent amendments thereto shall be, alternatively:
  - (1) declared by the owner in accordance with ML.A.302(c)(7), where the continuing airworthiness of the aircraft is not managed by a CAMO or CAO;
  - (2) approved by the CAMO or CAO responsible for managing the continuing airworthiness of the aircraft.

The owner declaring the AMP in accordance with point (b)(1) or the organisation approving the AMP in accordance with point (b)(2) shall keep the AMP updated.

- (c) The AMP:
  - (1) shall clearly identify the owner of the aircraft and the aircraft to which it relates, including any installed engine and propeller, as applicable;
  - (2) shall include, alternatively:
    - (a) the tasks or inspections contained in the applicable minimum inspection programme ('MIP') referred to in point (d);
    - (b) the instructions for continuing airworthiness ('ICA') issued by the design approval holder ('DAH');
  - (3) may include additional maintenance actions to those referred to in point (c)(2) or maintenance actions alternative to those referred to in point (c)(2)(b) at the proposal of the owner, CAMO or CAO, once approved or declared in accordance with point (b). Alternative maintenance actions to those referred to in point (c)(2)(b) shall not be less restrictive than those set out in the applicable MIP;
  - (4) shall include all the mandatory continuing airworthiness information, such as repetitive ADs, the airworthiness limitation section ('ALS') of the ICAs, and specific maintenance requirements contained in the type certificate data sheet ('TCDS');
  - (5) shall identify any additional maintenance tasks to be performed because of the specific aircraft type, aircraft configuration and type and specificity of operation, whereas the following elements shall be taken into consideration as a minimum:
    - (a) specific installed equipment and modifications of the aircraft;
    - (b) repairs carried out in the aircraft;
    - (c) life-limited components and flight-safety-critical components;

- (d) maintenance recommendations, such as time between overhaul ('TBO') intervals, issued through service bulletins, service letters, and other non-mandatory service information;
  - (e) applicable operational directives or requirements related to the periodic inspection of certain equipment;
  - (f) special operational approvals;
  - (g) use of the aircraft and operational environment;
- (6) shall identify whether the Pilot-owners are authorised to perform maintenance;
- (7) when declared by the owner, shall contain a signed statement by which the owner declares that this is the AMP for the particular aircraft registration and that he is fully responsible for its content and, in particular, for any deviations from the DAH's recommendations;
- (8) when approved by the CAMO or CAO, shall be signed by this organisation, which shall retain records with the justification for any deviation introduced to the DAH's recommendations;
- (9) shall be reviewed at least annually in order to assess its effectiveness, and this review shall be performed, alternatively:
- (a) in conjunction with the airworthiness review of the aircraft by the person who performs such an airworthiness review;
  - (b) by the CAMO or CAO managing the continuing airworthiness of the aircraft in those cases where the review of the AMP is not performed in conjunction with an airworthiness review.

If the review shows deficiencies of the aircraft linked with deficiencies in the content of the AMP, the AMP shall be amended accordingly. In this case the person performing the review shall inform the CAA if he does not agree with the measures amending the AMP taken by the owner, CAMO or CAO. The CAA shall decide which amendments to the AMP are necessary, raising the corresponding findings and, if necessary, reacting in accordance with point ML.B.304.

(d) A MIP:

- (1) shall contain the following inspection intervals:
- (a) for aeroplanes, touring motor gliders ('TMGs') and balloons, every annual or 100-h interval, whichever comes first, to which a tolerance of 1 month or 10 h may be

applied. The next interval shall be calculated as from the time the inspection takes place;

- (b) for sailplanes and powered sailplanes other than TMG, every annual interval to which a tolerance of 1 month may be applied. The next interval shall be calculated as from the time the inspection takes place;

(2) shall contain the following, as applicable to the aircraft type:

- (a) servicing tasks as required by the DAH's requirements;
- (b) inspection of markings;
- (c) review of weighing records and weighing in accordance with MCAR-Air Operations, rules for the operations of balloons and rules for the operation of sailplanes;
- (d) operational test of transponder (if installed);
- (e) functional test of the pitot-static system;
- (f) in the case of aeroplanes:
  - (i) operational tests for power and revolutions per minute (rpm), magnetos, fuel and oil pressure, engine temperatures;
  - (ii) for engines equipped with automated engine control, the published run-up procedure;
  - (iii) for dry-sump engines, engines with turbochargers and liquid-cooled engines, an operational test for signs of disturbed fluid circulation;
- (g) inspection of the condition and attachment of the structural items, systems and components corresponding to the following areas:
  - (i) for aeroplanes:  
airframe, cabin and cockpit, landing gear, wing and centre section, flight controls, empennage, avionics and electrics, power plant, clutches and gearboxes, propeller and miscellaneous systems, such as the ballistic rescue system;
  - (ii) for sailplanes and powered sailplanes:  
airframe, cabin and cockpit, landing gear, wing and centre section, empennage, avionics and electrics, power plant (for powered sailplanes) and miscellaneous systems, such as removable ballast and/or drag chute and controls, as well as water ballast system;

- (iii) for hot-air balloons:  
envelope, burner, basket, fuel containers, equipment and instruments;
- (iv) for gas balloons:  
envelope, basket, equipment and instruments.

As long as this Regulation does not specify an MIP for airships and rotorcraft, their AMP shall be based on the ICA issued by the DAH, as referred to in point (c)(2)(b).

- (e) By derogation from points (b) and (c), a declaration by the owner or an approval by a CAMO or CAO is not required, and an AMP document is not required to be produced when the following conditions are met:

- (1) all the ICA issued by the DAH are being followed without any deviations;
- (2) all maintenance recommendations, such as TBO intervals, issued through service bulletins, service letters, and other non-mandatory service information, are being followed without any deviations;
- (3) there are no additional maintenance tasks to be performed resulting from any of the following:
  - (a) specific installed equipment and modifications of the aircraft;
  - (b) repairs carried out in the aircraft;
  - (c) life-limited components and flight-safety-critical components;
  - (d) special operational approvals;
  - (e) use of the aircraft and operational environment.
- (4) Pilot-owners are authorised to perform Pilot-owner maintenance.

This derogation is not applicable if the pilot-owner or, in case of jointly-owned aircraft, any of the pilot-owners is not authorised to perform Pilot-owner maintenance because this has to be specified in the declared or approved AMP.

- (f) If the conditions provided for in points (e)(1) to (e)(4) are met, the AMP applicable to the aircraft shall consist of the following:
  - (1) the ICA issued by the DAH;
  - (2) the maintenance recommendations, such as TBO intervals, issued through service bulletins, service letters, and other non-mandatory service information;



- (3) the mandatory continuing airworthiness information, such as repetitive ADs, the ALS of the ICA and specific maintenance requirements contained in the TCDS;
- (4) the tasks due to specific operational or airspace directives or requirements in relation to particular instruments and equipment.

**AMC1 ML.A.302 Aircraft maintenance programme**

- (a) 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 (e.g. from an AMP based on minimum inspection programme (MIP) to an AMP based on DAH’s data), certain additional maintenance may need to be carried out on the aircraft to implement this transition.
- (b) The maintenance programme may take the format of the standard template provided in AMC2 ML.A.302 (CAA Form AMP). This maintenance programme may include several aircraft registrations as long as the maintenance requirements for each registration are clearly identified.

**AMC2 ML.A.302 Aircraft maintenance programme**

**CAA FORM AMP**

The following CAA Form AMP may be used to produce the AMP:

MCAR-ML aircraft maintenance programme (AMP)			
Aircraft identification			
1	Registration (s):	Type:	Serial no (s):
	Owner:		
Basis for the maintenance programme			
2	Design approval holder (DAH) instructions for continued airworthiness (ICA) <input type="checkbox"/>	Minimum inspection programme (MIP) as detailed in the latest revision of AMC1 ML.A.302(d) <input type="checkbox"/> Other MIP complying with MCAR-ML.A.302(d) <input type="checkbox"/> (List the tasks in Appendix A)	
Design approval holder (DAH) instructions for continuing airworthiness (ICA)			
3	Equipment manufacturer and type	Applicable ICA reference (revision/date not required assuming the latest revision will always be used)	
For aircraft other than balloons			
3a	Aircraft (other than balloons)		
3b	Engine (if applicable)		
3c	Propeller (if applicable)		
For balloons			
3d	Envelope (only for balloons)		

3e	Basket(s) (only for balloons)		
3f	Burner(s) (only for balloons)		
3g	Fuel cylinders (only for balloons)		
<b>Additional maintenance requirements to the DAH' ICA or to the MIP (applicable to all AMPs)</b>			
4	Indicate if any of the following types of repetitive maintenance are included in the AMP (when replying 'YES', list the specific requirements in Appendix B)	Yes	No
	Maintenance due to specific equipment and modifications		
	Maintenance due to repairs		
	Maintenance due to life-limited components (this should be only if the MIP is used. Otherwise, this data is already part of the DAH's data used as a basis for the AMP.)		
	Maintenance due to mandatory continuing airworthiness information (airworthiness limitations (ALIs), certification maintenance requirements (CMRs), specific requirements in the TCDS, etc.)		
	Maintenance recommendations, such as time between overhaul (TBO) intervals, issued through service bulletins, service letters, and other non-mandatory service information		
	Maintenance due to repetitive ADs		
	Maintenance due to specific operational/airspace directives/requirements (altimeter, compass, transponder, etc.)		
	Maintenance due to the type of operation or operational approvals		
	Other		
<b>Maintenance tasks alternative to the DAH's ICA (not less restrictive than the MIP)</b>			
5	Indicate if there is any maintenance task alternative to the DAH's ICA (when 'YES', list the specific alternative maintenance tasks in Appendix C)	Yes	No
<b>Pilot-owner maintenance (only for balloons not engaged in commercial operations, or sailplanes not engaged in commercial operations, or other aircraft operated under Part-NCO)</b>			
<b>Remark: pilot-owner maintenance is not allowed for aircraft operated by a commercial ATO/DTO</b>			
6	Does the pilot-owner perform pilot-owner maintenance (ref. MCAR-ML.A.803)? If yes, enter the name of the pilot-owner(s) authorised to perform such maintenance: Pilot-owner name: (NOTE) _____ Licence number: (NOTE) _____ Signature: _____ Date: _____ NOTE: It is possible to refer to a list in the case of jointly owned aircraft.	Yes	No
<b>Approval/declaration of the maintenance programme (select the appropriate option)</b>			
7	Declaration by the owner: <input type="checkbox"/>	Approval by the contracted CAMO/CAO: <input type="checkbox"/>	
	'I hereby declare that this is the maintenance programme applicable to the aircraft referred to in block 1, and I am fully responsible for its content and,	Approval reference no of the CAMO/CAO:  Signature/name/date:	

	in particular, for any alternatives tasks to the DAH's data. Signature/name/date:	
<b>Certification statement</b>		
8	'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 MCAR-ML.A.201: Owner/Lessee/operator <input type="checkbox"/> CAMO/CAO <input type="checkbox"/> Name of owner/lessee/operator or CAMO/CAO approval number: Address: Telephone/fax: Email: Signature/date:	
9	Appendices attached: Appendix A YES <input type="checkbox"/> NO <input type="checkbox"/> Appendix B YES <input type="checkbox"/> NO <input type="checkbox"/> Appendix C YES <input type="checkbox"/> NO <input type="checkbox"/> Appendix D YES <input type="checkbox"/> NO <input type="checkbox"/>	

<b>Appendix A — Minimum inspection programme (MIP)</b> (only applicable if a MIP different from the one described in AMC1 ML.A.302(d) is used — see Section 2 above) <i>Detail the tasks and inspections contained in the MIP being used.</i>
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<b>Appendix B — Additional maintenance requirements</b> (include only if necessary — see Section 4 above)		
<p><i>This appendix is supposed to include only the tasks which are included in the AMP, either at the recommended interval or at a different one.</i></p> <p><i>(All repetitive maintenance tasks not included here, or the interval differences should be kept by the CAMO/CAO (when contracted) in their files with their corresponding justifications. Appendix D may optionally be used. Nevertheless, the owner/CAMO/CAO is responsible for taking into account all instructions, even if they are not adopted and listed here. The person performing the AR, if reviewing the AMP, is not responsible for the completeness of this appendix, but may do some sampling as part of the investigations and the findings discovered during the physical review).</i></p>		
Task description	References	Interval (tick box if the selected interval differs from that required in the referenced document)

<b>Maintenance due to specific equipment and modifications</b>			
			<input type="checkbox"/>
			<input type="checkbox"/>
<b>Maintenance due to repairs</b>			
			<input type="checkbox"/>
			<input type="checkbox"/>
<b>Maintenance due to life-limited components (This should be only if the MIP is used. Otherwise, this data is already part of the DAH's data used as the basis for the AMP.)</b>			
			<input type="checkbox"/>
			<input type="checkbox"/>
<b>Maintenance due to mandatory continuing airworthiness instructions (ALIs, CMRs, specific requirements in the TCDS, etc.)</b>			
			<input type="checkbox"/>
			<input type="checkbox"/>
<b>Maintenance recommendations, such as TBO intervals, issued through service bulletins, service letters, and other non-mandatory service information</b>			
			<input type="checkbox"/>
Emergency locator transmitters and personal locator beacon — annual testing	Air Safety Circular M-3	1 year	<input type="checkbox"/>
(if not using MIP or equivalent ICA task) Transponder test	EASA SIB 2011-15	2 years	<input type="checkbox"/>
			<input type="checkbox"/>
<b>Maintenance due to repetitive ADs</b>			
			<input type="checkbox"/>
			<input type="checkbox"/>
<b>Maintenance due to specific operational/airspace directives/requirements (altimeter, compass, transponder, etc.)</b>			
			<input type="checkbox"/>
			<input type="checkbox"/>
<b>Maintenance due to the type of operation or operational approvals</b>			
			<input type="checkbox"/>
			<input type="checkbox"/>
<b>Other</b>			
			<input type="checkbox"/>
			<input type="checkbox"/>

