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|  | Civil Aviation Authority  Republic of Maldives | CAA Form 1724 |
|  | | |
| MAINTENANCE PROGRAMME CHECKLIST | | |

The purpose of the Maintenance Programmes Compliance Checklist is to assist owners / operators with a view to ensuring that Maintenance Programmes submitted to the CAA for approval are standardised and include all items that are required by MCAR-M.A.302, AMC MCAR-M.A.302 and other additional CAA required items. This checklist, when completed, should be submitted with the draft maintenance programme.

This document includes all the relevant information as detailed in MCAR-M Appendix I to the Acceptable Means of Compliance (AMC), the format of which may be modified to suit the operator's preferred method. In all cases the checklist should clearly show either compliance (Yes) & location of the compliance in the Notes section or not applicable (No) & the reason in the Notes section.

The specific tasks and the relevant control procedures shall be included as specified in the Maintenance Programme (MP) or Continuing Airworthiness Management Exposition (CAME) / Combined Airworthiness Exposition (CAE) of the operator / CAMO managing the aircraft. The relevant cross-references shall be specified in the Notes column at the appropriate paragraphs and the correct term MP or CAME/CAE shall be used. It is not acceptable to simply enter the MP or CAME/CAE as the cross-reference.

The checklist is provided to ensure the minimum required items are contained in the Maintenance Programme. It should be enhanced as necessary to suit the aircraft's needs; operational, utilisation & environmental.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Applicant Information | |  |
|  | CAMO approval number and AOC Number (if applicable): |  |  |
|  | CAA MP Reference\*\*: |  |  |
|  | CAME/CAE Reference (if applicable): |  |  |
|  | Owner / Operator Name: |  |  |
|  | Owner / Operator MP Reference: |  |  |
|  | Amendment Status: |  |  |
|  | Details of the Previous Maintenance Programme: |  |  |
|  | | | |

\*\* Please obtain from the CAA and include in the front page of the AMP

| 1. General Requirements | | | | |
| --- | --- | --- | --- | --- |
|  |  | Compliance | | Notes |
| Yes | No |
| 1.1 | Maintenance Programme basic information | | | |
| 1.1.1 | The type/model and registration number of the aircraft |  |  |  |
| The type/model of the engines |  |  |  |
| The type/model of the propellers, where applicable |  |  |  |
| The type/model of the auxiliary power units, where applicable |  |  |  |
| 1.1.2 | The name and address of the owner, operator, CAMO organisation managing the aircraft airworthiness |  |  |  |
| 1.1.3 | The programme reference, the date of issue and issue number |  |  |  |
| 1.1.4 | A signed statement. *See Appendix 1 to this document* |  |  |  |
| 1.1.5 | Contents list |  |  |  |
| Distribution List |  |  |  |
| List of effective pages |  |  |  |
| Revision status of the document |  |  |  |
| 1.1.6 | Check periods for anticipated utilisation; include a utilisation tolerance of not more than 25%. Where utilisation cannot be anticipated, calendar time limits should also be included |  |  |  |
| 1.1.7 | Procedures for escalation where applicable & acceptable to the CAA |  |  |  |
| 1.1.8 | Date and reference of AMP sources incorporated within the AMP |  |  |  |
| 1.1.9 | Pre-flight maintenance tasks that are accomplished by maintenance staff |  |  |  |
| 1.1.10 | The tasks and the periods (intervals / frequencies) at which inspections should be carried out, including the task effectivity and type and degree of inspection of the: | | | |
| 1. Aircraft |  |  |  |
| 1. Engine(s) |  |  |  |
| 1. APU |  |  |  |
| 1. Propeller(s) |  |  |  |
| 1. Components |  |  |  |
| 1. Accessories |  |  |  |
| 1. Equipment |  |  |  |
| 1. Instruments |  |  |  |
| 1. Electrical and radio apparatus |  |  |  |
| 1.1.11 | The periods at which components should be: | | | |
| 1. Checked |  |  |  |
| 1. Cleaned |  |  |  |
| 1. Lubricated |  |  |  |
| 1. Replenished |  |  |  |
| 1. Adjusted |  |  |  |
| 1. Tested |  |  |  |
| 1.1.12 | Details of ageing aircraft system requirements with any specified sampling programmes, (if applicable) |  |  |  |
| 1.1.13 | Details of specific structural maintenance programmes, (if applicable), including but not limited to: | | | |
| 1. Damage Tolerance and Supplemental Structural Inspection Programmes (SSID) |  |  |  |
| 1. Structural maintenance programmes resulting from the SB review performed by the TC holder |  |  |  |
| 1. Corrosion prevention and control |  |  |  |
| 1. Repair Assessment |  |  |  |
| 1. Widespread Fatigue Damage |  |  |  |
| 1.1.14 | If applicable, details of Critical Design Configuration Control Limitations together with appropriate procedures. |  |  |  |
| 1.1.15 | Statement of the limit of validity for the structural programme in 1.1.13, if applicable |  |  |  |
| 1.1.16 | The periods at which overhauls should be made |  |  |  |
| The periods at which replacements should be made |  |  |  |
| 1.1.17 | A cross-reference to other documents related to: | | | |
| 1. Mandatory life and inspection limitations |  |  |  |
| 1. Certification Maintenance Requirements (CMR's), (if applicable) |  |  |  |
| 1. Airworthiness Directives (AD) |  |  |  |
| Specific identification of the above items’ mandatory status |  |  |  |
| 1.1.18 | Reliability programme or statistical methods  of continuous Surveillance (CMPA M.A.302(g)) |  |  |  |
| 1.1.19 | A statement that practices and procedures should be the standards specified by the TC holder. In the case of approved practices and procedures that differ, the statement should refer to them |  |  |  |
| 1.1.20 | Each maintenance task (i.e., inspections - detailed, scan, general) should be defined in a definition section |  |  |  |

