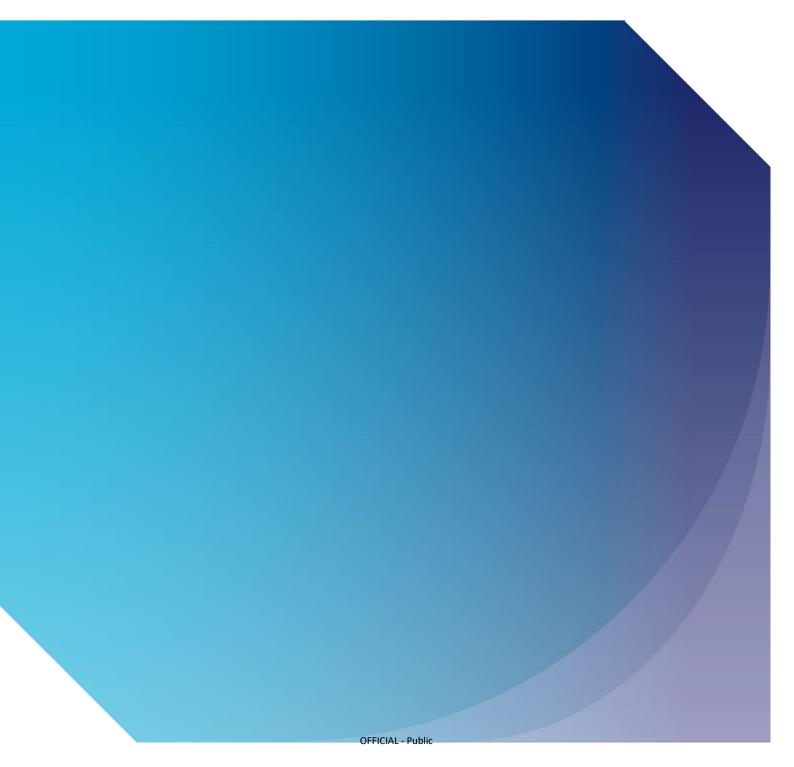


# Part CAMO Continuing Airworthiness Management Exposition User Guide (Accessible format)

**CAP 2153** 



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Enquiries regarding the content of this publication should be addressed to: <a href="mailto:apply@caa.co.uk">apply@caa.co.uk</a>

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# **Revision history**

Issue 1 March 2021

Initial issue of CAP2153 was published by the CAA to assist industry in compiling a Continuing Airworthiness Management Organisation Exposition (CAME) in a format that meets the requirements of CAMO.A.300, and contains the content the CAA requires in such an exposition.

July 2025

Following an internal review and experience from reviewing expositions, issue 2 contains editorial changes, significant changes to Part 4, and changes to meet the UK accessibility legislation requirements.

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# Introduction

This document is intended to provide guidance to organisations applying for a UK Part CAMO approval to help demonstrate compliance with the requirements of AMC1 CAMO.A.300 for the production of a Continuing Airworthiness Management Exposition required by <u>UK Regulation (EU) No 1321/2014 (as amended)</u>.

The chaptering follows the layout of AMC1 CAMO.A.300. Each chapter includes guidance material which an organisation can use to create their own working document that reflects the organisation's internal procedures.

The Part CAMO CAME should make references to UK Part M or UK <u>Part ML</u> airworthiness standards where applicable.

# Abbreviations and Definitions

AM Accountable Manager

AMC Acceptable Means of Compliance

AMM Aircraft Maintenance Manual

AMO Aircraft Maintenance Organisation

AMTO Approved Maintenance Training Organisation

AltMoC Alternative Means of Compliance

AOC Air Operators Certificate

ARC Airworthiness Review Certificate

CAA Civil Aviation Authority

CAM Continuing Airworthiness Manager

CAME Continuing Airworthiness Management Exposition

CAMO Continuing Airworthiness Management Organisation

CAP Civil Aviation Publication

CDCCL Critical Design Configuration Control Limitation

CDL Configuration Deviation List

CMM Component Maintenance Manual

CofA Certificate of Airworthiness

CP Critical Part

DAH Design Approval Holder

ESM Engine Shop Manual

FC Flight Conditions

GM Guidance Material

ICAO International Civil Aviation Organisation

IORS Internal Occurrence Reporting Scheme

LLP Life Limited Part

MEL Minimum Equipment List

MMEL Master Minimum Equipment List

MOA Maintenance Organisation Approval

MOE Maintenance Organisation Exposition

MOR Mandatory Occurrence Reporting

NC Noise Certificate

NPH Nominated Post Holder

OEM Original Equipment Manufacturer

Part 21 UK Initial Airworthiness Regulation (EU) No 748/2012

Part-M Continuing Airworthiness Regulation within UK Reg (EU) No 1321/2014

Part-ML Continuing Airworthiness Regulation for light aircraft within UK Reg (EU)

No 1321/2014 (refer to Article 3 for applicability)

PMA Parts Manufacturer Approval

POA Production Organisation Approval

PPB Principal Place of Business

PtF Permit to Fly

SMM Safety Management Manual

SMS Safety Management System

SRM Structural Repair Manual

STC Supplemental Type Certificate

TBO Time Between Overhauls

TC Type Certificate

TCDS Type Certificate Data Sheet

TCH Type Certificate Holder

# Part 0 - General organisation, safety policy and objectives

# 0.1 Safety policy, objectives and accountable manager statement

Part 0 'General organisation, safety policy and objectives' of the CAME should include a statement, signed by the accountable manager (and countersigned by the Chief Executive Officer, if different), confirming that the CAME and any associated manuals will be complied with at all times.

# 0.1.1 Safety policy

The safety policy is the means whereby the organisation states its intention to maintain and, where practicable, improve safety levels in all its activities and to minimise its contribution to the risk of an aircraft accident or serious incident as far as is reasonably practicable. It reflects the management's commitment to safety, and should reflect the organisation's philosophy of safety management, as well as be the foundation on which the organisation's management system is built. It serves as a reminder of 'how we do business here'. The creation of a positive safety culture begins with the issuance of a clear, unequivocal policy.

The commitment to apply 'just culture' principles form the basis for the organisation's internal rules describing how 'just culture' principles are guaranteed and implemented.

For organisations having their principal place of business within the United Kingdom, <u>UK</u> Regulation (EU) No 376/2014 defines the 'just culture' principles to be applied (refer in particular to Article 16(11) of that Regulation).

The safety policy should:

- reflect organisational commitments regarding safety, and its proactive and systematic management, including the promotion of a positive safety culture;
- include internal reporting principles, and encourage personnel to report continuing airworthiness-related errors, incidents and hazards;
- recognise the need for all personnel to cooperate with the compliance monitoring and internal investigations referred to under point (c) of AMC1 CAMO.A.200(a)(3);
- be endorsed by the Accountable Manager;
- be communicated, with visible endorsement, throughout the organisation; and
- be periodically reviewed to ensure it remains relevant and appropriate for the organisation. It should state 'how' and 'when' this review will take place.
- contain an effective date.

The safety policy should include a commitment to:

- comply with all applicable legislation, to meet all the applicable requirements, and adopt practices to improve safety standard;
- provide the necessary resources for the implementation of the safety policy.
- apply HF principles;
- enforce safety as a primary responsibility of all managers; and
- apply 'just culture' principles to internal safety reporting and the investigation of occurrences and, in particular, not to make available or use the information on occurrences:
  - to attribute blame or liability to front line staff or other persons for actions, omissions or decisions taken by them that are commensurate with their experience and training; or
  - for any purpose other than the maintenance or improvement of aviation safety.

Senior management should continually promote the safety policy to all personnel, demonstrate its commitment to it, and provide necessary human and financial resources for its implementation.

Taking due account of its safety policy, the organisation should define safety objectives. The safety objectives should:

- form the basis for safety performance monitoring and measurement;
- reflect the organisation's commitment to maintain or continuously improve the overall effectiveness of the management system;
- be communicated throughout the organisation; and
- be periodically reviewed to ensure they remain relevant and appropriate for the organisation.

This section can reference out to the Safety Manual if required.

# 0.1.2 Objectives

As a result of the safety policy, safety objectives should be made. These shall be used for setting performance standards for the organisations Safety Performance Indicators (SPI's) so that the safety performance of the organisation can be monitored to measure the effectiveness of the SMS.

# 0.1.3 Accountable Manager's statement

The accountable manager's exposition statement as specified in point CAMO.A.300(a)(1) should embrace the intent of the following paragraph, and in fact, this statement may be used without amendment. Any amendment to the statement should not alter its intent:

'This exposition and any associated referenced manuals define the organisation and procedures upon which the UK Civil Aviation Authority Part CAMO approval is based.

These procedures are endorsed by the undersigned and must be complied with, as applicable, in order to ensure that all continuing airworthiness activities, including maintenance of the aircraft managed, are carried out on time to an approved standard.

These procedures do not override the necessity of complying with any new or amended regulation published from time to time where these new or amended regulations are in conflict with these procedures.

It is understood that the approval of the organisation is based on the continuous compliance of the organisation with Part-CAMO, Part-M and Part-ML, as applicable, and with the organisation's procedures described in this exposition. The UK Civil Aviation Authority is entitled to limit, suspend, or revoke the approval certificate if the organisation fails to fulfil the obligations imposed by Part-CAMO, Part-M and Part-ML, as applicable or any conditions according to which the approval was issued.

In the case of air carriers licensed in accordance with UK Regulation (EC) No 1008/2008, suspension or revocation of the CAMO certificate will invalidate the AOC. [if applicable]'

Signed
Dated
Accountable manager and (position)
Chief Executive Officer
For and on behalf of (organisation's name)

# 0.2 General information and scope of work

# 0.2.1 Brief description of the organisation

This paragraph should briefly describe the whole organisation (e.g including the whole operator in the case of air carriers licensed in accordance with UK Regulation (EC) No 1008/2008 or the whole organisation when other approvals are held).

Describe the privileges that the organisation's CAMO exercises with respect to CAMO.A.125.

# 0.2.2 Relationship with other organisations

Describe any relationship with other organisations including subsidiaries and parent companies.

Where the organisation belongs to a group, this paragraph should explain the specific relationship the organisation may have with other members of that group.

Where the organisation belongs to a consortium - other members of the consortium should be specified, as well as the scope of organisation of the consortium.

# 0.2.3 Scope of work

This paragraph should specify the scope of the work for which the CAMO is approved.

This paragraph (or table) should include, but not be restricted to, aircraft type/series, aircraft registrations, owner/operator, contract references and details of aircraft managed.

Depending on the number of aircraft, this paragraph may be updated as follows:

- 1) the paragraph is revised each time an aircraft is removed from or added in the list;
- 2) the paragraph is revised each time a type of aircraft or a significant number of aircraft is removed from or added to the list; in that case, the paragraph should explain where the current list of aircraft managed is available for consultation. For air carriers licensed in accordance with UK Regulation (EC) No 1008/2008, this paragraph can make reference to the operations specifications or operations manual where the aircraft registrations are listed.

An example of the information that would normally be included in a table outlining the scope of work is given below:

- Aircraft type / series or group
- Engine type
- Maintenance Programme reference
- Airworthiness Review approval (if applicable)
- Permit to Fly approval (if applicable)
- Aircraft registration
- Aircraft owner / operator
- Type of operation
- CAMO contract reference (if applicable)
- Subcontracted organisations (if applicable)
- Part-M or Part-ML applicability

For information, aircraft type/series/group should reflect the <u>UK Part-66 type rating</u> endorsement.

#### 0.2.4 Facilities

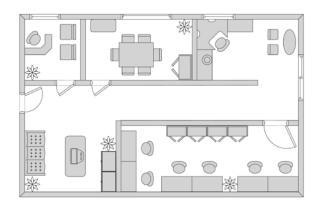
This paragraph should demonstrate that the organisation has provided suitable office accommodation at appropriate locations for the personnel specified in 0.4 of this CAME and ensure continuing airworthiness management, planning, technical records or management system staff, can carry out their designated tasks in a manner that contributes to good standards. It should include the office address.

This paragraph should include details regarding office accommodation for aircraft airworthiness reviews i.e:

- an office with normal office equipment such as desks, telephones, photocopying machines etc. whereby the continuing airworthiness records can be reviewed.
- a hangar when needed for the physical survey.

#### 0.2.4.1 Office Plan

Give details of office plan and location within the building



(Example office plan)

The office plan above provides a pictorial view of the main work areas for the continuing airworthiness management functions, including nominated post holder office, meeting rooms and the location of technical functions.

# 0.2.5 Type of operation

This paragraph should give broad information on the type of operations such as: commercial air transport operations (CAT), (commercial) specialised operations (SPO), training organisation, NCC, NCO, long haul/short haul/regional, scheduled/charter, regions/countries/continents flown, and operational approvals such as RVSM, AWOPS, ETOPS, HOFO, HHO etc.

### 0.2.6 Subcontracting Continuing Airworthiness Management Activities

This section should describe the organisation's policy and processes with respect to subcontracting and the management of subcontracted activities.

The policy should state:

- The content of the agreement and its continuing control taking into account:
  - subcontracted activities as per Appendix II to AMC1 CAMO.A.125(d)(3)
  - which procedures are to be used and their means of Active Control by the CAMO.
  - Individual responsibilities clearly defined
  - No subcontracting by the subcontracted organisation allowed
  - Subcontracted organisation to notify the operator of any changes affecting the contract
- Subcontract approval by the CAA
  - Notifying the CAA of any changes affecting the contract
- Tasks that can be subcontracted

 Active control of the activities and or endorsing the recommendation made by the subcontracting organisation

The process/procedure should describe:

- The subcontractor selection procedure
  - Identifying any aviation safety hazards associated with subcontracted activities are considered as part of the management system.
- Submission of proposed contract for CAA acceptance
- Notifying the CAA of any changes that affect the contract.

The list of subcontractors and subcontracted functions can be found in appendix 5.3.

Where a CAMO subcontracts certain airworthiness tasks, there is a requirement to be able to demonstrate a means of 'Active Control' over that subcontractor. There are several ways this can be achieved; however, the CAA prefer and would encourage the use of a Means of Active Control (MAC) Table, there should be a table for each Airworthiness task subcontract and each table should identify the function carried out and how the means of active control of that function is achieved.

NOTE: Definition of 'Active Control'

'Active Control' is defined as being actively involved in the accomplishment of individual tasks to a level that the CAMO organisation can satisfy itself that the subcontracted Airworthiness tasks are correctly carried out by the subcontracted organisation.

See Section 5.3.1 for Examples of MAC tables.

# 0.3 Management personnel

The roles and responsibilities of personnel may be defined in the following paragraphs, or a reference provided to an alternative approved company manual such as a management system manual (MSM) or compliance monitoring manual (CMM).

This section should give an overview of management personnel who have been formally accepted by the UK CAA and meet the requirements of CAMO.A.305. It can be presented in table format, which details their regulatory role as defined in CAMO.A.305 (e.g. Accountable Manager, Continuing Airworthiness Manager, Compliance Monitoring Manager, Safety Manager, Airworthiness Review Staff), their job title, the nominated post holder (person's name) and who deputises for them in the case of lengthy absence (person's name).

An example of the information that needs to be presented in the table is given below:

# Regulatory role as defined in CAMO.A.305

# Accountable Manager

Job title: CEO

Nominated post holder: James Smith

Deputy: Eric Chow (Continuing Airworthiness Manager)

# Regulatory role as defined in CAMO.A.305

# **Continuing Airworthiness Manager**

Job title: Director of Engineering

Nominated post holder: Eric Chow

Deputy: Phillip Brown (Continuing Airworthiness Engineer)

The following sections should give details on roles, responsibilities and duties performed by the management team. Sections 0.3.1 to 0.3.5 in this document have been given as an example.

# 0.3.1 Accountable Manager

The Accountable Manager shall have corporate authority for ensuring that all continuing airworthiness management activities can be financed and carried out in accordance with UK Regulation (EU) 2018/1139 and delegated and implementing acts adopted on the basis thereof. The Accountable Manager is responsible for:

- ensuring that all necessary resources are available to manage continuing airworthiness in accordance with this Annex, Annex I (Part-M) and Annex Vb (Part-ML), as applicable, to support the organisation approval certificate.
- establishing and promoting the safety policy.
- nominating a person or group of persons with the responsibility of ensuring that the
  organisation always complies with the applicable continuing airworthiness
  management, airworthiness review and permit to fly requirements of Part M and
  Part ML (as applicable).
- nominating a person or group of persons with the responsibility for managing the compliance monitoring function as part of the management system
- nominating a person or group of persons with the responsibility for managing the development, administration, and maintenance of effective safety management processes as part of the management system.
- ensuring that the nominated persons have a direct reporting line to the Accountable Manager and keep them properly informed on compliance and safety matters.

# 0.3.2 Continuing Airworthiness

# 0.3.2.1 Continuing Airworthiness Manager (CAM)

The Continuing Airworthiness Manager is responsible, in the day-to-day continuing airworthiness management activities, for ensuring that the organisation personnel work in accordance with the applicable procedures and regulatory requirements. It is their role to ensure that compliance is proactively managed, and that any early warning signs of non-compliance are documented and acted upon.

The Continuing Airworthiness Manager is responsible for ensuring continuing airworthiness for the aircraft managed and:

- establishing the continuing airworthiness management contract in cooperation with the owner/operator.
- ensuring that an aircraft maintenance programme including any applicable reliability programme, as required by point M.A.302 or ML.A.302 as applicable, is developed, controlled and approved as required.
- providing a copy of the aircraft maintenance programme to the owner or operator responsible in accordance with point M.A.201 or ML.A.201 as applicable for aircraft not used by air carriers licensed in accordance with UK Regulation (EC) No 1008/2008.
- analysing the effectiveness of the Aircraft Maintenance Programme as required by Part M.A.301(e) and ML.A.302(c)(9).
- ensuring that data used for any modification and repairs complies with points M.A.304 or ML.A.304 as applicable.
- ensuring the accomplishment of any applicable:
  - airworthiness directive (AD)
  - operational directive
  - continuing airworthiness requirement established by the CAA
  - o measures required by the CAA in immediate reaction to a safety problem
- assessing non-mandatory modifications, inspections or other type of non-mandatory information from the TCH/DAH (such as service bulletins and service letters) and deciding on their application.
- ensuring that aircraft, engine(s), propeller(s) and components are taken to an appropriately approved maintenance organisation.
- ordering maintenance, supervising activities, and coordinating related decisions to ensure that any maintenance is carried out properly and is appropriately released for the determination of aircraft airworthiness.
- establishing and managing written maintenance contracts as required by M.A.201/ML.A.201.
- ensuring that owner's/operator's technical records are kept as required by Part M.A.305 and Part ML.A.305.
- reporting any occurrences as required by UK Regulation (EU) No 376/2014; and ensuring follow-up action is taken.

- ensuring that the mass and balance statement correctly reflects the status of the aircraft.
- ensuring any aircraft defect that hazards seriously the flight safety is rectified before further flight.
- establishing and managing the qualification, training and competency requirements of personnel involved in continuing airworthiness functions
- amending the CAME and submitting proposed amendments to the CAA as required by CAMO.A.300(c).
- liaising with the CAA.
- the following safety responsibilities:
  - o championing and promoting safety in the Continuing Airworthiness team.
  - o pro-actively identifying hazards in continuing airworthiness activities.
  - managing safety risks associated with continuing airworthiness management activities to as low as reasonably practicable.
  - establishing, monitoring and reviewing continuing airworthiness Safety Performance Indicators

# 0.3.2.2 Continuing Airworthiness Team

This paragraph should list the job functions that constitute the 'group of persons' as required by CAMO.A.305(a)(3) in enough detail to show that all the continuing airworthiness responsibilities are covered by the persons that constitute that group. In the case of small organisations, where the Nominated Person for continuing airworthiness constitutes themselves the 'group of persons', this paragraph may be annotated N/A.

# 0.3.3 Compliance Monitoring

### 0.3.3.1 Compliance Monitoring Manager

The compliance monitoring manager shall establish, implement and maintain the compliance monitoring function as part of the management system and is responsible for:

- independently monitoring the activities of the organisation for compliance with the applicable requirements and any additional requirements as established by the organisation, and that these activities are carried out properly under the supervision of the nominated persons.
- monitoring any contracted maintenance for compliance with the contract or work order.
- monitoring that all subcontracted continuing airworthiness tasks are carried out in accordance with the contracts.