<b>Appendix C — Maintenance tasks alternative to the DAH's ICA</b> (not less restrictive than the MIP) (include only if necessary — see Sections 5 above)			
Task description	Recommended interval	Alternative inspection/task	Amended interval
<p><i>When the DAH's ICA are used as the basis for the AMP, this appendix is used to include the tasks alternative to the DAH's ICA, which are included in the AMP.                      (When a CAMO/CAO is contracted, all elements justifying the deviations from the DAH's ICA should be kept by the CAMO/CAO and the organisation should provide a copy of these justifications to the owner)</i></p>			

<b>Appendix D — Additional information (optional)</b>
<p><i>This appendix may optionally be used to provide additional information, such as the complete list of AMP tasks or the list of documents (e.g. service bulletins) considered during the development of the AMP.</i></p>

CAA Form AMP, Issue 1, 15 November 2021

## **GM1 ML.A.302 Aircraft maintenance programme**

The responsibilities associated with maintenance programmes developed in accordance with ML.A.302 are the following:

- (a) If the owner has contracted a CAMO or CAO in order to manage the continuing airworthiness of the aircraft, this organisation is responsible for developing and approving a maintenance programme which:
  - (1) indicates whether this programme is based on data from the DAH or on the MIP described in ML.A.302(d);
  - (2) identifies the owner and the specific aircraft, engine, and propeller (as applicable);
  - (3) includes all mandatory continuing airworthiness information and any additional tasks derived from the assessment of the DAH's instructions;
  - (4) justifies any deviations from the DAH's instructions; when the DAH's instructions are the basis for the AMP development, these deviations should not fall below the requirements of the MIP; and
  - (5) is customised to the particular aircraft type, configuration and operation, in accordance with ML.A.302(c)(5).
- (b) If the owner has not contracted a CAMO or CAO in order to manage the continuing airworthiness of the aircraft, then the owner is responsible for developing and declaring the maintenance programme, assuming full responsibility for its content, and for any deviations from the DAH's instructions (ref. ML.A.201(f) and ML.A.302(c)(7)) and the possible consequences of such deviations. In this case, these deviations do not need to be justified, but are to be identified in the AMP. However, the maintenance programme still needs to comply with the requirements contained in ML.A.302(c), in particular with the obligation to not fall below the requirements of the MIP and to comply with the mandatory continuing airworthiness information.
- (c) The content of the owner-declared maintenance programme cannot be challenged up front either by the CAA or by the contracted maintenance organisation. This declared maintenance programme is the basis for adequate planning of maintenance, as well as for the ARs and the aircraft continuing airworthiness monitoring (ACAM) inspections in accordance with ML.B.303. Nevertheless, the maintenance programme will be subject to periodic reviews at the occasion of the AR and, in case of discrepancies, linked with deficiencies in the content of the maintenance programme, the owner shall amend the maintenance programme accordingly, as required by ML.A.302(c)(9).
- (d) When the CAA is notified of deficiencies linked with the content of the declared maintenance programme for a particular aircraft (in case no agreement is reached between the owner and the AR staff about the changes required in the maintenance programme), the CAA will contact the owner, request a copy of the maintenance

programme, decide which amendment to the AMP is necessary and raise the associated finding (ref. ML.A.302(c)(9)). If necessary, the CAA may also react in accordance with ML.B.304. Based on the information received, the reported deficiencies and the identified risks, the CAA may in addition adapt the ACAM programme accordingly (ref. ML.B.303).

- (e) Although there is no requirement for the owner to send a copy of the maintenance programme to the CAA, this does not prevent the CAA from requesting at any time the owner to send information about, or a copy of the AMP, even if deficiencies have not been reported (see AMC1 ML.B.201).
- (f) Since the maintenance programme has to identify the alternatives tasks to the DAH's instructions, the ARs and ACAM inspections can place emphasis on the inspection of the areas affected by those deviations in order to make sure that the maintenance programme is effective.
- (g) Since the CAA is not responsible for the content of a declared maintenance programme, the CAA does not authorise the accomplishment of the scheduled maintenance to deviate from the AMP content (other than the tolerances provided for in ML.A.302(d)(1)). In such cases, the owner may declare an amended AMP.

**GM2 ML.A.302 Aircraft Maintenance Programme**

The following table provides a summary of the provisions contained in ML.A.302 in relation to the content of the maintenance programme, its approval and its link with the AR:

	OPTION 1	OPTION 2
<b>Responsibility for developing the AMP</b>	Contracted CAMO or CAO	Owner (if allowed under ML.A.201(f))
<b>Approval/declaration of the maintenance programme</b>	Approved by the CAMO or CAO, or none required in case of compliance with MCAR-ML.A.302(e)	Declaration by the owner or none required in case of compliance with MCAR-ML.A.302(e)
<b>Basis for the maintenance programme</b>	MIP (not applicable to rotorcraft and airships) or ICA issued by the DAH	
<b>Deviations from the DAH's ICA</b>	Deviations from the DAH's instructions are justified. The CAMO/CAO keeps a record of the justifications and provides a copy of them to the owner.	Deviations do not need to be justified.
<b>AMP annual review</b>	In conjunction with the AR, by the AR staff or, if not performed in conjunction with the AR (e.g. in case of ARC extension), by the CAMO or CAO.	

**AMC1 ML.A.302(c) Aircraft Maintenance Programme**

When evaluating an alternative to a maintenance task issued or recommended by the DAH, such

as the extension of TBO intervals, or when considering not to include a maintenance task issued or recommended by the DAH, a risk-based approach should be taken, considering aspects such as the operation of aircraft, type of aircraft, hours and years in service, maintenance of the aircraft, compensating measures, redundancy of components, etc.

The following table provides more details of aspects that should be considered:

	<b>Examples</b>
<b>OPS approval</b>	HIGHER RISK: commercial operation, commercial flight training MEDIUM RISK: flight training by an association, non-commercial specialised operations (SPO) LOWER RISK: private
<b>Flight rules</b>	HIGHER RISK: instrument flight rules (IFR) MEDIUM RISK: visual flight rules (VFR) at night LOWER RISK: VFR by day
<b>Aircraft weight</b>	HIGHER RISK: Other than ELA1 MEDIUM RISK: ELA1 aircraft other than light sport aeroplanes (LSA), very light aircraft (VLA), sailplanes and powered sailplanes LOWER RISK: LSA, VLA, sailplanes and powered sailplanes
<b>Who manages the airworthiness of the aircraft?</b>	HIGHER RISK: owner LOWER RISK: CAMO/CAO
<b>Who maintains the aircraft?</b>	HIGHER RISK: pilot-owner MEDIUM RISK: independent certifying staff LOWER RISK: maintenance organisation
<b>Time in service (flight hours, years)</b>	HIGHER RISK: very high number of hours or years MEDIUM RISK: medium number of hours or years LOWER RISK: low number of hours or years
<b>Aircraft utilisation</b>	HIGHER RISK: less than 50 h per year MEDIUM RISK: around 200 h per year LOWER RISK: more than 400 h per year
<b>ACAM findings</b>	HIGHER RISK: numerous findings in ACAM or ramp inspections MEDIUM RISK: few findings in ACAM inspections LOWER RISK: rare findings in ACAM inspections
<b>System redundancy (for components such as engine/propeller)</b>	HIGHER RISK: single-engined aircraft LOWER RISK: multi-engined aircraft
<b>Supplementary maintenance measures</b>	HIGHER RISK: no supplementary measures LOWER RISK: supplementary measures (such as oil analysis, engine data monitoring, boroscope inspections, corrosion inspections, etc.)
<b>Risk factor of the component failure</b>	HIGHER RISK: engine failure on a helicopter MEDIUM RISK: engine failure on an aeroplane LOWER RISK: sailplane, or powered sailplane



The above information may be useful for CAMOs and CAOs when developing and approving maintenance programmes, and for the AR staff performing ARs and reviewing the effectiveness of the declared maintenance programme. It may also be useful for the owner in order to take an informed decision before introducing deviations from the DAH's recommendations. Nevertheless, as allowed by MCAR-ML.A.302(c)(7) and explained in GM ML.A.302, when the owner issues a declaration for the maintenance programme, they do not need to justify such deviations.

## **AMC1 ML.A.302(c)(9) Aircraft Maintenance Programme**

### **ANNUAL REVIEW OF AMP**

- (a) During the annual review of the maintenance programme, as required by point ML.A.302(c)(9), the following should be taken into consideration:
- (1) the results of the maintenance performed during that year, which may reveal that the current maintenance programme is not adequate;
  - (2) the results of the AR performed on the aircraft, which may reveal that the current maintenance programme is not adequate;
  - (3) revisions introduced on the documents affecting the programme basis, such as the ML.A.302(d) MIP or the DAH's data;
  - (4) changes in the aircraft configuration, and type and specificity of operation;
  - (5) changes in the list of pilot-owners; and
  - (6) applicable mandatory requirements for compliance with MCAR-21, such as airworthiness directives (ADs), airworthiness limitations, certification maintenance requirements and specific maintenance requirements contained in the type certificate data sheet (TCDS).
- (b) When reviewing the effectiveness of the AMP, the AR staff (or the CAMO/CAO staff if the review of the AMP is not performed in conjunction with an AR) may need to review the maintenance carried out during the last 12 months, including unscheduled maintenance. To this end, he or she should receive the records of all the maintenance performed during that year from the owner/CAMO/CAO.
- (c) When reviewing the results of the maintenance performed during that year and the results of the AR, attention should be paid as to whether the defects found could have been prevented by introducing in the maintenance programme certain DAH's recommendations, which were initially disregarded by the owner, CAMO or CAO.

**GM1 ML.A.302(c)(2)(b) Aircraft maintenance programme**

‘DAH’ refers to the holder of a type certificate (TC), restricted type certificate, supplemental type certificate (STC), Technical Standard Order (TSO) authorisation / European Technical Standard Order (ETSO) authorisation, repair or change to the type design.

The ‘instructions for continuing airworthiness (‘ICA’) issued by the design approval holder (‘DAH’) do not include the data issued by other original equipment manufacturer (OEM), except when the DAH’s ICA makes clear reference to such OEM data.

Tasks or intervals (e.g. escalations) alternative to those of the DAH’s ICA and selected by the CAMO or CAO for the AMP do not need to be approved by the CAA. Justification of these deviations are to be kept by the CAMO or CAO.

**GM1 ML.A.302(c)(3) Aircraft maintenance programme**

**ALTERNATIVE MAINTENANCE ACTIONS**

‘Maintenance actions alternative to those referred to in point (c)(2)(b)’ refer to when the DAH’s ICA are used as the basis for the AMP development and the CAMO, CAO or owner (as applicable), when developing the AMP, decides to deviate from certain of these DAH’s instructions, introducing, for example, a less frequent interval or a different task type (inspection instead of check) than the one established by the ICA.

These alternative maintenance actions shall not be less restrictive than those set out in the applicable MIP. This means that the extent of the maintenance to be covered by the deviating task cannot be less than the extent of the corresponding task in the MIP in terms of frequency and task type.

Examples of alternative maintenance actions:

ICA task	AMP proposed alternative	MIP task	Alternative acceptable Yes/No
Inspection XX 6 months interval	Inspection XX 12 months interval	Inspection XX 12 months interval	Yes
Inspection XX 12 months interval	Inspection XX 24 months interval	Inspection XX 12 months interval	No
Inspection XX 24 months interval	Inspection XX 36 months interval	Inspection XX 12 months interval	No (24 months to be kept)
Functional test system XX	Operational test system XX (same interval) or general visual inspection system XX (same interval)	Functional test system XX (same interval)	No*

<b>Operational test system XX</b>	<b>Functional test system XX (same interval)</b>	<b>Operational test system XX (same interval)</b>	<b>Yes*</b>
<b>Inspection XX 24 months interval</b>	<b>Inspection XX 36 months</b>	<b>None relevant</b>	<b>Yes</b>
<b>Functional test</b>	<b>General visual inspection</b>	<b>None relevant</b>	<b>Yes</b>

\*A functional test is considered more restrictive than an operational test.

Remark: the above does not apply to one-time interval extensions, for which ML.A.302(d)(1) provides 1-month or 10-h tolerance (i.e. permitted variation) for aeroplanes, touring motor gliders (TMGs) and balloons and 1-month tolerance for sailplanes and powered sailplanes other than TMGs.

**GM1 ML.A.302(c)(4) Aircraft maintenance programme**

**MANDATORY CONTINUING AIRWORTHINESS INFORMATION OTHER THAN ADS**

‘Mandatory continuing airworthiness information’ other than ADs may be different from one aircraft to another, depending on the type certification basis used. The aircraft may have been certified before the term ‘ALS (Airworthiness Limitations Section)’ was introduced in the certification specification (or airworthiness code). However, the intent is that the AMP (whether based on MIP or not) includes all mandatory scheduled maintenance requirements identified during the initial airworthiness activity, by the TC holder, STC holder and, if applicable, engine TC holder. These requirements may be identified under a variety of designations such as:

- Airworthiness limitations or Airworthiness limitation items (ALI)
- Certification maintenance requirements (CMR)
- Safe life items or safe life limits or safe life limitations
- Life-limited parts (LLP)
- Time limits
- Retirements life
- Mandatory Inspections or Mandatory Airworthiness Inspections
- Fuel airworthiness limitations or Fuel tank safety limitations

In case of doubt, it is advised to check the TCDS or contact the DAH.