| 2. Programme Basis | | | | |
| --- | --- | --- | --- | --- |
|  | | Compliance | | Notes |
| Yes | No |
| 2.1 | Is the programme based upon the MRB report, the TC holder's maintenance planning document or Chapter 5 of the maintenance manual? |  |  |  |
| 2.2 | For newly type-certificated aircraft, comprehensively appraise the manufacturer's recommendations (and MRB report where applicable) |  |  |  |
| 2.3 | For existing aircraft types, it is permissible by CAMO to make, comparisons with maintenance programmes previously approved. Evaluation should be made of the aircraft/fleet utilisation, landing rate, equipment fit and experience of the owner or the CAMO when assessing an existing programme |  |  |  |
| 2.4 | If CDCCL have been identified by the TC/STC holder, maintenance instructions have been developed |  |  |  |

| 3. Amendments | | | | |
| --- | --- | --- | --- | --- |
|  | | Compliance | | Notes |
| Yes | No |
| 3.1 | Amendments (revisions) to reflect changes: *See Appendix 2* | | | |
| 1. In the TC holder's recommendations |  |  |  |
| 1. Introduced by modifications |  |  |  |
| 1. Discovered by service experience |  |  |  |
| 1. As required by the CAA, e.g., Continuing Airworthiness Tasks introduced by repairs. |  |  |  |

| 4. Permitted Variations to Maintenance Periods (except for items identified in 1.1.16) | | | | |
| --- | --- | --- | --- | --- |
|  | | Compliance | | Notes |
| Yes | No |
| 4.1 | Process in place to vary the periods through a Procedure approved by the CAA? *(Refer to Appendix 3)* |  |  |  |
| Vary the periods with the approval by the CAA (temporary amendments to maintenance programme)? |  |  |  |

| 5. Periodic Review of Maintenance Programme Contents | | | | |
| --- | --- | --- | --- | --- |
|  | | Compliance | | Notes |
| Yes | No |
| 5.1 | Periodic review to ensure that the programme reflects current: | | | |
| 1. TC holder's recommendations |  |  |  |
| 1. Revisions to the MRB report (if applicable) |  |  |  |
| 1. Mandatory requirements |  |  |  |
| 1. Maintenance needs of the aircraft |  |  |  |
| 5.2 | Annual review defined |  |  |  |