- the management and scope of the audit plan.
- establishing and managing the corrective action process, including root cause analysis and identification of preventative measures.
- liaising with the CAA regarding compliance and auditing.
- establishing a compliance monitoring feedback system in accordance with AMC4 CAMO.A.200(a)(6)

# 0.3.3.2 Compliance Monitoring Team

This paragraph should list the job functions that constitute the 'group of persons' as required by CAMO.A.305(a)(4) in enough detail to show that all the compliance monitoring responsibilities are covered by the persons that constitute that group. In the case of small organisations, where the Nominated Person for compliance monitoring constitutes themselves the 'group of persons', this paragraph may be annotated N/A.

# 0.3.4 Safety Management

# 0.3.4.1 Safety Manager

The Safety Manager is responsible for managing the development, administration, and maintenance of effective safety management processes as part of the management system.

The Safety Manager is responsible for:

- facilitating hazard identification, risk assessment and management;
- monitoring the implementation of actions taken to mitigate risks, as listed in the safety action plan, unless action follow-up is addressed by the compliance monitoring function;
- providing periodic reports on safety performance to the safety review board (the functions of the safety review board are those defined in AMC1 CAMO.A.200(a)(1));
- ensuring the maintenance of safety management documentation;
- ensuring that there is safety training available, and that it meets acceptable standards;
- providing advice on safety matters; and
- ensuring the initiation and follow-up of internal occurrence investigations.

# 0.3.4.2 Safety Management Team

This paragraph should list the job functions that constitute the 'group of persons' as required by CAMO.A.305(a)(5) in enough detail to show that all the safety management responsibilities are covered by the persons that constitute that group. In the case of small organisations, where the Nominated Person for safety management constitutes themselves the 'group of persons', this paragraph may be annotated N/A.

# 0.3.5 Deputy to nominated persons

This section should demonstrate that the deputies to the nominated persons that have been listed in Paragraph 0.3 have been assessed by the organisation and that they meet the requirements of CAMO.A.305 for the deputised function. Risks and mitigating actions identified in this assessment should be recorded.

Deputising situations are absence of the nominated person due to vacations, illness or training.

The UK CAA shall be informed accordingly for absence longer than one month.

#### 0.3.6 Resources

#### 0.3.6.1 Staff resources

This paragraph should give broad figures to show that the number of people assigned to the performance of the approved continuing airworthiness activity is adequate. It is not necessary to give the detailed number of employees of the whole company, but only the number of those involved in the continuing airworthiness management approval. This could be presented as a table containing the total work hours available for full-time and part-time equivalent staff, in the following areas of the organisation:

- Continuing airworthiness management
- Compliance monitoring function
- Safety management function
- Other (e.g. Airworthiness Review)

# 0.3.6.2 Planning the availability of staff

This section should describe the system in place to plan the availability of staff to ensure that the organisation has sufficient appropriately qualified staff to plan, perform, supervise, inspect and monitor the organisation's activities in accordance with the terms of approval. It should make an analysis of the tasks to be performed, the way in which it intends to divide and/or combine these tasks, indicate how it intends to assign responsibilities and establish the number of man/hours and the qualifications needed to perform the tasks.

It should also describe how the following risks are assessed and mitigated within the management system:

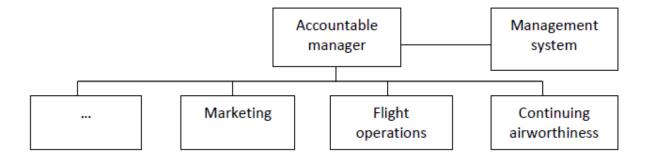
- when actual staff availability is less than the planned staffing level for any particular work shift or period
- in case of a temporary increase of the proportion of contracted staff for the purpose of meeting specific operational needs.

This section should also include details of any other work, not performed under the organisations approval which impacts the availability of staff within the organisation e.g. other regulatory approvals held by the organisation, or subcontracted activities for other approved organisations.

# 0.4 Management organisation chart

# 0.4.1 General organisational chart

This organisation chart should provide a comprehensive understanding of the whole company's organisation. For example, the case of a licensed air carrier.



The organigram above shows the high-level structure of the entire organisation for a licenced air carrier. It includes the Accountable Manager, the management system and the departments within the organisation under the responsibility of the Accountable Manager. In the example shown, this includes Flight Operations, Continuing Airworthiness and Marketing.

CAMO.A.200(d) states that for air carriers licensed in accordance with UK Regulation (EC) No 1008/2008, the management system provided for in Annex Vc (Part CAMO) of UK Regulation (EU) No 1321/2014 shall be an integrated part of the operator's management system.

An integrated management system should include a Safety Review Board the role of which is to consider all strategic safety matters related to both, continuing airworthiness management and air operations in support of the accountable manager's safety accountability.

Additionally, the management system should encompass safety by including a Safety Manager. To satisfy this requirement, the organisational structure may vary between each organisation:

- 1. A single safety management process common to both, air operations and continuing airworthiness management, with a Safety Manager satisfying the requirements for air operations and continuing airworthiness management; or
- 2. Separate safety management reporting lines for air operations and continuing airworthiness management, both integrated into a single management system with one set of organisational safety procedures, thus ensuring clear and effective communication and preventing duplication. Two Safety Managers may be appointed, although the structure with a single Safety Manager is preferred.

The management system includes a compliance monitoring function performed by a Compliance Monitoring Manager. To satisfy this requirement, the organisational structure may vary between each organisation:

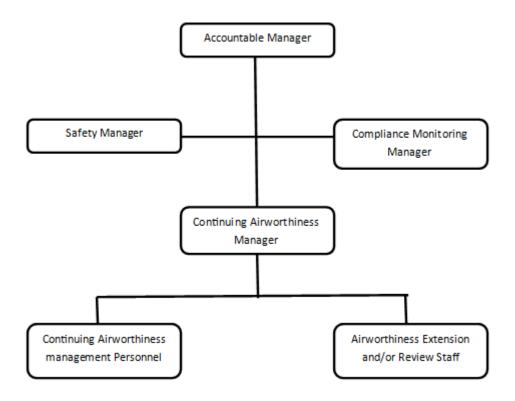
- A single compliance monitoring process common to both, air operations and continuing airworthiness management, with a Compliance Monitoring Manager satisfying the requirements for air operations and continuing airworthiness management; or
- 2. Separate compliance monitoring reporting lines for air operations and continuing airworthiness management, both integrated into a single management system with one set of organisational compliance monitoring procedures, thus ensuring clear

and effective communication and preventing duplication. Two Compliance Monitoring Managers may be appointed, although the structure with a single Compliance Monitoring Manager is preferred.

An organisation may wish to nominate a group of persons responsible for the safety management or compliance monitoring management functions in line with CAMO.A.305(a)(4) and (5). In such case the Accountable Manager should identify the person who acts as the unique focal point for the management of the respective functions.

# 0.4.2 Continuing Airworthiness Management Organisational Chart

This organisational chart should give further details on the continuing airworthiness management system.



The organigram above shows the Continuing Airworthiness Management organisational structure, and the reporting lines of the Safety Manager, Compliance Monitoring Manager and Continuing Airworthiness Manager, to the Accountable Manager. It also shows the reporting lines of the continuing airworthiness management personnel to the Continuing Airworthiness Manager.

# 0.5 Procedure for changes requiring prior approval

# 0.5.1 Requirements for changes requiring prior approval

For any changes requiring prior approval, the organisation will apply for and obtain an approval issued by the CAA.

The application process will follow the CAA instruction listed on the CAA website:

For both Part-CAMO organisation listed on an AOC and Standalone Part-CAMO organisations refer to:

# Change a Part CAMO approval | Civil Aviation Authority (caa.co.uk)

The application must be submitted to 'apply@caa.co.uk' before any change takes place, in order to enable the CAA to determine continued compliance with the relevant regulation and to amend, if necessary, the organisation certificate and related terms of approval attached to it.

An application for the amendment of an organisation certificate will be submitted at least 30 working days before the date of the intended changes. In the case of a planned change of a nominated person, the organisation will inform the CAA at least 20 working days before the date of the proposed change.

Changes must only be implemented upon receipt of formal approval by the CAA.

Unforeseen changes must be notified at the earliest opportunity, in order to enable the CAA to determine whether there is continued compliance with the applicable requirements, and to amend, if necessary, the organisation certificate and related terms of approval.

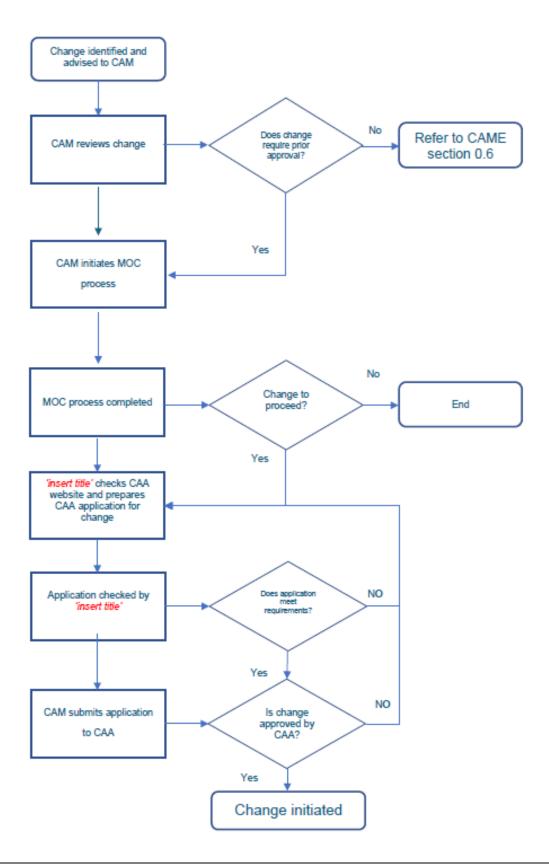
Changes requiring prior approval include, but are not limited to:

- a. changes that affect the scope of the certificate or the terms of approval of the organisation;
- b. changes to personnel nominated in accordance with points (a)(3) to (a)(5) and (b)(2) of point CAMO.A.305
- c. changes to the reporting lines between the nominated persons and the accountable manager.
- d. the procedure as regards changes not requiring prior approval in section 0.6
- e. changes to the alternative means of compliance

- f. changes to the CAME procedure for the completion of an airworthiness review under supervision of the organisation's authorised airworthiness review staff (ARS)
- g. changes to the procedure to establish and control the competency of personnel
- h. changes to the system for reporting to the CAA on the safety performance and regulatory compliance of the organisation (in the case of an extension beyond 36 months of the oversight planning cycle)
- changes to the procedure for the indirect approval of the maintenance programme of Part-M aircraft
- j. all other changes other than those listed in paragraph 0.6 of this exposition.

# 0.5.2 Process for changes requiring prior approval

The following chart is an example of process flow for 'changes requiring prior approval'; and should be changed to reflect the process within your organisation.



The process flow of the flowchart on the previous page is described below:

If a change is advised to the Continuing Airworthiness Manager (CAM), they need to review the change and decide if it requires prior approval of the CAA.

If the change requires prior approval, they should initiate the Management of Change (MoC) process. If the change doesn't require prior approval, the procedure identified in Section 0.6 of this Exposition should be followed.

Once the MoC process has been completed, the CAM should decide of the change is going to proceed. If the answer is 'no', the process stops, and the change doesn't go ahead.

If the change can proceed, the person responsible for the change should check the CAA website and prepare the change application for submission to the CAA.

A final check of the application should be made to confirm if it meets the applicable requirements. If it doesn't, the application should be passed back to the person responsible for the change to make any necessary corrections. Once the corrections have been made, the application should be submitted again for checking.

Once the application for change passes the internal checks, the CAM should submit the change application to the CAA for approval.

The CAA will review the change and if it doesn't meet the applicable regulatory requirements, it will be sent back to the organisation for correction and resubmission.

If the change is approved by the CAA the applicant will be informed in writing. Only when the change has been approved by the CAA can it be initiated within the organisation.

# 0.5.3 Associated procedures and forms for changes requiring prior approval

Please include details of any procedures and forms associated with the process.

# 0.6 Procedure for changes not requiring prior approval

# 0.6.1 Requirements for changes requiring prior approval

CAMO.A.130(c) introduces the possibility to agree with the CAA that certain changes to the organisation (other than those covered by (a) or (b)) can be implemented without prior approval depending on the compliance and safety performance of the organisation, and in particular, on its capability to apply change management principles. All changes not requiring prior approval shall be managed and notified to the CAA as defined in the procedure included within this section.

This paragraph should list the scope of changes not requiring prior approval that the organisation is approved to carry out. It can be in list or table format.

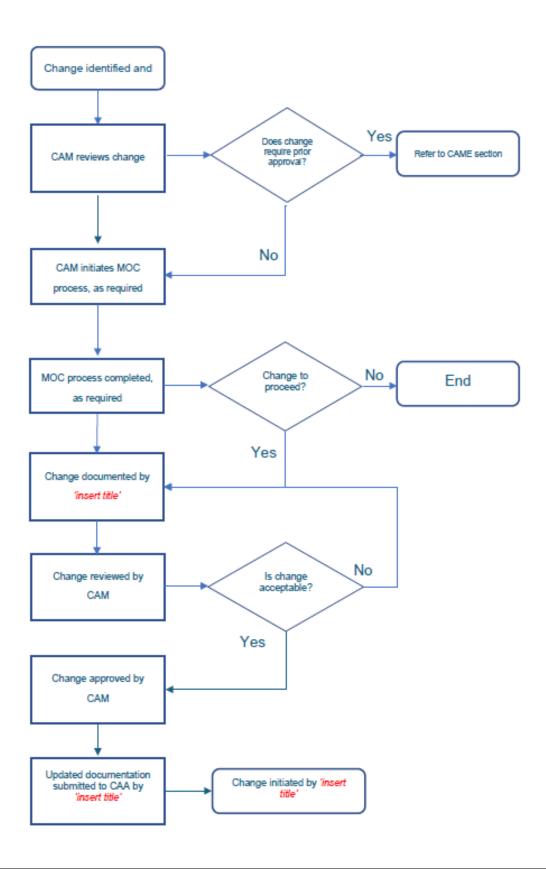
For changes not requiring prior approval, an assessment of the changes shall be reviewed and approved by the Continuing Airworthiness Manager. The assessment and review shall be recorded and documented.

All changes shall be recorded on the exposition amendment list and annotated as not requiring prior approval.

The revised copy of the CAME shall be submitted to 'apply@caa.co.uk'. The acknowledgement letter from the CAA shall be retained.

# 0.6.2 Process for changes not requiring prior approval

The following chart is an example of process flow for 'changes not requiring prior approval', and should be changed to reflect the process within your organisation.



The process flow of the flowchart on the previous page is described below:

If a change is identified, the Continuing Airworthiness Manager (CAM) should review the change and decide if it requires prior approval of the CAA. If the change requires prior approval, the procedure identified in Section 0.5 of this Exposition should be followed.

If the change doesn't require prior approval of the CAA, the CAM should initiate the Management of Change (MoC) process, as required.

Once the MoC process has been completed (if required), the CAM should decide of the change is going to proceed. If the answer is 'no', the process stops, and the change doesn't go ahead.

If the change can proceed, the document should be changed and submitted to the CAM for review. If the change not acceptable, it should be returned to the author for review and revision, as required.

If the change is acceptable, it should be approved by the CAM. Following approval of the change it should be initiated within the organisation and a copy of the updated documentation sent to the CAA.

# 0.6.3 Associated procedures and forms for changes not requiring prior approval

Please include details of any procedures and forms associated with the process.

# 0.7 Procedure for alternative means of compliance (AltMoC)

The CAA grants the 'presumption of compliance' when an organisation follows the relevant regulatory acceptable means of compliance (AMC). In the event that the organisation wishes to follow a different means of compliance to those listed in the AMC, the organisation will demonstrate to the CAA that the alternative means of compliance complies with the law.

### 0.7.1 AltMoc's generated by the organisation

Any recommendations for the use of an alternative means of compliance shall be submitted to the Continuing Airworthiness Manager for review and to initiate the management of change process. The output from the management of change process

shall be the documentation required to support the 'AltMoc' application in accordance with the requirements described in CAA form <u>SRG1840</u>.

Once the application has been reviewed by the responsible person, the application (<u>Form SRG1840</u>) and supporting documents shall be submitted to 'apply@caa.co.uk'.

Supporting documentation for an AltMoC application should include:

- 1. The proposed AltMoC (laid out in an AMC format) on company headed paper
- 2. Audit report demonstrating equivalent level of safety between the proposed AltMoC and existing AMC (if applicable) to the rule.
- 3. Audit report demonstrating organisation's compliance against the proposed AltMoC,
- 4. AltMoC application form, SRG1840.
- 5. Any additional information identified during the Management of Change Process.

The organisation may only use these alternative means of compliance subject to prior approval by the CAA, and upon receipt of formal notification from the CAA.

The relevant procedure or exposition reference shall be updated to reflect the content of the 'Alternative Means of Compliance'.

A list of approved alternative means of compliance can be found in Para 5.7 of this CAME. Approval of the exposition by the CAA constitutes formal acceptance of the alternative means of compliance listed within Part 5.7.

#### 0.7.2 CAA issued AltMoc

Where the UK Civil Aviation Authority has itself issued a 'general AltMoC' in chapter 4 of publication <u>CAP1721</u>, the organisation can choose to adopt the alternative means of compliance.

Any recommendation for the use of a 'general AltMoc' shall be submitted to the Continuing Airworthiness Manager for review and to initiate the management of change process. The output from the management of change process shall be the amendment of the relevant procedure and inclusion of the AltMoc in section 5.7 of this exposition. The use of the AltMoc and revised exposition shall be submitted to the CAA in accordance with the process defined in section 0.5/0.6 [as applicable] of this exposition.

# Part 1 Continuing airworthiness management procedures

This part defines the continuing airworthiness management procedures, which the organisation uses to demonstrate compliance with the continuing airworthiness aspects of Part CAMO, Part M and/or Part ML. The organisation may wish to include a list of related continuing airworthiness management procedures in a table under the following headings:

- CAME reference
- Procedure reference
- Procedure title

# 1.1a Use of aircraft continuing airworthiness record system and if applicable, aircraft technical log (ATL) system

#### 1.1a.1 General

This paragraph should demonstrate how an organisation performs their continuing airworthiness management activities; and the systems that are in place to ensure that the relevant airframe, engine and component hours/cycles and maintenance data are available to allow for continuing airworthiness planning and maintenance coordination to take place. It should refer to the retained records required by M.A.305, ML.A.305 and M.A.306.

### 1.1a.2 Aircraft technical log system or equivalent

# 1.1a.2.1 Equivalent to aircraft technical log system (M.A.305 (e)(1))

An organisation that manages aircraft not involved in CAT, commercial specialised operations, commercial ATO or commercial DTO operations are not required to use a technical log system as detailed in M.A.306. In order to remain compliant with M.A.305 and/or ML.A.305, the organisation should define the system used to facilitate the recording of aircraft and component usage (hours/landings/cycles etc.) and the recording/closure and certification of defects in this paragraph.

# 1.1a.2.1 Approved Aircraft technical log system (M.A.306)

The aircraft technical log system is used for the recording of defects and malfunctions during the aircraft operation and for recording details of all maintenance carried out on an

aircraft between scheduled base maintenance visits. In addition, it is used for recording flight safety and maintenance information the operating crew need to know.

An organisation that manages aircraft involved in CAT, commercial specialised operations, commercial ATO or commercial DTO operations must use a technical log system designed to meet the requirements of M.A.306. This section should describe how the organisation meets the requirements.

# 1.1a.2.2 Technical Log Contents

The tech log is broken down into 5 sections and includes the following continuing airworthiness information:

**Section 1** contains details of the registered name and address of the operator the aircraft type and the complete international registration marks of the aircraft.

**Section 2** contains details of when the next scheduled maintenance is due, including, if relevant any out of phase component changes due before the next maintenance check. It also contains the current certificate of release to service (CRS), for the complete aircraft, issued normally at the end of the last maintenance check.

