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**LISTE DES PAGES EFFECTIVES**

| **Chapitre** | **Page** | **N°d’édition** | **Date d’édition** | **N° de révision** | **Date de révision** |
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| LPE | 1 | 01 | 15/07/2020 | 00 | 15/07/2020 |
| ER | 2 | 01 | 15/07/2020 | 00 | 15/07/2020 |
| LA | 3 | 01 | 15/07/2020 | 00 | 15/07/2020 |
| LR | 4 | 01 | 15/07/2020 | 00 | 15/07/2020 |
| TM | 5-6 | 01 | 15/07/2020 | 00 | 15/07/2020 |
| SECTION A — TECHNICAL REQUIREMENTS | 7-52 | 01 | 15/07/2020 | 00 | 15/07/2020 |
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| AMC TO APPENDICES TO PART-ML | 55 | 01 | 15/07/2020 | 00 | 15/07/2020 |
| AMC1 to Appendix II to Part-ML | 56- | 01 | 15/07/2020 | 00 | 15/07/2020 |

**ENREGISTREMENT DES RÉVISIONS**

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| **N° de révision** | **Date d’application** | **Date d’insertion** | **Emargement** | **Remarques** |
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| **Référence** | **Source** | **Titre** | **N° d’édition** | **Date d’édition** |
| Regulation (EU) N° XXX/CEMAC/PC/DAJ 1321/2014) | EU | Acceptable Means of Compliance (AMC) and Guidance Material (GM) to Annex Vb (PART-ML) | N° 2 | 17/12/2015 |
| Regulation (EU) N° XXX/CEMAC/PC/DAJ 1321/2014) | EU | Easy Access Rules for Continuing Airworthiness (Regulation | N° 1 | Apr 2019 |
| Regulation (EU) N° XXX/CEMAC/PC/DAJ 1321/2014) | EU | Acceptable Means of Compliance (AMC) and Guidance Material (GM) to Annex Vb (PART-ML) | Issue 1 | 13/03/2020 |
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**SECTION A — TECHNICAL REQUIREMENTS**

**GM1 ML.A.201 - Responsibilities**

The following tables provide a summary of Part-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.

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|  | | **Balloon** | | | | | | |
| Part-BOP Subpart ADD | | | Part-BOP non-Subpart ADD | | | |
| 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 competent authority | | | | | | By a maintenance organisation\*\*\* or independent certifying staff\*\*\* or by the  CAMO/CAO(-CAM) (if contracted) or by the competent authority |
|  | | **Sailplane** | | | | | | | |
| Part-SAO Subpart-DEC | | Part-SAO non-Subpart-DEC | | | | | |
| 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 pilot-owner\*\* | | |
| **AR and ARC** | | By a maintenance organisation\*\*\* or by the contracted CAMO/CAO(-CAM) or by  the competent authority | | | | | By a maintenance organisation\*\*\* or independent certifying staff\*\*\* or by the  CAMO/CAO(-CAM) (if contracted) or by the competent authority | | |
|  | **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 competent authority | | | | | By a maintenance organisation\*\*\* or independent certifying staff\*\*\* or by the  CAMO/CAO(-CAM) (if contracted) or by the competent authority | | |

\*: 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:

1. 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.
2. 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).
3. 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 Part-ML with this CAMO or CAO.

**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.

AMC-20 ‘General Acceptable Means of Compliance for Airworthiness of Products, Parts and Appliances’ provides further details on occurrence reporting (AMC 20-8).

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

### MAINTENANCE CHECK FLIGHTS (MCFs)

1. The definition of and operational requirements for MCFs are laid down in the Air Operations Regulation[[1]](#footnote-1) 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.
2. 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 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.

* 1. 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.
  2. 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.
  3. 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 Regulation (EU) N° XXX/CEMAC/PC/DAJ 748/2012 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.

1. 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.

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

1. The aircraft should only be maintained according to one maintenance programme at a given point in time. Where an owner wishes to change from one programme to another (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.
2. The maintenance programme may take the format of the standard template provided in AMC2 ML.A.302 (ASSA-AC Form AMP). This maintenance programme may include several aircraft registrations as long as the maintenance requirements for each registration are clearly identified.

**AMC1 ML.A.302 (c) (9) - Aircraft maintenance programme**

### ANNUAL REVIEW OF THE AMP

1. 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 Part 21, such as airworthiness directives (ADs), airworthiness limitations, certification maintenance requirements and specific maintenance requirements contained in the type certificate data sheet (TCDS).
2. 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.
3. 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.

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

### ASSA-AC FORM AMP

The following ASSA-AC Form AMP may be used to produce the AMP:

| **Part-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) | | | Minimum inspection programme (MIP) as detailed in the latest revision of AMC1 ML.A.302(d)  Other MIP complying with ML.A.302(d)    **(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)** |  | |  | | | | |
|  | |  | | | | |
| **Additional maintenance requirements to the DAH’ ICA or to the MIP (applicable to all AMPs)** | | | | | | | | |
| 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 | | | | | |  |  |
| **Maintenance tasks alternative to the DAH’s ICA (not less restrictive than the MIP)** | | | | | | | | |
| 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 |
| **Pilot-owner maintenance (only for balloons not operated under Subpart-ADD, or sailplanes not operated under Subpart-DEC, or other aircraft operated under Part-NCO)**  Remark: pilot-owner maintenance is not allowed for aircraft operated by a commercial ATO/DTO | | | | | | | | |
| 6 **Does the pilot-owner perform pilot-owner maintenance (ref. ML.A.803)?** No  Yes      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. | | | | | | | | |
| **Approval/declaration of the maintenance programme (select the appropriate option)** | | | | | | | | |
| 7 | Declaration by the owner: | | | | Approval by the contracted CAMO/CAO: | | | |
|  | ***‘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, in particular, for any alternatives tasks to the DAH’s data.’***  Signature/name/date: | | | | Approval reference no of the CAMO/CAO:    Signature/name/date: | | | |
| **Certification statement** | | | | | | | | |
| 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 ML.A.201: | | | | | | | |