| 6. Reliability Programmes | | | | |
| --- | --- | --- | --- | --- |
|  | | Compliance | | Notes |
| Yes | No |
| 6.1 | Applicability | | | |
| 6.1.1 | Developed in the following cases: | | | |
| 1. Programme is based upon MSG-3 logic |  |  |  |
| 1. Programme includes condition monitored components |  |  |  |
| 1. Programme does not contain overhaul time periods for all significant system components |  |  |  |
| 1. Specified by the Manufacturer's MPD or MRB |  |  |  |
| 6.1.2 | Need not be developed in the following cases: | | | |
| 1. Programme is based upon the MSG-1 or 2 logic (only hard times or on condition items) |  |  |  |
| 1. Not a complex motor-powered aircraft (CMPA) |  |  |  |
| 1. Programme provides overhaul time periods for all significant system components |  |  |  |
| 6.1.3 | Operator may develop own reliability monitoring programme |  |  |  |
| 6.2 | Applicability, small fleets | | | |
| 6.2.1 | Less than 6 aircraft of the same type |  |  |  |
| 6.2.2 | Reliability programme is irrespective of the fleet size |  |  |  |
| 6.2.3 | Tailor reliability programmes to suit the size and complexity of operation |  |  |  |
| 6.2.4 | Use of "Alert levels" should be used carefully |  |  |  |
| 6.2.5 | When establishing a reliability programme, consider the following: | | | |
| 1. Focus on areas where enough data is likely to be processed |  |  |  |
| 1. How is engineering judgment applied? |  |  |  |
| 6.2.6 | Pool data and analysis (paragraph 6.6 specifies conditions) |  |  |  |
| 6.2.7 | If unable to pool data / additional restrictions on the MRB/MPD tasks intervals specified |  |  |  |
| 6.3 | Engineering judgment | | | |
| 6.3.1 | Are there appropriately qualified personnel (with appropriate engineering experience and understanding of reliability concept) for the reliability programme? |  |  |  |
| 6.4 | Contracted maintenance | | | |
| 6.4.1 | CAMO may sub-contract certain functions to the MCAR-145 organisation under contract. If sub-contracted, has this organisation proved to have the appropriate expertise? |  |  |  |
| 6.4.2 | Functions referred in 6.4.1 are: | | | |
| 1. Developing the maintenance and reliability programmes |  |  |  |
| 1. Collection and analysis of the reliability data |  |  |  |
| 1. Providing reliability reports |  |  |  |
| 1. Proposing corrective actions |  |  |  |
| 6.4.3 | Decision/approval process to implement a corrective action; CAMO prerogative and responsibility |  |  |  |
| 6.4.4 | Arrangement between CAMO and MCAR-145 specified in maintenance contract and CAME, and MOE procedures |  |  |  |
| 6.5 | Reliability programme | | | |
| 6.5.1 | Objectives: | | | |
| 6.5.1.1 | Statement summarising the prime objectives of the programme. At the minimum, it should require to: |  |  |  |
| 1. Recognise the need for corrective action |  |  |  |
| 1. Establish what corrective action is needed |  |  |  |
| 1. Determine the effectiveness of that action |  |  |  |
| 6.5.1.2 | The extent of the objectives should be directly related to the scope of the programme |  |  |  |
| 6.5.1.3 | All MSG-3 related tasks are effective and their periodicity is adequate |  |  |  |
| 6.5.2 | Identification of items: | | | |
| The items controlled by the programme should be stated |  |  |  |
| 6.5.3 | Terms and definitions: | | | |
| Significant terms and definitions should be clearly identified |  |  |  |
| 6.5.4 | Information sources and collection: | | | |
| 6.5.4.1 | Sources and procedures in the Exposition |  |  |  |
| 6.5.4.2 | Type of information to be collected should be related to the objectives, examples of the normal prime sources: | | | |
| 1. Pilots Reports |  |  |  |
| 1. Technical Logs |  |  |  |
| 1. Aircraft Access Terminal / On-board readouts |  |  |  |
| 1. Maintenance Worksheets |  |  |  |
| 1. Workshop Reports |  |  |  |
| 1. Reports on Functional Checks |  |  |  |
| 1. Reports on Special Inspections |  |  |  |
| 1. Stores Issues/Reports |  |  |  |
| 1. Air Safety Reports |  |  |  |
| 1. Reports on Delays and Incidents |  |  |  |
| 1. Other sources, i.e., ETOPS, RVSM, CAT II/III |  |  |  |
| 6.5.4.3 | Due account of Continuing Airworthiness information promulgated under MCAR-21 |  |  |  |
| 6.5.5 | Display of information: | | | |
| Information displayed graphically or tabular or a combination |  |  |  |
| 6.5.5.1 | Provisions for "nil returns" |  |  |  |