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

- a. the aircraft type and registration mark,
- b. the date and place of take-off and landing,
- c. the times at which the aircraft took off and landed,
- d. the running total of flying hours such that the hours to the next schedule maintenance can be determined. The flight crew does not need to receive such details if the next scheduled maintenance is controlled by other means acceptable to the CAA.
- e. details of any failure, defect or malfunction to the aircraft affecting airworthiness or safe operation of the aircraft including emergency systems, and any failure, defect or malfunctions in the cabin or galleys that affect the safe operation of the aircraft or the safety of its occupants that are known to the commander. Provisions are made for the commander to date and sign such entries including, where appropriate, the nil defect state for continuity of the record. Provisions are also made for a CRS following rectification of a defect or any deferred defect or maintenance check carried out.
- f. the quantity of fuel and oil uplifted and the quantity of fuel available in each tank, or combination of tanks, at the beginning and end of each flight. It also shows, in the same units of quantity, both the amount of fuel planned to be uplifted and the amount of fuel actually uplifted; provision for the time when ground de-icing and/or anti-icing was started and the type of fluid applied, including mixture ratio fluid/water and any other information required by the operator's procedures in order to allow the assessment on whether inspections for and/or elimination of de-icing/anti-icing fluid residues that could endanger flight safety are required.
- g. the pre-flight inspection signature.

In addition to the above, it may be necessary to record the following supplementary information: — the time spent in particular engine power ranges where use of such engine power affects the life of the engine or engine module; — the number of landings where landings affect the life of an aircraft component; — flight cycles or flight pressure cycles where such cycles affect the life of an aircraft or aircraft component.

**Section 4** contains details of all deferred defects that affect or may affect the safe operation of the aircraft and should therefore be known to the aircraft commander. Each page of this section is pre-printed with the operator's name and page serial number and makes provision for recording the following:

- a. a cross-reference for each deferred defect such that the original defect can be identified in the particular section 3 sector record page.
- b. the original date of occurrence of the defect deferred.
- c. brief details of the defect.
- d. details of the eventual rectification carried out and its CRS or a clear crossreference back to the document that contains details of the eventual rectification.

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

# 1.1a.2.3 Aircraft technical log approval

The technical log and any further changes must be approved by the UK Civil Aviation Authority (CAA). This section should describe the organisation approval process and identify the person responsible for submitting the aircraft technical log and any subsequent amendment thereto to the CAA. A sample template should be included in Part 5.1 of the exposition. The aircraft technical log approval confirmation from the CAA will be retained as part of the continuing airworthiness management records system.

### 1.1a.2.4 Completion standards of aircraft technical log

Please include details of any associated instructions for completion of the technical log system by the operating crew and maintenance personnel. Ensure details such as the referencing of correct maintenance data, including revision status are included.

#### 1.1a.2.5 Updating of aircraft technical log records

The organisation will ensure that all technical log records are returned to the CAMO for review in accordance with a procedure described in this paragraph to ensure all

maintenance actions have been completed and that the continuing airworthiness requirements have been captured in a timely manner.

For the processing and timescales of the aircraft technical log records, refer to the following sections of the exposition:

- a. Paragraph 1.3.1, for the recording of hours and cycles.
- b. Paragraph 1.3.2, for the recording of defects and inclusion of the 'certificate of release to service' in the records system.

# 1.1b MEL application

#### 1.1b.1 General

The operator's minimum equipment list (MEL)/configuration deviation list (CDL) provides the basis for establishing which defects may be deferred and the associated limits.

# 1.1b.2 MEL categories

Detail here the classification system used to defer defects and place time-constraints on their rectification.

Category A (Include definition as defined in MEL)

Category B (Include definition as defined in MEL)

Category C (Include definition as defined in MEL)

Category D (Include definition as defined in MEL)

# 1.1b.3 Application

This paragraph should explain how:

- a) responsibilities are allocated between operations, continuing airworthiness management and maintenance personnel
- b) the engineering personnel make the flight crew aware of an MEL limitation
- c) deferred defects are raised, managed and cleared
- d) implications resulting from multiple defects are considered
- e) upgrade/downgrade procedures are applied

f) specific operations approvals are managed (e.g. AWOPS, RVSM, ETOPS, HOFO, HHO etc)

Reference to the relevant aircraft technical log procedure should be made.

# 1.1b.4 Acceptance by the crew

This paragraph should explain how the crew notifies their acceptance or non-acceptance of the MEL deferment in the technical log.

# 1.1b.5 Management of the MEL time limits

Once a technical limitation is accepted by the crew, the defect must be rectified within the time limit specified in the MEL.

This section should describe the system used to ensure that the defect will actually be rectified before that time limit.

# 1.1b.6 MEL Rectification interval extension approval

If it is not possible to rectify the defect within the time limit specified in the MEL, an organisation may be allowed to extend the time limit allowed by the MEL in accordance with a 'Rectification Interval Extension' procedure approved by the CAA. This paragraph should describe the extension process including specific duties and responsibilities of relevant personnel with regard to controlling these extensions.

# 1.2 Aircraft maintenance programme — development amendment and approval

#### 1.2.1 General

The purpose of the aircraft maintenance programme (AMP) is to provide maintenance planning instructions necessary for the continued airworthiness and safe operation of the aircraft.

### 1.2.2 Part-M aircraft AMP approval

Part-M applicable aircraft maintenance programmes shall be approved by the CAA unless any amendments fall within the scope of indirect approval listed below. In this case the organisation shall approve the amendment in accordance with M.A.302.

# 1.2.2.1. Indirect approval privilege for Part-M aircraft

This paragraph should list the AMP indirect approval privileges applicable to UK registered aircraft only, and should be presented in tabular format, containing the CAA AMP reference and the eligible amendments. An example of the required information is given below:

CAA AMP Reference: MP/1234/01

### **Eligible Amendments:**

- 1. For non-safety-related tasks
  - Escalation of task (e.g. non-safety related MRBR task or a task recommended by a Service Letter) intervals
  - change in task type (e.g. GVI to DVI)
- 2. De-escalation of tasks intervals (i.e. more restrictive intervals regardless of the source of the task)
- 3. Escalation of tasks subject to design approval holder recommendations
- 4. Additions, amendments and deletions of additional scheduled maintenance tasks selected by:
  - the operator on voluntary basis (e.g. operator policy for interiors)
  - manufacturer recommendations outside ICA (e.g. Service Letter) linked to product improvements or maintenance practices
- 5. Correction of editorial issues, typos, etc., (without having an effect on the AMP content)

CAA AMP Reference: MP/5678/01

### **Eligible Amendments:**

No indirect approval privilege granted.

### 1.2.2.2 Indirect approval signatories

This paragraph should list the following information for personnel have been deemed competent to approve amendments to the respective AMPs under the indirect approval privilege held by the organisation within the scope given in Paragraph 1.2.2.1:

- Name
- Job title
- Signature

Where appropriate, this information should be provided in tabular format.

# 1.2.3 Part-ML aircraft AMP approval

Part-ML applicable aircraft maintenance programmes shall be approved by the organisation in accordance with ML.A.302.

### 1.2.3.1 Direct approval signatories

This paragraph should list the following information for personnel that have been deemed competent to approve the respective Part-ML AMP's and any amendments to them:

- Name
- Job title
- Signature

Where appropriate, this information should be provided in tabular format.

### 1.2.4 Content

The paragraph should state that the AMPs developed and controlled by the organisation are in compliance with Appendix 1 to AMC M.A.302 and/or ML.A.302. [as appropriate]. Part ML AMP's should be presented in the form described in AMC2 ML.A.302.

# 1.2.5 Continuing airworthiness management data

To ensure that all relevant instructions for continued airworthiness are captured, the organisation shall list the applicable source documentation that forms the basis of the AMP, for example:

- a. Maintenance Review Board Report (MRBR)
- b. Maintenance Planning Document (MPD)
- c. Modification data
  - i. Supplementary Type Certificate (STC)
  - ii. Part 21 data
- d. Repair Design
- e. Maintenance Manuals
- f. Minimum Inspection Programme (MIP)
- g. Type Certificate Data Sheet (TCDS)
- h. Airworthiness Limitation Section (ALS)
- i. Airworthiness Directive (AD)
- j. Service Bulletin (SB including Alert, Recommended and Optional)
- k. Service Information Letter (SIL)
- I. All Operator Telex (AOT)
- m. Multi Operator Message (MOM)
- n. Part 26 data (Additional Airworthiness Requirements)
- o. Input from a Reliability Programme (if applicable)
  - i. Repetitive and acceptable deferred defect control.
  - ii. Reaction to significant aircraft defects.
  - iii. Technical delay control.
  - iv. Incident / Accident performance and reaction.
  - v. Tech Log data collection.
  - vi. Routine AMP task defect data collection.
  - vii. Reaction to problems reported by other organisations.
  - viii. Component unscheduled removal control.
  - ix. Structural Reporting System.
  - x. Aircraft System Performance.
  - xi. Engine unscheduled removal control.

This paragraph should state that the organisation shall hold and use applicable current maintenance data in accordance with M.A.401 or ML.A.401 for the performance of continuing airworthiness tasks referred to in CAMO.A.315.

This section should detail the process and responsibilities for obtaining and reviewing the above data. The data may be provided by the owner/operator, subject to an appropriate contract being in place as defined in CAMO.A.325. Note: In the case of owner/operator supply of maintenance data the company only needs to keep such data for the duration of the contract, except as required by point CAMO.A.220.

### 1.2.6 Development of a new AMP

### 1.2.6.1 Development of AMP's for Part M applicable aircraft:

This section should describe the process when developing a new AMP.

It should detail the process and responsibilities encompassing the following points, and reference any supporting procedures:

- a. Obtain applicable and current data in accordance with Paragraph 1.2.5 of this CAME
- b. Create a draft AMP based upon the data and planned aircraft usage
- c. Undertake Internal documented review
- d. Resolve any issues/findings identified in the review
- e. Internally approve the draft AMP
- f. Request provisional CAA AMP reference number from <a href="mailto:apply@caa.co.uk">apply@caa.co.uk</a>
- g. Complete CAA Forms SRG1724 and SRG1753 for draft AMP
- h. Submit application and associated documentation to <a href="mailto:apply@caa.co.uk">apply@caa.co.uk</a>
- Submit data necessary to substantiate the approval of the AMP to the CAA if requested.
- j. Resolve any issues/findings arising from the submission
- k. Upon receipt, file the CAA approval letter in the continuing airworthiness record system
- Activate and manage forecasting system

### 1.2.6.2 Development of AMP's for Part ML applicable aircraft:

The AMP shall be based on the ICA issued by the DAH or alternatively the tasks or inspections contained in the Minimum Inspection Programme. This paragraph should describe the process for developing a new AMP, ensuring it encompasses the following points:

Detail the process and responsibilities encompassing the following points:

- a. Identify key personnel responsibilities
- Obtain applicable and current data in accordance with Paragraph 1.2.5 of this CAME
- c. Consider any 'Alternatives to a maintenance task' criteria as given in Paragraph
- d. Create a draft AMP based upon the data and planned aircraft usage
- e. Undertake Internal documented review
- f. Resolve any issues/findings identified in the review

- g. Approve the draft AMP, file corresponding record and provide the owner with a copy of the justification(s) for deviations from the DAH instructions (if applicable).
- h. Activate and manage forecasting system

If the AMP is based on the MIP, include the following relevant paragraph:

The MIP shall contain for aeroplanes, touring motor gliders and balloons, intervals of every annual or 100 h, whichever comes first to which a tolerance of 1 month or 10h may be applied. The next interval shall be calculated as from the time the inspection takes place.

#### And/or

The MIP shall contain for sailplanes and powered sailplanes other than touring motor gliders, an annual interval, to which a tolerance of 1 month may be applied. The next interval shall be calculated as from the time the inspection takes place.

#### And/or

Part-ML as published does not specify a MIP for rotorcraft or airships, therefore their AMP shall be based on the ICA as issued by the DAH.

# 1.2.6.3 Control of tasks where an AMP is not required for Part ML applicable aircraft

ML.A.302(e) states an AMP document is not required to be produced under certain circumstances. If an AMP is not required under these conditions, please describe the procedure/process for managing the continuing airworthiness tasks.

### 1.2.6.4 Bridging Checks

An aircraft shall be maintained in accordance with only one programme at a time. When transitioning from one programme to another, a bridging check will be required. This paragraph will be used to describe the 'bridging' process and how additional maintenance items are identified and controlled.

### 1.2.7 Control of Maintenance Programme Tasks

This section should describe the software used to control the maintenance programme tasks, including details of scheduling and planning of tasks.

### 1.2.8 Annual review of the AMP

### 1.2.8.1 Annual review of the AMP (Part M Aircraft)

An organisation should undertake a documented review of the AMP at least every 12 months. The review will ensure that all source documentation and preface information is current and applicable and will identify any amendments required. The amendment process is covered in Paragraph 1.2.6 of this exposition.

This section should detail the procedure and form used to carry out the annual review.

(The analysis of the effectiveness of the AMP is considered as a separate task to the annual review and is described in Paragraph 1.5 of this exposition.)

### 1.2.8.2 Annual review of the AMP (Part ML Aircraft)

An organisation should undertake a documented review of the AMP at least every 12 months. The review will ensure that all source documentation and preface information is current and applicable and will identify any amendments required as well as assess its effectiveness. The amendment process is covered in Paragraph 1.2.6 of this exposition.

This section should describe the annual review process, taking the following points into consideration:

- a. the results of the maintenance performed during that year, which may reveal that the current maintenance programme is not adequate;
- b. the results of the Airworthiness Review performed on the aircraft, which may reveal that the current maintenance programme is not adequate;
- c. revisions introduced on the documents affecting the programme basis, such as the ML.A.302(d) MIP or the DAH's data;
- d. changes in the aircraft configuration, and type and specificity of operation;
- e. changes in the list of pilot-owners; and
- f. 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).

This section should also reflect that for owner managed aircraft where the organisation is only performing the Airworthiness Review and issue of the CAA Form 15c, the review stated above will be performed as part of the Airworthiness Review process.

### 1.2.9 Amendments to the aircraft maintenance programme

### 1.2.9.1 AMP amendments for Part-M aircraft

This paragraph should describe the AMP amendment process and identify key responsibilities by encompassing the following points, and reference any supporting procedures taking into account organisations indirect approval privileges specified in paragraph 1.2.2, if applicable:

- a. Collate the amendment information identified from:
  - i. Analysis of the effectiveness of the maintenance programme
  - ii. Annual review
  - iii. Configuration changes
  - iv. Repairs
  - v. Airworthiness directives
  - vi. Updated fleet compositions
  - vii. Changes to AMP source documentation
- b. Create a draft AMP based upon the data and planned aircraft usage
- c. Undertake Internal documented review
- d. Resolve any issues/findings identified in the review
- e. If amendment is within scope of indirect approval undertake the following actions:
  - Internally approve the draft AMP
  - ii. Send approved AMP to the CAA for acknowledgement
  - iii. Activate and manage forecasting system
  - iv. Set review date to review effectiveness of amendment
- f. If amendment is not within scope of indirect approval undertake the following actions:
  - i. Internally approve the draft AMP
  - ii. Complete SRG1753 for draft AMP
  - iii. Submit application and associated documentation to apply@caa.co.uk
  - iv. Submit data necessary to substantiate the approval of the AMP to the CAA if requested.
  - v. Resolve any issues/findings arising from the submission
  - vi. Upon receipt, file the CAA approval letter in the continuing airworthiness record system
  - vii. Activate and manage forecasting system
  - viii. Set review date to review effectiveness of amendment

### 1.2.9.2 AMP amendments (Part ML aircraft)

This paragraph should describe the AMP amendment process. It should detail the process and responsibilities encompassing the following points, and reference any supporting procedures:

- a. Collate the amendment information identified from:
  - i. Analysis of the effectiveness of the maintenance programme
  - ii. Annual review
  - iii. Configuration changes
  - iv. Repairs
  - v. Airworthiness directives
  - vi. Updated fleet compositions
  - vii. Changes to AMP source documentation
- b. Ensure changes are no less restrictive than the applicable MIP
- c. Create a draft AMP based upon the data and planned aircraft usage
- d. Undertake Internal documented review
- e. Resolve any issues/findings identified in the review
- f. Approve the AMP
- g. Activate and manage forecasting system
- h. Retain a record justifying any deviation introduced to the DAH recommendations or any tasks alternative to those specified by the DAH and provide a copy of these justifications to the owner.

### 1.2.9.3 'Alternative to a maintenance task' procedure for Part-ML applicable aircraft

ML.A.302(c)(3) allows organisations managing Part-ML aircraft to use alternative maintenance actions to the instructions for continuing airworthiness issued by the design approval holder. This paragraph should detail the 'alternative to a maintenance task' process and the associated responsibilities, encompassing the following points, and referencing any supporting procedures:

- a. When evaluating an alternative to a maintenance task issued or recommended by the DAH, such as the extension of TBO intervals, a risk-based approach should be taken, considering aspects such as the operation, engine type, hours, calendar time in service, redundancy of components and any compensating measures. Consideration of the above should allow for an informed decision to be made when evaluating alternative tasks.
- b. The guidance framework for evaluation of alternate maintenance tasks can be found in AMC1 ML.A.302(c) and GM1 ML.A.302(c)(3) and shall be considered when proposing alternative tasks or deviations from the DAH recommendations.
- c. Full justification shall be held on file to demonstrate how each determination at a task level was made and shall also be copied to the owner / operator.
- d. Deviations or tasks alternative to mandatory requirements are not permissible under this procedure.

e. Alternative tasks shall in no cases be less restrictive than the applicable MIP.

### 1.2.10 Variation, tolerances and temporary amendments

### 1.2.10.1 Permitted variations for Part M aircraft

Where the design approval holder has prescribed variations or tolerances to task intervals, these shall be used. In the absence of prescribed variations or tolerances, the organisation may use the limits defined in CAA Form <u>SRG1724</u>. The use of permitted variations or tolerances must be fully defined in the associated AMP.

Variations will only be permitted when the periods prescribed by the AMP 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

Detail the process and responsibilities encompassing the following points, and reference any supporting procedures:

- a. Collate the variation information.
  - I. Confirm reason falls within 'unforeseen criteria'
  - II. Confirm variation or tolerance applied is within permitted allowance defined in the AMP
- b. Determine next due date based upon source documentation
- c. Record justification (give form & register details)
- d. Obtain approval of variation by the CAM
- e. Activate and manage forecasting system

### 1.2.10.2 Temporary Amendments

Part M allows for variations to be made that falls outside the permitted allowance stated within the AMP. In this case, a temporary amendment application must be made to the CAA. This procedure cannot be used for Part ML aircraft.

Detail the process and responsibilities encompassing the following points, and reference any supporting procedures:

- a. Collate the variation information.
- b. The request should be supported by the TC/STC holder, or other appropriate design authority, by means of approved design data. This can be in the form of any document that includes a valid sign off by an appropriate individual representing the design organisation and referencing the design organisations approval number. This information must be present to confirm the support for the amendment to the frequency of the maintenance task(s) contained within the T/A has been appropriately evaluated and approved by the design organisation. Complete <a href="SRG1753">SRG1753</a> for Temporary amendment
- c. Create a draft AMP based upon the data and planned aircraft usage
- d. Undertake Internal documented review
- e. Resolve any issues/findings identified in the review
- f. Complete SRG1753 for Temporary amendment
- g. Send completed <u>SRG1753</u> to <u>apply@caa.co.uk</u> with the supporting information
- h. On acceptance of the variation by the CAA, activate and manage forecasting system

# 1.3 Continuing airworthiness records: responsibilities, retention and access

Continuing Airworthiness records, including hours and cycles recording are the responsibility of the CAMO and are controlled in accordance with CAMO.A.220, M.A.305 and/or ML.A.305.

### 1.3.1 Hours and cycles recording

The recording of flight hours and cycles is essential for the planning of maintenance tasks. This paragraph should explain how the continuing airworthiness management organisation has access to the current flight hours and cycles information and how it is processed through the organisation.

### 1.3.2 Continuing Airworthiness Records

### 1.3.2.1 Management of continuing airworthiness record system

Describe in this paragraph the process for collating the continuing airworthiness records including:

- a. What document/record types must be collated
- b. Format of records
- c. Who is responsible for collating the records

- d. Timeframe in which the record system shall be updated
- e. Any elements of the process which is subcontracted arrangements.