The intervals of the mandatory continuing airworthiness information cannot be extended by a CAMO/CAO. The escalation of such tasks is to be approved by the Agency.

**AMC1 ML.A.302(d) Aircraft maintenance programme**

This AMC contains an acceptable MIP for aeroplanes of 2730 kg maximum take-off mass (MTOM) and below, and for ELA2 aircraft other than airships, grouped in the following categories:

- aeroplanes of 2730 kg MTOM and below;
- ELA2 sailplanes and ELA2 powered sailplanes; and
- ELA2 balloons.

These MIPs already comply with the requirements of ML.A.302(d) and may be used in order to define the basic information for the maintenance programme as required by ML.A.302(c)(2)(a). However, the maintenance programme must be customised as required by ML.A.302(c)(5), which may be achieved by using the standard template contained in AMC ML.A.302.

It should be noted that using the 1-month tolerance permitted by ML.A.302(d)(1) for the annual inspection may result in an expired ARC.

### MIP for aeroplanes of 2730 kg MTOM and below

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

A tolerance of 1 month or 10 h may be applied. The next interval shall be calculated from the time the inspection takes place.

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 performed wherever a check for improper installation/operation is carried out.

<b>Aeroplanes of 2730 kg MTOM and below</b>	
System/component/area	Task & Inspection detail
<b>GENERAL</b>	
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 underwing registration markings are correct. If applicable, check that an exemption for alternate display is approved. Identification plate required under MCAR-47.60 is present, as well as other identification markings on fuselage in accordance with MCAR-47.
Weighing	Review weighing record to establish accuracy against installed equipment. Weigh the aircraft as required by Part-NCO or Part-SPO, as applicable.
Service life limits	Check the records that the service life limits and airworthiness limits are within the life time limits of the maintenance programme.
Software	Check for updated software/firmware status and databases for engine and equipment.

<b>AIRFRAME</b>	
Fabric and skin	<p>Inspect for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings.</p> <p>NOTE: When checking composite structures, check for signs of impact or pressure damage that may indicate underlying damage.</p>
Fuselage structure	Check frames, formers, tubular structure, braces, and attachments. Inspect for signs of corrosion and cracks.
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	<p>Inspect for condition of moving parts and wear.</p> <p>Check service life.</p> <p>Carry out operational test.</p>
<b>CABIN AND COCKPIT</b>	
Seats, safety belts and harnesses	<p>Inspect for poor condition and apparent defects.</p> <p>Check for service life.</p>
Windows, canopies and windshields	Inspect for deterioration and damage, and for function of emergency jettison.
Instrument panel assemblies	<p>Inspect for poor condition, mounting, marking, and (where practicable) improper operation.</p> <p>Check markings of instruments in accordance with the Flight Manual.</p>
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.
<b>LANDING GEAR</b>	
Shock-absorbing devices	<p>Inspect for improper fluid level.</p> <p>Inspect for wear and deformation of rubber pads, bungees, and springs.</p>
All units	Inspect for poor condition and insecurity of attachment, including the related structure.
Retracting and locking mechanism	Inspect mechanism. Operational check.
Linkages, trusses and members	Inspect for undue or excessive wear fatigue and distortion.
Steering	Inspect the nose/tail wheel steering for proper function and wear.

Hydraulic lines	Inspect for leakage. Check condition and replace if necessary.
Electrical system	Inspect for chafing. Operational check 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.
<b>WING AND CENTRE SECTION</b>	
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.
<b>FLIGHT CONTROLS</b>	
Control circuit/stops	Inspect control rods and cables. Check that the control primary 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 full range of motion and free play.
Trim systems	Inspect trim surfaces, controls, and connections.  Check full range of motion.
<b>EMPENNAGE</b>	
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.
<b>AVIONICS AND ELECTRICS</b>	
Batteries	Inspect for improper installation, improper charge, 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, chafing and wear of insulation.
Antennas	Inspect for poor condition, insecure mounting, and improper operation.
Lights	Operational check of the interior, exterior and instrument lighting
<b>POWERPLANT (OTHER THAN TURBOPROP ENGINE)</b>	

Engine section	Inspect for visual evidence of 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.
Engine mounts	Inspect for cracks, looseness of mounting, and looseness of the engine to the engine-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.
Turbocharger and intercooler	Inspect for leaks, improper condition, and looseness of connections and fittings. Check MP controller or density controller for leakage and free movement of controls. Check waste gate or overpressure relief valve for free movements.
Heating	Inspect cabin heating heat exchanger for improper condition and function. For exhaust heat exchanger, check CO (Carbon Monoxide) concentration.
Liquid cooling systems	Inspect for leaks and proper fluid level.
Electronic 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.
<b>TURBOPROP ENGINE</b>	
Incoming power check	Perform in accordance with the graphs found in the engine maintenance manual (EMM).
Inertial separator	Functional check
Engine cowling	Remove, inspect for damage.
General condition	Inspect for oil, fuel, bleed-air or other leaks.
1st stage compressor blades	Remove screen, check for foreign object debris (FOD) or other damage.
P3 filter	Replace
Oil filter	Inspection and cleaning
Fuel low pressure filter	Replace

Fuel high pressure filter	Inspection and cleaning
Oil scavenge filter	Inspection and cleaning
Chip detector	Inspection and cleaning
Exhaust duct	Inspection
Starter/generator brushes	Inspection for proper length
Ignitor/glow plugs	Functional check
Overspeed governor	Inspect for oil leaks.
Governor and beta-valve	Inspect for oil leaks or binding of controls.
Propeller	Inspect blades for damage and hub leaks.
(if installed) fire detector loop or sense module	Functional check
Engine cowling	Install
Power check	Perform in accordance with the graphs found in the EMM, record values.
Oil level	Check within 10 minutes after shutdown.
<b>FUEL</b>	
Fuel tanks	Inspect for leaks and improper installation and connection. Verify proper sealing and function of tank drains.
<b>CLUTCHES AND GEARBOXES</b>	
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.
<b>PROPELLER</b>	
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.
<b>MISCELLANEOUS</b>	
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.
<b>OPERATIONAL AND FUNCTIONAL CHECKS</b>	



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.
Ice protection	Perform operational check of ice protection system.
Fuel quantity indication	Check the fuel quantity indication for proper indication.
Caution and warning	Operational check of cautions and warnings lights

### MIP for ELA2 sailplanes and ELA2 powered sailplanes

To be performed:

- every 100-h/annual interval (for TMGs), whichever comes first; or
- every annual interval (for the rest).

A tolerance of 1 month or 10 h, as applicable, may be applied. The next interval shall be calculated from the time the inspection takes place.

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 carried out between two consecutive 100-h/annual 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 100-h/annual, all the elements must be covered.

Note 3: Proper operation of backup or secondary systems and components should be carried out wherever a check for improper installation/operation is performed.

<b>ELA2 sailplanes and ELA2 powered sailplanes</b>	
System/component/area	Task & Inspection detail
<b>GENERAL</b>	

General – all tasks	The aircraft must be clean prior to inspection. Inspect for security, damage, wear, integrity, whether drain/vent holes are clear, for signs of overheating, leaks, chafing, cleanliness and condition, as appropriate to the particular task. Whilst checking composite structures, check for signs of impact or pressure damage that may indicate underlying damage.
Lubrication/servicing	Lubricate and replenish fluids in accordance with the manufacturer's requirements.
Markings	Check that side and underwing registration markings are correct. If applicable, check that an exemption for alternate display is approved, if identification plate for MCAR-47.60 is present, and if other identification markings on fuselage are in accordance with MCAR-47.
Weighing	Review weighing record to establish accuracy against installed equipment. Weigh the aircraft as required by the relevant Regulation for air operations.
<b>AIRFRAME</b>	
Fuselage paint/gel coat	Inspect external surface and fairings, gel coat, fabric covering or metal skin, and paintwork.
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, 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.
Pitot/ventilator	Check alignment of probe, check operation of ventilator.
Pitot-static system	Inspect pitot probes, static ports, and all tubing (as accessible) for security, damage, cleanliness, and condition. Drain any water from condensate drains.
Bonding/vents drains	Check all bonding leads and straps. Check that all vents and drains are clear from debris.
<b>CABIN AND COCKPIT</b>	
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 discolouration. 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, that energy-absorbing 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. Inspect cables for wear and damage.
Instrument panel assemblies	Inspect instrument panel and all instruments/equipment. Check if instrument readings are consistent with ambient conditions. Check marking of all switches, circuit breakers, and fuses. Check operation of

	<p>all installed equipment, as possible in accordance with the manufacturer's instructions.</p> <p>Check markings of instruments in accordance with the aircraft flight manual (AFM).</p>
Oxygen system	<p>Inspect oxygen system. Check bottle hydrostatic-test date expiry in accordance with the manufacturer's recommendations.</p> <p>Ensure that oxygen installation is recorded on weight and centre-of-gravity schedule.</p> <p>CAUTION: OBSERVE ALL SAFETY PRECAUTIONS.</p>
Colour-coding of controls	<p>Ensure that controls are colour-coded in accordance with the AFM and in good condition.</p>
Placards	<p>Check that the placards are correct and legible, and accurately reflect the status of the aircraft in accordance with the AFM.</p>
<b>LANDING GEAR</b>	
Front skid/nose wheel and mounts	<p>Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre, and wheel box. Check tyre pressure.</p>
Main wheel and brake assembly	<p>Check for integrity of hydraulic seals and leaks in pipework. 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.</p> <p>CAUTION: BRAKE DUST MAY CONTAIN ASBESTOS.</p> <p>Check operation of brake. Check level of brake fluid and replenish, if necessary. Check tyre pressure.</p> <p>CAUTION: CHECK TYPE OF BRAKE FLUID USED AND OBSERVE SAFETY PRECAUTIONS.</p>
Undercarriage suspension	<p>Check springs, bungees, shock absorbers, and attachments. Check for signs of damage.</p> <p>Service strut, if applicable.</p>
Undercarriage retract system and doors	<p>Check retraction mechanism and controls, warning system if fitted, gas struts, doors and linkages/springs, over-centre/locking device. Perform retraction test.</p>
Tail skid/wheel	<p>Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre, and wheel box. Check bond of bonded skids. Check tyre pressure.</p>
Wheel brake control circuit	<p>Inspect wheel brake control rods/cables. If combined with air brake, ensure correct rigging relationship. Check parking-brake operation, if fitted.</p>
<b>WING AND CENTRE SECTION</b>	
Centre section	<p>Inspect wing centre section including fairings for security, damage, and condition.</p>
Wing attachments	<p>Inspect the structural attachments of the wing. Check for damage, wear, and security. Check for rigging damage. Check condition of wing attachment pins and wing main bolts.</p>
Winglet/wing extensions	<p>Inspect the structural attachments of winglet and wing attachments. Check for damage, wear, and security.</p>
Aileron control circuit/stops	<p>Inspect aileron control rods/cables. Check that control stops are secure and make contact.</p> <p>Inspect connecting control devices for security, damage, free play and secure mounting.</p>

Air brake control circuit	Inspect air brake control rods/cables. Check friction/locking device (if fitted). Inspect connecting control devices for security, damage, free play and secure mounting. Inspect air brake locking for proper adjustment and positive locking.
Wing struts/wires	Inspect struts for damage and internal corrosion. Re-inhibit struts internally every 3 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.
Ailerons and controls	Inspect aileron and flaperon assemblies, hinges, control connections, springs/bungees, tapes, and seals. Ensure that seals do not impair the 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 connecting control devices.
Control deflections and free play, and record them on worksheets	Check and record range of movements and cable tensions, if specified, and check free play.
<b>EMPENNAGE</b>	
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 liners 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. Inspect trim indication for proper adjustment and function.
Control deflections and free play, and record them on worksheets	Check and record range of movements and cable tensions, if specified, and check free play.
<b>AVIONICS AND ELECTRICS</b>	
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 battery has correct main fuse fitted. 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 a call sign placard is installed. Carry out ground function test. Record radio type fitted.

Air speed indicator	Carry out a pitot static leak check and functional check of the airspeed indicator. In case of indications of malfunctions, carry out an airspeed indicator calibration check.
Altimeter datum	Check barometric subscale by altimeter QNH reading.
Pitot-static system	Perform pitot static leak check, inspect hoses for condition, operational check.
Transponder	Perform operational check.
<b>MISCELLANEOUS</b>	
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 for the ballast is made on the loading placard.
Drag chute and controls	Inspect chute, packing and release mechanism. Check packing intervals.
Water ballast system	Check water ballast system, wing and tail tanks, as fitted. Check filling points, level indicators, vents, dump and frost drains for operation and leakage. If loose bladders are used, check for leakage and expiry date, as applicable.
<b>POWERPLANT (when applicable)</b> <b>NOTE: In the case of sailplanes with electrical or jet engines, follow the maintenance instructions and recommendations of the DAH.</b>	
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	Inspect 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. Make 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 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.
Ignition	Inspect ignition system including spark plugs, distributor and cables for condition and damage. Inspect low-tension and high-tension wiring, connectors, spark plug caps. Check magneto-to-engine timing.