| 6.5.5.2 | Where "standards" or "alert levels" are included, information oriented accordingly |  |  |  |
| 6.5.6 | Examination, analysis and interpretation of the information: | | | |
| Method for examining, analysing and interpreting the information should be explained |  |  |  |
| 6.5.6.1 | Methods of examination may be varied (depending on content & quantity) |  |  |  |
| 6.5.6.2 | The whole process should enable a critical assessment of the effectiveness of the programme as a total activity. May involve: | | | |
| 1. Comparisons of operational reliability with established or allocated standards |  |  |  |
| 1. Analysis and interpretation of trends |  |  |  |
| 1. Evaluation of repetitive defects |  |  |  |
| 1. Confidence testing of expected and achieved results |  |  |  |
| 1. Studies of life-bands and survival characteristics |  |  |  |
| 1. Reliability predictions |  |  |  |
| 6.5.6.3 | Range and depth of analysis should be related to the particular programme: | | | |
| 1. Flight defects and reductions in reliability |  |  |  |
| 1. Defects – line and main base |  |  |  |
| 1. Deterioration observed – routine maintenance |  |  |  |
| 1. Workshop and overhaul findings |  |  |  |
| 1. Modification evaluations |  |  |  |
| 1. Sampling programmes |  |  |  |
| 1. Adequacy of maintenance equipment and publications |  |  |  |
| 1. Effectiveness of maintenance procedures |  |  |  |
| 1. Staff training |  |  |  |
| 1. Service bulletins, technical instructions, etc. |  |  |  |
| 6.5.6.4 | Contracted maintenance - arrangements established and details for information input included |  |  |  |
| 6.5.7 | Corrective Actions: | | | |
| 6.5.7.1 | Procedures / time scales for implementing corrective actions / monitoring – should be fully described & could include: | | | |
| 1. Changes to maintenance, operational procedures or techniques |  |  |  |
| 1. Changes requiring amendment of the approved maintenance programme |  |  |  |
| 1. Amendments to approved manuals |  |  |  |
| 1. Initiation of modifications |  |  |  |
| 1. Special inspections / fleet campaigns |  |  |  |
| 1. Spares provisioning |  |  |  |
| 1. Staff training |  |  |  |
| 1. Manpower and equipment planning |  |  |  |
| 6.5.7.2 | Procedures for effecting changes described. It includes planned completion date where applicable |  |  |  |
| 6.5.8 | Organisational Responsibilities: | | | |
| Organisational structure – chains of responsibility should be defined |  |  |  |
| 6.5.9 | Presentation of information to the CAA: | | | |
| Information submitted to the CAA for approval of the reliability programme: | | | |
| 1. Format and content of routine reports |  |  |  |
| 1. Time scales for reports / distribution |  |  |  |
| 1. Format and content of reports requesting amendments |  |  |  |
| 6.5.10 | Evaluation and review: | | | |
| Describe procedures and individual responsibilities – continuous monitoring of the effectiveness of the programme |  |  |  |
| 6.5.10.1 | Procedures for revising the "standards" or "alert levels" |  |  |  |
| 6.5.10.2 | Criteria to be taken into account during the review includes: | | | |
| 1. Utilisation (high / low / seasonal) |  |  |  |
| 1. Fleet commonality |  |  |  |
| 1. Alert Level adjustment criteria |  |  |  |
| 1. Adequacy of data |  |  |  |
| 1. Reliability procedure audit |  |  |  |
| 1. Staff training |  |  |  |
| 1. Operational and maintenance procedures |  |  |  |
| 6.5.11 | Approval of organisation to implement maintenance programme changes arising from the reliability programme results: | | | |
| 1. Does the reliability programme monitor the content of the maintenance programme in a comprehensive manner? |  |  |  |
| 1. Is appropriate control exercised by the owner / operator over the internal validation of such changes? |  |  |  |
| 6.6 | Pooling Arrangements | | | |
| 6.6.1 | Pooling information – must be substantially the same, including: | | | |
| 1. Certification / modification / SB compliance |  |  |  |
| 1. Operational factors |  |  |  |
| 1. Maintenance factors |  |  |  |
| 6.6.2 | Is there a substantial amount of commonality? Has the CAA agreed? |  |  |  |
| 6.6.3 | Is the aircraft on short-term lease? *CAA may*  *grant more flexibility* |  |  |  |
| 6.6.4 | Changes to any CAMO requires assessment in order that the pooling benefits can be maintained |  |  |  |
| 6.6.5 | Reliability programme managed by the  aircraft manufacturer? Agreed by the CAA? |  |  |  |