# 1.3.2.2. Storage of continuing airworthiness records

Describe in this paragraph the process for managing the storage of continuing airworthiness records:

- a. Where the records are stored (list short and long term facilities)
- b. Who has access to the storage?
- c. How protection from damage, alteration and theft is insured
- d. Backup and restoration system for electronic records
- e. Retention timeframes for each record type
- f. Responsibilities for document storage
- g. Any elements or facilities which are subcontracted.

# 1.3.2.3 Securing of records in event of serious incident

In the event of an accident or serious incident, the organisation will ensure all associated records of the aircraft will be held in a secure place and control access in support of investigation by the applicable state accident investigator. Refer to Paragraph 2.7 for the associated procedure.

### 1.3.3 Managing the transfer-in of an aircraft

When an additional aircraft is to be added to the list of aircraft managed by the CAMO, describe in this paragraph the responsibilities and actions required, taking into account the following:

- a. Ensure aircraft type is within scope of approval. If not, instigate required variation application. Refer to CAA <u>Part CAMO change</u> webpage
- b. Contact owner/operator
- c. If importing aircraft from outside the UK:
  - i. Apply for a Certificate of Registration by completing Form <u>CA1</u> and, if required also Form <u>CA04</u> and send to <u>aircraft.reg@caa.co.uk</u> Refer to CAA <u>Registration</u> webpage
  - ii. If Certificate of Airworthiness is required refer to Paragraph 4.4 Additional procedures for recommendations to the CAA for import of aircraft. Refer also to CAA Certificate of Airworthiness webpage.
- d. Create plan with former owner/operator for timely transfer of documentation
- e. Use checklist [insert reference number] to manage receipt of all documentation from former owner/operator
- f. Undertake a full review of all continuing airworthiness records and address any missing documentation.

- g. Ensure checklist for transfer of all documentation is completed.
- h. Update maintenance information system.
- i. Develop/amend relevant AMP if required. Refer to section 1.2.
- j. Determine bridging check requirements.
- k. Update list of aircraft in CAME and/or other supporting documentation.

# 1.3.4 Managing the transfer-out of an aircraft

In the event that the continuing airworthiness management of an aircraft is transferred to another continuing airworthiness management organisation or person or in the event that the company terminates its activity, all records held for the aircraft will be transferred to the new organisation or person, in a format that is usable to the new organisation. Describe in this paragraph the responsibilities and hand-back requirements, taking into account the following:

- a. Liaise with lessor, new owner or operator and obtain following information:
  - I. Address of new owner/operator storage facility
  - II. Address of new owner/operator office
- b. Create plan with new owner/operator for timely transfer of documentation
- c. Use checklist [insert reference number] of all documentation to transfer to new owner/operator
- d. Amend/cancel the AMP if required. Refer to section 1.2.
- e. Collate physical and electronic copies of all continuing airworthiness records.
- f. Arrange shipping/courier and/or electronic transfer for all records
- g. Ensure checklist for transfer of all documentation is completed.
- h. Update associated records to demonstrate that the management of the applicable continuing airworthiness records has changed to another owner/operator.
- i. Update list of aircraft in CAME and/or other supporting documentation

# 1.4 Accomplishment and control of airworthiness directives

This section will describe how a CAMO will implement all safety measures mandated by the relevant aircraft state of design and the CAA within the mandated timescales.

### 1.4.1 Mandatory information sources

### 1.4.1.1 CAA

The CAMO shall list in this section the mandatory requirements applicable UK registered aircraft from the CAA <u>Airworthiness Directives</u> webpage and <u>CAP 747 Mandatory requirements for airworthiness</u>. In addition, it should list any mandatory requirements linked to aircraft operation, such as <u>Safety Directives</u>.

Note: amongst other things, CAP747 includes Airworthiness Directives, Generic Requirements and Generic Concessions applicable to Part 21 aircraft.

### 1.4.1.2 State of design

The CAMO shall identify in this section the following 'state of design' mandatory requirements applicable to its aircraft (including engines, propellers and equipment, as applicable) and operation which shall be adopted, with the exception of any listed on the CAA <u>Airworthiness Directives</u> webpage or listed in 'CAP 747 Mandatory Requirements for Airworthiness' Section 2 Part 2 State of design airworthiness directives not adopted by the CAA.

The information should be presented in tabular format, under the following headings:

- Aircraft, engine, propeller or equipment type
- State of design
- Source of 'state of design' mandatory information.

An example of the information is given below:

Aircraft type: Hawker Beechcraft B200

State of design: USA

Source of mandatory information: FAA website.

Engine type: Pratt and Whitley PT6-A42

State of Design: Canada

Source of mandatory information: Transport Canada (TCCA) website

Propeller type: Hartzell HC-B3TN-3G hubs and T10178B-3R blades

State of Design: USA

Source of Mandatory information: FAA website

Aircraft type: Airbus A330-201 State of Design: France

Source of mandatory information: EASA website

Engine type: General Electric GE CF6-80E1A2

State of Design: USA

Source of mandatory information: FAA website

### 1.4.2 Review of mandatory information

Describe in this paragraph the process and procedure used by the organisation to obtain, distribute and evaluate mandatory requirements. This should include:

- a. Responsibilities and competencies of each part of the process
- b. How the organisation ensures it has all the required information

- c. How information is received into the organisation
  - i. Source of information
  - ii. Frequency check of source information
- d. How the list of required information is kept current
- e. Timescales for information to be distributed for review
- f. The procedure to be followed for the review
  - i. How the documentation is assessed
  - ii. How applicability is determined
  - iii. How emergency AD's are managed
  - iv. Responsibilities
  - v. Timescales for information to be reviewed/evaluated
  - vi. How the review is recorded
  - vii. How any decision is validated
- g. How any action required is controlled
  - i. Creation of work orders and task (MIS) and interface with maintenance organisations
  - ii. Check of correct task set-up in MIS
  - iii. Timescales for embodiment
  - iv. How repetitive Inspection requirements are managed
  - v. How any continuing requirements are met e.g. blocking part numbers
  - vi. Updates to associated documentation e.g. Flight Manuals, MEL
  - vii. Communication with other departments for verification of delegated actions e.g. Flight Manual updates by Flight Operations
- h. Process for identifying any backlogs

### 1.4.3 Airworthiness directive status

A CAMO should produce an airworthiness directive compliance status of aircraft, engines, propellers or components for all aircraft that it manages.

This paragraph will describe how the current status of ADs, and measures mandated by the CAA in an immediate reaction to a safety problem, will identify, and include:

- the product/component,
- the applicable ADs including revision or amendment numbers and
- the date on which the status was updated.
- the release to service date on which the AD or measure was accomplished
- the corresponding total life on that parameter accumulated in service on the date when the AD or measure was accomplished and/or the due limit in the appropriate parameter
- repetitive ADs or measures, only the last and next applications with the reference to the applicable parameter should be recorded in the current status
- method of compliance and which part of a multi-part AD or measure has been accomplished,

 any loadable software aircraft part which is used for operating or controlling the aircraft

For the purpose of assessing the AD status, there is no need to list those ADs which are superseded or cancelled.

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 with the reason why it is not applicable.

# 1.5 Analysis of the effectiveness of the maintenance programme(s)

The CAMO will ensure that an analysis of the effectiveness of each maintenance programme controlled by the organisation is carried out for all complex motor-powered aircraft or aircraft used by a Licensed Air Carrier managed by the organisation (M.A.301(e)).

# 1.5.1 Tools used to analyse the efficiency of the maintenance programme

In order to effectively analyse the efficiency of the maintenance programme, the CAMO should identify the aircraft continuing airworthiness records that are examined as part of this analysis. It should list these records within this section, using the list, below as a guide:

- a) pilot reports (PIREPS),
- b) air Safety Reports
- c) technical Logs.
- d) air turn-backs
- e) aircraft Maintenance Access Terminal / On-board Maintenance System readouts.
- f) maintenance Worksheets
- g) spare consumption,
- h) workshop Reports
- i) reports on Functional Checks
- j) reports on Special Inspections
- k) stores Issues/Reports
- I) repetitive technical occurrence and defect,
- m) technical delays analysis [through statistics if relevant],
- n) technical incidents analysis [through statistics if relevant],
- o) engine health monitoring
- p) other sources: ETOPS, RVSM, CAT II/III, VHM
- q) Review of any escalated or de-escalated tasks from the AMP
- r) the Maintenance Programme content including a review of any escalated or deescalated tasks from the AMP.

- s) the effect on the Maintenance Programme of any ADs, modifications or repairs.
- t) changes to the operation, which may affect the Maintenance Programme.
- u) compliance monitoring product samples (aircraft surveys).

# 1.5.2 Meetings

This section should describe the meetings that are scheduled to review the maintenance programme as part of the 'analysis of the effectiveness process'. It should describe who should attend the meetings and if they are planned to coincide with either a scheduled maintenance task or by calendar date as described:

- a) continuous reviews (specify frequency or task related activity)
- b) quarterly meetings (specify frequency or task related activity)
- c) reliability programme (specify frequency or task related activity)
- d) annual reviews (specify frequency or task related activity)
- e) in conjunction with the Airworthiness Review.

# 1.5.3 Analysis process

Describe in this paragraph(s) by whom and how the analysis of the effectiveness of the Aircraft Maintenance Programme is reviewed as part of the meetings listed in paragraph 1.5.2, taking into account:

- a) how the organisation reviews the information obtained in paragraph 1.5.1.
- b) the person/team responsible for performing this analysis
- c) when this analysis will take place, taking paragraph 1.5.2 into account
- d) the Maintenance Programme content including a review of any escalated or deescalated tasks from the AMP.
- e) the effect on the Maintenance Programme of any mandatory requirements, modifications or repairs.
- f) changes to the operation, which may affect the Maintenance Programme.
- g) compliance monitoring product samples (aircraft surveys).
- h) results of the maintenance performed during that year indicating the AMP is not adequate.
- i) results of the airworthiness review indicating the AMP is not adequate.
- revisions to documents affecting the programme basis such as the MRBR, MPD etc.
- k) Attention to areas that may be impacted by deviations or tasks alternate to those specified by the design holder.
- I) whether the defects found could have been prevented by introducing in the maintenance programme certain TCH's recommendations.

### 1.5.4 Decision process

This paragraph should indicate who is responsible for the decision process and how action is taken and managed following the analysis of the effectiveness of the maintenance programme. This may include:

- a) Amendment of the maintenance programme
- b) Amendment of maintenance or operational procedures

# 1.6 Non-mandatory modification and inspections

The CAMO is responsible for ensuring the Airworthiness of its aircraft and the serviceability of operational & emergency equipment. The accomplishment of this objective includes the embodiment of modifications and/or accomplishment of inspections in accordance with an approved standard and includes non-mandatory information.

### 1.6.1 Non-mandatory information sources

This section should list the sources of non-mandatory information used by the CAMO. The list below is given as an example:

- a) service bulletins
- b) service letters
- c) other information that is produced for the aircraft and its components by an approved design organisation, the manufacturer, the CAA.

Describe in this paragraph how the organisation controls these subscriptions, using a table under the following headings:

- Document type (e.g. service bulletin, service letter etc.)
- Applicable to (e.g. aircraft, engine, equipment)
- The document source (e.g. OEM)
- The manufacturer (e.g. Boeing, Airbus, Leonardo, CFM, Rolls Royce, etc.)
- The method of receipt (e.g. hard copy, email etc.)
- Any additional information (use of website)

### 1.6.2 Review process

Describe in this paragraph the process and procedure used by the organisation to obtain, distribute and evaluate non-mandatory requirements making use of the organisation's safety risk management process. This should include:

- a. The procedure to be followed for the review
  - i. How the documentation is assessed
  - ii. Responsibilities
  - iii. Timescales for information to be reviewed/evaluated
  - iv. How the review is recorded
  - v. How any decision is validated
- b. How any action required is controlled
  - Creation of work orders and task (MIS) and interface with maintenance organisations
  - ii. Check of correct task set-up in MIS
  - iii. Timescales for embodiment
  - iv. How repetitive Inspection requirements are managed
  - v. How any continuing requirements are met e.g. blocking part numbers
  - vi. Updates to associated documentation e.g. Flight Manuals, MEL
  - vii. Communication with other departments for verification of delegated actions e.g. Flight Manual updates by Flight Operations

# 1.7 Repairs and modifications

This paragraph should set out a procedure for the assessment of the approval status of any repair or modification before embodiment. This will include:

- a) Responsibilities
- b) Classification of the repair
- c) Assessment of the need of the UK CAA or design organisation approval
- d) How a repair or modification is approved by the UK CAA or design organisation
- e) Assessment and acceptance of approved data
- f) Assessment of design organisation
- g) How repair and modification data is processed into an MIS system / work cards
- h) How weight and balance factors are taken into consideration and controlled
- i) Embodiment and certification of the repair
- j) Instructions for continued airworthiness
  - i. Revision of the aircraft's maintenance programme
  - ii. Flight Manual amendments

# 1.8 Defect reports

All defects occurring on aircraft, engines, propellers and components managed by the CAMO will be subject to review and analysis for their effect upon airworthiness and the

continued safe operation of the aircraft; and includes both operational and emergency equipment fitted to the aircraft.

All defects shall be rectified by an appropriately approved maintenance organisation, independent certifying staff or pilot-owner as defined in M.A.201 or ML.A.201 before further flight, unless the deferred defect policy described in paragraph 1.8.3 is followed.

Where Part-ML aircraft are managed, this section should include the process for managing deferral of defects in accordance with ML.A.403, including the limits of pilot deferrals.

### 1.8.1 Analysis

This paragraph should explain how the defect reports provided by the contracted maintenance organisations or personnel are processed by the continuing airworthiness management organisation, taking the following into consideration:

- a) Responsibilities
- b) Interface with maintenance organisations or personnel (including feedback process)
- c) Defect data reviewed (MAREPS and PIREPS)
- d) How the analysis is carried out
- e) Identification of trends (repetitive defects):
  - i. Classification of repetitive defects
  - ii. How repetitive defects are managed
  - iii. How are repetitive defects proactively cleared?
- f) Output of the analysis, including:
  - i. Effect of analysis on the maintenance programme
  - ii. Effect of analysis on non-mandatory modification policy
  - iii. Co-ordination with other conferences ie reliability meetings
- g) Significant findings that may have airworthiness or operational implications
- h) Timescales

# 1.8.2 Liaison with manufacturers and regulatory authorities

Where a defect report shows that such defect is likely to occur to other aircraft, a liaison should be established with the manufacturer and the certification competent authority so that they may take all the necessary action. This paragraph should define a procedure to meet this requirement, taking into account the occurrence reporting procedure in paragraph 2.11, and include the following:

- a) Responsibilities
- b) Access requirements for the UK CAA
- c) Timescales

- d) Communication process with manufacturer
- e) Communication process with UK CAA
- f) Communication process with maintenance organisation
- g) Mandatory reporting and its criteria

# 1.8.3 Deferred defect policy

Defects such as cracks and structural defects are not addressed in the MEL and CDL. However, it may be necessary in certain cases to defer the rectification of a defect. This paragraph should establish the procedure to be followed in order to be sure that the deferment of any defect will not lead to any safety concern, and address:

- a) Responsibilities
- b) Timescales
- c) Clear identification of defects that are subject to deferral action
- d) Deferral process
- e) Appropriate liaison with the manufacturer.
- f) How deferred defects are monitored and planned
  - i. Down-time planning
  - ii. Spares
  - iii. Tooling
  - iv. Personnel
- g) Rectification Interval Extension process described in Paragraph 1.1b.6
- h) Clearance of deferred defect process
- i) Certificate of release to service requirement
- j) Process for deferring defects that are not listed in the MEL and CDL.:
  - i. Responsibilities
  - ii. Permit to Fly process (Section 4B)
  - iii. Obtaining approved maintenance data

# 1.9 Engineering activity

Where applicable, this paragraph should expose the scope of the organisation's engineering activity in terms of approval of modifications and repairs. It should set out a procedure for developing and submitting a modification/repair design for approval to the CAA and include reference to the supporting documentation and forms used. It should identify the person in charge of accepting the design before submission to the CAA. Where the organisation has a DOA capability under Part 21, it should be indicated here, and the related manuals should be referred to.

# 1.10 Reliability programmes

#### 1.10.1 General

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

A reliability programme will be developed for an aircraft, including its engines, propellers and components.

### 1.10.2 Reliability data

This paragraph should identify which data will be assessed for trend analysis or individual events, taking the following list into consideration:

- a) pilot reports (PIREPS),
- b) air safety reports
- c) technical logs.
- d) air turn-backs
- e) aircraft maintenance access terminal / On-board Maintenance System readouts.
- f) maintenance Worksheets
- g) spare consumption,
- h) workshop Reports
- i) reports on Functional Checks
- i) reports on Special Inspections
- k) stores Issues/Reports
- I) repetitive technical occurrence and defect,
- m) technical delays analysis [through statistics if relevant],
- n) technical incidents analysis [through statistics if relevant],
- o) engine health monitoring
- p) other sources: ETOPS, RVSM, CAT II/III, VHM
- q) continuing airworthiness and safety information promulgated under Part-21 will also be taken into consideration.
- r) Manufacturer's reliability pools

### 1.10.3 Analysis of reliability data

This paragraph(s) should identify how the collected information is displayed to allow for the identification of trends, specific highlights and related events. It should also define the process for analysis and interpretation of information to enable a critical assessment of the effectiveness of the programme and should take the following points into considerations:

- a) Responsibilities
- b) Analysis and interpretation of trends

- c) Evaluation of repetitive defects
- d) Comparisons of operational reliability with established or allocated standards
- e) Reliability predictions
- f) Analysis of expected and achieved results
- g) Identification of hazards and risks and how they are fed into the management system.

# 1.10.4 Reliability alert levels

### 1.10.4.1 Establishment of alert levels

This paragraph shall describe how the alert levels are established and used for statistical based analysis, taking the following points into consideration:

- a) Units of measurement (PIREP/MTBF/MTBUR):
  - i. Are appropriate to the type and frequency of event.
  - ii. Are appropriate to the type of operation
  - Unit preference by operator and equipment manufacturer
- b) Component criticality
- c) ATA Chapter
- d) Operating experience,
- e) Product improvement,
- f) Changes in procedures
- g) Time-periods
- h) Age of aircraft

### 1.10.4.2 Exceedance of alert level

This paragraph shall describe the appropriate action that should be taken when an alert level is exceeded. It must define who is responsible for ensuring corrective actions are implemented and the corrective actions required, taking the following points into consideration:

- a) Changes to maintenance, operational procedures or techniques.
- b) Amendment of scheduled maintenance periods and tasks in the approved maintenance programme:
  - i. inspection frequency and content
  - ii. function checks
  - iii. overhaul requirements and time limits
  - iv. escalation or de-escalation of tasks
  - v. addition, modification or deletion of tasks.
- c) Amendments to approved manuals (e.g. maintenance manual, crew manual).

- d) Embodiment of modifications.
- e) Special inspections across fleets
- f) Spares provisioning
- g) Staff training
- h) Manpower and equipment planning

#### 1.10.4.3 Review of alert levels

Alert levels shall be reviewed for their effectiveness on an annual basis. The review of these alert levels shall take the following points into account:

- a) fleet utilisation,
- b) fleet commonality,
- c) alert level adjustment criteria,
- d) adequacy of data,
- e) reliability procedure audit,
- f) staff training and
- g) operational and maintenance procedures.

# 1.10.5 Reliability meetings

This paragraph shall give information on reliability meetings, taking the following into account:

- a) Frequency of reliability meetings
- b) Attendees
- c) Responsibilities.
- d) Agenda's

# 1.11 Pre-flight inspections

The pre-flight inspection ensures that all the actions necessary to ensure that the aircraft is fit to make the intended flight have been completed. This paragraph should include references to the relevant AMP or inspection documents and list the scope of the pre-flight inspection taking the following examples into consideration:

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

- b) an inspection of the aircraft continuing airworthiness record system or the aircraft technical log system, as applicable, to ensure that the intended flight is not adversely affected by any outstanding deferred defects and that no required maintenance action shown in the maintenance statement is overdue or will become due during the flight.
- c) a control that consumable fluids, gases etc. uplifted prior to flight are of the correct specification, free from contamination, and correctly recorded.
- d) a control that all doors are securely fastened.
- e) a control that control surface and landing gear locks, pitot/static covers, restraint devices and engine/aperture blanks have been removed.
- f) a control that all the aircraft's external surfaces and engines are free from ice, snow, sand, dust etc. and an assessment to confirm that, as the result of meteorological conditions and de-icing/anti-icing fluids having been previously applied on it, there are no fluid residues that could endanger flight safety.