Propeller	Inspect propeller, hub, folding mechanism, brake, pitch change mechanism, stow sensors. Inspect propeller control for function and condition.
Doors	Check engine compartment doors, operating cables, rods, and cams.
Safety springs	Check all safety and counterbalance springs.
Extension and retraction	Check that extension and retraction operation times are within the limits specified by the manufacturer. Check light indications and interlocks for correct operation.
Exhaust	Inspect exhaust system, silencer, shock mounts, and links.
Engine installation	Inspect engine and all accessories. Carry out compression test and record results (for piston engines). Compression test results: No 1 (left/front); and No 2 (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.
Engine battery	If separate from airframe battery, inspect battery and mountings. If main fuse is fitted, check rating and condition.
Engine battery capacity test	Carry out capacity test. Refer to appropriate manual or guidance.
Placards	Check that all placards are in accordance with the AFM and legible.
Oil and fuel leaks	With the engine fully serviced, check the fuel and oil system for leaks.

### MIP for ELA2 hot-air balloons

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

A tolerance of 1 month or 10 h may be applied. The next interval shall be calculated from the time the inspection takes place.

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 carried out wherever a check for improper installation/operation is performed.

(a) Envelope

System/component/area	Task & Inspection details
Identification (type/serial number/registration plate)	Check for presence.
Crown ring	Inspect for damage/corrosion.
Crown line	Inspect for damage, wear, security of attachment. Check correct length.
Vertical-/horizontal-load tapes	Inspect joints with the crown ring, top of the envelope and wires. Inspect that all load tapes are undamaged along their entire 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 provided for by the manufacturer. If substantial fabric porosity is suspected, 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 (particularly heat damage).
Karabiners	Inspect for damage/corrosion. Operational check of karabiner lock.
Melting link and 'tempilabel'	Check and record maximum temperature indication (flag/tempilabel).
Control lines and attachments	Inspect for damage wear, security of knots. Check proper length. Check lines attachments for damage, wear, security.
Envelope pulleys/guide rings	Inspect for damage, wear, free running, contamination, security of attachment.

(b) Burner

System/component/area	Task & Inspection details
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 and cracking.
	Inspect general condition (corrosion, heat shields).
Gimballing	Operational check of stiffness and security of fasteners.
Leak check	Perform leak check of the burner.
Fuel hoses including manifolds	Inspect all hoses for wear, damage, leakage and service life limitations. Inspect O-ring seals, lubricate/replace as required.
Pressure gauges	Check that the pressure gauge reads correctly, and that lens is present.
Pilot valves/flame	Check shut-off, free movement, correct function, and lubricate if necessary.
Whisper valves/flame	Check shut-off, free movement, correct function, and lubricate if necessary.
Main valves/flame	Check shut-off, free movement, correct function, and lubricate if necessary.
Coils	Check for damage, distortion, security of fasteners. Inspect welds for cracking. Check security of jets. Tighten or replace, as necessary.

(c) Basket

System/component/area	Task & Inspection details
Identification (type/serial number)	Check for presence.
Basket walls	Check the general condition of the basket walls. Inspect weave for damage, cracks/holes. Check for no sharp objects inside the basket.
Basket wires	Inspect for damage, check swaging and eye rings (thimbles).
Karabiners	Inspect for damage/corrosion. Operational check of karabiner lock.
Basket floor	Inspect for damage and cracks.
Runners	Inspect for damage, security of attachment.
Rawhide	Inspect for damage, wear and attachments to the floor.
Rope handles	Inspect for damage, security of attachment.
Cylinder straps	Inspect for damage, deterioration, approved type fitted.



Padded basket edge trim	Inspect for damage and wear.
Burner support rods	Inspect for damage, wear and cracking.
Padded burner support rod covers	Inspect for damage and wear.
Basket equipment	Check presence and functionality.
Pilot restraint and anchor	Inspect for security and condition.
Fire extinguisher	Check expiration date and protection cover.
First aid kit	Check for completeness and expiration date.

(d) Fuel cylinders

System/component/area	Task & Inspection details
Identification (type/serial number)	Check for presence.
Cylinder	Check if periodic inspections for each cylinder are 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).
	Check quick-release coupling for correct operation, sealing.
Padded cover	Inspect for damage. Check for correct thickness.
Pressure relief valve	Inspect for contamination, corrosion. Check service life limit.
Assembly	Inspect, and test for leaks all pressure-holding joints using leak detector.
	Perform functional test

(e) Additional equipment

System/component/area	Task & Inspection details
Instruments	Perform functional check.
Quick release	Perform 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.

## **GM1 ML.A.302(d)(2) Aircraft maintenance programme**

### **OPERATIONAL TEST AND FUNCTIONAL TEST**

An operational test (or operational check) is a task used to determine that an item is operating normally. It does not require quantitative tolerances.

A functional test (or functional check) is a quantitative check to determine if one or more functions of an item performs within the limits specified in the appropriate maintenance data. The measured parameter should be recorded.

## **GM1 ML.A.302(d)(2)(d) Aircraft maintenance programme**

### **OPERATIONAL TEST OF TRANSPONDER**

A transponder test that is carried out in accordance with EASA SIB 2011-15 or US Title 14 CFR Part 43 Appendix F is considered to include the MIP task described in ML.A.302(d)(2)(d).

## **MCAR-ML.A.303 Airworthiness directives**

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

## **MCAR-ML.A.304 Data for modifications and repairs**

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

- (a) approved by the CAA;
- (b) approved by a design organisation accepted under MCAR-21;
- (c) contained in the requirements referred to in point 21.A.90B or point 21.A.431B of MCAR-21

## **MCAR-ML.A.305 Aircraft continuing-airworthiness record system**

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- (a) At the completion of any maintenance, the certificate of release to service (CRS) required by point ML.A.801 shall be entered in the aircraft continuing airworthiness record system.

Each entry shall be made as soon as possible but not later than 30 days after the day of the completion of the maintenance task.

- (b) The aircraft continuing airworthiness records shall consist of 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.
- (c) The aircraft type and registration mark, the date together with the total flight time and flight cycles and landings, shall be entered in the aircraft logbooks.
- (d) The aircraft continuing airworthiness records shall contain:
  - (1) the current status of ADs and measures mandated by the competent authority in immediate reaction to a safety problem;
  - (2) the current status of modifications, repairs and other DAH maintenance recommendations;
  - (3) the current status of compliance with the AMP;
  - (4) the current status of service-life-limited components;
  - (5) the current mass and balance report;
  - (6) the current list of deferred maintenance.
- (e) In addition to the authorised release document, CAA Form 1, as set out in Appendix II of MCAR-M, or equivalent, the following information relevant to any component installed, such as 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) the identification of the component;
  - (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;
  - (3) the date together with the component's accumulated total flight time, flight cycles, landings and calendar time, as relevant to the particular component;
  - (4) the current information referred to in point (d), applicable to the component.
- (f) The person or organisation responsible for the management of continuing airworthiness and tasks pursuant to point ML.A.201, shall control the records as detailed in point

ML.A.305 and present the records to the competent authority 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 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 no less than 36 months after the aircraft or component has been released to service;
  - (2) the total time in service, this is to say hours, calendar time, cycles and landings, of the aircraft and all service-life-limited components, for at least 12 months after the aircraft or component has been permanently withdrawn from service;
  - (3) the time in service, this is to say hours, calendar time, cycles and landings, as appropriate, since the 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;
  - (4) the current status of compliance with the AMP at least until the scheduled maintenance of the aircraft or component has been superseded by another scheduled maintenance of equivalent work scope and detail;
  - (5) the current status of ADs applicable to the aircraft and components, at least 12 months after the aircraft or component has been permanently withdrawn from service;
  - (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.

#### **AMC1 ML.A.305 Aircraft continuing-airworthiness record system**

- (a) Any other forms different from a logbook/log card of keeping the below information could be acceptable. For example, that could be in paper form, a spreadsheet or an IT system.
- (b) A log card and status for components other than propeller and engines could be combined in a single document.
- (c) If the AD is generally applicable to the aircraft or component type but is not applicable to the particular aircraft, engine, propeller or component, then this should be identified as well as the reason why it is not applicable. There is no need to list those ADs that are superseded or cancelled.

- (d) The current status of ADs should be sufficiently detailed to identify the complied AD and/or the due limit.
- (e) If the IT system is the only record-keeping system, it should have at least one backup system, which should be regularly updated. Each terminal should contain programme safeguards against the probability of unauthorised personnel altering the database.

#### **ML.A.307 Transfer of aircraft continuing-airworthiness records**

- (a) When an aircraft is permanently transferred from one owner to another, the transferring owner shall ensure that the continuing airworthiness records referred to in point ML.A.305 are also transferred.
- (b) When the owner contracts the continuing airworthiness management tasks to a CAMO or CAO the owner shall ensure that the continuing airworthiness records referred to in point ML.A.305 are transferred to the contracted organisation.
- (c) The time periods for the retention of records set out in point (h) of point ML.A.305 shall continue to apply to the new owner, CAMO or CAO.

## **Subpart D — MAINTENANCE STANDARDS**

### **MCAR-ML.A.401 Maintenance data**

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- (a) The person or organisation maintaining an aircraft shall only use applicable maintenance data during the performance of maintenance.
- (b) For the purposes of this Regulation, 'applicable maintenance' data means:
  - (1) any applicable requirement, procedure, standard or information issued by the CAA;
  - (2) any applicable AD;
  - (3) applicable ICA 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 point (d) of point MCAR-145.A.45.

### **MCAR-ML.A.402 Performance of maintenance**

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- (a) Maintenance performed by approved maintenance organisations shall be in accordance with Subpart F of MCAR-M, MCAR-145 or MCAR-CAO, as applicable.
- (b) For maintenance not performed in accordance with point (a), the person performing maintenance shall:
  - (1) be qualified for the tasks performed, as required by this Regulation;
  - (2) ensure that the area in which maintenance is carried out is well organised and clean with no dirt or contamination;
  - (3) use the methods, techniques, standards and instructions specified in the maintenance data referred to in point ML.A.401;
  - (4) use the tools, equipment and material specified in the maintenance data referred to in point ML.A.401. If necessary, tools and equipment shall be controlled and calibrated to an officially recognised standard;
  - (5) ensure that maintenance is performed within any environmental limitations specified in the maintenance data referred to in point ML.A.401;
  - (6) ensure that proper facilities are used in case of inclement weather or lengthy maintenance;
  - (7) ensure that the risk of multiple errors during maintenance and the risk of errors being repeated in identical maintenance tasks are minimised;

- (8) ensure that an error-capturing method is implemented after the performance of any critical maintenance task;
- (9) perform a general verification after completion of maintenance to ensure that the aircraft or component is clear of all tools, equipment and any extraneous parts and material, and that all access panels removed have been refitted;
- (10) ensure that all maintenance performed is properly recorded and documented.

### **AMC1 ML.A.402 Performance of maintenance**

- (a) Examples of acceptable methods to record and document the maintenance performed are the following:
  - a copy of the 100-h/annual inspection checklist with ticks and signature; and
  - a copy of the release to service indicating the tasks performed.
- (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.

### **AMC1 ML.A.402(b)(7) Performance of maintenance**

To minimise the risk of errors and to prevent omissions, the person performing maintenance should ensure that:

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

### **AMC1 ML.A.402(b)(8) 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's flight path and attitude, such as the installation, rigging and adjustments of flight controls;
- (b) tasks that may affect aircraft stability control systems (autopilots, fuel transfer);

- (c) tasks that may affect the propulsive force of the aircraft, including the installation of aircraft engines, propellers and rotors; and
- (d) the overhaul, calibration or rigging of engines, propellers, transmissions and gearboxes.

### **AMC2 ML.A.402(b)(8) Performance of maintenance**

#### **ERROR-CAPTURING METHODS**

Re-inspection, when only one person is available to carry out the task, or independent inspection, are possible error-capturing methods.

### **MCAR-ML.A.403 Aircraft defects**

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- (a) Any aircraft defect that seriously endangers the flight safety shall be rectified before further flight.
- (b) The following persons may decide that a defect does not seriously endanger flight safety, and may defer it accordingly:
  - (1) the pilot in respect of defects affecting non-required aircraft equipment;
  - (2) the pilot, when using the minimum equipment list, in respect of defects affecting required aircraft equipment — otherwise, these defects may only be deferred by authorised certifying staff;
  - (3) the pilot in respect of defects other than those referred to in points (b)(1) and (b)(2) if all the following conditions are met:
    - (i) the aircraft is operated under Annex VII to MCAR-Air Operations (Part-NCO) or, in the case of balloons or sailplanes, not engaged in commercial operations;
    - (ii) the pilot defers the defect with the agreement of the aircraft owner or, if applicable, of the contracted CAMO or CAO;
  - (4) the appropriately qualified certifying staff in respect of other defects than those referred to in points (b)(1) and (b)(2), where the conditions referred to in point 3(i) and (ii) are not met.
- (c) Any aircraft defect that does not seriously hazard flight safety shall be rectified as soon as practicable from the date on which the defect was first identified and within the limits specified in the maintenance data.
- (d) Any defect not rectified before flight shall be recorded in the aircraft continuing airworthiness record system referred to in point ML.A.305 and a record shall be available



to the pilot.

### **AMC1 ML.A.403 Aircraft defects**

Aircraft equipment should be declared to be defective if the pilot observed a malfunction during the flight, or if considered as faulty after inspection/test referred to in the maintenance data. This does not prevent the pilot from recording observations and comments on the performance of the aircraft equipment where this is not considered to constitute a defect.

### **GM1 ML.A.403 Aircraft defects**

If appropriate certifying staff is readily available for consultation, the pilot should consider consultation with them before deferring any defect.