| 7. CAA Required Items (M.A.302(d)) | | | | | |
| --- | --- | --- | --- | --- | --- |
|  | | | Compliance | | Notes |
| Yes | No |
| 7.1 | Details of who may issue a CRS | |  |  |  |
| 7.2 | Define which inspections/checks are considered to be base maintenance | |  |  |  |
| 7.3 | Maintenance Requirements, in the absence of specific recommendations. *See Appendix 4* | |  |  |  |
| 7.3.1 | Aircraft battery capacity check/deep cycle | |  |  |  |
| 7.3.2 | Emergency equipment | |  |  |  |
| 7.3.3 | Emergency escape provisions: | | | | |
| 1. Portable valise type life-rafts | |  |  |  |
| 1. Door & escape chutes/slides | |  |  |  |
| 1. Emergency exits/hatches | |  |  |  |
| 7.3.4 | Flexible hoses | |  |  |  |
| 7.3.5 | Fuel/oil system contamination checks | |  |  |  |
| 7.3.6 | Pressure vessels | |  |  |  |
| 7.3.7 | Seat belts and harnesses | |  |  |  |
| 7.3.8 | Additional Requirements - ASCs | |  |  |  |
| 7.3.9 | Vital points and control systems | |  |  |  |
| 7.3.10 | Reserved | | | | |
| 7.3.11 | Maintenance applicable to special operations approvals, if applicable: | | | | |
| AWOPS | |  |  |  |
| MNPS | |  |  |  |
| RVSM | |  |  |  |
| ETOPS | |  |  |  |
| Sea Pilot transfers | |  |  |  |
| CAT.POL.H.305 | Helicopter Ops without an assured safe forced landing capability |  |  |  |
| SPA.HOFO.105 | Approval for offshore operations |  |  |  |
| SPA.HOFO.155 | VHM system |  |  |  |
| SPA.HHO.100 | Helicopter hoist operations (HHO) |  |  |  |
| CAT.POL.H.420 | Helicopter Ops over a hostile environment |  |  |  |
| SPA.HEMS.100 | Helicopter emergency medical service (HEMS) operations |  |  |  |
| SPA.NVIS.100 | Night vision imaging system (NVIS) operations |  |  |  |
| Part SPO. Subpart E | Helicopter Ext Sling load  Ops (HESLO) |  |  |  |
| SPO.HHO.100 | Helicopter hoist  operations (HHO) |  |  |  |
| Transport of dangerous goods | |  |  |  |
| Other (Specify) ……………… | |  |  |  |
| 7.3.12 | Customer furnished equipment | |  |  |  |
| 7.3.13 | Engine & APU condition monitored maintenance | |  |  |  |
| 7.3.14 | Mandatory requirements - ADs | |  |  |  |
| 7.3.15 | Flight data recorder systems | |  |  |  |
| 7.3.16 | Mode "S" transponder ICAO 24-bit aircraft  addresses | |  |  |  |
| 7.3.17 | In-flight entertainment systems (IFE) | |  |  |  |
| 7.3.18 | Cockpit Voice Recorders | |  |  |  |
| 7.3.19 | Identification of Critical Maintenance Tasks: | | | | |
| Identification of all critical components within  the maintenance programme | |  |  |  |
| Monitoring the health of all Critical  components and premature failure | |  |  |  |
| Identification of Critical maintenance tasks  including any calculation as part of a  maintenance tasks that could adversely affect  the safety or performance of the aircraft as  per AMC2 145.A.48(b) and AMC1 M.A.402(h)  including the addition of biocide | |  |  |  |
| 7.3.20 | ADS-B surveillance data items | |  |  |  |