The pre-flight inspection task does not require a Certificate of release to Service. This paragraph shall identify the procedure to follow when any defect or abnormal consumption (i.e. oil and hydraulic uplift and tyre inflation) is identified as part of the pre-flight inspection, including how the pilot interfaces with the maintenance organisation or certifying staff prior to any flight taking place.

#### 1.11.1 Pilot Authorisation

This paragraph should describe the initial and continuation training requirements to issue a pilot authorisation. It should also include a list of personnel who have received appropriate training for the relevant pre-flight inspection tasks and are approved to carry out the preflight inspection. This can be demonstrated using a table under the following headings:

- Name
- Personal Authorisation Certifier Number

### 1.11.2 Sub-Contracted Ground Handling Function

Although these activities are normally not performed by continuing airworthiness personnel, this paragraph has been placed here in order to ensure that the related procedures are consistent with the continuing airworthiness activity procedures. This paragraph should also define training requirements and responsibilities.

# 1.11.3 Security of Cargo and Baggage Loading

Although these activities are normally not performed by continuing airworthiness personnel, this paragraph has been placed here in order to ensure that the related procedures are consistent with the continuing airworthiness activity procedures; and limitations quoted in the Flight Manual and Centre of Gravity Schedule. This paragraph should also define training requirements and responsibilities.

# 1.11.4 Control of refuelling (Quantity/Quality)

Although these activities are normally not performed by continuing airworthiness personnel, this paragraph has been placed here in order to ensure that the related procedures are consistent with the continuing airworthiness activity procedures. This paragraph should also define training requirements and responsibilities.

### 1.11.5 Control of snow, ice dust and sand contamination to an approved standard

Although these activities are normally not performed by continuing airworthiness personnel, this paragraph has been placed here in order to ensure that the related procedures are consistent with the continuing airworthiness activity procedures. This paragraph should also define training requirements and responsibilities to ensure the aircraft is free from such contamination before flight.

# 1.12 Aircraft weighing

This paragraph should state the cases when an aircraft has to be weighed (for instance, after a major modification because of weight and balance operational requirements, etc.), who performs it, according to which procedure, who calculates the new weight and balance, and how the result is processed in the organisation It must also state how the mass and balance statement reflecting the current configuration of the aircraft is delivered to the pilot-in-command or operator for Part M applicable aircraft.

# 1.13 Maintenance check flight procedures

The criteria for performing an MCF are normally included in the aircraft maintenance programme or derived by the scenarios described in GM M.A.301(i) or GM ML.A.301(f). This paragraph should explain how the MCF procedure is established in order to meet its

intended purpose (for instance, after a heavy maintenance check, after engine or flight control removal installation, C of A issue etc.), and the release procedures to authorise such an MCF. It should also include pilot eligibility requirements to carry out the MCF.

# Part 2 Management system procedures

This part defines the management system procedures, which a CAMO uses to demonstrate all management system key processes required by CAMO.A.200.

(The organisation may wish to use this section to include a list of related safety management procedures/documentation/manuals (i.e Safety manual, Compliance Monitoring Manual, Management System Manual etc), in a table under the following headings:

- CAME reference
- Procedure reference
- Procedure Title

# 2.1 Hazard identification and safety risk management schemes

This section should introduce the safety risk management process used by the CAMO, and may use the following wording:

'The safety risk management component of the management system can be divided into three areas:

- a) Hazard identification processes;
- b) Risk assessment and mitigation processes;
- c) Internal safety investigation.

The risk management process starts with identifying hazards affecting aviation safety and then assessing the risks associated with the hazards in terms of severity and likelihood. Once the level of risk is identified, appropriate remedial action or mitigation measures can be implemented to reduce the level of risk to an acceptable level. Mitigation measures should then be monitored to ensure that they have had the desired effect.'

The organisation's safety risk management system should be clearly described and ensure that:

- a) clear assignment of accountability and allocation of responsibilities is given
- b) there are no overlapping or conflicting responsibilities
- c) there are clear reporting lines within internal reporting structures
- d) staff are able to directly notify the organisation of any hazard that suggests an unacceptable safety risk as a result of a potential consequence of any hazard.

### 2.1.1 Hazard identification

This section should define the hazard identification process used by the CAMO.

A hazard is any condition that can cause or contribute to an aircraft incident or accident. The CAMO's hazard identification process enables the collecting, recording, analysing, acting on and generating feedback about hazards that affect the safety of the operational activities of the organisation. This is an ongoing process.

This paragraph should list the sources of hazard identification used by the organisation from a reactive and proactive perspective, and provide details on how this data is gathered ready for the risk assessment process:

- a) Reactive schemes
  - i. Data from accidents
  - ii. Incidents
  - iii. Flight data monitoring
  - iv. Confidential reporting systems
  - v. Data from the compliance monitoring function
- b) Proactive schemes
  - i. Open hazard reporting systems
  - ii. Line operations safety audit (LOSA) style normal operation assessments
  - iii. Safety surveys
  - iv. Change management processes
  - v. Safety risk assessments

Following the identification of a hazard, a risk assessment is carried out to determine the potential for harm or damage.

### 2.1.2 Risk assessment and mitigation

This section should define the risk assessment and mitigation process used by the CAMO.

Risk is assessed in terms of severity and likelihood of the consequences of a hazard occurring. The organisation should define whether they are assessing severity using the worst-case scenario or the most credible outcome. The risk assessment should include appropriate justification and details of any assumptions made. It should involve the following considerations:

- Severity: How bad will it be if the unwanted safety event occurs?
- Likelihood: How likely is the unwanted safety event to occur or reoccur?

The risk assessment and mitigation processes analyse and eliminate or mitigate to an acceptable level, risks that could threaten the capability of the organisation to undertake its activities in a safe manner.

Chapter 4 of CAA publication <u>CAP 795</u> provides further details of safety risk management processes, including risk assessment and mitigation, including a flowchart showing the hazard analysis and risk assessment process.

The procedure should define how the information provided by the hazard analysis and risk assessment, is distributed to those with a responsibility for operational safety in the organisation.

#### 2.1.2.1 Risk assessment

The risk assessment process will determine the acceptability of a risk. The organisation should include the risk tolerability matrix used across the whole organisation in this section. Risk tolerability is calculated by multiplying the severity of the consequence by the likelihood of the occurrence.

An example of table showing the severity of consequences, and their value, is shown in Chapter 4 of CAA publication <u>CAP 795</u> Safety Management Systems – Guidance to Organisations.

The severity of consequences table is summarised below. The scores range from 5 (Catastrophic) down to 1 (Negligible), with 5 being the greatest severity:

# Catastrophic

Aircraft and/or equipment destroyed causing multiple deaths

#### **Hazardous**

 A large reduction in safety margins, physical distress or a workload such that organisations cannot be relied upon to perform their tasks accurately and completely. Serious injury or death to a number of people. Major equipment damage.

### Major

A significant reduction in safety margins, a reduction in the ability of the
organisations to cope with the adverse operating conditions as a result of the
increase in workload or as a result of conditions impairing their efficiency. Serious
incident. Injury to persons.

### Minor

Nuisance. Operating limitations. Use of emergency procedures. Minor incident.

# **Negligible**

Little consequence.

An example of table showing the likelihood of occurrence, and their value, is shown in Chapter 4 of CAA publication <u>CAP 795</u>.

The likelihood of occurrence table is summarised below. The scores range from 5 (Frequent) down to 1 (Extremely improbable), with 5 being the greatest likelihood:

# **Frequent**

• Likely to occur many times (has occurred frequently)

### **Occasional**

Likely to occur sometimes (has occurred infrequently)

### Remote

• Unlikely, but may possibly occur (has occurred rarely)

# **Improbable**

Very unlikely to occur (not known to have occurred)

# **Extremely improbable**

Almost inconceivable that the event will occur.

Data from these risk assessments should be plotted against the Risk Tolerability Matrix and will be used across the whole organisation. An example of the risk tolerability matrix is shown in Chapter 4 of CAA publication <u>CAP 795</u>, and also below:

•	O١	/e	r\/
•	C 1		

Catastrophic	_	5	10	15	20	25
	5	Review	Unacceptable	Unacceptable	Unacceptable	Unacceptable
Hazardous	4	4	8	12	16	20
4	4	Acceptable	Review	Unacceptable	Unacceptable	Unacceptable
Major	3	3	6	9	12	15
		Acceptable	Review	Review	Unacceptable	Unacceptable
Minor	2	2	4	6	8	10
		Acceptable	Acceptable	Review	Review	Unacceptable
Negligible	1	1	2	3	4	5
	<u> </u>	Acceptable	Acceptable	Acceptable	Acceptable	Review
		Extremely improbable	Improbable	Remote	Occasional	Frequent
		1	2	3	4	5

Likelihood

The risk tolerability matrix shown above has the severity plotted vertically on the left, with catastrophic (score 5) at the top and negligible (score 1) at the bottom, with the likelihood plotted horizontally along the bottom, going from extremely improbable (score 1) on the bottom left to frequent (score 5) on the bottom right. The table is coloured green, where the risk tolerability is considered to acceptable, yellow where the organisation needs to review the risk tolerability, and orange, where the risk tolerability is unacceptable.

For example, a severity score of 4 (hazardous) and a likelihood of 1 (extremely improbable), gives a total scope of 4, and on the table, it is shown as being green (acceptable). Whereas a severity score of 4 (hazardous) and likelihood score of 2 (improbable), gives a risk tolerability score of 8, and is shown on the table as yellow, and needs to be reviewed by the organisation. At the same time, a severity score of 2 (minor) with a likelihood score of 5 (frequent), gives a risk tolerability scope of 10, and is shown on the table as orange, which is unacceptable.

The risk classification can be defined below:

### **Acceptable**

 The consequence is so unlikely or not severe enough to be of concern; the risk is acceptable. However, consideration should be given to reducing the risk further to as low as reasonably practicable in order to further minimise the risk of an accident or incident.

### Review

The consequences and/or likelihood is of concern; measures to mitigate the risk to
as low as reasonably practicable should be sought. Where the risk is still in the
review category after this action then the risk may be accepted, provided that the

risk is understood and has the endorsement of the individual ultimately accountable for safety in the organisation.

### Unacceptable

 The likelihood and severity of the consequence is intolerable. Major mitigation will be necessary to reduce the likelihood and severity of the consequences associated with the hazard.

### 2.1.2.2 Risk mitigation

This paragraph should describe how risks will be managed to an acceptable level, taking into account the time, cost and difficulty of taking measures to reduce or eliminate the risk. The level of risk could be lowered by reducing the severity of the potential consequences, reducing the likelihood of occurrence or by reducing exposure to that risk.

This paragraph should describe the corrective action, taking into account any existing defences and the inability to achieve an acceptable level of risk. This may result in a review of previous risk assessments that may have been impacted by the corrective action. Risk mitigations and controls will be verified / audited to ensure that they are effective. The control measures associated with the corrective actions will be recorded for on-going review and safety performance monitoring.

### 2.1.3 Subcontracting and contracting

This paragraph should define how the safety management system extends to organisation that have continuing airworthiness tasks subcontracted to them by the approved CAMO, and also those organisations that are contracted to carry out maintenance. It shall describe the safety risk management principles used to assess these organisations, taking into account the following arrangements:

- a) communication between all parties
- b) coordination and interfaces between the different parties
- c) applicable procedures
- d) task allocation, responsibilities and authorities
- e) the qualifications and competency of key personnel with reference to point CAMO.A.305(c)

# 2.2 Internal safety reporting and investigations

This section should describe the organisation's internal safety reporting scheme. The scheme must be confidential and designed to enable and encourage free and frank

reporting of any potentially safety-related occurrence, including incidents such as errors or near misses, safety issues and hazards identified.

The overall purpose of the internal safety reporting scheme is to collect information reported by the organisation personnel and to use this reported information to improve the level of compliance and safety performance of the organisation. The purpose is not to attribute blame. The process must include the 'just culture' culpability assessment methodology.

The process should describe how the internal safety reporting scheme allows an assessment to be made of the safety implications of each relevant incident (errors, near miss), safety issue and hazard reported, including previous similar issues, so that any necessary action can be initiated. It should also demonstrate how the knowledge of relevant incidents, safety issues and hazards are shared so that other persons and organisations may learn from them.

The process should identify:

- a) how the data is collected
- b) investigation process
- c) corrective actions

Organisations that are subcontracted shall be provided access to the internal reporting scheme. Details of the scheme shall be included within the interface agreement.

### 2.2.1 Data collection

This paragraph should describe how the organisation collects its data as part of the internal reporting scheme. Examples include:

- a) Computer programme
- b) Hard copy proforma

The organisation should describe in detail this process and provide relevant copies in Part 5 of the exposition.

### 2.2.2 Investigation process

Once the data has been collected, the organisation shall describe how the data is analysed in this section.

The procedure should describe how the scale and scope of any investigation is suitable to determine why an event occurred and validate or identify the underlying hazards. The level of investigation should be proportional to the identified hazard and risk.

The investigation process should take place as soon as possible after the event. The objective of the investigation is to understand why an event happened and the contributing causes and not to apportion blame. The investigation should include:

- a) Review of documentation and processes
- b) Operational data monitoring
- c) Interviews
- d) Root cause analysis
- e) Data analysis
- f) Inclusion in safety management system

The investigation root cause analysis methodology should be stated in the procedure; and the training requirements for this methodology should be listed in Paragraph 2.6 of the exposition.

The procedure should also define who is responsible for the data analysis and how the data is fed into the safety management system to identify the hazards and associated risks.

### 2.2.3 Corrective actions

The procedure defined in this section shall take into account any existing defences and the inability to achieve an acceptable level of risk. This may result in a review of previous risk assessments that may have been impacted by the corrective action. It should describe how risk mitigations and controls are verified / audited to ensure that they are effective.

The control measures associated with the corrective actions will be recorded for on-going review and safety performance monitoring.

Any outcome from a safety investigation will take human factors into account and apply a 'just culture' philosophy.

The internal safety reporting scheme is fed into the recurrent training as defined in AMC2 CAMO.A.305(g) whilst maintaining appropriate confidentiality. Feedback is also given to staff both on an individual and a more general basis to ensure their continued support of the safety reporting scheme.

# 2.3 Safety action planning

As part of the Management System, Safety Action Planning is established to review all hazards and to decide the appropriate course of action in line with regulatory requirements. This paragraph should describe the organisations safety action planning process starting with the safety manger and safety review board. For Licensed Air Carriers, it should detail how an integrated system is achieved between continuing airworthiness and flight operations.

As a function of Safety Action Planning, the process should include the following points:

- a) define safety actions to control risks to an acceptable level
- b) monitor safety performance
- c) provide mitigations to identified risks and initiate investigations where necessary
- d) assess the impact of organisational changes on safety
- e) ensure that safety actions are implemented within agreed timescales
- f) review the effectiveness of previous safety actions and safety promotion
- g) allocate personnel responsibilities
- h) identify who chairs the meetings and who must attend.

# 2.4 Safety performance monitoring

As part of the Management System, Safety Performance Monitoring provides assurance that the system is working and effective. This section will describe the safety performance monitoring process used within the organisation, taking the following points into consideration:

- a) The setting and monitoring of Safety Performance Indicators (SPIs) to measure the organisation's safety performance
- b) Assessing the effectiveness of the SMS by confirming that the mitigations, controls and defences put in place are working and effective to ensure safe operational practices
- c) Monitoring compliance with the appropriate regulations and standards

# 2.4.1 Safety performance indicators

This section shall describe how safety performance indicators are used within the organisation. It should detail how SPI's are measured against the safety policies and objectives and measures the performance of the safety management system and operational safety performance.

This paragraph should include a list detailing what data is monitored to support the Safety Performance Indicators, for example:

- a) Occurrences and events;
- b) Safety reports
- c) Safety studies
- d) Safety reviews including trend analysis
- e) Audits
- f) Surveys
- g) Internal safety investigations.

The procedure should also include a paragraph describing when, how and by whom SPI's are reviewed i.e. SAG or SRB.

# 2.4.2 Assessing the effectiveness of the SMS

This paragraph shall be used to describe how assurance of safe operational activity is provided to the management team. This may take the form of safety and cultural surveys to identify issues or problems in daily operations. Surveys may involve the use of:

- a) Day to day observation checks such as Line Orientated Safety Audits (LOSA)
- b) Questionnaires
- c) Informal confidential interviews.
- d) Co-ordination with the compliance monitoring function

### 2.4.3 Safety audits

This process should describe how organisations use safety audits to ensure that the structure of the SMS is sound in terms of:

- a) Adequate staff levels
- b) Compliance with approved procedures and instructions
- c) Levels of competency and training to carry out specific roles
- d) Maintaining required levels of performance
- e) Achievement of the safety policy and objectives
- f) Effectiveness of interventions and risk mitigations

## 2.5 Change management

This section should describe the management of change process used by the organisation to identify external and internal changes that may affect established cultures, processes and services. It should utilise the organisation's existing risk management process to identify potential hazards that could impact safety. The process should also identify how new hazards could impact the appropriateness and effectiveness of existing risk mitigations by the introduction of any change.

The procedure should identify key personnel responsibilities regarding safety risks related to any changes to the organisation using the organisations safety management system.

It should also include a procedure for managing changes requiring prior approval and detailing when a risk assessment is required. Changes requiring the management of change process include:

- a) changes to the organisational structure
- b) the inclusion of a new aircraft type in the terms of approval
- c) the addition of aircraft of the same or a similar type
- d) significant changes in personnel (affecting key personnel and/or large numbers of personnel, high turn-over)
- e) new or amended regulations
- f) changes in the security arrangements
- g) changes in the economic situation of an organisation (e.g. commercial or financial pressure)
- h) new schedule(s), location(s), equipment, and/or operational procedures
- i) the addition of new subcontractors.
- j) any change likely to affect the human factors of personnel

## 2.6 Safety training and promotion

## 2.6.1 Safety training

This section should describe how the organisation provides training to all as appropriate for their safety roles and responsibilities. In particular, all operational staff, managers, supervisors, senior managers and the accountable manager should be trained and be competent to perform their SMS duties.

This procedure provides an opportunity to reinforce the safety policy, gain the necessary management buy-in and help establish the expected attitudes and behaviours for all levels of staff in the organisation. This should involve initial training as well as continued maintenance of competence. Training should include human and organisational factors.

The table, below gives an example of the safety training required (initial and continuation) in addition to Human factors training:

	Training Standard								
Personnel	Understanding of the organisation's safety policy and the principles and processes of the organisation's SMS	understand the safety process, hazard identification, risk management and the management of change	understand organisational safety standards, safety assurance and the regulatory requirements for their organisation						
Senior Managers	х	х	х						
Managers and Supervisors	х	х							
Operational Staff	Х								

The table above shows the safety training standard required for personnel within the organisations, as follows:

Understanding of the organisation's safety policy and the principles and processes of the organisations Safety Management System:

- Senior managers
- Managers and supervisors
- Operational staff

Understanding the safety process hazard identification, risk management and management of change:

- Senior managers
- Managers and supervisors

Understanding organisational safety standards, safety assurance and the regulatory requirements of the organisation

Senior managers

(In addition, the accountable manger shall have an awareness of SMS roles and responsibilities, safety policy, safety culture, SMS standards and safety assurance.)