Owner

/Lessee/operator

CAMO/CAO

Name of owner/lessee

/operator

or CAMO/CAO approval number:

Address:

Telephone/fax:

Email:

Signature/

d

ate:

9

Appendices attached:

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Appendix

A YES

NO

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Appendix

B YES

NO

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Appendix C

YES

NO

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Appendix D

YES

NO

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| **Appendix A — Minimum inspection programme (MIP)**  **(only applicable if a MIP different from the one described in AMC1 ML.A.302(d) is used — see Section 2 above)** |
| *Detail the tasks and inspections contained in the MIP being used.* |

| **Appendix B — Additional maintenance requirements**  **(include only if necessary — see Section 4 above)** | | | | |
| --- | --- | --- | --- | --- |
| *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.*  *(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).* | | | | |
| **Task description** | **References** | **Interval**  (tick box if the selected interval differs from that required in the referenced document) | | |
| **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 the basis for the AMP.)** | | | | |
|  |  |  | | |
|  |  |  | | |
| **Maintenance due to mandatory continuing airworthiness instructions (ALIs, CMRs, specific requirements in the TCDS, etc.)** | | | | |
|  |  |  | | |
|  |  |  | | |
| **Maintenance recommendations, such as TBO intervals, issued through service bulletins, service letters, and other nonmandatory service information** | | | | |
|  |  |  | | |
| Emergency locator transmitters and personal locator beacon — annual testing | **EASA SIB 2019-09** | 1 Year | | |
| (if not using MIP or equivalent ICA task)  Transponder test | **EASA SIB 2011-15** | 2 Years | | |
|  |  |  | | |
| **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** | | | | |
|  |  |  | | |
|  |  |  | | |

| **Appendix C — Maintenance tasks alternative to the DAH’s ICA (not less restrictive than the MIP)**  **(include only if necessary — see Sections 5 above)** | | | |
| --- | --- | --- | --- |
| **Task description** | **Recommended interval** | **Alternative inspection/task** | **Amended interval** |
| *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)* | | | |
|  |  |  |  |
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|  |  |  |  |
|  |  |  |  |
| **Appendix D — Additional information (optional)** | | | |
| *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.* | | | |

ASSA-AC Form AMP, Issue 1

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

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

1. 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).
2. 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.
3. The content of the owner-declared maintenance programme cannot be challenged up front either by the competent authority 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).
4. When the competent authority 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 competent authority should 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 competent authority may also react in accordance with ML.B.304. Based on the information received, the reported deficiencies and the identified risks, the competent authority may in addition adapt the ACAM programme accordingly (ref. ML.B.303).
5. Although there is no requirement for the owner to send a copy of the maintenance programme to the competent authority, this does not prevent the competent authority 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).
6. 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.
7. Since the competent authority is not responsible for the content of a declared maintenance programme, the competent authority 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** |
| **Responsibility for developing the AMP** | Contracted CAMO or CAO | Owner (if allowed under ML.A.201(f)) |
| **Approval/declaration of the maintenance programme** | Approved by the CAMO or CAO, or none required in case of compliance with ML.A.302(e) | Declaration by the owner or none required in case of compliance with ML.A.302(e) |
| **Basis for the maintenance programme** | MIP (not applicable to rotorcraft and airships) or ICA issued by the DAH | |
| **Deviations from the DAH’s ICA** | 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. |
|  |  |  |
|  | **OPTION 1** | **OPTION 2** |
| **AMP annual review** | 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:

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

**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), 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 competent authority. Justification of these deviations are to be kept by the CAMO or CAO.