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| --- | --- | --- |
| COMPLETED BY: | | |
| Name | Signature | Date |
|  |  |  |

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| MAINTENANCE PROGRAMME CHECKLIST – GUIDANCE NOTES |

Appendix 1

|  | SUGGESTED CERTIFICATION STATEMENT |  |
| --- | --- | --- |
|  |  |  |
|  | In the preparation of this Maintenance Programme to meet the requirements of MCAR-M, the recommendations made by the airframe constructors and engine, APU, propeller and equipment manufacturers have been evaluated and, where appropriate, have been incorporated.  This Maintenance Programme lists the tasks and identifies the practices and procedures, which form the basis for the scheduled maintenance of the aeroplane(s) / helicopter(s). The CAMO organisation / owner\* undertakes to ensure that the aeroplane(s) / helicopter(s) will continue to be maintained in accordance with this programme.  The data contained in this programme will be reviewed for continued validity at least annually in the light of operating experience and instructions from the CAA whilst taking into account new and / or modified maintenance instructions promulgated by the type certificate and supplementary type certificate holders and any other organisation that publishes such data in accordance with MCAR- 21.  It is accepted that this programme does not prevent the necessity for complying with any new or amended regulation published by the CAA from time to time where these new or amended regulations may override elements of this programme.  It is understood that compliance with this programme alone does not discharge the operator from ensuring that the programme reflects the maintenance needs of the aeroplane, such that continuing safe operation can be assured. It is further understood that the CAA reserves the right to suspend, vary or cancel approval of the Maintenance Programme if the CAA has evidence that the requirements of the Maintenance Programme are not being followed or that the required standards of airworthiness are not being maintained.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Name |  | Position |  | | | Signed |  | | | | | For and on behalf of the CAMO organisation / owner \* | | | |  | | Date |  | | | |   NOTE: The post holder identified above is either the Accountable Manager / Continuing Airworthiness Manager for an AOC operator's CAMO organisation, a nominated post holder within the CAMO organisation when the aircraft's continuing airworthiness is contracted to an approved organisation or the aircraft owner when the aircraft’s continuing airworthiness is not contracted to an approved organisation.  \* Delete as applicable |  |
|  |