For balloons not engaged in commercial operations, sailplanes not engaged in commercial operations, or other aircraft operated under Part-NCO, the pilot may defer required equipment, regardless of whether or not a CAMO or CAO is contracted. However, if doing so, he or she has the obligation to receive the agreement of the owner, or the contracted CAMO or CAO.

The term 'required' refers to equipment that is required by the applicable airworthiness code (certification specification) or required by the relevant regulations for air operations or the applicable rules of the air or as required by air traffic management (e.g. a transponder in certain controlled airspace).

### **AMC1 ML.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 listed on the current list of deferred maintenance (ML.A.305(d)(6)) and rectified at the next appropriate maintenance event and within the limit specified in the maintenance data. Any deferred defect that is not rectified during the next maintenance event, should be re-entered on the list of deferred maintenance and the original date of the defect should be retained.

## Subpart E — COMPONENTS

### MCAR-ML.A.501 Classification and installation

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- (a) Unless otherwise specified in Subpart F of MCAR-M, MCAR-145, MCAR-CAO and MCAR-21, component may be fitted only if all of the following conditions are met:
- (i) it is in a satisfactory condition;
  - (ii) has been appropriately released to service using a CAA Form 1 as set out in Appendix II of MCAR-M, or equivalent;
  - (iii) has been marked in accordance with Subpart Q of MCAR-21.
- (b) Prior to the installation of a component on an aircraft, the person or approved maintenance organisation shall ensure that the particular component is eligible to be fitted if different modifications or AD configurations are applicable.
- (c) Standard parts shall only be fitted to an aircraft or component when the maintenance data specifies those particular standard parts. Standard parts shall only be fitted when accompanied by evidence of conformity to the applicable standard and has appropriate traceability.
- (d) Raw or consumable material shall only be used on an aircraft or component provided that:
- (i) the aircraft or component manufacturer allows for the use of raw or consumable material in relevant maintenance data or as specified in Subpart F of MCAR-M, MCAR-145 or MCAR-CAO.
  - (ii) such material meets the required material specification and has appropriate traceability.
  - (iii) such material is accompanied by documentation clearly relating to the particular material and containing a conformity-to-specification statement as well as the manufacturing and supplier source.
- (e) In case of balloons, where different combinations of baskets, burners and fuel cylinders are possible for a particular envelope, the person installing them shall ensure that:
- (1) the basket, burner and/or fuel cylinders are eligible for installation according to the TCDS or other documents referred to in the TCDS;
  - (2) the basket, burner and/or fuel cylinders are in serviceable condition and have the appropriate maintenance records.

**GM1 ML.A.501 Classification and installation**

Components accepted by the owner in accordance with MCAR-21.A.307(c) of MCAR-21, or standard parts are eligible for installation without a CAA Form 1.

**AMC1 ML.A.501(a)(ii) Classification and installation**

**CAA FORM 1 OR EQUIVALENT**

Refer to AMC1 M.A.501(a)1.

**AMC1 ML.A.501(e) Classification and installation**

**BALLOONS**

Baskets, burners and fuel cylinders are components which are often interchanged between different balloons. Furthermore, they are often removed/installed by the pilot-owner (or by other persons when such removal/installation is not considered maintenance because the task is described in the AFM).

As a consequence, a CAA Form 1 does not need to be issued when these components are removed in serviceable condition from a balloon, and can be installed on another balloon as long as the person performing the installation has access to the appropriate maintenance records necessary to establish their serviceable condition. In particular, due attention should be paid to the inspection dates of the various components.

This does not supersede the requirement to release any maintenance performed on such components either on a CAA Form 1 or equivalent or on the balloon maintenance log book, as applicable.

**MCAR-ML.A.502 Component maintenance**

- (a) Components accepted by the owner in accordance with point (c) of point MCAR-21.A.307 of MCAR-21 shall be maintained by any person or organisation, subject to reacceptance by the owner under the conditions of point MCAR-21.A.307(c) of MCAR-21. This maintenance is not eligible for the issuance of a CAA Form 1, as set out in Appendix II of MCAR-M, and shall be subject to the aircraft release requirements.
- (b) Components shall be released in accordance with the following table:

	<b>Released using a CAA Form 1 (as set out in Appendix II of MCAR-M)</b>	<b>Released at aircraft level per point ML.A.801 (not possible to issue a CAA Form 1)</b>
Components maintained in accordance with component maintenance data (data issued by the component manufacturer)		
Maintenance other than overhaul	Engine-rated (for engine) or component-rated (for other	(i) Aircraft-rated maintenance organisations; and/or

	components) maintenance organisations	(ii) independent certifying staff
Overhaul of components other than engines and propellers	Component-rated maintenance organisations	Not possible
Overhaul of engines and propellers for CS-VLA, CS-22 and LSA aircraft	Engine-rated (for engine) or component-rated (for propeller) maintenance organisations	(i) Aircraft-rated maintenance organisations; and/or (ii) independent certifying staff
Overhaul of engines and propellers for other than CS-VLA, CS-22 and LSA aircraft	Engine-rated (for engine) or component-rated (for propeller) maintenance organisations	Not possible
Components maintained in accordance with aircraft maintenance data (data issued by the aircraft manufacturer)		
All components and all types of maintenance	Engine-rated (for engine) or component-rated (for other components) maintenance organisations	- Aircraft-rated maintenance organisations; and/or - independent certifying staff

### GM1 ML.A.502 Component maintenance

#### COMPONENT MAINTENANCE BY INDEPENDENT CERTIFYING STAFF

The cases where the independent certifying staff can release component maintenance are only valid when the independent certifying staff is allowed, according to ML.A.201, to carry out maintenance (refer to GM1 ML.A.201) and when he or she is competent for such component maintenance.

As an example, in accordance with ML.A.201(e), the independent certifying staff cannot carry out maintenance when the balloon is operated commercially.

### MCAR-ML.A.503 Service-life-limited components

- (a) The term 'service life-limited components' contains the following components:
- (1) components subject to a certified life limit after which the components should be retired, and;
  - (2) components subject to a service life limit after which the components shall undergo maintenance to restore their serviceability.
- (b) Installed service-life-limited components shall not exceed the approved service life limit as specified in the AMP and ADs, except as provided for in point ML.A.504(c).
- (c) The approved service life is expressed in calendar time, flight hours, landings or cycles, as appropriate.
- (d) At the end of the approved service life limit, the component must be removed from the

aircraft for maintenance, or for disposal in the case of components with a certified life limit.

#### **MCAR-ML.A.504 Control of unserviceable components**

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- (a) A component shall be considered unserviceable in any of the following circumstances:
- (1) expiry of the component's service life limit as defined in the AMP;
  - (2) non-compliance with the applicable ADs and other continued-airworthiness requirement mandated by the CAA or the State of Design;
  - (3) absence of the necessary information to determine the airworthiness status of the component or its eligibility for installation;
  - (4) evidence of component defects or malfunctions;
  - (5) component involvement in an incident or accident likely to affect its serviceability.
- (b) Unserviceable components shall be identified as one of the following:
- (1) unserviceable and stored in a secure location under the control of an approved maintenance organisation or independent certifying staff until a decision is made on the future status of such components;
  - (2) unserviceable by the person or organisation that declared the component unserviceable, and its custody shall be transferred to the aircraft owner after documenting such transfer in aircraft maintenance record system referred to in point ML.A.305.
- (c) Components which have reached their certified life limit or contain a non-repairable defect or malfunction 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 in accordance with point ML.A.304.
- (d) Any person or organisation responsible pursuant to point ML.A.201 shall in the case of an unsalvageable component, as provided for in point (c), take one of the following actions:
- (1) retain such component in a location referred to in point (b)(1);
  - (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 a component.
- (e) Notwithstanding point (d), a person or organisation responsible pursuant to point ML.A.201 may transfer responsibility of components classified as unsalvageable without mutilation to an organisation for training or research.

## **Subpart H — CERTIFICATE OF RELEASE TO SERVICE (CRS)**

### **MCAR-ML.A.801 Aircraft certificate of release to service**

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- (a) A CRS shall be issued after the required maintenance has been carried out properly on an aircraft.
- (b) The CRS shall be issued, alternatively by:
  - (1) appropriate certifying staff on behalf of the approved maintenance organisation;
  - (2) independent certifying staff;
  - (3) the pilot- owner in compliance with point ML.A.803.
- (c) By derogation from point (b), in the case of unforeseen circumstances, when an aircraft is grounded at a location where no appropriately approved maintenance organisation and no appropriate certifying staff are available, the owner may authorise any person, with no less than 3 years of appropriate maintenance experience and holding the proper qualifications, to maintain the aircraft 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 the person issuing the certification;
  - (2) ensure that any such maintenance is rechecked and released in accordance with point (b) of point ML.A.801 at the earliest opportunity and within a period not exceeding 7 days or, in the case of aircraft operated under Annex VII to MCAR-Air Operations (Part-NCO) or, in the case of balloons, not engaged in commercial operations or, in the case of sailplanes not engaged in commercial operations, within a period not exceeding 30 days;
  - (3) notify the contracted CAMO or CAO, or the competent authority in the absence of such a contract, within 7 days of the issuance of such authorisation.
- (d) In the case of a release to service in accordance with points (b)(1) or (b)(2), the certifying staff may be assisted in performing the maintenance tasks by one or more persons subject to his direct and continuous control;
- (e) A CRS shall contain at least:
  - (1) basic details of the maintenance carried out;
  - (2) the date on which the maintenance was completed;

- (3) the identity of the organisation or person issuing the release to service, including, alternatively:
- (i) the approval reference of the maintenance organisation and certifying staff issuing the CRS;
  - (ii) in the case of point (b)(2), the identity and, if applicable, the licence number of the independent certifying staff issuing the CRS;
- (4) the limitations to airworthiness or operations, if any.
- (f) By derogation from point (a) and notwithstanding point (g), when the required maintenance cannot be completed, a CRS may be issued within the approved aircraft limitations. In that case, the CRS shall indicate that the maintenance could not be completed, as well as indicate any applicable airworthiness or operations limitations, as part of the information required in point (e)(4) .
- (g) A CRS shall not be issued in the case of any known non-compliance with the requirements of this Annex which endangers flight safety.

## **AMC1 ML.A.801 Aircraft certificate of release to service**

### **AIRCRAFT CERTIFICATE OF RELEASE TO SERVICE (CRS) AFTER EMBODIMENT OF A STANDARD CHANGE OR A STANDARD REPAIR (SC/SR)**

#### **1. Release to service and eligible persons**

Only natural or legal persons entitled to release to service an aircraft after maintenance (see ML.A.801(b)) are considered as an eligible installer responsible for the embodiment of a SC/SR when in compliance with applicable requirements.

Since the design of the SC/SR does not require specific approval, the natural or legal person releasing the embodiment of the change or repair takes the responsibility that the applicable certification specifications within EASA CS-STAN are fulfilled while being in compliance with this Regulation / MCAR-M Subpart F/MCAR-CAO and/or MCAR-145 and not in conflict with the TC holder's 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.

Depending on its nature, for certain SCs/SRs, EASA CS-STAN might restrict the eligibility for the issuance of the release to service to certain persons (e.g. standard change/repair not suitable for release to service by the pilot-owner).

#### **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 are required to be authorised as an ETSO article, other articles recognised 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 this Regulation and maintenance-organisation-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 is addressed in MCAR-21 and this Regulation, while less restrictive rules may, for instance, apply for ELA1 and ELA2 aircraft parts (e.g. MCAR-21.A.307) and sailplane parts (e.g. AMC 21.A.303 of the 'AMC and GM to MCAR-21'). Furthermore, MCAR-M Subpart F, MCAR-CAO and MCAR-145 contain provisions (i.e. MCAR-M.A.603(c), MCAR-CAO.A.020(c) and MCAR-145.A.42(c)) that allow 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 this Regulation, MCAR-M Subpart F, MCAR-CAO or MCAR-145 (e.g. MCAR-ML.A.801(e), MCAR-M.A.612, MCAR-CAO.A.065 and MCAR-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 the complexity, an engineering file containing drawings, a list of the 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 EASA 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 listed on it should follow elementary principles of controlled documentation, e.g. contain reference number of documents, issue dates, 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 this Regulation, MCAR-M Subpart F, MCAR-CAO or MCAR-145 and EASA CS-STAN.

In addition, ML.A.305 requires that the aircraft owner (or CAMO or CAO, if a contract in accordance with ML.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, CAMO or CAO may be listed in CAA Form 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 AR, 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 (ICA)**

As stipulated in ML.A.302, the aircraft owner, CAMO or CAO needs to assess if the changes in the ICA of the aircraft require the amendment of the AMP.

## **7. Embodiment of more than one SC**

The embodiment of two or more related SCs described in Subpart B of EASA 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**

See CAA Form 123 specified in AMC M.A.801 to MCAR-M.