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

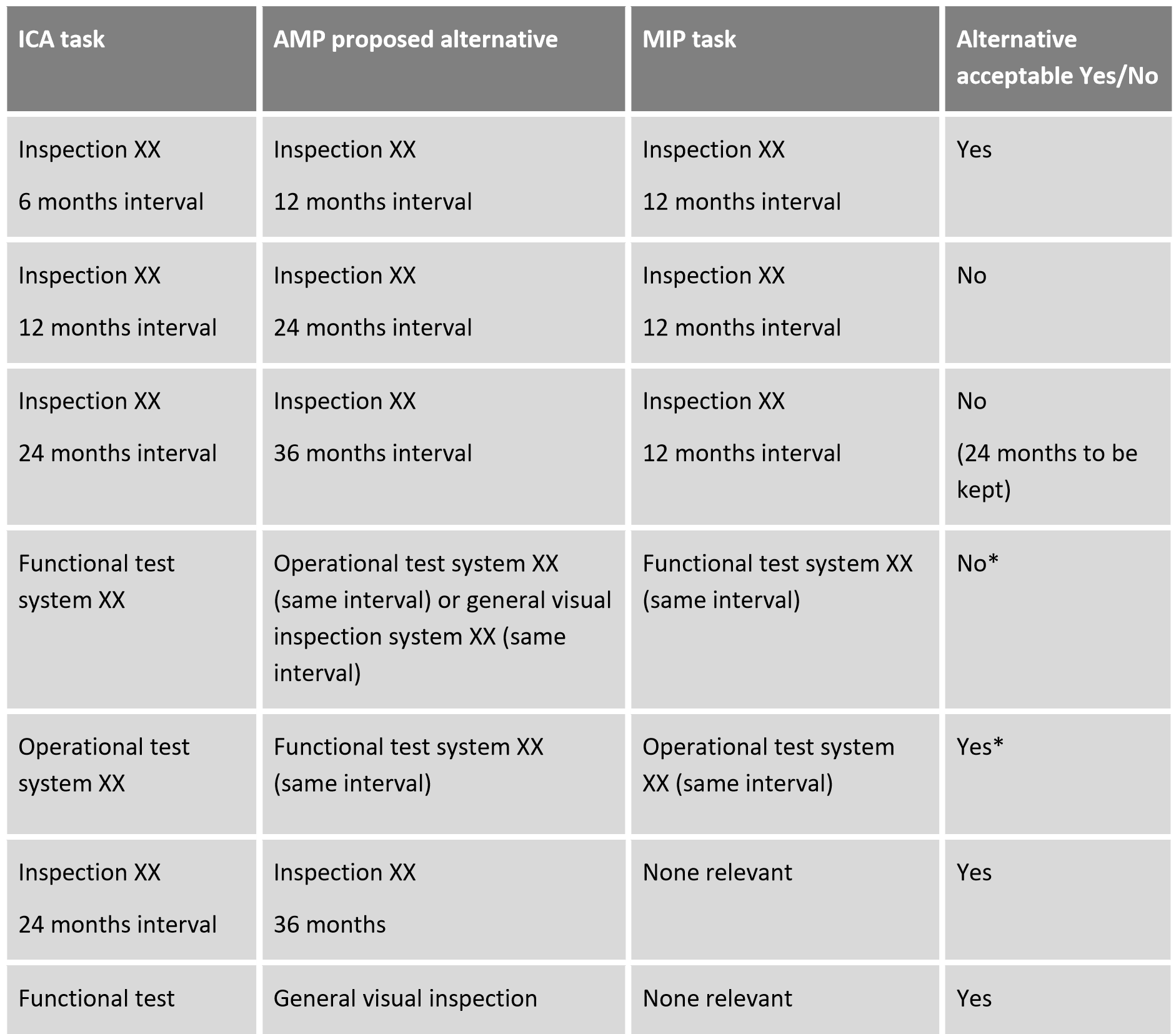
### ALTERNATIVE MAINTENANCE ACTIONS

‘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:

\*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 an other, 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 2 730 kg maximum take-off mass (MTOM) and below, and for ELA2 aircraft other than airships, grouped in the following categories:

* aeroplanes of 2 730 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 2 730 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.

| **Aer** | **oplanes of 2 730 kg MTOM and below** |
| --- | --- |
| **System/component/area** | **Task and inspection detail** |
| **GENERAL** |  |
| General | Remove or open all necessary inspection plates, access doors, fairings, and cowlings. Clean the aircraft and aircraft engine as required. |
| Lubrication/servicing | Lubricate and replenish fluids in accordance with the manufacturer’s requirements. |
| Markings | Check that side and underwing registration markings are correct. If applicable, check that an exemption for alternate display is approved. Identification plate for national aviation authority (NAA)-registered aircraft is present, as well as other identification markings on fuselage in accordance with local (national) rules. |
| 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. |
| **AIRFRAME** |  |
| Fabric and skin | Inspect for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings.  NOTE: When checking composite structures, check for signs of impact or pressure damage that may indicate underlying damage. |
| Fuselage structure | Check frames, formers, tubular structure, braces, and attachments. Inspect for signs of corrosion 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 may foul the controls. |
| Tow hooks | Inspect for condition of moving parts and wear.  Check service life.  Carry out operational test. |
| **CABIN AND COCKPIT** |  |
| Seats, safety belts and harnesses | Inspect for poor condition and apparent defects. Check for service life. |
| Windows, canopies and windshields | Inspect for deterioration and damage, and for function of emergency jettison. |
| Instrument panel assemblies | Inspect for poor condition, mounting, marking, and (where practicable) improper operation.  Check markings of instruments in accordance with the flight manual. |
| Flight and engine controls | Inspect for improper installation and improper operation. |
| Speed/weight/manoeuvre placard | Check that the placard is correct and legible, and accurately reflects the status of the aircraft. |
| All systems | Inspect for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment. |
| **LANDING GEAR** |  |
| Shock-absorbing devices | Inspect for improper oleo fluid level.  Inspect for wear and deformation of rubber pads, bungees, and springs. |
| 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. |
| Tires | Inspect for wear and cuts. |
| Brakes | Inspect for improper adjustment and wear. Carry out operational test. |
| Floats and skis | Inspect for insecure attachment and apparent defects. |
| **WING AND CENTRE SECTION** |  |
| All components | Inspect all components of the wing and centre section assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure and insecurity of attachment. |
| Connections | Inspect main connections (e.g. between wings, fuselage, wing tips) for proper fit, play within tolerances, wear or corrosion on bolts and bushings. |
| **FLIGHT CONTROLS** | |
| Control circuit/stops | Inspect control rods and cables. Check that the control 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. |
| **EMPENNAGE** | |
| All components and systems | Inspect all components and systems that make up the complete empennage assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure, insecure attachment, improper component installation, and improper component operation. |
| **AVIONICS AND ELECTRICS** | |
| 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 lightning |
| **POWER PLANT (OTHER THAN TURBOPROP ENGINE)** | |
| Engine section | Inspect for visual evidence of oil, fuel or hydraulic leaks and sources of such leaks. |
| Studs and nuts | Inspect for looseness, signs of rotation and obvious defects. |
| Internal engine | Inspect for proper 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. |
| **TURBOPROP ENGINE** | |
| 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. |
| **FUEL** | |
| Fuel tanks | Inspect for leaks and improper installation and connection. Verify proper sealing and function of tank drains. |
| **CLUTCHES AND GEARBOXES** | |
| Filters, screens, and chip detectors | Inspect for metal particles and foreign matter. |
| Exterior | Inspect for oil leaks. |
| Output shaft | Inspect for excessive bearings’ play and condition. |
| **PROPELLER** | |
| Propeller assembly | Inspect for cracks, nicks, binds, and oil leakage. |
| Propeller bolts | Inspect for proper installation, looseness, signs of rotation, and lack of safe tying. |
| Propeller control mechanism | Inspect for improper operation, insecure mounting, and restricted travel. |
| Anti-icing devices | Inspect for improper operation and obvious defects. |
| **MISCELLANEOUS** | |
| Ballistic rescue system | Inspect for proper installation, unbroken activation mechanism, proper securing while on ground, validity of inspection periods of pyrotechnic devices, and parachute-packing intervals. |
| Other miscellaneous items | Inspect installed miscellaneous items that are not otherwise covered by this listing for improper installation and improper operation. |
| **OPERATIONAL AND FUNCTIONAL CHECKS** | |
| Power and revolutions per minute (rpm) | Check that power output, static and idle rpm are within published limits. |
| Magnetos | Check for normal function. |
| Fuel and oil pressure | Check that they are within normal values. Check fuel pumps for proper operation. |
| Engine temperatures | Check that 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, engines with turbochargers and liquid-cooled engines, check for signs of disturbed fluid circulation. |
| Pitot-static system | Perform functional 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.