Appendix 2

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| --- |
| SUGGESTED MAINTENANCE PROGRAMME AMENDMENT APPROVAL SUBMISSION |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CAA AMP Ref: |  | Issue No: |  | Aircraft Type: |  |
| CAMO AMP Ref: |  | Amdmnt. No: |  | Issue Date: |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Action to be taken | Justification | CAA Remarks |
| 1. Introduction page A | Replace with new page dated ................ | Introduction of new check cycle | 1. Introduction page A |
| 2. Introduction page B | Replace with new page dated ................ | Introduction of Aircraft Registration 8Q- | 2. Introduction page B |
| 3. Page 45 - Item E12 | Replace with new page dated ................ | Revision of forward and aft pressure bulkhead inspection requirements. In accordance with manufacturer's latest requirement | 3. Page 45 - Item E12 |

[add/delete row as required]

|  |  |
| --- | --- |
| Compliance Statement | |
| This Maintenance Programme complies with the manufacturer's minimum maintenance and inspection requirements and the requirements of the Civil Aviation Authority for the airframe, engines (on wing), propeller (if applicable) systems and components except wherein previously or hereby Approved by the Civil Aviation Authority. | |
| Signed: |  |
| Date: |  |
| Name & Position: |  |
| Organisation: |  |

|  |  |
| --- | --- |
| CAA Use Only | |
| The above requested amendments are approved, with the exception of: | |
| Signature |  |
| Inspector |  |
| Date |  |

Appendix 3

**PERMITTED VARIATIONS TO MAINTENANCE PERIODS (To be included in the operator's CAME)**

Where the TC/STC holder has **not** prescribed any variation that may be applied to inspection periods, the operator may vary the periods prescribed by this Programme provided that such variations are within the limits of sub-paragraphs (a) to (d).

Where the TC/STC holder has prescribed variations that may be applied using operator procedures to inspection intervals in the Programme, the operator shall use those tolerance and **not** those prescribed in sub-paragraphs (a) to (d) below.

Where the TC/STC holder has prescribed tolerances that may be applied to inspection intervals in the Programme, the operator shall use those tolerances and **not** combine their use with those prescribed in sub-paragraphs (a) to (d) below.

Note: The Programme must specify which of the above is being used.

Variations shall be permitted only when the periods prescribed by this Programme (or documents in support of this Programme) cannot be complied with due to circumstances **which could not reasonably have been foreseen by the operator**.

Examples of such circumstances:

* Aircraft on ground away from main base
* Weather conditions preventing return of aircraft
* Maintenance provider goes out of business
* Failure of ground equipment
* Non-availability of a hanger due to late release of another aircraft

The decision to vary any of the prescribed periods shall be made only by the operator. Particulars of every variation so made shall be entered in the appropriate Logbook(s).

|  |  |
| --- | --- |
| Period Involved | Maximum Variation of the Prescribed Period |
| (a) Items Controlled by Flying Hours |  |
| (i) 5000 flying hours or less | 10% |
| (ii) More than 5000 flying hours | 500 flying hours |
| (b) Items Controlled by Calendar Time |  |
| (i) 1 year or less | 10% or 1 month, whichever is the lesser |
| (ii) More than 1 year but not exceeding 3 years | 2 months |
| (iii) More than 3 years | 3 months |
| (c) Items Controlled by Landing/Cycles |  |
| (i) 500 landings/cycles or less | 10% or 25 landings/cycles, whichever is the lesser |
| (ii) More than 500 landings/cycles | 10% or 50 landings/cycles, whichever is the lesser |
| (d) Items Controlled by More Than One Limit |  |
| For items controlled by more than one limit, e.g., items controlled by flying hours and calendar time or flying hours and landings/cycles, the more restrictive limit shall be applied. | |