### **AMC1 ML.A.801(e) Aircraft certificate of release to service**

(a) The aircraft CRS should contain one of the following statements:

- (1) 'certifies that the work specified, except as otherwise specified, was carried out in accordance with MCAR-ML, and in respect to that work, the aircraft is considered ready for release to service.'; or
  - (2) for a pilot-owner:  
  
'certifies that the limited pilot-owner maintenance specified, except as otherwise specified, was carried out in accordance with MCAR-ML, and in respect to that work, the aircraft is considered ready for release to service.'
- (b) The CRS should relate to the task specified in the DAH's or operator's instruction or the AMP which itself may cross-refer to a DAH's/operator's instruction in a maintenance manual, service bulletin, etc. This should indicate the revision status of the maintenance instruction used.
  - (c) The CRS should include the date when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/ landings etc. as appropriate.
  - (d) When extensive maintenance has been carried out, it is acceptable for the CRS to summarise the maintenance as long as there is a unique cross reference to the work pack containing full details of the maintenance carried out. Dimensional information should be retained in the work pack record.
  - (e) The person issuing the CRS should use his or her normal signature except in the case where a computer release-to-service system is used. In this latter case, the CAA needs to be satisfied that only this particular person may electronically issue the CRS. One such method of compliance is the use of a magnetic or optical personal card in conjunction with a personal identification number (PIN) known only to the individual, which is keyed into the computer. A certification stamp is optional.
  - (f) At the completion of all maintenance, owners, certifying staff, operators and maintenance organisations should ensure they have a clear, concise and legible record of the work performed.
  - (g) In the case of an MCAR-ML.A.801(b)(2) CRS, the independent certifying staff should retain all records necessary to prove that all requirements have been met for the issuance of a CRS.

### **AMC1 ML.A.801(f) Aircraft certificate of release to service**

Certain maintenance data issued by the DAH (e.g. AMM) requires that a maintenance task be performed in flight as a necessary condition to complete the maintenance ordered. Within the aircraft limitations, the person authorised to certify the maintenance per ML.A.801 should release the incomplete maintenance before this flight. GM1 ML.A.301(f) describes the relations with the aircraft operator, which retains the responsibility for the MCF. After performing the flight and any additional maintenance necessary to complete the maintenance ordered, a CRS should be issued in accordance with point ML.A.801.

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**MCAR-ML.A.802 Component certificate of release to service**

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- (a) A component CRS shall be issued after the required maintenance has been carried out properly on an aircraft component in accordance with point ML.A.502.
- (b) The authorised release certificate identified as CAA Form 1, as set out Appendix II of MCAR-M, constitutes the component CRS, except when such maintenance is released at aircraft level, as indicated in point ML.A.502(b).

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**MCAR-ML.A.803 Pilot-owner authorisation**

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- (a) To qualify as a pilot-owner, the person must:
  - (1) hold a valid pilot licence or equivalent licence issued or validated by the CAA for the aircraft type or class rating;
  - (2) own the aircraft, either as a sole or joint owner; that owner must be, alternatively:
    - (i) one of the natural persons on the registration form;
    - (ii) a member of a non-profit recreational legal entity, where the legal entity is specified on the registration document as owner or operator; that member must be 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 aircraft operated under Annex VII (Part-NCO) to MCAR-Air Operations or, in the case of balloons, not engaged in commercial operations or, in the case of sailplanes, not engaged in commercial operations, the pilot-owner may issue a CRS after limited Pilot-owner maintenance as provided for in Appendix II to this Regulation.
- (c) The CRS 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, as well as the identity, the signature and the pilot licence (or equivalent) number of the pilot-owner issuing such a certificate.

**AMC1 ML.A.803 Pilot-owner authorisation**

- (a) A pilot-owner may only issue a CRS for the maintenance he or she has performed (ref. ML.A.201(c), ML.A.801 and ML.A.803).
- (b) In the case of jointly-owned aircraft, the AMP should list the names of all pilot-owners that are competent and designated to perform pilot-owner maintenance (ref. ML.A.302(c)(6)). As an alternative, the AMP may contain a procedure to ensure how such a list should be managed and kept current.

- (c) An equivalent valid pilot-owner licence may be any document attesting a pilot qualification recognised by the CAA.
- (d) Not holding a valid medical examination does not invalidate the pilot licence (or equivalent) required under ML.A.803(a)(1) for the purpose of the pilot-owner authorisation.

## **Subpart I — AIRWORTHINESS REVIEW CERTIFICATE (ARC)**

### **MCAR-ML.A.901 Aircraft airworthiness review**

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

- (a) An ARC is issued in accordance with Appendix IV (CAA Form 15c) to MCAR-ML upon completion of a satisfactory airworthiness review. The ARC shall be valid for 1 year;
- (b) The airworthiness review and the issuance of the ARC shall be performed in accordance with point MCAR-ML.A.903, alternatively by:
  - (1) the CAA;
  - (2) an appropriately approved CAMO or CAO;
  - (3) the approved maintenance organisation while performing the 100-h/annual inspection contained in the AMP;
  - (4) for aircraft operated under Annex VII (Part-NCO) to MCAR-Air Operations or, in the case of balloons, not engaged in commercial operations or, in the case of sailplanes, not engaged in commercial operations, the independent certifying staff while performing the 100-h/annual inspection contained in the AMP, when holding:
    - (i) a licence issued in accordance with MCAR-66 rated for the corresponding aircraft; and
    - (ii) an authorisation issued by the CAA

Whenever circumstances reveal the existence of a potential safety threat, the CAA will carry out the airworthiness review and issue the ARC itself.

- (c) The validity of an ARC may be extended maximum two consecutive times, for a period of one year each time, by an appropriately approved CAMO or CAO, subject to the following conditions:
  - (1) the aircraft has been continuously managed for the previous 12 months by this CAMO or CAO;
  - (2) the aircraft has been maintained for the previous 12 months by approved maintenance organisations; this includes pilot-owner maintenance tasks carried out and released to service either by the pilot-owner or by independent certifying staff;
  - (3) the CAMO or CAO does not have any evidence or reason to believe that the aircraft is not airworthy.

This extension by the CAMO or CAO is possible regardless of which staff or organisation, as provided for in point (b), initially issued the ARC.

- (d) By derogation from point (c), the extension of the ARC may be anticipated for a maximum period of 30 days, without loss of continuity of the airworthiness review pattern, to ensure the availability of the aircraft in order to place the original ARC on board.
- (e) When the CAA carries out the airworthiness review and issues the ARC itself, the owner shall provide the CAA with:
  - (1) the documentation required by the CAA;
  - (2) suitable accommodation at the appropriate location for its personnel;
  - (3) when necessary, the support of appropriate certifying staff.

### **GM1 ML.A.901 Aircraft airworthiness review**

If a CAMO/CAO holding the AR privilege is contracted by the owner, this organisation does not have the obligation to carry out the AR itself. The owner may select another CAMO or CAO to carry out the AR, or request the maintenance organisation to carry it out and issue the ARC in conjunction with the annual inspection.

Please refer to GM1 ML.A.201 to identify the cases where the owner may also request an independent certifying staff (authorised by the CAA) to carry out the AR and issue the ARC in conjunction with the annual inspection.

ML.A.901(b) gives a list of the different organisations or persons that are allowed to perform an AR; it does not presume that they have the obligation to accept a request to carry out an AR.

### **MCAR-ML.A.902 Validity of the airworthiness review certificate**

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- (a) An ARC becomes invalid if, alternatively:
  - (1) it is suspended or revoked;
  - (2) the airworthiness certificate is suspended or revoked;
  - (3) the aircraft is not in the aircraft register of Maldives;
  - (4) the type certificate under which the airworthiness certificate was issued is suspended or revoked.
- (b) An aircraft shall not fly if the ARC is invalid or if any of the following circumstances are present:

- (1) the continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of this Regulation;
  - (2) the aircraft does not remain in conformity with the type design approved by the State of Design;
  - (3) the aircraft has been operated beyond the limitations of the approved flight manual or airworthiness certificate, without appropriate action being taken;
  - (4) the aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without subsequent appropriate action to restore airworthiness;
  - (5) a modification or repair to the aircraft or any component fitted to the aircraft is not in compliance with MCAR-21.
- (c) Upon surrender or revocation, the ARC shall be returned to the CAA.

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**MCAR-ML.A.903     Airworthiness review process**

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- (a) To satisfy the requirement for the airworthiness review of an aircraft referred to in ML.A.901, the airworthiness review staff shall perform a documented review of the aircraft records to verify that:
- (1) airframe, engine and propeller flying hours and associated flight cycles have been properly recorded;
  - (2) the flight manual is applicable to the aircraft configuration and reflects the latest revision status;
  - (3) all the maintenance due on the aircraft according to the AMP has been carried out;
  - (4) all known defects have been corrected or deferred in a controlled manner;
  - (5) all applicable ADs have been applied and properly registered;
  - (6) all modifications and repairs made to the aircraft have been registered and are in compliance with MCAR-21;
  - (7) all service-life-limited components installed on the aircraft are properly identified, registered and have not exceeded their approved service life limit;
  - (8) all maintenance has been certified in accordance with this Regulation;
  - (9) if required, the current mass-and-balance statement reflects the configuration of the aircraft and is valid;

- (10) the aircraft complies with the latest revision of its type design accepted by the CAA;
- (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 referred to in point (a) shall carry out a physical survey of the aircraft. For this survey, airworthiness review staff not appropriately qualified under 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;
  - (2) the aircraft complies with its approved flight manual;
  - (3) the aircraft configuration complies with the approved documentation;
  - (4) no evident defect can be found that has not been addressed according to point ML.A.403;
  - (5) no inconsistencies can be found between the aircraft and the documented review of records as referred to in point (a).
- (d) By derogation from point ML.A.901(a), the airworthiness review may be anticipated for a maximum period of 90 days, without loss of continuity of the airworthiness review pattern, so as to allow the physical review to take place during a maintenance check.
- (e) The ARC (CAA Form 15c) set out to in Appendix IV shall only be issued:
  - (1) by appropriately authorised airworthiness review staff;
  - (2) when the airworthiness review has been completely carried out, all findings have been closed;
  - (3) when any discrepancy found in the AMP in accordance with point (h) has been satisfactorily addressed.
- (f) A copy of any ARC issued or extended for an aircraft shall be sent to the CAA within 10 days.
- (g) Airworthiness review tasks shall not be subcontracted.
- (h) The effectiveness of the AMP may be reviewed in conjunction with the airworthiness review in accordance with point ML.A.302(c)9. This review shall be completed by the person who performed the airworthiness review. If the review shows deficiencies of the aircraft linked with deficiencies in the content of the AMP, the AMP shall be amended accordingly. The person performing the review shall inform the CAA if he does not agree with the measures



amending the AMP taken by the owner, CAMO or CAO. In such case the CAA shall decide which amendments to the AMP are necessary, raising the corresponding findings defined in point ML.B.903 and, if necessary, reacting in accordance with point ML.B.304.

### **AMC1 ML.A.903(h) Airworthiness review**

#### **REVIEW OF AMP IN CONJUNCTION WITH AR**

This review of the maintenance programme is performed by the person who performed the AR, who could belong to the CAA, a CAMO, a CAO or a maintenance organisation or could also be independent certifying staff in accordance with ML.A.901(b)(4), MCAR-M.A.901(g).

This person is not responsible for the completeness of this AMP, but may do some sampling as part of the investigations and the findings discovered during the physical review.

More details on the annual review are provided in AMC1 ML.A.302(c)(9).

### **MCAR-ML.A.904 Qualification of airworthiness review staff**

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- (a) (Reserved)
- (b) Airworthiness review staff acting on behalf of an organisation referred to in Subpart F or Subpart G of MCAR-M, MCAR-145, MCAR-CAMO or MCAR-CAO shall be qualified in accordance with Subpart F or Subpart G of MCAR-M, MCAR-145, MCAR-CAMO or MCAR-CAO, respectively.
- (c) Airworthiness review staff acting on their own behalf, as permitted pursuant to point ML.A.901(b)(4), shall:
  - (1) hold a licence issued in accordance with MCAR-66 rated for the corresponding aircraft; and
  - (2) hold an authorisation issued by:
    - (i) the CAA;
    - (ii) (Reserved).
- (d) The authorisation required under point (c)(2) shall be issued by the CAA when:
  - (1) the CAA has assessed that the person has the knowledge of the parts of this Regulation relevant to continuing-airworthiness management, performance of airworthiness reviews and issuance of ARCs;
  - (2) the person has satisfactorily performed an airworthiness review under the supervision of the CAA.

This authorisation shall remain valid for a duration of 5 years as long as the holder has performed at least 1 airworthiness review every 12-months. If this is not the case, a new airworthiness review shall be satisfactorily performed under the supervision of the CAA.

Upon expiration of its validity, the authorisation shall be renewed for another 5 years subject to a new compliance with points (d)(1) and (d)(2). There is no limit to the number of renewals.

The holder of the authorisation shall keep records of all the airworthiness reviews performed and shall make them available, upon request, to CAA and to any aircraft owner for whom they are performing an airworthiness review.

This authorisation may be revoked by the CAA at any time if it is not satisfied with the competence of the holder or with the use of such an authorisation.

### **GM1 ML.A.904(c);(d) Qualification of airworthiness review staff**

#### **AR BY INDEPENDENT CERTIFYING STAFF**

- (a) ML.A.904(c) and (d) refer to the independent certifying staff. The terms 'corresponding aircraft' or 'particular aircraft' mean that the person meets at the time of the AR the certifying staff requirements for the aircraft subject to the AR.
- (b) The authorisation issued to the certifying staff by the CAA is only granted after assessment of the knowledge required in point (d)(1) and after the satisfactory performance of an AR under supervision of the CAA (point (d)(2)).

### **MCAR-ML.A.905 Transfer of aircraft registration within Maldives**

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- (a) When transferring an aircraft registration within Maldives, the applicant shall:
  - (1) (Reserved);
  - (2) apply to the CAA for the issuance of a new certificate of airworthiness, ARC, noise certificate and radio licence.
- (b) Notwithstanding point (a), the certificates will be issued without an airworthiness review and the new ARC shall remain valid until the expiry of the former ARC.
- (c) Notwithstanding points (a) and (b), in those cases where the aircraft was in a non-airworthy condition prior to transfer of registration to the new owner or where the airworthiness status of the aircraft cannot be determined using the existing records, ML.A.906 shall apply.