|  | **ELA2 sailplanes and ELA2 powered sailplanes** |
| --- | --- |
| **System/component/area** | **Task and inspection detail** |
| **GENERAL** |  |
| 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 NAA-registered aircraft is present, and if other identification markings on fuselage are in accordance with local (national) rules. |
| Weighing | Review weighing record to establish accuracy against installed equipment.  Weigh the aircraft as required by the relevant Regulation for air operations. |
| **AIRFRAME** |  |
| 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. |
| **CABIN AND COCKPIT** | |
| Cleanliness/loose articles | Check under cockpit floor/seat pan and in rear fuselage for debris and foreign items. |
| Canopy, locks and jettison | Inspect canopy, canopy frame and transparencies for cracks, unacceptable distortion, and 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 all installed equipment, as possible in accordance with the manufacturer’s instructions.  Check markings of instruments in accordance with the aircraft flight manual (AFM). |
| Oxygen system | Inspect oxygen system. Check bottle hydrostatic-test date expiry in accordance with the manufacturer’s recommendations.  Ensure that oxygen installation is recorded on weight and centre-of-gravity schedule.  CAUTION: OBSERVE ALL SAFETY PRECAUTIONS. |
| Colour-coding of controls | Ensure that controls are colour-coded in accordance with the AFM and in good condition. |
| Placards | Check that the placards are correct and legible, and accurately reflect the status of the aircraft in accordance with the AFM. |
| **LANDING GEAR** | |
| Front skid/nose wheel and mounts | Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre, and wheel box. Check tyre pressure. |
| Main wheel and brake assembly | Check for integrity of hydraulic seals and leaks in 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.  CAUTION: BRAKE DUST MAY CONTAIN ASBESTOS.  Check operation of brake. Check level of brake fluid and replenish, if necessary.  Check tyre pressure.  CAUTION: CHECK TYPE OF BRAKE FLUID USED AND OBSERVE SAFETY PRECAUTIONS. |
| Undercarriage suspension | Check springs, bungees, shock absorbers, and attachments. Check for signs of damage.  Service strut, if applicable. |
| Undercarriage retract system and doors | Check retraction mechanism and controls, warning system if fitted, gas struts, doors and linkages/springs, over-centre/locking device. Perform retraction test. |
| Tail skid/wheel | Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre, and wheel box. Check bond of bonded skids. Check tyre pressure. |
| Wheel brake control circuit | Inspect wheel brake control rods/cables. If combined with air brake, ensure correct rigging relationship. Check parking-brake operation, if fitted. |
| **WING AND CENTRE SECTION** | |
| Centre section | Inspect wing centre section including fairings for security, damage, and condition. |
| Wing attachments | 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. |
| Winglet/wing extensions | Inspect the structural attachments of winglet and wing attachments. Check for damage, wear, and security. |
| Aileron control circuit/stops | Inspect aileron control rods/cables. Check that control stops are secure and make contact.  Inspect connecting control devices for security, damage, free play and secure mounting. |
| 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. |
| **EMPENNAGE** | |
| Tailplane and elevator | With tailplane de-rigged, check tailplane and attachments, self-connecting and manual control connections. Check gel coat, fabric covering, or metal skin. |
| Rudder | Check rudder assembly, hinges, attachments, balance weights. |
| Rudder control circuit/stops | Inspect rudder control rods/cables. Check that control stops are secure and make contact. Pay particular attention to wear and security of 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. |
| **AVIONICS AND ELECTRICS** | |
| Electrical installation/fuses | Check all electrical wiring for condition. Check for signs of overheating and poor connections. Check fuses/trips for condition and correct rating. |
| Battery security and corrosion | Check battery mounting for security and operation of clamp. Check for evidence of electrolyte spillage and corrosion. Check that 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. |
| **MISCELLANEOUS** | |
| Removable ballast | Check removable ballast mountings and securing devices (including fin ballast, if applicable) for condition. Check that ballast weights are painted with conspicuous colour. Check that provision 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. |
| **POWER PLANT (when applicable)**  NOTE: In the case of sailplanes with electrical or jet engines, follow the maintenance instructions and recommendations of the DAH. | |
| 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.