**NOTES**

1. The variations or tolerances permitted above do not apply to:
2. Those components for which an ultimate (scrap) or retirement life has been prescribed (e.g., primary structure, components with limited fatigue lives, and high energy rotating parts for which containment is not provided). Details concerning all items of this nature are included in the Type Certificate holder's documents or manuals and are included in the preface pages to the Maintenance Programme.
3. Those tasks included in the Maintenance Programme, which have been classified as mandatory by the Type Certificate / Supplemental Type Certificate holder or the CAA.
4. Certification Maintenance Requirements (CMR) unless specifically approved by the manufacturer and agreed by the CAA.
5. Critical Design Configuration Control Limitations (CDCCL Items).
6. Airworthiness Limitation Items (ALIs).
7. Special Federal Aviation Regulations (SFARs).
8. New or amended regulations may override these conditions.

Appendix 4

**ADDITIONAL MAINTENANCE REQUIREMENTS**

*Reference: MCAR-M.A.302(d)(1)*

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| 7.3.1 | AIRCRAFT BATTERY CAPACITY CHECKS  Aircraft batteries shall be maintained in accordance with the manufacturer's recommendations. In the absence of any manufacturer's instructions the following periods apply.   1. Lead acid Battery – not exceeding 3 months: capacity check, bench test. 2. Ni-Cad Battery – not exceeding 4 months: capacity check, bench test |
| 7.3.2 | EMERGENCY EQUIPMENT  The required Emergency Equipment will be maintained to a programme based on the equipment manufacturer's recommendations. In addition, the following requirements are complied with in the Maintenance Programme:  Emergency equipment is to be checked for correct complement, stowage, installation and expiry date(s) at suitable periods.  First Aid Kit(s) contents are checked at periods not exceeding 12 months. |
| 7.3.3 | EMERGENCY ESCAPE PROVISIONS (as applicable)   1. Portable Valise Type Life rafts. At the appropriate Overhaul Period, 10% of all life rafts installed in fleets will be test inflated using system bottle and release mechanisms. 2. Door and Escape Chutes/Slides. A programme of release and inflation tests will be carried out to the requirements specified in UK Civil Aircraft Airworthiness Information and Procedures (CAP 562) Leaflet B-180. 3. Emergency Exits/Hatches. All emergency exits and hatches are functioned by both internal and external means at periods specified in this Maintenance Programme. In the absence of manufacturer's specific recommendations these occur at suitable periods not exceeding 6 months elapsed time. |
| 7.3.4 | FLEXIBLE HOSES  Flexible hoses shall be inspected, overhauled or life limited in accordance with the manufacturer's recommendations.  In the absence of manufacturer's recommendations, hoses shall be subject to a programme of pressure testing at periods not exceeding 6 years from installation and 3 yearly thereafter, or in accordance with an alternative programme as agreed by the CAA. |
| 7.3.5 | FUEL/OIL SYSTEM CONTAMINATION CHECKS  Consumable fluids, gases etc. uplifted prior to flight will be of the correct specification, free from contamination, and correctly recorded.  Fuel system water drain checks are to be carried out in accordance with CAME procedures.  The procedures shall be in accordance with the manufacturer's recommendations. In the absence of manufacturer's recommendations, the frequency of the water drain checks shall be approved by the CAA. |
| 7.3.6 | PRESSURE VESSELS  Pressure vessels are to be overhauled or tested in accordance with manufacturer's recommendations. In the absence of any such recommendations the appropriate European standards should be applied. (EASA SIB 2015-11) |
| 7.3.7 | SEAT BELTS AND HARNESSES  In the absence of manufacturer's recommendations, all installed seat belts and harnesses shall be subject to a programme of Detailed Visual Inspection at periods not exceeding 6 months. |
| 7.3.8 | ADDITIONAL REQUIREMENTS  Air Safety Circular ASC M-3 at latest amendment. |
| 7.3.9 | VITAL POINTS AND CONTROL SYSTEMS  Whenever inspections are made or work is undertaken on vital points, flying or engine control systems, a detailed investigation must be made on completion of the task to ensure that all tools, rags or any other loose articles which could impede the free movement and safe operation of the system(s) have been removed and that the system(s) and installation in the aircraft zone are clean and unobstructed.  If, as a result of the application of tasks associated with the programme, any part of either the main or any associated system is dismantled, isolated, adjusted, repaired or renewed, that part of the system(s) which has been disturbed shall be subjected to an independent inspection in accordance with point M.A 402 and associated AMC. |
| 7.3.10 | Reserved |
| 7.3.11 | MAINTENANCE APPLICABLE TO SPECIFIC AEROPLANE OPERATIONS  The Maintenance Programme contains the necessary tasks required to ensure continued compliance with additional special authorisations/approvals:  Automatic Approach and Automatic Landing CAT I /CAT II /CAT IIIa / CAT IIIb  Minimum Navigation Performance Specifications (MNPS)  Reduced Vertical Separation Minima (RVSM)  Extended Range Operations with two-engined aeroplanes (ETOPS)  Sea Pilot transfers  Offshore operations  Helicopter Emergency Medical Service (HEMS)  Transportation of Dangerous Goods  Other (Specify) ................................. |
| 7.3.12 | CUSTOMER FURNISHED EQUIPMENT (CFE/VFE/BFE)  The Maintenance Programme contains the necessary tasks required to ensure continued airworthiness of additional equipment fitted to this aircraft. |
| 7.3.13 | ENGINE AND APU MAINTENANCE PROGRAMME  For engine and APU's which are controlled by a Reliability Centered Maintenance and Condition Monitored Maintenance Programme, compliance with Appendix 1 to M.A.302 Section 6 / CAP 562 Chapter 5 leaflet 5-60.  Note: For engines and APU's controlled by a fixed Hot Section Inspection and Overhaul Life, no entry is required. |
| 7.3.14 | MANDATORY REQUIREMENTS - AIRWORTHINESS DIRECTIVES  *Reference: MCAR-M AMC MCAR-M.A.302(5)*  The list of Airworthiness Directives (ADs) applicable to aircraft maintained in accordance with this Maintenance Programme.  Procedures are in place to assess all ADs on a continuing basis for applicability to aircraft maintained to this Maintenance Programme. This includes ADs issued for airframe, engines, propellers, equipment and other components. |
| 7.3.15 | FLIGHT RECORDER SYSTEMS  *Reference: MCAR-Air Operations Part CAT.GEN.MPA.190, CAT.GEN.MPA.195, AMC1 CAT.GEN.MPA.195(b), AMC6 CAT.IDE.A.190 & UK CAA CAP 731*  The Maintenance Programme should contain the necessary tasks required to ensure that the Flight Data Recorder System(s) remain serviceable with regard to the parameters to be recorded and the duration of recording. |
| 7.3.16 | MODE "S", “C” TRANSPONDER ICAO 24-BIT AIRCRAFT ADDRESSES  *Reference: UK CAA CAP 562 leaflet 11-22, appendix 34-2, EASA SIB 2011-15*  The correct Mode S address should be periodically confirmed for each transponder installed on the aircraft, via a field test set at an appropriate maintenance opportunity (not to exceed a 2-year periodicity). This task should be incorporated into the Approved Maintenance Programme. |
| 7.3.17 | IN-FLIGHT ENTERTAINMENT SYSTEMS (IFE)  *Reference: UK CAA CAP 562 Chapter 44 leaflet 44-10 Continuing Airworthiness and Safety Standards of Passenger Service and In-Flight Entertainment Systems*  With regard to MCAR-M.A.302 (d)(1), UK CAAIP leaflet 5-12 provides instructions specific to IFE installations, which should be addressed and form part of the periodic programme review. |
| 7.3.18 | COCKPIT VOICE RECORDERS  *Reference: UK CAA CAP 562 Leaflet 14-14, EASA SIB 2009-28R1*  The maintenance programme should contain the necessary tasks required to ensure the Cockpit Voice Recorder (CVR) system remains serviceable. In the absence of maintenance tasks being prescribed by the TC / STC holders or original equipment manufacturer, the guidance provided in the referenced leaflet should be followed. |
| 7.3.19 | IDENTIFICATION OF CRITICAL MAINTENANCE TASKS  Identification of all critical components within the maintenance programme.  Monitoring the health of all Critical components and premature failure.  Identification of Critical maintenance tasks including any calculation as part of a maintenance tasks that could adversely affect the safety or performance of the aircraft as per AMC2 145.A.48(b) and AMC1 M.A.402(h) including the addition of biocide. |
| 7.3.20 | ADS-B SURVEILLANCE DATA ITEMS  The maintenance programme should contain the necessary tasks required to ensure the Automatic Dependent Surveillance - Broadcast (ADS-B) equipment remains serviceable.  The data quality indicators of the transmission should be periodically confirmed via a field test set at an appropriate maintenance opportunity (not to exceed a 6-month periodicity). At minimum, NUCp value should be 5 or higher.  This task should be incorporated into the Approved Maintenance Programme. |