### **MCAR-ML.A.906     Airworthiness review of aircraft imported into the Maldives**

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- (a) When importing an aircraft from a foreign country, the applicant shall:
  - (1) apply to the CAA for the issuance of a new airworthiness certificate in accordance with MCAR-21;
  - (2) for aircraft other than new, have an airworthiness review carried out satisfactorily in accordance with point ML.A.901;
  - (3) have all maintenance carried out to comply with the approved or declared AMP.
- (b) If the aircraft complies with the relevant requirements, the CAA, the CAMO or CAO, the maintenance organisation or the independent certifying staff performing the airworthiness review, as provided for in point (b) of point ML.A.901, shall issue an ARC and shall submit a copy 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 if the aircraft complies with MCAR-21.

### **MCAR-ML.A.907     Findings**

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- (a) Findings are categorised as follows:
  - (1) A Level 1 finding is any finding of significant non-compliance with the requirements of this Regulation which lowers the safety standard and seriously endangers flight safety.
  - (2) A Level 2 finding is any finding of non-compliance with the requirements of this Regulation which may lower the safety standard and may endanger flight safety.
- (b) After receipt of notification of findings in accordance with point ML.B.903, the person or organisation, having responsibilities pursuant to point ML.A.201, shall define and demonstrate to the CAA within a period agreed with this authority a corrective action plan, aimed at preventing reoccurrence of the finding and its root cause.

## **Section B – PROCEDURES FOR THE CAA**

## **Subpart A — GENERAL**

### **MCAR-ML.B.101 Scope**

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This Section establishes the administrative procedures followed by the CAA in the implementation and enforcement of Section A of this Regulation.

**Subpart B – ACCOUNTABILITY**

**MCAR-ML.B.201 Responsibilities**

The CAA is responsible for conducting inspections and investigations in order to verify that the requirements of this Regulation are complied with.

**AMC1 ML.B.201 Responsibilities**

Template that can be used by the owner, CAO or CAMO upon request by the CAA to collect information about the AMP

<b>MCAR-ML aircraft maintenance programme (AMP)</b>			
<b>Aircraft identification</b>			
1	Registration(s):	Type:	Serial no(s):
	Owner:		
<b>Which basis is used for the maintenance programme?</b>			
2	Design approval holder (DAH) ICA <input type="checkbox"/>	Minimum inspection programme (MIP) as detailed in the latest revision of AMC ML.A.302(d) <input type="checkbox"/> Other MIP complying with MCAR-ML.A.302(d) <input type="checkbox"/>	
	Tasks alternative to ICA introduced in AMP? Yes <input type="checkbox"/> No <input type="checkbox"/>		
	Additional maintenance requirements to ICA or MIP: deviations introduced? Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/>		
<b>Approval/declaration of the maintenance programme (select the appropriate option)</b>			
3	<input type="checkbox"/> AMP declared by the owner <input type="checkbox"/> Default AMP (MCAR-ML.A.302(e)) <input type="checkbox"/> Approved by the contracted CAMO/CAO. Approval reference of the organisation: -----		

## **Subpart C — CONTINUING AIRWORTHINESS**

### **MCAR-ML.B.303 Aircraft continuing-airworthiness monitoring**

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- (a) The CAA has established a survey programme following a risk-based approach to monitor the airworthiness status of the fleet of aircraft on its register.
- (b) A survey programme includes sample product surveys of aircraft and covers all aspects of airworthiness key risk elements.
- (c) A sample product survey includes sampling of the airworthiness standards achieved, on the basis of the applicable requirements, and identify any findings.
- (d) Any findings identified will be categorised in accordance with point ML.B.903 and confirmed in writing to the person or organisation responsible pursuant to point ML.A.201.
- (e) The CAA record all findings and closure actions.
- (f) If during aircraft monitoring, evidence is found showing non-compliance with this or other MCARs, the finding will be dealt with as provided for by the relevant MCAR.
- (g) (Reserved)

### **MCAR-ML.B.304 Revocation, suspension and limitation**

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The CAA will:

- (a) suspend an ARC on reasonable grounds in the case of a potential safety threat; or
- (b) suspend or revoke an ARC pursuant to point (a) of point ML.B.903.

The CAA will revoke airworthiness review authorisation issued pursuant to ML.A.904(c) for independent certifying staff if the holder shows poor performance of the airworthiness review or uses such authorisation in inappropriate manner.

## **Subpart I — AIRWORTHINESS REVIEW CERTIFICATE (ARC)**

### **MCAR-ML.B.902 Airworthiness review by the CAA**

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- (a) When the CAA carries out the airworthiness review and issues the airworthiness review certificate set out in Appendix IV to this Regulation (CAA Form 15c to this Regulation), the CAA will carry out an airworthiness review in accordance with point M.A.903.
- (b) The CAA will issue an airworthiness review certificate (CAA Form 15c), as set out in Appendix IV, after satisfactory completion of the airworthiness review.
- (c) Whenever circumstances reveal the existence of a potential safety threat, the CAA will carry out the airworthiness review and issue the ARC itself

### **MCAR-ML.B.903 Findings**

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If during aircraft surveys or by other means, evidence is found showing non-compliance with requirements of this Regulation, the CAA will:

- (a) for Level 1 findings, require appropriate corrective action to be taken before further flight, and immediately revoke or suspend the ARC; and
- (b) for Level 2 findings, impose the corrective action appropriate to the nature of the finding.



## **APPENDICES TO THE REGULATIONS**

## **Appendix I Continuing Airworthiness Management Contract**

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- (a) When an owner contracts in accordance with point ML.A.201 a CAMO or CAO to carry out continuing airworthiness management tasks, upon request by the CAA, a copy of the contract signed by both parties shall be sent by the owner to the CAA.
- (b) 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.
- (c) It shall contain, as a minimum the following information:
  - (1) the aircraft registration, type and serial number;
  - (2) the aircraft owner's or registered lessee's name or company details including the address;
  - (3) details of the contracted CAMO or CAO, including the address;
  - (4) the type of operation.

- (d) It shall state the following:

'The owner entrusts the CAMO or CAO with the management of the continuing airworthiness of the aircraft, the development of a maintenance programme, 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 declares, to the best of its knowledge, that all the information given to the CAMO or CAO concerning the continuing airworthiness of the aircraft is and will be accurate, and that the aircraft will not be altered without prior approval of the CAMO or CAO.

In case of any non-conformity with this contract, by either of the signatories, the contract will become null. In such a case, the owner will retain full responsibility for every task linked to the continuing airworthiness of the aircraft, and the owner will inform the CAA within 2 weeks about the termination of the contract.'

- (e) When an owner contracts a CAMO or CAO in accordance with point ML.A.201, the obligations of each party shall be shared as follows:
  - (1) Obligations of the CAMO or CAO:
    - (i) have the aircraft type included in its terms of approval;
    - (ii) respect all the conditions listed below with regard to maintaining the continuing airworthiness of the aircraft:

- (A) develop and approve the AMP for the aircraft;
  - (B) once it has been approved, provide the owner with a copy of the AMP, as well as a copy of the justifications for any deviations from the DAH's recommendations;
  - (C) organise a bridging inspection using the aircraft's prior AMP;
  - (D) organise that all maintenance is carried out by an approved maintenance organisation or, if permitted, by independent certifying staff;
  - (E) organise that all applicable ADs are applied;
  - (F) organise that all defects discovered during maintenance, airworthiness reviews or reported by the owner are corrected by an approved maintenance organisation or, if permitted, by independent certifying staff;
  - (G) coordinate scheduled maintenance, the application of ADs, the replacement of service-life-limited parts, and component inspection requirements;
  - (H) inform the owner each time the aircraft must be brought to an approved maintenance organisation or, if permitted, to independent certifying staff;
  - (I) manage and archive all technical records;
- (iii) organise the approval of any modification to the aircraft in accordance with MCAR-21 before this modification is embodied;
  - (iv) organise the approval of any repair to the aircraft in accordance with MCAR-21 before this repair is carried out;
  - (v) inform the CAA whenever the aircraft is not presented by the owner for maintenance as requested by the contracted CAMO or CAO;
  - (vi) inform the CAA whenever the present contract has not been respected;
  - (vii) ensure that the airworthiness review of the aircraft is carried out, when necessary, and ensure that the ARC is issued;
  - (viii) send within 10 days a copy of any ARC issued or extended to the CAA;
  - (ix) carry out all occurrence reporting mandated by applicable regulations;
  - (x) inform the CAA whenever the present contract is denounced by either party.
- (2) Obligations of the owner:

- (i) have a general understanding of the AMP;
- (ii) have a general understanding of this Regulation;
- (iii) present the aircraft for maintenance as directed by the contracted CAMO or CAO;
- (iv) not modify the aircraft without first consulting the contracted CAMO or CAO;
- (v) inform the contracted CAMO or CAO of all maintenance exceptionally carried out without the knowledge and control of the contracted CAMO or CAO;
- (vi) report to the contracted CAMO or CAO through the logbook all defects found during operations;
- (vii) inform the CAA whenever the present contract is denounced by either party;
- (viii) inform the CAA and the contracted CAMO or CAO whenever the aircraft is sold;
- (ix) carry out all occurrence reporting mandated by applicable regulations;
- (x) inform on a regular basis the contracted CAMO or CAO about the aircraft flying-hours and any other utilisation data, as agreed with the contracted CAMO or CAO;
- (xi) enter the CRS in the logbooks, as mentioned in point ML.A.803(c), when performing pilot-owner maintenance;
- (xii) inform the contracted CAMO or CAO no later than 30 days after completion of any Pilot-owner maintenance task.

## **Appendix II Limited Pilot-Owner Maintenance**

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In addition to the requirements laid down in this Regulation, the pilot-owner shall comply with the following basic principles before it carries out any maintenance task:

(a) Competence and responsibility

- (1) The Pilot-owner shall always be responsible for any maintenance that he performs.
- (2) The pilot-owner shall hold satisfactory level of competence to perform the task. It is the responsibility of a pilot-owner to familiarise himself with the standard maintenance practices for his aircraft and with the AMP.

(b) Tasks

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

A maintenance task shall not be released by the pilot-owner if any of the following conditions occurs:

- (1) is a critical maintenance task;
- (2) it requires the removal of major components or a major assembly;
- (3) it is carried out in compliance with an AD or an airworthiness limitation item (ALI) unless specifically allowed in the AD or the ALI;
- (4) it requires the use of special tools or calibrated tools (except for torque wrench and crimping tool);
- (5) it requires the use of test equipment or special testing (e.g. non-destructive testing (NDT), system tests or operational checks for avionics equipment);
- (6) it is composed of any unscheduled special inspections (e.g. heavy-landing check);
- (7) it affects systems essential for the instrumental flight rules (IFR) operations;
- (8) it is a complex maintenance task in accordance with Appendix III, or it is a component maintenance task in accordance with point (a) or (b) of point ML.A.502;
- (9) it is part of the 100-h/annual check (for those cases the maintenance task is combined with the airworthiness review performed by maintenance organisations or independent certifying staff).

The criteria referred to in points (1) to (9) cannot be overridden by less restrictive

instructions issued in accordance with the AMP referred to in point ML.A.302.

Any task described in the aircraft flight manual (or other operational manuals), for example preparing the aircraft for flight (assembling the sailplane wings, or performing a preflight inspection, or assembling a basket, burner, fuel cylinders and an envelope combination for a balloon, etc.), is not considered a maintenance task and, therefore, does not require a CRS. Nevertheless, the person assembling those parts is responsible for ensuring that those parts are eligible for installation and in a serviceable condition.

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

The maintenance data, as specified in point ML.A.401, must always be 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 CRS in accordance with point (d) of point ML.A.803.

The pilot-owner must inform the contracted CAMO or CAO (if such contract exists) about the completion of the pilot-owner maintenance tasks no later than 30 days after completion of these tasks in accordance with point (a) of point ML.A.305.

### **AMC 1 to Appendix II to MCAR-ML — Limited pilot-owner maintenance**

- (a) The lists below specify items that may 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 II to this Regulation.
- (b) 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.
- (c) Any other task meeting the requirements of Appendix II to this Regulation may also be performed by the pilot-owner.
- (d) Therefore, the following lists are considered to be the representative scope of limited Pilot-owner maintenance referred to in ML.A.803 and Appendix II to this Regulation:
  - (1) Part A applies to aeroplanes;
  - (2) Part B applies to rotorcraft;
  - (3) Part C applies to sailplanes and powered sailplanes; and
  - (4) Part D applies to balloons and airships.
- (e) Inspection tasks/checks of any periodicity included in an approved maintenance programme can be carried out providing that the specified tasks are compliant with the basic principles of Appendix II to this Regulation.

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 DAH to recommend a schedule for each specific type of inspection/check.

For an inspection/check with the same periodicity for different aircraft, the content may differ and in some cases, may be critically safety-related and need the use of special tools or knowledge and thus, not qualify for pilot-owner maintenance. Therefore, the maintenance carried out by the pilot-owner should not be generalised to specific inspections such as of a 50-h, 100-h or 6-month periodicity.

The Inspections to be carried out are limited to those areas and tasks listed in this AMC to Appendix II; this allows flexibility in the development of the maintenance programme and does not limit the inspection to certain specific periodic inspections. A 50-h /6 Month periodic inspection for a fixed-wing aeroplane as well as the 1-year inspection for 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, these tasks should be released by an appropriate certifying staff.