#### Envelope

| **System/component/area** | **Task and inspection detail** |
| --- | --- |
| 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. |

#### Burner

| **System/component/area** | | **Task and inspection detail** |
| --- | --- | --- |
| Identification number) | (type/serial | 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  manifolds | including | 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. |

#### Basket

|  |  |
| --- | --- |
| **System/component/area** | **Task and inspection detail** |
| 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. |

#### Fuel cylinders

| **System/component/area** | **Task and inspection detail** |
| --- | --- |
| 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 |

#### Additional equipment

| **System/component/area** | **Task and inspection detail** |
| --- | --- |
| 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).

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

1. 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.
2. A log card and status for components other than propeller and engines could be combined in a single document.
3. 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.
4. The current status of ADs should be sufficiently detailed to identify the complied AD and/or the due limit.
5. 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.

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

1. 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.

1. 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:

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

### 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:

1. tasks that may affect the control of the aircraft’s flight path and attitude, such as the installation, rigging and adjustments of flight controls;
2. tasks that may affect aircraft stability control systems (autopilots, fuel transfer);
3. tasks that may affect the propulsive force of the aircraft, including the installation of aircraft engines, propellers and rotors; and
4. 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.

**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 operated under Subpart-ADD, sailplanes not operated under Subpart-DEC, 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 reentered on the list of deferred maintenance and the original date of the defect should be retained.

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

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

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

### ASSA-AC FORM 1 OR EQUIVALENT

A document equivalent to an ASSA-AC Form 1 may be:

1. a release document issued by an organisation under the terms of a bilateral agreement signed by the European Union;
2. a release document issued by an organisation approved under the terms of a JAA bilateral agreement until superseded by the corresponding agreement signed by the European Union;
3. a JAA Form One issued prior to 28 November 2004 by a JAR 145 organisation approved by a JAA Full Member State;
4. in the case of new aircraft components that were released from manufacturing prior to the Part 21 compliance date, a JAA Form One issued by a JAR 21 organisation approved by a JAA Full Member State within the JAA mutual recognition system;
5. a JAA Form One issued prior to 28 September 2005 by a production organisation approved by a competent authority in accordance with its national regulations;
6. a JAA Form One issued prior to 28 September 2008 by a maintenance organisation approved by a competent authority in accordance with its national regulations;
7. a release document acceptable to a competent authority according to the provisions of a bilateral agreement between the competent authority and a third country until superseded by the corresponding agreement signed by the European Union. This provision is valid provided the above agreements between the competent authority and a third country are notified to the European Commission and to the other competent authorities in accordance with Article 68 of Regulation (EU) N°XXXX/20-CC-ASSA-AC-CM-XX 2018/1139; and
8. a release document issued under the conditions described in Article 4(4) of Regulation (EU) N° XXX/CEMAC/PC/DAJ 1321/2014.

**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, an ASSA-AC 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 an ASSA-AC Form 1 or equivalent or on the balloon maintenance log book, as applicable.

**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 under Subpart-ADD.

**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 CS-STAN are fulfilled while being in compliance with Part-ML/ Part-M Subpart F/Part-CAO and/or Part-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, 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).

**NOTE:** Until 1 October 2020 (ref. entry into force of Commission Regulation (EU) 2018/1142), it is possible to have aircraft maintenance released to service by the holder of an appropriate certifying staff qualification valid in a Member State (national qualification). In this case, the following conditions apply:

* If the holder signs the release to service on behalf of a maintenance organisation, this release is valid regardless of the Member State where the aircraft is registered.
* If the holder signs the release to service as an independent certifying staff, this release is only valid in the Member State responsible for such certifying staff qualification and where the aircraft is registered.

1. **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 Regulation (EU) N° XXX/CEMAC/PC/DAJ 748/2012 are equally acceptable.

Normally, a SC/SR shall not contain specifically designed parts that should be produced by a production organisation approved in accordance with Part 21 (POA). However, in the case that the change or repair would contain such a part, it should be produced by an approved production organisation (POA holder), and delivered with an ASSA-AC Form 1. An arrangement in accordance with 21.A.122(b) is not applicable.

Eligibility for installation of parts and appliances belonging to a SC/SR is subject to compliance with the Part 21 and Part-ML 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 an ASSA-AC Form 1 is addressed in Part 21 and Part-ML, while less restrictive rules may, for instance, apply for ELA1 and ELA2 aircraft parts (e.g. 21.A.307) and sailplane parts (e.g. AMC 21.A.303 of the ‘AMC and GM to Part 21’). Furthermore, Part-M Subpart F, Part-CAO and Part-145 contain provisions (i.e. M.A.603(c), CAO.A.020(c) and 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.

1. **Parts’ and appliances’ identification**

The parts modified or installed during the embodiment of the SC/SR need to be permanently marked in accordance with Part 21 Subpart Q.

1. **Documenting the SC/SR and declaring compliance with the certification specifications**

In accordance with Part-ML, Part-M Subpart F, Part-CAO or Part-145 (e.g. ML.A.801(e), M.A.612, CAO.A.065 and 145.A.50(b)), the legal or natural person responsible for the embodiment of a change or a repair should compile details of the work accomplished. In the case of SCs/SRs, this includes, as necessary, based on 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 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 ASSA-AC 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 ASSA-AC Form 123; both ASSA-AC Form 123 and the release to service required after the embodiment of the SC/SR should be signed by the same person.

ASSA-AC 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.