The procedure should provide details on the 'initial' and recurrent training that is provided and recorded to ensure that staff remain competent. It should also include a syllabus for 'initial' safety training which includes the following topics and subtopics:

- a) General/Introduction to safety management and HF
  - Need to address safety management and HF
  - ii. Statistics
  - iii. Incidents
- b) Safety risk management
  - i. Hazard identification
  - ii. Safety risk assessment
  - Risk mitigation and management
  - iv. Effectiveness of safety risk management
- c) Safety Culture/Organisational factors
  - i. Justness/Trust
  - ii. Commitment to safety
  - iii. Adaptability
  - iv. Awareness
  - v Behaviour
  - vi. Information
- d) Human error
  - i. Error models and theories
  - ii. Types of errors in continuing airworthiness management and maintenance tasks
  - iii. Violations
  - iv. Implications of errors
  - v. Avoiding and managing errors
  - vi. Human reliability
- e) Human performance & limitations
  - i. Vision
  - ii. Hearing
  - iii. Information-processing
  - iv. Attention and perception
  - v. Situational awareness
  - vi. Memory
  - vii. Claustrophobia and physical access
  - viii. Motivation
  - ix. Fitness/Health
  - x. Stress
  - xi. Workload management
  - xii. Fatigue
  - xiii. Alcohol, medication, drugs
  - xiv. Physical work
  - xv. Repetitive tasks/complacency
- f) Environment
  - i. Peer pressure

- ii. Stressors
- iii. Time pressure and deadlines
- iv. Workload
- v. Shift work
- vi. Noise and fumes
- vii. Illumination
- viii. Climate and temperature
- ix. Motion and vibration
- x. Complex systems
- xi. Other hazards in the workplace
- xii. Lack of manpower
- xiii. Distractions and interruptions
- g) Procedures, information, tools and practices
  - Visual inspection
  - ii. Work logging and recording
  - iii. Procedure practice/mismatch/norms
  - iv. Technical documentation access and quality
- h) Communication
  - i. Shift/Task handover
  - ii. Dissemination of information
  - iii. Cultural differences
- i) Teamwork
  - i. Responsibility
  - ii. Management, supervision and leadership
  - iii. Decision-making
- j) Professionalism and integrity
  - i. Keeping up to date; currency
  - ii. Avoiding error-provoking behaviour
  - iii. Assertiveness
- k) Organisation's safety programme
  - i. Safety policy and objectives, just culture principles
  - ii. Reporting errors and hazards, internal safety reporting scheme
  - iii. Investigation process
  - iv. Action to address problems
  - v. Feedback and safety promotion
- I) Route Cause Analysis (where appropriate)
- m) Safety Investigation (where appropriate)

The procedure should also state that recurrent training will take place in each 2-year period and ensures that staff remain current in terms of SMS principles and human factors. It can also be used to collect feedback of safety and human factor issues and make use of information reported through the internal safety reporting scheme.

## 2.6.2 Safety promotion

This section should provide information on how safety issues that have been recognised through the safety management system or internal reporting scheme are communicated to all personnel within the organisation. Examples of communication methods used are:

- a) Notice boards
- b) Production meetings
- c) E-mail / letter
- d) Continuation training / HF training
- e) Compliance Review Meetings

## 2.7 Immediate safety action and coordination with operator's Emergency Response Plan (ERP)

This paragraph should describe how the organisation's Emergency Response Plan provides the actions to be taken by the organisation in an emergency and is integrated into the safety management system.

The procedure should include how Emergency Response Plan ensures:

- a) An orderly and efficient transition from normal to emergency operations
- b) Designation of emergency authority and responsibilities
- c) Authorisation by key personnel for actions contained in the plan
- d) Coordination with other organisations
- e) Safe continuation of operations or return to normal operations as soon as practicable.

This paragraph should describe how any safety concerns identified that may have an immediate effect on flight safety, including any urgent requirements mandated by the state of design for the managed aircraft or the CAA, are notified to key personnel. This should be shown in this CAME in table format under the following headings:

- Aircraft owner / operator
- Aircraft registrations
- Contact name
- Contact telephone
- Contact email.

The procedure should also ensure that external organisations, such as aerodromes or aircraft operators, that are subject to other ERP requirements are adhered to.

In the event of an accident or serious incident, the procedure should include a process to ensure that all associated records of the aircraft are held in a secure place and access is controlled in support of any investigation by the applicable state accident investigator.

The procedure should also include details about ERP exercises to be carried including:

- a) Frequency
- b) Scope
- c) Personnel responsibilities

## 2.8 Compliance monitoring

This section could be included in, and referenced to, a separate manual i.e. Compliance Monitoring Manual.

The compliance monitoring programme enables independent monitoring of compliance with Part-CAMO, Part-M, Part-ML, the CAME and associated procedures and manuals, to ensure safe operations and airworthy aircraft.

The responsibility for the compliance monitoring programme for continuing airworthiness as required by Part-CAMO lies with the Compliance Monitoring Manager.

## 2.8.1 Audit plan and audit procedure

This section should demonstrate how the organisation has established an annual audit plan to show when and how often the activities as required by Part-M, Part-ML and Part-CAMO will be audited, including subcontracted activities. An example of an audit plan is provided, below:

	Month											
Audit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Part- M			~									
Part-ML				~								
Part CAMO						~						
Independent Audit		~										
Location 1								<b>~</b>				
Location 2							~					
CAME										~		
Product 1		~										
Product 2				~								
Subcontracted activities											~	
Maintenance Programme					~							
Contracted Maintenance Organisations									~			

The table above shows the audit plan, with the area of standard or elements of the approval which needs to be audited, and the month in which audit is planned. The audit plan needs to reflect all applicable elements of the organisation's approval. Please note, the example shown is not exhaustive.

Below is the descriptive text for the above audit plan table.

## **Example Audit plan**

## **February**

- The independent audit function
- Product audit

#### March

Part-M

## **April**

- Part-ML
- Product audit

## May

Maintenance programmes

#### June

Part-CAMO

## July

Facility location 1

## **August**

Facility location 2

## September

Contracted maintenance organisations

#### October

• Continuing Airworthiness Management Exposition (CAME)

#### November

Subcontracted activities.

A copy of the audit checklists referenced in the procedure or included in the table above should be included in Part 5 of this exposition.

The procedure should define how an audit is planned and by whom. The audits serve to establish that continuing airworthiness procedures and requirements are followed. The auditor will refer to the respective previous annual audit report to note any reported non-compliance.

The procedure will include details on the report that is issued each time an audit is carried out describing what was checked and the resulting non-compliance findings against applicable requirements and procedures. It shall ensure that any non-compliance findings or observations are fed into the safety management system to be assessed for hazard identification and risk assessment.

It should detail the non-compliance process When a non-compliance is found, the organisation shall ensure that the root cause(s) and contributing factor(s) are identified, and that corrective actions are defined. It shall define who is required to address each non-

compliance, and the timeframe for completion, and include the timeframe for remedial action (closure of the finding) for each finding level, as follows:

## **Finding Level**

- Level 1
- Level 2
- Level 3 (Observation)

The corrective actions recommendations must be reviewed to ensure that the actions have been implemented correctly.

This section should also include a process for managing overdue findings and audits that have not been completed within the required timeframe.

A paragraph should also be included to demonstrate how independence is achieved and, in the event that external personnel are used to perform independent audits, how the organisation ensures:

- a) any such audits are performed under the responsibility of the compliance monitoring manager
- b) that the external personnel have the relevant knowledge, background, and experience that are appropriate to the activities being audited, including knowledge and experience in compliance monitoring.
- c) effective implementation and follow-up of all corrective actions are achieved

## 2.8.2 Monitoring of continuing airworthiness management activities

This section should describe how the Audit Review Plan includes an assessment of the Continuing Airworthiness Management activities against the procedures defined in the CAME and in particular the ability of the Continuing Airworthiness Manager or team to discharge their responsibilities effectively with respect to Part-CAMO.

## 2.8.3 Monitoring of the effectiveness of the maintenance programme(s)

This section should describe how the Audit Plan includes an assessment of Maintenance Programme activities against the procedures defined in this CAME to ensure that the organisation's analysis of the effectiveness of the maintenance programme as described in Paragraph 1.5 of the CAME is effective. The reliability programme (if applicable), defined in Paragraph 1.10 of this CAME, provides an appropriate means of monitoring the effectiveness of the maintenance programme.

## 2.8.4 Monitoring that all maintenance is carried out by an appropriate maintenance organisation

This section should describe how the audit plan includes a review of all maintenance carried out by contracted Part 145 or CAO (as applicable) approved maintenance organisations. The audit scope ensures that the approval of the contracted maintenance organisation(s) effectively covers the contracted activities, and that it is still valid.

It is the responsibility of the contracted maintenance organisation to address any findings/concerns that are raised as a result of this audit and ensure that appropriate corrective action measures are implemented and within the timescales as required by Part 2.8.1 of this CAME.

An 'initial' audit shall be conducted prior to any work being carried out by the contracted maintenance organisation. An approved contracted maintenance organisation shall be listed in Part 5.4 of this CAME.

Feedback from the audits may result in amendments to the maintenance contracts.

## 2.8.5 Monitoring that all contracted maintenance is carried out in accordance with the contract, including subcontractors used by the maintenance contractor

This section should describe how the audit plan includes a review of all maintenance carried out by contracted Part 145 or CAO (as applicable) approved maintenance organisations. The audit scope ensures that the approval of the contracted maintenance organisation(s) effectively covers the contracted activities, and that it is still valid.

The audit checks that all contracted maintenance is carried out in accordance with the contract and includes subcontractors used by the maintenance contractor. In addition, it shall assess that all maintenance is carried out in accordance Appendix IV to CAMO.A.315(c).

It is the responsibility of the contracted maintenance organisation to address any findings/concerns that are raised as a result of this audit and ensure that appropriate corrective action measures are implemented and within the timescales as required by Part 2.8.1 of this CAME.

An 'initial' audit shall be conducted prior to any work being carried out by the contracted maintenance organisation. An approved contracted maintenance organisation shall be listed in Part 5.4 of this CAME.

Feedback from the audits may result in amendments to the maintenance contracts.

## 2.8.6 Compliance monitoring personnel

This section should provide information on compliance monitoring personnel, taking the following points into consideration:

- a) The Compliance Monitoring Manager has direct access to the Accountable Manager and to all parts of the organisation.
- b) Formal acceptance of the Compliance Monitoring Manager by the CAA is by approval of this CAME. The Compliance Monitoring Manager shall meet the competency requirements specified in AMC1 CAMO.A.305(c).
- c) Additional compliance audit personnel shall be suitably qualified, trained and experienced to meet the requirements of the audit tasks.
- d) All audit personnel must have received recognised audit training in an operational environment and in awareness of Human Factors in aircraft maintenance.
- e) Where compliance monitoring personnel are contracted from within the company on a part time basis, the auditor must not be directly involved in the activity they have been asked to audit.

## 2.9 Control of personnel competency

This section should describe the process used by the organisation to control personnel competency, and who is responsible for the process.

The procedure should state that all staff must be formally assessed for their competence to perform their role prior to being allowed to work unsupervised and include provisions for temporary staff.

It should include a list of the competencies required for each intended function. An example is provided, below:

## Competencies / Assessment Criteria

#### Intended duty

## **Managers and Nominated Postholders**

- Part-CAMO
- Part-M
- Part-ML
- Part 145
- CAME procedures
- Safety Management Systems (Advanced)
- Maintenance programmes (Advanced)

Human Factors principles

## **Competencies / Assessment Criteria**

## Intended duty

## **Continuing Airworthiness Personnel**

- Part-CAMO
- Part-M
- Part-ML
- Part 145
- CAME procedures
- Safety Management Systems (Basic)
- Maintenance programmes (Advanced)
- Human Factors principles

## **Competencies / Assessment Criteria**

## Intended duty

## **Compliance Monitoring Personnel**

- Part-CAMO
- Part-M
- Part-ML
- Part 145
- CAME procedures
- Safety Management Systems (Basic)
- Maintenance programmes (Basic)
- Human Factors principles

## **Competencies / Assessment Criteria**

## **Intended duty**

## **Safety Management Personnel**

- Part-CAMO
- Part-M
- Part-ML
- Part 145
- CAME procedures
- Safety Management Systems (Advanced)
- Maintenance programmes (Basic)
- Human Factors principles

## **Competencies / Assessment Criteria**

## Intended duty

#### **Airworthiness Review Staff**

- Part-CAMO
- Part-M
- Part-ML
- Part 145
- CAME procedures
- Safety Management Systems (Basic)
- Maintenance programmes (Advanced)
- Human Factors principles

## Competencies / Assessment Criteria

## Intended duty

## **Maintenance Programme Staff**

- Part-CAMO
- Part-M
- Part-ML
- CAME procedures
- Safety Management Systems (Basic)
- Maintenance programmes (Advanced)
- Human Factors principles

## **Competencies / Assessment Criteria**

## Intended duty

## **Technical Records Staff**

- Part-CAMO
- Part-M
- Part-ML
- CAME procedures
- Safety Management Systems (Basic)
- Maintenance programmes (Basic)
- Human Factors principles

The procedure should state how competency should be assessed by evaluating:

a) on-the-job performance and/or testing of knowledge by appropriately qualified personnel

- b) records for basic, organisational, and/or product type and differences training
- c) experience records.

It should also ensure that documented evidence of competencies demonstrated are recorded.

As a result of this assessment, an individual's qualification will determine:

- a) which level of ongoing supervision would be required and whether unsupervised work could be permitted.
- b) whether there is a need for additional training.

The procedure should also address re-assessment requirements. Re-assessment of competence will be undertaken every 2 years from the date of the initial assessment.

## 2.10 Management system record-keeping

This section should describe the record-keeping system that the organisation uses. It should provide information on:

- a) accessibility
- b) timeframes for access
- c) traceability and retrievability
- d) retention periods
- e) how hard copies are stored to protect against damage, alteration or theft
- f) the use of third-party storage facilities
- g) storage of electronic records
- h) use of remote servers
- i) safeguarding
- j) responsibilities

The procedure may use a table to show the types of record (e.g. management system records, continuing airworthiness records, personnel records), the format (e.g. hard copy or digital), the location (e.g. filing cabinet in management office, third party storage facility, remote server) and the respective retention periods that are used by the organisation (e.g. Minimum period of 5 years, 3 years after responsibility for the aircraft has transferred to another organisation, 3 years after the person has left the organisation).

The procedure should also include details to cover:

- a) If the organisation ceases to be the Continuing Airworthiness Management Organisation of the aircraft, the process for transferring the records to any other person or organisation managing continuing airworthiness of the aircraft.
- b) If the organisation terminates its operation, how all the retained maintenance data & records will be distributed to the last owner/customer.

c) If an event, incident or accident occurs, how the records will be held and made available on request to authorised persons from the UK Air Accidents Investigation Branch (AAIB) or other accident investigation authorities.

## 2.11 Occurrence reporting

This section should describe the occurrence reporting process and how the organisation is responsible for liaising with the manufacturer(s) and the CAA on all relevant matters concerning the airworthiness of aircraft. It should define how defects and occurrences that fall into the Mandatory Occurrence Reporting criteria defined in the following publications, shall be reported to the CAA and relevant TC Holder:

- a) UK Regulation (EU) No 376/2014
- b) UK Regulation (EU) 2015/1018 (Annex II)
- c) CAA AMC 20-8
- d) CAA CAP382
- e) CAMO.A.160

## The procedure shall describe

- a) how the CAMO ensures that any incident, malfunction, technical defect, exceeding of technical limitations, occurrence that would highlight inaccurate, incomplete or ambiguous information contained in Part 21 data, or other irregular circumstance that has or may have endangered the safe operation of aircraft and that has not resulted in an incident or serious incidents shall also be reported in the same way to the CAA and applicable TCH/STCH.
- b) how reports are submitted to the CAA and the timescales required, for example, making use of the 'ECCAIRS 2' reporting portal within 72 hours of being made aware of the occurrence, using the European Risk Classification Scheme encouraged by the CAA.
- c) how corrective actions, follow-up reports and closure of occurrences are managed including timescales and responsibilities.
- d) and identify the main focal with direct access to the accountable manager to coordinate action on airworthiness occurrences and for initiating any necessary further investigation and follow-up activity
- e) how confidentiality of the reporter and of the person(s) mentioned in the occurrence reports shall be maintained with a view to preventing the use of information for purposes other than flight safety.
- f) If the organisation holds one or more additional organisation certificates within the scope of UK Regulation (EU) 2018/1139, how the occurrence reporting system is fully integrated with the other certificates held
- g) If the organisation has any subcontracting arrangements in place, how the occurrence reporting system is fully integrated with the other organisation.
- h) how defects which are classed as 'non-mandatory' will be reported to the CAA/Operator/Manufacturer at the discretion of the organisation.
- i) how all mandatory and non-mandatory reports are held on file for the duration specified in Paragraph 2.10 of this CAME.

## Part 3 Contracted maintenance — management of maintenance

Part 3 of the CAME describes the CAMO's maintenance arrangements. It should include details of these arrangements, together with the division of responsibility for these arrangements, and include copies of the Maintenance Contract(s) in force for Base, Line and Engine Off-Wing support. A detailed list of maintenance contractors should be listed in Part 5.4 of this exposition.

## 3.1 Maintenance contractor selection procedure

#### 3.1.1 Maintenance contractor selection criteria

This paragraph should explain how a maintenance contractor is selected, and ensure that prior to the signing of a maintenance contract, the following points are considered:

- a) The maintenance organisation is appropriately approved in accordance with Part 145 or Part CAO (as applicable) for the contracted activities, and that the approval is still valid.
- b) Any aviation safety hazards associated with such contracting are considered as part of the organisation's management system.
- c) The maintenance organisation has adequate capacity to undertake the proposed maintenance support.
- d) Human performance Limitations and Human Factors considerations have been taken into account.
- e) The draft maintenance contract has been reviewed and agreed by both parties with a view to ensuring that each has the ability to discharge their responsibilities with respect to Part M, Part ML or Part CAMO as applicable.
- f) The format of the contract shall follow the template given in Appendix IV to AMC1 to CAMO.A.315(c).

#### 3.1.2 Maintenance contractor interfaces

This section should describe how interface and communication channels are established with the contracted maintenance organisation, including occurrence reporting.

The contract/interface agreement shall identify:

- a) coordination and interfaces between the different parties
- b) clear identification of maintenance tasks contracted
- c) clear assignment of accountability and allocation of responsibilities and ensure no overlapping of responsibilities

- d) applicable procedures
- e) communication between all the parties involved, including reporting and feedback channels
- f) task allocation, responsibilities and authorities
- g) the qualifications and competency of key personnel

The procedure shall include how regular communication between all the parties involved to discuss work progress, risk mitigation actions, and changes to the arrangement, as well as any other significant issues shall be scheduled.

It should also include a procedure for unscheduled line maintenance or component maintenance, including engine maintenance where a contract may be replaced by individual work orders addressed to the maintenance organisation.

#### 3.1.3 Contract review

This section should define the period and process for the periodic review of the maintenance contract against Appendix IV to AMC1 to CAMO.A.315(c).

## 3.2 Product audit of aircraft

This section should set out the procedure when performing a product audit of an aircraft. It should set out the differences between an airworthiness review and a product audit.

It should describe how the organisation conducts an independent product audit for a relevant sample of aircraft that it manages (including a definition of a relevant sample applicable to the organisation (refer to AMC2 CAMO.A.200(a)6(b) for guidance), and include the product sample in the audit plan described in paragraph 2.8.1 of this CAME.

The procedure will describe how the product audit ensures that it is being managed and maintained in accordance with the procedures as defined in the exposition and demonstrates:

- a) compliance with the approved procedures
- b) contracted maintenance is carried out in accordance with the contract
- c) continued compliance with Part CAMO, Part ML and Part M (as required)
- d) continued compliance with Part 145 & Part CAO (as required)

The auditing process may make reference to the requirements of Paragraph 2.8.1 in this document, regarding:

- a) Checklists
- b) Audit reports
- c) Non-compliances
- d) External personnel

All records relating to the product audit shall be retained for the period described in Paragraph 2.10 of this exposition.

## Part 4 Airworthiness review procedures

This part is used to define the organisations Airworthiness Review procedures and demonstrate compliance with CAMO.A.310 and CAMO.A.320. The airworthiness reviews shall be performed in accordance with point M.A.901 and/or ML.A.903, as applicable.

Airworthiness review tasks shall not be sub-contracted. A work order must be issued/received prior to an airworthiness review commencing.