**Part A - PILOT-OWNER MAINTENANCE TASKS FOR POWERED AIRCRAFT (AEROPLANES)**

ATA	Area	Task	Aeroplanes
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 of other than 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-mounted communication devices with quick disconnect connectors, excluding IFR operations.	Yes**
24	Electrical power	Batteries – Replacement and servicing	Yes
		Wiring – Repairing broken circuits in non-critical equipment, excluding ignition system, primary generating system and required communication, as well as 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
		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-mounted 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
		Emergency locator transmitter (ELT) – Removal/Reinstallation.	Yes
27	Flight controls	Removal or reinstallation of co-pilot control column and rudder pedals where design provides for quick disconnect.	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 that this 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 – checking of markings for legibility and that 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
		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-mounted software, excluding automated flight control systems and transponders.	Yes
		Navigation devices – Removal and replacement of self-contained, instrument-panel-mounted navigation devices with quick disconnect connectors, excluding automated 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 – application of 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), including application of signal coatings or thin foils as well as registration markings	Yes
		Fairings – simple repairs to non-structural fairings and cover plates that do not change the contour	Yes
52	Doors and Hatches	Doors – Removal and reinstallation	Yes
53	Fuselage	Upholstery, furnishing – minor repairs that do not require disassembly of primary structure or operating systems, or interfere with control systems	Yes
56	Windows	Side Windows – replacement if no riveting, bonding or any special process is required	Yes
61	Propeller	Spinner – Removal and reinstallation.	Yes
71	Powerplant installation	Cowling – Removal and reinstallation not requiring removal of propeller or disconnection of flight controls.	Yes

<b>ATA</b>	<b>Area</b>	<b>Task</b>	<b>Aeroplanes</b>
		Induction System – Inspection and replacement of induction air filter.	Yes
72	Engine	Chip detectors – Removal, checking and reinstallation provided the chip detector is of a non-electrically-indicated self-sealing type	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-mounted 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	Rotorcraft
11	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and the AMM.	Yes
12	Servicing	Fuel, oil, hydraulic, de-iced and windshield liquid replenishment.	Yes
		Lubrication – Those items not requiring a disassembly of other than non-structural items, such as cover plates, cowlings and fairings — lubrication.	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 as well as 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-mounted 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 excluding bonding of 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	Rotorcraft
		Non-essential instruments and/or equipment – Replacement of self-contained, instrument-panel-mounted equipment with quick-disconnect connectors.	Yes
		ELT – Removal/Reinstallation.	Yes
30	Protection from ice and rain	Windshield wiper replacement	Yes
31	Instruments	Instrument Panel– Removal and reinstallation provided that 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 – checking of markings for legibility and that 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
		Fitting and removal 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-mounted software, excluding automated flight control systems and transponders.	Yes
		Navigation devices – Remove and replace self-contained, instrument-panel-mounted navigation devices with quick-disconnect connectors, excluding automated 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 any primary structure or operating system is involved.	Yes

ATA	Area	Task	Rotorcraft
		Surface finish – minor restoration (where no disassembly of any primary structure or operating system is involved, excluding intervention on main and tail rotors), including application of signal coatings or thin foils as well as registration markings	Yes
		Fairings – Simple repairs to non-structural fairings and cover plates that do not change the contour.	Yes
52	Doors	Doors – Removal and reinstallation.	Yes
53	Fuselage	Upholstery, furnishing – Minor repairs that do not require disassembly of primary structure or operating systems, or interfere with control systems.	Yes
56	Windows	Side Windows – replacement if no riveting, bonding or any special process is required	Yes
62	Main rotor	Removal/installation of main-rotor blades (designed for removal where special tools are not required, excluding tail-rotor blades), limited to reinstallation of the same blades previously removed in the original position	Yes
63 65	Transmission	Chip detectors – removal, checking and replacement provided that the chip detector is of a non-electrically-indicated self-sealing type	Yes
67	Flight control	Removal or reinstallation of co-pilot cyclic and collective controls and yaw pedals where design provides for quick disconnect	Yes
71	Powerplant installation	Cowlings – Removal and re-fitment.	Yes
72	Engine	Chip detectors –removal, checking and reinstallation provided that the chip detector is of a non-electrically-indicated self-sealing type	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; and
- SLPS/TMG self-launching powered sailplane/touring motor glider.

ATA	Area	Task	SP	SSPS	SLPS / TMG
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 the AMM.	Yes	Yes	Yes
12	Servicing	Lubrication – Those items not requiring a disassembly of other than 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-mounted communication devices with quick disconnect connectors.	Yes	Yes	Yes
24	Electrical power	Batteries and solar panels – Replacement and servicing.	Yes	Yes	Yes
		Wiring – Installation of simple wiring connections to the existing wiring for	Yes	Yes	Yes

ATA	Area	Task	SP	SSPS	SLPS / TMG
		additional non-required equipment, such as electric variometers, flight computers, but excluding required communication, navigation systems and engine wiring.			
		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, required communication and navigation system, as well as 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, required communication and navigation system, as well as 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-mounted 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 and/or control.	Yes	Yes	Yes
		Static Probes – Removal or reinstallation of variometer static-and-total energy compensation probes.	Yes	Yes	Yes
		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



ATA	Area	Task	SP	SSPS	SLPS / TMG
		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 no complete flight control removal is required	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 design provides for quick disconnect	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 that it is equipped 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
		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

ATA	Area	Task	SP	SSPS	SLPS / TMG
		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-mounted software, excluding automated 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-mounted navigation devices with quick-disconnect connectors, excluding automated 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 of any primary structure or operating system is involved.	Yes	Yes	Yes
		Surface finish – minor restoration of paint or coating (where the underlying primary structure is not affected), including 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 that do not change the contour.	Yes	Yes	Yes
52	Doors	Doors – Removal and reinstallation.	Yes	Yes	Yes

ATA	Area	Task	SP	SSPS	SLPS / TMG
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 no riveting, bonding or any special process is required	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 non-electrically indicated self-sealing type	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
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-mounted 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

<b>ATA</b>	<b>Area</b>	<b>Task</b>	<b>SP</b>	<b>SSPS</b>	<b>SLPS / TMG</b>
		Oil – Changing or replenishment of engine oil and gearbox fluid.	N/A	Yes	Yes

**Part D - PILOT-OWNER MAINTENANCE TASKS FOR BALLOONS/AIRSHIPS**

Area and task	Hot-air Airship	Hot-air Balloon	Gas Balloon
<b>A) ENVELOPE</b>			
1- Fabric repairs – excluding complete panels (as defined in, and in accordance with, the Type Certificate holder’s 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>B) BURNER</b>			
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
13- Burner hoses – replacement of O-rings in the inlet connection	Yes	Yes	N/A
<b>C) BASKET AND GONDOLA</b>			
14- Basket/gondola frame trim – repair or replacement.	Yes	Yes	Yes
15- Basket/gondola runners (including wheels) – repair or replacement.	Yes	Yes	Yes
16- External rope handles – repair.	Yes	Yes	Yes
17- Seat covers, upholsteries and safety belts — replacement	Yes	Yes	Yes
<b>D) FUEL CYLINDER</b>			
18- Liquid valve – replacement of O-rings in the outlet.	Yes	Yes	No
<b>E) INSTRUMENTS AND EQUIPMENT</b>			
19- Batteries – replacement of batteries for self-contained instruments and communication equipment	Yes	Yes	Yes
20- Communication, navigation devices, instruments and/or equipment – removal and replacement of self-contained, instrument-panel-mounted communication devices with quick-disconnect connectors	Yes	Yes	Yes
<b>F) ENGINES</b>			

<b>Area and task</b>	<b>Hot-air Airship</b>	<b>Hot-air Balloon</b>	<b>Gas Balloon</b>
21- Cleaning and Lubrication not requiring disassembly of other than non-structural items, such as cover plates, cowlings and fairings	Yes	N/A	N/A
22- Cowling-removal and re-fitment not requiring removal of the propeller	Yes	N/A	N/A
23- Fuel and oil strainers and/or filter elements – Removal, cleaning and/or replacement	Yes	N/A	N/A
24- Batteries – replacing and servicing (excluding servicing of Ni-Cd batteries).	Yes	N/A	N/A
25- Propeller Spinner – removal and installation for inspection.	Yes	N/A	N/A
26- Powerplant – Removal or installation of powerplant unit including engine and propeller.	Yes	N/A	N/A
27- Engine- Chip detectors – removal, checking and replacement.	Yes	N/A	N/A
28- Ignition Spark Plug – removal or installation and adjustment including gap clearance.	Yes	N/A	N/A
29- Coolant fluid – replenishment.	Yes	N/A	N/A
30- 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
31- Engine instruments – removal and replacement.	Yes	N/A	N/A
32- Lubrication oil – changing or replenishment of engine oil and gearbox fluid.	Yes	N/A	N/A
33- Fuel lines – replacement of prefabricated hoses with self-sealing couplings.	Yes	N/A	N/A
34- Air filters (if installed) – removal, cleaning and replacement.	Yes	N/A	N/A

### **Appendix III Complex Maintenance Tasks not to be released by the pilot-owner**

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All of the following constitutes the complex maintenance tasks which, according to Appendix II, shall not be carried out by the pilot-owner. Those tasks shall be released either by an approved maintenance organisation or by independent certifying staff:

- (a) The modification, repair or replacement by riveting, bonding, laminating, or welding of any of the following airframe parts:
  - (1) a box beam;
  - (2) a wing stringer or chord member;
  - (3) a spar;
  - (4) a spar flange;
  - (5) a member of a truss-type beam;
  - (6) the web of a beam;
  - (7) a keel or chine member of a flying boat hull or a float;
  - (8) a corrugated sheet compression member in a wing or tail surface;
  - (9) a wing main rib;
  - (10) a wing or tail surface brace strut;
  - (11) an engine mount;
  - (12) a fuselage longeron or frame;
  - (13) a member of a side truss, horizontal truss or bulkhead;
  - (14) a seat support brace or bracket;
  - (15) a seat rail replacement;
  - (16) a landing gear strut or brace strut;
  - (17) an axle;
  - (18) a wheel; and
  - (19) a ski or ski pedestal, excluding the replacement of a low-friction coating.

- (b) The modification or repair of any of the following parts:
- (1) aircraft skin or the skin of an aircraft float if the work requires the use of a support, jig or fixture;
  - (2) aircraft skin that is subject to pressurization loads if the damage to the skin measures more than 15 cm (6 inches) in any direction;
  - (3) 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;
  - (4) any other structure, not listed in (a), that a manufacturer has identified as primary structure in its maintenance manual, structural repair manual or instructions for continuing airworthiness.
- (c) The performance of the following maintenance on a piston engine:
- (1) 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;
  - (2) dismantling and subsequent reassembling of reduction gears;
  - (3) 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;
  - (4) 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.
- (d) The balancing of a propeller, except:
- (1) for the certification of static balancing where required by the maintenance manual; and
  - (2) dynamic balancing on installed propellers using electronic balancing equipment



where permitted by the maintenance manual or other approved airworthiness data;

(e) Any additional task that requires:

- (1) specialized tooling, equipment or facilities; or
- (2) significant coordination procedures because of the extensive duration of the tasks and the involvement of several persons.

**Appendix IV Airworthiness Review Certificate (CAA Form 15c)**

NOTE: persons and organisations performing the airworthiness review in combination with the 100-h/annual inspection may use the reverse side of this form in order to issue the CRS referred to in point ML.A.801 corresponding to the 100-h/annual inspection.

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**MALDIVES CIVIL AVIATION AUTHORITY  
 REPUBLIC OF MALDIVES**

**ARC Reference  
 MV-MI-XXXX Issue X**

**AIRWORTHINESS REVIEW CERTIFICATE  
 (For aircraft complying with MCAR-ML)**

Pursuant to Civil Aviation Regulations for the time being in force,

**[MALDIVES CIVIL AVIATION AUTHORITY]**

OR

**[NAME OF THE ORGANISATION APPROVED, ADDRESS OF THE ORGANISATION, Approval reference: MV.MG.[NNN]**

OR

**[FULL NAME OF THE CERTIFYING STAFF AND MCAR-66 LICENCE NUMBER]**

hereby certifies that it has performed an airworthiness review in accordance with MCAR-ML on the following aircraft:

<b>Aircraft manufacturer:</b>			
<b>Manufacturer's designation:</b>			
<b>Aircraft registration:</b>		<b>Aircraft Serial Number:</b>	

and this aircraft is considered to be airworthy at the time of the review.

<b>Date of Issue:</b>		<b>Date of expiry:</b>	
<b>Airframe Flight Hours (FH) at date of review (*):</b>			
<b>Signed:</b>		<b>Authorisation No (if applicable):</b>	

**1st Extension:** the aircraft complies with the conditions of point MCAR-ML.A.901(c) of MCAR-ML

<b>Date of Issue:</b>		<b>Date of expiry:</b>	
<b>Airframe Flight Hours (FH) at date of issue (*):</b>			
<b>Signed:</b>		<b>Authorisation No:</b>	
<b>Company name:</b>		<b>Approval reference:</b>	

**2nd Extension:** the aircraft complies with the conditions of point MCAR-ML.A.901(c) of MCAR-ML

<b>Date of Issue:</b>		<b>Date of expiry:</b>	
<b>Airframe Flight Hours (FH) at date of issue (*):</b>			
<b>Signed:</b>		<b>Authorisation No:</b>	
<b>Company name:</b>		<b>Approval reference:</b>	

CAA Form 15c (Issue 5, 15 November 2021)

(\*) Except for balloons and airships