1. **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 Part-ML, PartM Subpart F, Part-CAO or Part-145 and 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

ASSA-AC 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.

1. **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.

1. **Embodiment of more than one SC**

The embodiment of two or more related SCs described in Subpart B of CS-STAN is permitted as a single change (the use of one ASSA-AC 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.

1. **Acceptable form to be used to record the embodiment of SCs/SRs**

See ASSA-AC Form 123.

**ASSA-AC Form 123 — Standard Change/Standard Repair (SC/SR) embodiment record**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ASSA-AC Form 123 — Standard Change/Standard Repair (SC/SR) embodiment record** | | | | 1. SC/SR number(s): |
| 2. SC/SR title & description: | | | | |
| 3. Applicability: | | | | |
| 4. List of parts (description/Part-No/Qty): | | | | |
| 5. Operational limitations/affected aircraft manuals. Copies of these manuals are provided to the aircraft owner: | | | | |
| 6. Documents used for the development and embodiment of this SC/SR:  \* Copies of the documents marked with an asterisk are handed to the aircraft owner. | | | | |
| 7. Instructions for continuing airworthiness. Copies of these manuals are provided to the aircraft owner: | | | | |
| 8. Other information: | | | | |
| 9a. |  | This SC complies with the criteria established in 21.A.90B(a) and with the relevant paragraphs of CS-STAN. | | |
|  |
| 9b. |  | This SR complies with the criteria established in 21.A.431B(a) and with the relevant paragraphs of CS-STAN. | | |
|  |
| 10. Date of SC/SR embodiment: | | | 11. Identification data and signature of the person responsible for the embodiment of the SC/SR: | |
| 12. Signature of the aircraft owner. This signature attests that all relevant documentation is handed over from the issuer of this form to the aircraft owner, and, therefore, the latter becomes aware of any impact or limitations on operations or additional continuing airworthiness requirements which may apply to the aircraft due to the embodiment of the change/repair. | | | | |

Form 123 Issue 00

Notes:

Original remains with the legal or natural person responsible for the embodiment of the SC/SR.

The aircraft owner should retain a copy of this form.

The aircraft owner should be provided with copies of the documents referenced in boxes 5 and 7 and those in box 6 marked with an asterisk ‘\*’.

The ‘relevant paragraphs’ in boxes 9a and 9b refer to the applicable paragraphs of ‘Subpart A – General’ of CS-STAN and those of the SC/SR quoted in box 2.

For box 12, when the aircraft owner has signed a contract in accordance with ML.A.201, it is possible that the CAMO or CAO representative signs box 12 and provides all relevant information to the owner before next flight.

Completion instructions:

Use English or the official language of the State of registry to fill in the form.

1. Identify the SC/SR with a unique number and reference this number in the aircraft logbook.
2. Specify the applicable EASA CS-STAN chapter including revision (e.g. CS-SCxxxy or CS-SRxxxy) & title. Provide also a short description.
3. Identify the aircraft (a/c) registration, serial number and type.
4. List the parts' numbers and description for the parts installed. Refer to an auxiliary document if necessary.
5. Identify affected aircraft manuals.
6. Refer to the documentation developed to support the SC/SR and its embodiment, including design data required by CS-STAN: design definition, documents recording the showing of compliance with the certification specifications or any test result, etc. The documents' references should quote their revision/issue.
7. Identify instructions for continuing airworthiness that need to be considered for the aircraft maintenance programme review.
8. To be used as deemed necessary by the installer.

9a., 9b., 10. and 12. Self-explanatory.

11. Give full name details and certificate reference (of the natural or legal person) used for issuing the aircraft release to service.

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

1. 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 Part-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 Part-ML, and in respect to that work, the aircraft is considered ready for release to service.’.

1. 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.
2. 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.
3. 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.
4. 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 competent authority 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.
5. 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.
6. In the case of an 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 ML.A.801.

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

1. 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).
2. 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.
3. An equivalent valid pilot-owner licence may be any document attesting a pilot qualification recognised by the Member State.
4. 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.

**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 competent authority) to carry out the AR and issue the ARC in conjunction with the annual inspection.

Point 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.

**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 competent authority, a CAMO, a CAO or a maintenance organisation or could also be independent certifying staff in accordance with ML.A.901(b)(4) 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).

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

### AR BY INDEPENDENT CERTIFYING STAFF

1. 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.
2. The authorisation issued to the certifying staff by the competent authority 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 competent authority (point (d)(2)).

**SECTION B — PROCEDURE FOR COMPETENT AUTHORITIES**

**AMC1 ML.B.201 - Responsibilities**

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

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

**AMC1 ML.B.303 - Aircraft continuing airworthiness monitoring**

The competent authority survey programme developed in accordance with Part-M (M.B.303) provides an acceptable basic structure for the survey programme required for Part-ML aircraft.

**AMC TO APPENDICES TO PART-ML**

**AMC1 to Appendix II to Part-ML — Limited pilot-owner maintenance**

1. The lists below specifies 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 Part-ML.
2. The list of tasks may not address in a detailed manner the specific needs of the various aircraft categories. In addition, the development of technology and the nature of the operations undertaken by these categories of aircraft may not always be adequately considered.
3. Any other task meeting the requirements of Appendix II to Part-ML may also be performed by the pilot-owner.
4. Therefore, the following lists are considered to meet the representative scope of limited pilotowner maintenance referred to in ML.A.803 and Appendix II to Part-ML:
   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.
5. Inspection tasks/checks of any periodicity included in an approved maintenance programme can be carried out provided that the specified tasks are compliant with the basic principles of Appendix II to Part-ML.