Should the outcome of the airworthiness review be inconclusive or should the review show discrepancies on the aircraft linked to deficiencies in the content of the maintenance programme the organisation will inform the CAA as soon as practicable, but in any case, within 72 hours from the moment the organisation identifies the condition to which the review relates.

The Airworthiness Review Certificate shall not be issued until all findings have been closed and there is no non-compliance which is known to endanger flight safety.

#### 4.1 Airworthiness review staff

#### 4.1.1 Airworthiness review staff competencies

This section shall demonstrate how the organisation ensures that airworthiness review staff (ARS) issuing airworthiness review certificates or recommendations in accordance with point (e) of point CAMO.A.125 have, in addition to the competencies required in Paragraph 2.9 of the CAME, satisfy the requirements of CAMO.A.310:

- a) at least 5 years of experience in continuing airworthiness
- b) acquired an appropriate licence in compliance with Annex (III) Part-66 or an aeronautical degree or a national equivalent. (This may be replaced with 5 years of experience in continuing airworthiness additional to those already required by point a.)
- c) received formal aeronautical maintenance training
- d) held a position within the approved organisation with appropriate responsibilities.
- e) An understanding of safety management and human factors principles.

Further guidance on the requirements for Airworthiness Review Staff can be found on the CAA website: Qualifications of Airworthiness Review and Extension Staff under Part-CAMO

## 4.1.2 Airworthiness review staff approval process

This section shall describe how the airworthiness review staff nominated by the organisation can be issued with an authorisation. The procedure should make reference to the completion of an airworthiness review under the supervision of the CAA. It may also include a procedure for completion of airworthiness reviews under the supervision of the organisation's authorised airworthiness review staff. If adopted, these procedures should be detailed in Paragraph 4.1.2.1 of the CAME.

Nomination of airworthiness review staff should be submitted to the CAA using Form <u>SRG1769</u>. Approval by the CAA of the CAME, containing, the nominated list of airworthiness review staff in Paragraph 5.2, constitutes the formal acceptance by the CAA of the airworthiness review staff.

## 4.1.2.1 Procedure for completion of an airworthiness review under supervision

If referenced in Paragraph 4.1.2, the procedure for the completion of an airworthiness review under the supervision of the CAA and/or the procedure for completion of airworthiness reviews under the supervision of the organisation's authorised airworthiness review staff should be detailed in this section.

## 4.1.3 Eligibility of airworthiness review staff

This section should define how airworthiness review staff have a position in the organisation that is either:

- a) independent from the airworthiness management process or,
- b) with overall authority on the airworthiness management process of complete aircraft.

The procedure should demonstrate that independence is achieved by:

- a) By being authorised to perform airworthiness reviews only on aircraft for which the person has not participated in their management. For example, performing airworthiness reviews on a specific aircraft type, while being involved in the continuing airworthiness management of a different aircraft type
- b) By nominating as airworthiness review staff personnel from the compliance monitoring department of the CAMO
- c) A CAMO holding a maintenance organisation approval may nominate maintenance personnel from their maintenance organisation as airworthiness review staff, as long as they are not involved in the airworthiness management of the aircraft. These personnel should not have been involved in the release to service of that particular aircraft (other than maintenance tasks performed during the physical survey of the aircraft or performed as a result of findings discovered during such physical survey) to avoid possible conflict of interests.

It should also state how overall authority on the airworthiness management process of complete aircraft is achieved by:

- a) nominating as airworthiness review staff the accountable manager or the nominated post holder.
- b) By being authorised to perform airworthiness reviews only on those particular aircraft for which the person is responsible for the complete continuing airworthiness management process.

## 4.1.4 Continued validity of airworthiness review staff

In order to keep the validity of the airworthiness review staff authorisation, the organisation must have a procedure defining that the airworthiness review staff shall have:

- a) been involved in continuing airworthiness management activities for at least 6 months in every 2-year period, or
- b) conducted at least one airworthiness review in the last 12-month period, and
- c) completed recurrent training every 2 years.

The organisation should also include within this section a procedure to restore the validity of an airworthiness review staff authorisation if the continued validity criteria is not met.

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

#### 4.1.5 Airworthiness review staff records

This section shall describe how the following minimum information, as applicable, shall be kept on record in respect of each airworthiness review staff:

- a) Name
- b) Date of birth
- c) Basic education
- d) Experience
- e) Aeronautical degree and/or Part-66 qualification and/or nationally-recognised maintenance personnel qualification
- f) Initial training received
- g) Type of training received
- h) Recurrent training received
- i) Experience in continuing airworthiness and within the organisation
- j) Responsibilities of current role in the organisation
- k) Copy of the authorisation

All records relating to individual airworthiness staff shall be held for the period defined in Paragraph 2.10 of this CAME.

## 4.1.6 Airworthiness review staff responsibilities

This section should define the responsibilities of the airworthiness review staff and include the following points:

- a) Airworthiness review staff are responsible for performing both the documental and the physical survey.
- b) Airworthiness review staff shall follow the organisation's procedures in order to perform the airworthiness review, including the depth of samplings.
- c) Procedures must make very clear that the final word about the depth of the inspections (both documental and physical) belongs to the airworthiness review staff, who can go beyond the depth established in the CAME if they find it necessary. At the end, it is the responsibility of the airworthiness review staff to be satisfied that the aircraft complies with Part-M/ML and is airworthy, and the organisation must ensure that no pressure or restrictions are imposed on the airworthiness review staff when performing their duty.
- d) A compliance report shall be produced by the airworthiness review staff, detailing all items checked and the outcome of the review.
- e) Airworthiness review staff are responsible for the items checked during the airworthiness review.
- f) The issuance of the airworthiness review certificate (ARC) by the airworthiness review staff only certifies that the aircraft is considered airworthy in relation to the scope of the airworthiness review performed and the fact that the airworthiness review staff are not aware of instances of non-compliance which endanger flight safety.

## 4.2 Documented review of aircraft records

## 4.2.1 Pre-review requirements

This section should detail all the requirements that need to be in place prior to the commencement of the review.

Airworthiness review staff will have access to all of the aircraft's technical records prior to commencement of the review in order to discharge their responsibilities correctly.

The review will be conducted in an environment that allows the Airworthiness Review Staff to carry out their designated tasks in a manner that contributed to good standards i.e. a quiet air-conditioned room free from noise and distractions and with sufficient space to spread out all records for ease of access/review.

## 4.2.2 Review requirements

This section should describe how the airworthiness review staff perform a full documented review in accordance with M.A.901 (AMC M.A.901(k)) and/or ML.A.903 of the aircraft records to verify that:

- a) Airframe, engine and propeller flying hours and associated flight cycles have been properly recorded;
- b) The flight manual is applicable to the aircraft configuration and reflects the latest revision status:
- c) All the maintenance due on the aircraft according to the AMP has been carried out;
- d) All known defects have been corrected or deferred in a controlled manner in accordance with M.A.403 and/or ML.A.403 (as applicable);
- e) All applicable ADs have been applied and properly registered;
- f) All modifications and repairs made to the aircraft have been registered and are in compliance with M.A.304 and/or ML.A.304 (as applicable);
- g) All service-life limited components installed on the aircraft are properly identified, registered and have not exceeded their approved service life limit;
- h) All maintenance has been certified in accordance with Part M or Part ML (as applicable);
- i) If required, the current mass and balance statement reflects the configuration of the aircraft and is valid;
- j) The aircraft complies with the latest revision of its type design approved by the CAA:
- k) If required, the aircraft holds a noise certificate corresponding to the current configuration of the aircraft in compliance with subpart I of Annex I (Part-21) to UK Regulation (EU) No 748/2012.

For Part-ML aircraft that are not managed under contract (e.g. owner managed), this paragraph should also make reference to the review of the effectiveness of the AMP as part of the Airworthiness Review, including the process and resultant actions for where the owner disputes the required changes to the AMP (ML.A.903(h) & ML.A.302(c)(9) refers), including ultimately the reporting of unresolved issues to the CAA and not issuing the CAA Form 15c until resolved.

The procedure should state that the review of aircraft records will be completed prior to the physical survey of the aircraft to allow for confirmation of records state during the physical survey.

Where the procedure includes details and references of checklists used for the aircraft records check and completed compliance reports by the Airworthiness Review Staff, these may be included in Paragraph 5.1 of the CAME.

## 4.2.3 Anticipation of airworthiness review

The section should describe how the airworthiness review can, by derogation to M.A.901(a) and/or ML.A.903(d) (as applicable), be anticipated by a maximum period of 90 days without loss of continuity of the airworthiness review pattern so as to permit the review to take place during a scheduled maintenance inspection.

## 4.3 Physical survey

## 4.3.1 Pre-survey requirements

This section should detail all the requirements that need to be in place prior to the commencement of the review, taking the following into account:

- a) Aircraft serviceability (work pack status)
- b) Aircraft availability
- c) Aircraft cleanliness
- d) Accessibility
- e) Location
- f) Weather conditions
- g) Availability of additional Part-66 personnel.

## 4.3.2 Survey requirements

This section should describe how the airworthiness review staff perform the physical check of the aircraft in accordance with M.A.901(I) and/or ML.A.903(c) (as applicable) to verify that:

- a) All required markings and placards are properly installed;
- b) The aircraft complies with its approved flight manual;
- c) The aircraft configuration complies with the approved documentation;
- d) No evident defect can be found that has not been addressed according to point M.A.403 or ML.A.403 (as applicable);
- e) No inconsistencies can be found between the aircraft and the documented review of records as referred to above:

The procedure should include additional actions categorised as maintenance that the physical survey may require (e.g. operational tests, tests of emergency equipment, visual inspections requiring panel opening, etc.). In this case, after the airworthiness review, a release to service should be issued. It may also include verifications to be carried out during flight.

It should also include the process to be adopted when the Airworthiness Review Staff are not appropriately qualified under Annex III (Part-66).

Where the procedure includes details and references of checklists used for the physical survey and completed compliance reports by the Airworthiness Review Staff, these may be included in Paragraph 5.1 of the CAME.

## 4.4 Additional procedures for applications and recommendations to the CAA for the import of aircraft

This section shall describe the procedure for importing aircraft into the UK. It should detail the application process, making reference to the <u>Aircraft Registration</u> and <u>Certificate of Airworthiness</u> applications through the CAA website.

There are 4 main categories for importing an aircraft onto the UK Register of Civil Aircraft:

- 1) New aircraft where the CAA has agreed procedures with the aircraft manufacturer for them to perform specific functions for the CAA for the issue of airworthiness certificates (known as the Direct Issue process).
- 2) New aircraft where the CAA carries out a survey before the airworthiness certificates are issued.
- 3) New non-complex motor-powered aircraft where the CAA issues the airworthiness certificates as a desktop process, based on a declaration from an appropriately approved person or organisation acting on behalf of the owner.
- 4) Used Aircraft imported from outside the UK.

Note: For the import of new aircraft, the CAA will decide which process is applicable and advise the applicant accordingly. It is not the applicant's decision on which process they would like the CAA to use.

# 4.4.1 New aircraft where the CAA has agreed procedures with the aircraft manufacturer to perform specific functions for the CAA for the issue of Airworthiness Certificates (known as Direct Issue)

This section should include a procedure for the initial certification of a new aircraft and include:

- a) Application for the issue of a Certificate of Registration (CofR)
- b) Application for the issue of a Certificate of Airworthiness (CofA), including:
  - i) Maintenance programme reference issued by the CAA Shared Services and maintenance programme submitted for approval (as applicable). Note:

- the maintenance programme must be approved before any airworthiness certificates can be issued.
- ii) The <u>AD1011</u> Declaration of RVSM capability (if applicable) has been submitted to the CAA.
- iii) CAP747 Mandatory Requirements for Airworthiness compliance statement.

Note: it is the operators responsibility to ensure the aircraft equipment complies with the applicable operational rules prior to the aircraft entering operations (E.G. Part-CAT, Part-NCC, Part-NCO, Part-SPO).

c) When satisfied that all appliable requirements have been complied with in accordance with a procedure agreed with the CAA, an authorised representative of the manufacturer will date the Airworthiness Certificates (CofA, ARC and Noise Certificate) sent to them by the CAA, give the originals to the operator and send a copy to the CAA.

## 4.4.2 New aircraft where the CAA carries out a survey before the Airworthiness Certificates are issued.

This section should include a procedure for the initial certification of a new aircraft where the Airworthiness Certificates will be issued by the CAA following a satisfactory aircraft survey. The survey may be carried out at the manufacturer's facility, or when agreed with the CAA, a Permit to Fly may be issued to enable the survey to be carried out in the UK.

The procedure should include:

- a) Application for the issue of a Certificate of Registration (CofR)
- b) Application for the issue of a Certificate of Airworthiness (CofA).
- c) The information that needs to be presented to the CAA at the time of the aircraft and records survey included but is not limited to:
  - i) The Form 52 or Export Certificate of Airworthiness (declaring the aircraft as 'New') as applicable.
  - ii) A copy of the Certificate of Registration.
  - iii) Confirmation the aircraft has been entered on an appropriately approved maintenance programme.
  - iv) A declaration of compliance with the approved type design
  - v) A compliance statement and list detailing compliance with all applicable Airworthiness Directives (State of Design, CAA etc.)
  - vi) A compliance statement and list detailing compliance with <u>CAP 747</u> Mandatory Requirements for Airworthiness, including UK Generic Requirements.
  - vii) A copy of the approved Flight Manual

- viii) A copy of the weighing report and weight and balance schedule
- ix) A list of installed modifications and their approval status
- Internal and external markings and placards comply with UK requirements (including aircraft registration markings and fireproof plate). Refer to CAP523
- xi) Compliance with aircraft equipment requirements (E.G. 8.33 KHz comms frequency spacing)
- xii) An appropriate Radio Licence (copy from the operator)
- xiii) The <u>AD1011</u> Declaration of RVSM capability (if applicable)
- xiv) Logbooks and aircraft, engines (including APU) and VP propellers (if applicable)
- xv) A copy of the Cabin Configuration drawing
- d) If the Form 52 or Export CofA was issued more than 60 days prior to the aircraft survey, an appropriately approved CAMO will need to also carry out an airworthiness review iaw Part-M, M.A.901 or Part-ML, ML.A.901 and present a recommendation to the CAA at the time of survey.

# 4.4.3 New non-complex aircraft where the CAA issues the airworthiness certificates as a desktop process, based on a declaration from an appropriately approved person or organisation acting on behalf of the owner.

[This subparagraph only needs to be completed if applicable. If you are only managing complex motor-powered aircraft this subparagraph should be annotated as N/A].

This section should include a procedure for the initial certification of a new non-complex motor-powered aircraft, where the Airworthiness Certificates will be issued by the CAA following a recommendation from the managing CAMO, and a satisfactory desktop review. The CAMO will need to carry out a survey and present the recommendation to the CAA Approvals and Certification team before any airworthiness certificates can be issued. The survey may be carried out at the manufacturer's facility, or when agreed with the CAA, a Permit to Fly may be issued to enable the CAMO to carry out the survey in the UK.

The procedure should include:

- a) Application to the CAA for a Certificate of Registration (CofR)
- b) Application to the CAA for the issue of a Certificate of Airworthiness (CofA).
- c) An Authorised representative of the CAMO will need to carry out a satisfactory survey of the aircraft and records and complete the recommendation sent to them by the CAA Approvals and Certification team and return it along with a copy of the Form 52 (UK and EU manufactured aircraft) or Export CofA (non-EU manufactured aircraft). The recommendation includes:
  - i) Weighing report and weight and centre of gravity schedule.
  - ii) Flight Manual / Pilots Operating Handbook information.

- iii) Aircraft Maintenance Programme approval information.
- iv) Confirmation that all modifications have been approved iaw UK Part-21 (including where applicable modifications approved through bilateral agreements with the UK / CAA)
- v) Compliance with aircraft equipment requirements (E.G. 8.33 KHz comms frequency spacing)
- vi) Internal and external markings and placards comply with UK requirements (including aircraft registration markings and fireproof plate). Refer to CAP523
- vii) Compliance with all applicable Airworthiness Directives (State of Design, CAA etc.)
- viii) Compliance with <u>CAP747</u> Mandatory Requirements for Airworthiness, including UK Generic Requirements.
- d) If the Form 52 or Export CofA was issued more than 60 days prior to the aircraft survey, an appropriately approved CAMO will need to also carry out an airworthiness Review iaw Part-M, M.A.901 or Part-ML, ML.A.901 and present a recommendation to the CAA at the time of survey.

## 4.4.4 Used Aircraft imported from outside the UK

This section should include the procedure for importing used aircraft into the UK. Note: used aircraft being imported into the UK will be subject to a survey by the CAA before any airworthiness certificates are issued.

The procedure should include the following:

- a) Application to the CAA for the Certificate of Registration
- b) Application to the CAA of the issue of a Certificate of Airworthiness, including a copy of the Export Certificate of Airworthiness (the original should be presented to the CAA at the time of aircraft survey).
- c) Preparing the aircraft for the Airworthiness Review carried out iaw Part-M, M.A.901 and M.A.904 or Part-ML-ML.A.901 and ML.A.906, as applicable.
- d) Approval of the aircraft maintenance programme, or declaration by the owner in the case of Part-ML aircraft (if applicable).
- e) Review of the aircraft records to ensure there is a complete history as required by Part-M, M.A.305 / M.A.306 or Part-ML, ML.A.305.
- f) Preparation of the aircraft, engine and variable pitch propellor logbooks, as applicable.
- g) Importing the necessary aircraft data into the system used for managing the aircraft continuing airworthiness.
- h) Carrying out any maintenance to comply with the aircraft maintenance programme (Bridging checks).
- i) Preparation of the Airworthiness Directive compliance report and listing.

- j) Preparation of the <u>CAP747</u> compliance report and listing, including UK Generic Requirements (GRs).
- k) Preparation of the listing of installed modifications (including Service Bulletins etc. and Supplemental Type Certificates (STC)), and their method of approval.
- I) Preparation of the listing and approval of all repairs.
- m) Preparation of the life limited parts and time-controlled components status report.
- n) Preparation of the compliance report for operational equipment installed in the aircraft iaw the applicable operational rules (CAT.IDE, NCC.IDE, NCO.IDE, SPO.IDE etc.)
- o) Preparation of the Cockpit Voice Recorder (CVR) and Flight Data Recorder (FDR) readouts, as applicable (refer to <u>CAP731</u>)
- p) Conformation the UK Certificate of Registration has been issued.
- q) Confirmation the aircraft registration markings comply with the Air Navigation Order (refer to CAP523).
- r) Confirmation the appropriate aircraft radio licence has been issued.
- s) If applicable, carrying out any maintenance check flights iaw the Aircraft Flight Manual or Check Flight Schedule.
- t) Carrying out the Airworthiness review (including aircraft physical survey) and compiling the Airworthiness Review report. The contents of the Airworthiness Review report should include the applicable items listed in Part-M, M.A.901 and M.A.904 or Part-ML-ML.A.901 and ML.A.906, and their associated Acceptable Means of Compliance and Guidance Material, as applicable. Also refer to Section 4.5 below.
- u) Completing the CAA recommendation for the issue of an Airworthiness Review Certificate (ARC) (Part-M aircraft only)
- v) Issuing the Airworthiness Review Certificate (Part-ML aircraft only).
- w) Presenting the ARC recommendation, aircraft and aircraft records to the CAA.

## 4.5 ARC recommendations to the CAA

This section shall describe the procedure used by the organisation to make recommendations to the CAA for the issue of an Airworthiness Review Certificate (ARC) in accordance with M.A.901.

Note: ARC recommendations can only be made to aircraft that fall under the applicability of Part M. Recommendations cannot be made for Part ML applicable aircraft.

This paragraph should describe the conditions relating to the organisation when an ARC recommendation will be made, for example, where the aircraft has not remained in a 'Controlled Environment', as defined in M.A.901(b), or as part of the CofA issue for a used aircraft being imported into the UK.

The procedure should describe the requirements for carrying out an airworthiness review (physical survey and document review) and the process for submitting a completed and

signed recommendation in support of the application. The process should describe who is authorised to make an ARC recommendation.