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 50h, 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 marked 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 the AFM and the AMM | Yes |
| **12** | Servicing | | Those items not requiring a disassembly of other than nonstructural 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 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 selfcontained, 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 using 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 | 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 |
|  |  |  | 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 |
|  |  |  | Mechanical brakes — adjustment of simple cable-operated systems | Yes |
|  |  |  | Brake — replacement of worn brake pads | Yes |
| **33** | Lights |  | Lights — replacement of internal and external bulbs, filaments, reflectors and lenses | Yes |
|  |  |  |
|  |  |  | Software — updating self-contained, instrument-panelmounted software, excluding automated flight control systems and transponders | Yes |
| **34** | Navigation |  |
|  |  |  |
| Navigation devices — removal and replacement of selfcontained, 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 no 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 hatches | and | 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** | Power plant  installation | | Cowling — removal and reinstallation not requiring removal of propeller or disconnection of flight controls | Yes |
| Induction system — inspection and replacement of induction air filter | Yes |
| **72** | Engine | | Chip detectors — removal, checking and reinstallation provided that the chip detector is of a non-electricallyindicated 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 system | | Engine-indicating system — 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 the AFM and the AMM | Yes |
| **12** | Servicing | | Fuel, oil, hydraulic, de-iced and windshield liquid replenishment | Yes |
| Those items not requiring a disassembly of other than nonstructural 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 — removal and replacement of 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 using the correct rating | Yes |
| **25** | Equipment | | Safety belts — replacement of safety belts and harnesses, excluding belts fitted with airbag systems | Yes |
| **ATA** | **Area** | | **Task** | **Rotorcraft** |
|  |  | | 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 |
|  |  | | 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 |
|  |  | | Instrument panel — removal and reinstallation provided that it is a design feature with quick-disconnect connectors, excluding IFR operations | Yes\*\* |
| **31** | Instruments | |
|  |  | | 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 |
| Replacement of skid wear shoes | Yes |
| Fitting and removal of 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 |
| **ATA** | **Area** | | **Task** | **Rotorcraft** |
| **34** | Navigation | | Software — updating of self-contained, instrument-panelmounted software, excluding automated flight control systems and transponders | Yes |
| Navigation devices — removal and replacement of selfcontained, 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 — 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, 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-electricallyindicated self-sealing type | Yes |
| **ATA** | **Area** |  | **Task** | **Rotorcraft** |
| **67** | Flight control |  | Removal or reinstallation of co-pilot cyclic and collective controls and yaw pedals where design provides for quick disconnect | Yes |
| **71** | Power plant installation |  | Cowlings — removal and refitment | Yes |
| **72** | Engine |  | Chip detectors — removal, checking and reinstallation provided that the chip detector is of a non-electricallyindicated 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/acronyms applicable to this Part:

n/a not applicable for this category;

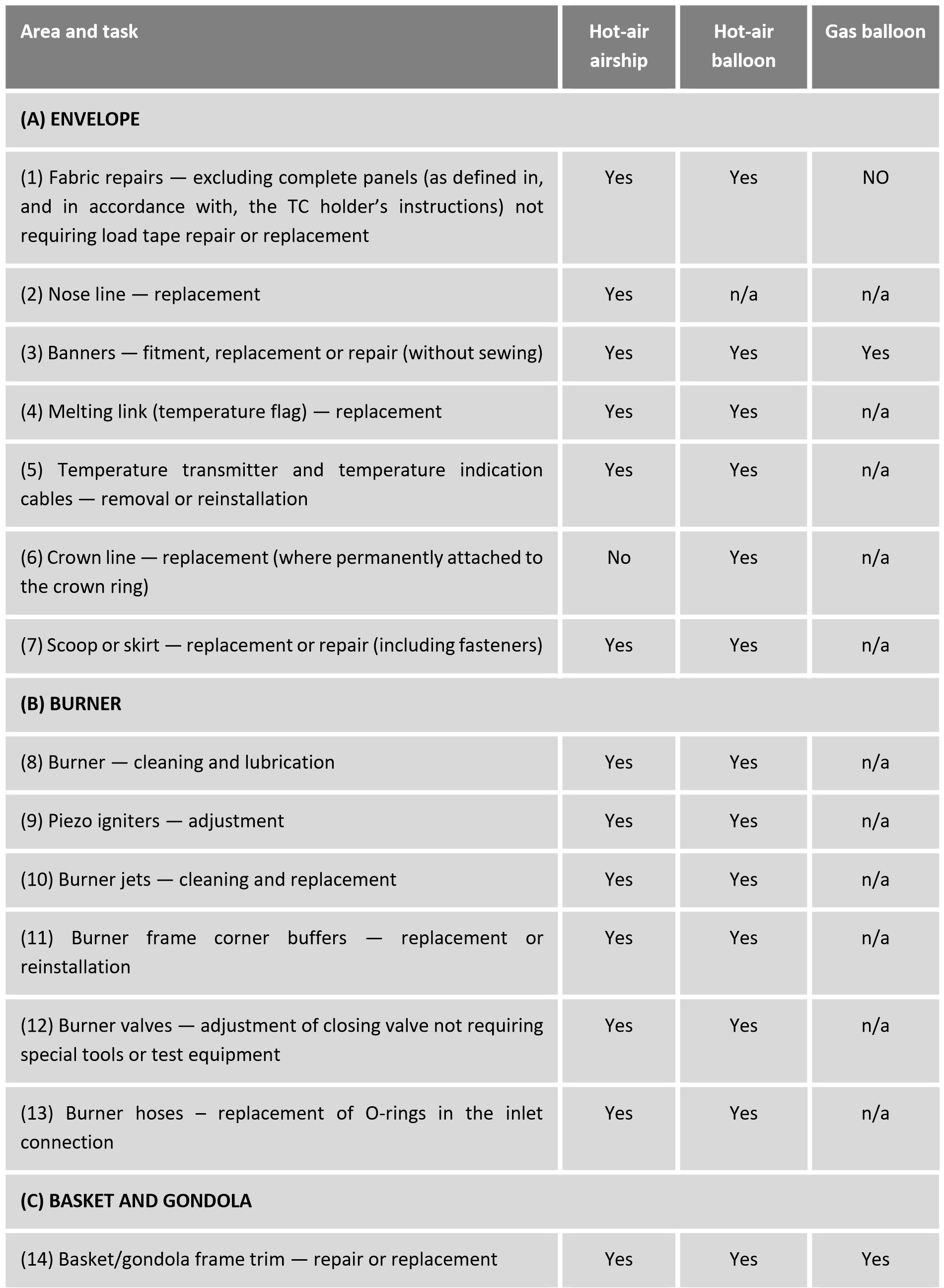
SP sailplane;

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 the AFM and the AMM | | | | Yes | | | Yes | | | | Yes |
| **12** | | Servicing | | | Those items not requiring a disassembly of other than non-structural items, such as cover plates, cowlings and fairings — lubrication | | | | 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 |
| **ATA** | **Area** | | | **Task** | | | | **SP** | | | **SSPS** | | | | **SLPS/TMG** | |
| **21** | Air conditioning | | | Replacement of flexible hoses and ducts | | | | Yes | | | Yes | | | | Yes | |
| **23** | Communication | | | | Communication devices — removal and replacement of self-contained, instrumentpanel-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 additional non-required equipment, such as electric variometers, flight computers, but excluding required communication, navigation systems and engine wiring | | | Yes | | | Yes | | | | Yes | |
| Wiring — repairing of 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 using 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 | |
| **ATA** | | | **Area** | | | **Task** | | | **SP** | | | **SSPS** | | **SLPS/TMG** | | |
|  | | |  | | | Non-essential instruments and/or equipment — replacement of self-contained, instrumentpanel-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 | | |
|  | | |  | | | 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 | | |
|  | | |  | | |  | | |  | | |  | |  | | |
|  | | |  | | |
| **ATA** | | | **Area** | | | **Task** | | | **SP** | | | **SSPS** | | **SLPS/TMG** | | |
|  | | |  | | | 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 | | |
| Skids — removal or reinstallation and servicing of main, wing and tail skids | | | Yes | | | Yes | | Yes | | |
| **ATA** | | | **Area** | | | **Task** | | | **SP** | | | **SSPS** | | **SLPS/TMG** | | |
|  | | |  | | | Wheel fairings (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 of self-contained, instrument-panel-mounted software, excluding automated flight control systems and transponders, and including update of nonrequired 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 no more than one rib, and not requiring rib stitching or removal of structural parts or control surfaces | | | Yes | | | Yes | | Yes | | |
| Protective coating — application of 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 | | | Yes | | | Yes | | Yes | | |
|  | |  | | | | | | | |  | | |  | | | |
| **ATA** | | **Area** | | | | | **Task** | | | **SP** | | | **SSPS** | **SLPS/TMG** | | |
|  | |  | | | | | coatings or thin foils as well as registration markings | | |  | | |  |  | | |
|  | |  | | | | | 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 | | |
|  | |  | | | | | Upholstery, furnishing — minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems | | | Yes | | | Yes | Yes | | |
| **53** | | Fuselage | | | | |
| **56** | | Windows | | | | | Side windows — replacement if no riveting, bonding or any special process is required | | | Yes | | | Yes | Yes | | |
| Canopies — removal and refitment | | | 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** | | Power plant  installation | | | | | Removal or installation of power plant 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 | | |
|  | |  | | | | | | | |  | | |  | | | |
| **ATA** | | **Area** | | | | | **Task** | | | **SP** | | | **SSPS** | **SLPS/TMG** | | |
| **72** | | Engine | | | | | Chip detectors — removal, checking and reinstallation provided that the chip detector is of 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 flight phase | | | n/a | | | Yes | No | | |
| **77** | | Engineindicating system | | | | | Engine-indicating system — removal and replacement of self-contained instrumentpanel-mounted indicators that have quickrelease connectors and do not employ direct reading connections | | | n/a | | | Yes | Yes | | |
| **79** | | Oil system | | | | | Strainer or filter elements — cleaning and/or replacement | | | n/a | | | Yes | Yes | | |
| Oil — changing or replenishment of engine oil and gearbox fluid | | | n/a | | | Yes | Yes | | |

##### Part D — PILOT-OWNER MAINTENANCE TASKS FOR BALLOONS/AIRSHIPS





|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | |
| **Area and task** | **Hot-air airship** | **Hot-air balloon** | **Gas balloon** |
| (27) Ignition spark plug — removal or installation and adjustment including gap clearance | Yes | n/a | n/a |
| (28) Coolant fluid — replenishment | Yes | n/a | n/a |
| (29) Engine controls — minor adjustments of non-flight or propulsion controls whose operation is not critical for any flight phase | Yes | n/a | n/a |
| (30) Engine instruments — removal and replacement | Yes | n/a | n/a |
| (31) Lubrication oil — changing or replenishment of engine oil and gearbox fluid | Yes | n/a | n/a |
| (32) Fuel lines — replacement of prefabricated hoses with selfsealing couplings | Yes | n/a | n/a |
| (33) Air filters (if installed) — removal, cleaning and replacement | Yes | n/a | n/a |

1. [↑](#footnote-ref-1)