The recommendation should be sent to the CAA using the <u>ARC recommendation online</u> <u>form</u> and should contain the following information:

- i. General information about the company / person responsible for payment of CAA charges
- ii. Aircraft information (some of which may be automatically populated by the system based on the aircraft registration).
  - a. registration
  - b. type
  - c. manufacturer
  - d. serial number
  - e. year of construction
  - f. maximum certified take-off mass
  - g. maximum landing mass
  - h. current ARC expiry (if applicable)
  - i. engine manufacturer
  - j. engine type and number
  - k. propeller manufacturer (if applicable)
  - I. propeller type (if applicable)
  - m. confirmation of weight variant or modifications changing the MTOW from the standard TCDS figure
  - n. aircraft hours and flight cycles
  - o. date of last flight
  - p. maximum approved passenger seating capacity
  - q. maximum approved crew seating capacity
- iii. Additional information
  - a. confirmation on whether the aircraft is being used on a UK AOC or commercial basis
  - b. name of AOC and AOC reference (if applicable)
  - c. approval number of Part-CAMO making the recommendation
- iv. Airworthiness statement
  - a. flight manual / pilots operating handbook reference and revision
  - b. confirmation that all maintenance due on the aircraft according to the maintenance programme has been carried out
  - c. maintenance programme reference and revision
  - d. confirmation that all known defects have been corrected or carried forward in a controlled manner
  - e. confirmation the State of Design Airworthiness Directives have been applied and properly registered (airframe, engine, propeller and installed equipment), including the date and bi-weekly reference (where applicable) when checked.
  - f. confirmation that UK CAA Airworthiness Directives have been applied and properly registered and the date checked

- g. confirmation the aircraft is in compliance with CAA publication <u>CAP747</u>, including the date, issue and amendment checked (note: changes on the website may not yet have been incorporated into <u>CAP747</u>, as a result, the CAA website must also be checked)
- h. confirmation that all modifications (changes) and repairs applied to the aircraft are in compliance with Part 21 (UK Regulation (EU) No 748/2012)
- i. confirmation that all service life limited components have been properly identified and have not exceeded their approved service life limit
- j. confirmation that all maintenance has been released iaw Part-M
- k. confirmation the current mass and balance statement reflects the configuration of the aircraft
- I. confirmation the aircraft complies with the latest revision of its CAA approved type design, including TDCS reference and revision
- m. confirmation that if applicable, the aircraft holds a noise certificate that corresponds to its current configuration iaw Part 21, including NC number
- v. Aircraft physical survey
  - a. confirmation the required placards and marking are properly installed
  - b. confirmation the aircraft complies with the approved flight manual
  - c. confirmation the aircraft configuration complies with the approved documentation
  - d. confirmation that no evident defects can be found that have not been addressed iaw Part M, M.A.403
  - e. confirmation there are no inconsistencies between the aircraft and its documented records.
- vi. Airworthiness review details
  - a. place and date of the document review
  - b. place and date of the aircraft physical survey
  - c. organisations airworthiness review reference
  - d. name and licence number of the UK Part 66 licenced engineer assisting with the physical survey (if applicable)
  - e. name and authorisation reference of the Airworthiness Review Staff making the recommendation.

## 4.6 Issue of ARC

## 4.6.1 Eligibility criteria

This section shall describe the requirements to allow the organisation to issue an ARC, taking the following points into consideration:

 a) ARC will only be issued by an authorised ARC signatory on the satisfactory completion of an airworthiness review in accordance with M.A.901 and/or ML.A.903 (as required)

- b) For Part M applicable aircraft, the aircraft must have remained in a controlled environment.
- c) Where an ARC has expired prior to the airworthiness review, or where the airworthiness review is carried out outside the 90-day anticipation period, the ARC validity period will be 12 months from the satisfactory completion of the airworthiness review, meaning the expiry date will be 12 months minus one day from the date of issue.
- d) Where the airworthiness review is carried out within the 90-day anticipation period (both the documental and physical survey are started and completed within 90 days prior to ARC expiry date), the new ARC expiry date will be 12 months from the current expiry date, meaning the ARC can have a validity period of up to 90 days greater than 12 months.
- e) An ARC issued for a Part ML applicable aircraft shall use a CAA Form 15c. An ARC issued for a Part M applicable aircraft shall use a CAA Form 15b. A CAA Form 15a may only be issued by the CAA for Part M applicable aircraft.

## 4.6.2 Issuing of certificate

This section should describe how the organisation issues the ARC, for example:

- a) ARC's will be issued using the CAA ARC Online system; or
- b) Using the organisation's <u>CAA Form 15b</u> or <u>CAA Form 15c</u> templates, as applicable

Note: If ARC online is not used, please provide a copy of organisation's Form 15b and 15c template in Part 5.1 of this CAME.

The procedure should state where the certified airworthiness review certificate will be distributed, for example:

- i. Original document placed in the aircraft's onboard documents file.
- ii. A copy of the document will be placed in the relevant work pack.
- iii. A copy of the document will be filed in the ARC issue register.
- iv. A copy of the ARC must be sent to the CAA Shared Services <a href="mailto:apply@caa.co.uk">apply@caa.co.uk</a> within 10 days of issue.

#### 4.6.3 Invalidation of ARC

The procedure should also state that the aircraft shall not fly if the ARC becomes invalid, or if any of the following circumstances are present, and how the organisation will manage this situation:

- a) The ARC is suspended or revoked
- b) The aircraft has been removed from the UK register

- The Type Certificate under which the Airworthiness Certificate was issued is suspended or revoked
- d) The continuing airworthiness of the aircraft or of any component fitted to it does not meet the requirements of Part M/Part-ML/Part-CAMO
- e) The aircraft does not remain in conformity with the type design approved or accepted by the CAA
- f) The aircraft has been operated beyond the limitations of the approved flight manual or the airworthiness certificate, without appropriate action being taken
- g) The aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without appropriate action being taken to restore airworthiness
- h) A modification or repair has not been approved in accordance with UK Part-21.

## 4.7 Airworthiness review records, responsibilities, retention and access

This section should explain how the Airworthiness Review records are stored ensuring that all required maintenance records, continuing airworthiness records, and technical logs are kept and protected against damage, alteration and theft. Such records will be retained with the restricted access and duration specified in Paragraph 2.10 of the CAME.

## 4.8 ARC extension

This section shall include the organisation's procedure for extending an ARC.

## 4.8.1 ARC extension eligibility

This section shall define the eligibility requirements that the organisation must follow in order to extend an ARC. For example:

- i. A CAA Form 15a or CAA Form 15b, Airworthiness Review Certificate, may be extended a maximum two consecutive times, for one year at a time, by an authorised signatory listed in Paragraph 5.2 of the CAME, provided the aircraft has remained in a 'controlled environment'. A controlled environment is defined as:
  - a. the aircraft has been continuously managed for the previous 12 months by a unique CAMO or CAO.
  - b. the aircraft has been maintained by a maintenance organisation approved in accordance with Annex II (Part-145) or Annex Vd (Part-CAO), including the cases when maintenance tasks referred to in point M.A.803(b) are carried out and released to service in accordance with M.A.801(b)(1) or (b)(2).

- ii. A Form 15c Airworthiness Review Certificate may be extended a maximum two consecutive times, for one year at a time, by an authorised signatory listed in Paragraph 5.2 of the CAME, subject to the following conditions:
  - a. the aircraft has been continuously managed for the previous 12 months by the CAMO
  - b. the aircraft has been maintained for the previous 12 months by approved maintenance organisations; this includes pilot-owner maintenance tasks carried out and released to service either by the pilot-owner or by independent certifying staff;
  - c. the CAMO does not have any evidence or reason to believe that the aircraft is not airworthy.

#### 4.8.2 ARC extension staff

This section should describe the qualifications and experiences for nominated persons extending Airworthiness Review Certificates only, in accordance with point (e) of point CAMO.A.125. For example:

- a) Be working in an environment where they are involved with the continuing airworthiness management process.
- b) Have knowledge of M.A.901(b) in order to understand the principles and processes of the 'Controlled Environment'.
- c) Be familiar with the CAMO procedures for extending an ARC and the subsequent notification procedure to CAA.
- d) Have competencies required in Paragraph 2.9 of the CAME (organisation defined).
- e) Nominated on Form <u>SRG1769</u> to the CAA, and accepted by the CAA through approval of the CAME when listed in Paragraph 5.2 of the CAME.

#### 4.8.3 ARC extension process

This section should detail the procedure used by the ARC extension staff and requirements that must be satisfied to allow them to extend an ARC.

It should also detail the requirements for extending an ARC (for Part M applicable aircraft) after it has expired, subject to the conditions set in AMC M.A.901(c)2, (e)2 and (f).

## 4.8.4 Anticipation of ARC extension

The section should describe how the airworthiness review extension can, by derogation to M.A.901(f) and/or ML.A.901(d) (as applicable), be anticipated by a maximum period of 30-days without loss of continuity of the airworthiness review pattern.

## 4.8.5 ARC extension records

This section should describe how the organisation extends the ARC, for example:

- i. ARC's will be extended using ARC Online system
- ii. Using the organisation's <u>CAA Form 15b</u> or <u>CAA Form 15c</u> templates

Note: If ARC online is not used, please provide a copy of organisation's Form 15b and 15c templates in Part 5.1 of this CAME.

The procedure should state where the extended airworthiness review certificate will be distributed, for example:

- a) Original ARC will be placed in the aircraft's onboard document file.
- b) A copy of the document will be placed in the relevant work pack.
- c) A copy of the document will be filed in the ARC issue register.
- d) A copy of the ARC must be sent to the CAA, Shared Services <a href="mailto:apply@caa.co.uk">apply@caa.co.uk</a> within 10-days of the extension.

## Part 4B Permit to Fly procedures

This part defines the Permit to Fly procedures, which an organisation will use to demonstrate compliance with CAMO.A.310 and Part 21, point 21.A.711(d) in respect of the privilege held under CAMO.A.125(f).

It shall detail how an appropriately approved organisation may issue a permit to fly (<u>CAA Form 20b</u>) under the privilege granted in accordance with Part-CAMO, point CAMO.A.125(f), when the flight conditions referred to in 21.A.708 (Flight Condition) have been approved in accordance with 21.A.710 (Approval of Flight Conditions).

Note: the privilege to issue permits to fly under CAMO.A.125(f) does not include the privilege to approve flight conditions.

## 4B.1 Conformity with approved flight conditions

The permit to fly can only be issued when approval of the flight conditions as set out in 21.A.710 has been obtained and, as applicable, when any maintenance action defined in the approved flight conditions has been carried out and certified for the aircraft under consideration. A permit to fly may only be issued when it has been established that the aircraft conforms with the approved flight condition and is in a condition for safe operation. This section should describe the procedure for determining the flight conditions and how they are approved.

## 4B.1.1 Approval process for flight conditions related to the safety of the design

This section should describe the organisation's procedure when the approval of the flight conditions is related to the safety of the design. The procedure should describe the process for applying to the CAA for the <u>approval of flight conditions</u>. Safety of design flight conditions may also be approved by an appropriately approved UK Part 21 Subpart J design organisation in accordance with 21.A.263(c).

Note: The approval of flight conditions related to the safety of the design, includes:

- a) the aircraft does not conform to an approved design (including changes and repairs;
   or
- b) an Airworthiness Limitation, a Certification Maintenance Requirement or an Airworthiness Directive has not been complied with; or
- c) the intended flight(s) are outside the approved envelope;
- d) the permit to fly is issued for the purpose of 21.A.701(a)(15).

### 4B.1.2 Approval process for flight conditions not related to the safety of the design

This section should describe the organisation's procedure when the proposed flight conditions are not related to the safety of design. The procedure should describe the process for applying to the CAA for the approval flight conditions.

Note: The approval of flight conditions that are not related to the safety of the design includes:

- a) flying an aircraft for troubleshooting purposes or to check the functioning of one or more systems, parts or appliances after maintenance;
- b) delivering or exporting an aircraft for which the design is already approved;
- c) flying the aircraft to a location where maintenance or airworthiness review are to be performed, or to a place of storage;
- d) demonstrating continuing conformity with the standard previously accepted by the CAA for the aircraft or type of aircraft to qualify or re-qualify for a (Restricted) Certificate of Airworthiness.

#### 4B.1.3 Maintenance requirements

The CAMO should establish procedures by which it can ensure and demonstrate that any maintenance required has been completed prior to the issue of the Permit to Fly.

## 4B.2 Issue of the permit to fly under the CAMO privilege

This section should include the procedure for a CAMO to issue a permit to fly. It should describe the process to prepare the Form 20b and how compliance with 21A.711(d) and (e) is established before signing the permit to fly. It should also describe how the organisation ensures compliance with 21.A.711(g) for the revocation of the permit to fly should it become evident that the approved flight conditions have not been complied with. The procedure should describe how to complete the Form 20b, including how the CAMO records and identifies the permits that it issues. It should take into account the requirements of Part M and Part ML as required.

The procedure should also include the method by which the permit to fly is delivered/transmitted to the aircraft location.

Note: A permit to fly can only be issued by an organisation holding the appropriate privilege and only when the aircraft is within their Controlled Environment.

## 4B.3 Permit to fly authorised signatories

### 4B.3.1 Permit to fly authorised signatories' competencies

This section should define the competency requirements for permit to fly authorised signatories. For example, personnel nominated by the organisation can only be issued a permit to fly authorisation if they hold an authorisation to carry out airworthiness reviews on the aircraft type, issued by the organisation. As a result, the qualification criteria for Airworthiness Review Staff applies to Permit to Fly Staff.

### 4B.3.2 Permit to fly authorised signatory's approval process

This section shall describe how a permit to fly authorised signatory nominated by the organisation can be issued with an authorisation.

The approval by the CAA of the CAME, containing, the nominative list of permit to fly authorised signatories, constitutes the formal acceptance by the CAA of the permit to fly authorised signatory.

The procedure should also cover instances where the authorisation may be revoked by the CAA at any time if it is not satisfied with the competence of the holder or with the use of such an authorisation.

### 4B.3.3 Continued validity of permit to fly authorised signatory

This section should include the procedure that describes the requirements to maintain the continued validity of the permit to fly authorisation. It should also include within this section a procedure to restore the validity of an airworthiness review staff authorisation if the criteria for continued validity of the authorisation is not met.

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

## 4B.3.4 Permit to fly authorised signatory records

This section shall describe how the following minimum information, as applicable, shall be kept on record in respect of each permit to fly authorised staff:

- a) Name
- b) Date of birth
- c) Basic education
- d) Experience

- e) Aeronautical degree and/or Part-66 qualification and/or nationally recognised maintenance personnel qualification
- f) Initial training received
- g) Type of training received
- h) Recurrent training received
- i) Experience in continuing airworthiness and within the organisation
- j) Responsibilities of current role in the organisation
- k) Copy of the authorisation

The above records may be combined with the individual record of the airworthiness review staff provided that any additional training and competency assessment related to the issue of permits to fly is clearly identified.

All records relating to individual airworthiness staff shall be held for the period defined in Paragraph 2.10 of this CAME.

## 4B.3.5 List of permit to fly authorised signatory's

This section should list the staff authorised to perform Permit to Fly activities, and should include the following:

- Name
- Authorisation number
- Scope of authority
- signature

## 4B.4 Interface with the local authority for the flight

This section should describe the communication process with the local authority for compliance with the local requirements which are outside the scope of the conditions of 21A.708(b) (see 21A.711(d)).

## 4B.5 Permit to fly records, responsibilities, retention and access

This section should explain how the permit to fly records are stored ensuring that all required records are kept for the required period, and protected against damage, alteration and theft. It should also describe the method for providing a copy of any Permit issued by the CAMO to the CAA, including required timescales set out in 21.A.711(f).

## **Part 5 Supporting documents**

Please ensure all checklists and documents referenced within the CAME are included within the relevant section, below.

# 5.1 Sample documents, including the template of the Aircraft Technical Log (ATL) system

#### 5.2 List of airworthiness review staff

## 5.3 List of subcontractors as per CAMO.A.125(d)(3)

Include table to show subcontractors and their subcontracted functions

## 5.3.1 Means of Active Control (MAC) Tables

The MAC table shall contain at least the following:

- Item A sequential number for each task specific to the MAC table in question
- Task A description of the continuing airworthiness task/function performed by the subcontractor.
- Criticality Level of criticality of the task/function 1, 2 or 3 (1 = highest critical level).
  - This shall determine the level of scrutiny for the task, e.g. Airworthiness Directive compliance would have a criticality level of 1.
- References Reference to relevant subcontractor and/or CAMO procedures.
- Responsibility Responsible persons within the subcontractor and CAMO organisations who are responsible for this subcontracted task/function.
- Review Meeting/Control Form Meetings where the CAMO approval and acceptance of subcontractor actions or recommendations are formalised/documented. Meetings where the CAMO reviews/approves the subcontractor actions and performance.
- Specific Activity An activity that demonstrates operator control and oversight.
  - Example 1: CAMO sign-off following acceptance of subcontractor recommendations for an Aircraft Maintenance Program task revision.
  - Example 2: CAMO review of Technical Decision Record report.

#### **Examples of MAC Tables:**

The below tables provide an example of 2 MAC tables where Aircraft Tech Log and Aircraft Maintenance Program development tasks are subcontracted, demonstrating the means of active control for the specific function required by this subcontracted activity. A table should be created for each subcontracted task and populated with how each function actively controlled.

# **MAC Table: Aircraft Tech Log**

Item	Task	Criticality		CAMO	Subcontractor	Review	CAMO Specific
		(1, 2 or 3)	References	Responsibility	Responsibility	Meeting	Activity
ATL-1	Review for correct completion of ATL entries & pre-flight inspections performed	1	1.11 Pre-flight inspections 5.6 CAMO Meeting schedule	Continuing Airworthiness Manager	Technical Records Lead	Daily Exception Report	Review and Sign Daily Exception Report
ATL-2	application of the MEL	1	1.12 MEL Application 1.8.3 Deferred defect policy 5.6 CAMO Meeting Schedule	Continuing Airworthiness Manager	Technical Records Lead	Daily Exception Report	Review and Sign Daily Exception Report
ATL-3	complete maintenance entries for maintenance actions	1	1.8 Defect Reports 5.6 CAMO Meeting Schedule	Continuing Airworthiness Manager	Technical Records Lead	Daily Exception Report	Review and Sign Daily Exception Report
ATL-4	Confirm correct issue of CRS	1	1.2.2.4 Maintenance Certification 1.8.3 Deferred Defect Policy 5.6 CAMO Meeting Schedule	Continuing Airworthiness Manager	Technical Records Lead	Daily Exception Report	Review and Sign Daily Exception Report
ATL-5	Monitoring maintenance requirements between scheduled maintenance (repeat inspections, defect deferral, etc)	1	1.3.1.1 Monitoring of maintenance between scheduled maintenance events 5.6 CAMO Meeting Schedule	Continuing Airworthiness Manager	Technical Records Lead	Daily Exception Report	Review and Sign Daily Exception Report

Descriptive text of the MAC control table for the Aircraft Technical Log on the previous page.

Item: ATL-1.

**Task:** Review for correct completion of ATL entries & pre-flight inspections performed.

Criticality: 1.

CAME References: 1.11 Pre-flight inspections, 5.6 CAMO Meeting schedule.

**CAMO responsibility:** Continuing Airworthiness Manager.

**Subcontractor responsibility:** Technical Records Lead.

Review meeting: Daily exception report.

CAMO specific activity: Review and sign daily exception report.

Item: ATL-2.

**Task:** Review for correct application of the MEL.

Criticality: 1.

CAME References: 1.12 MEL Application, 1.8.3 Deferred defect policy, 5.6 CAMO

Meeting Schedule

**CAMO responsibility:** Continuing Airworthiness Manager.

**Subcontractor responsibility:** Technical Records Lead.

**Review meeting:** Daily exception report.

**CAMO specific activity:** Review and sign daily exception report.

Item: ATL-3.

**Task:** Review for accurate and complete maintenance entries for maintenance actions.

Criticality: 1.

**CAME References:** 1.8 Defect reports, 5.6 CAMO Meeting Schedule

**CAMO responsibility:** Continuing Airworthiness Manager.

**Subcontractor responsibility:** Technical Records Lead.

Review meeting: Daily exception report.

**CAMO specific activity:** Review and sign daily exception report.

Item: ATL-4.

Task: Confirm correct issue of CRS.

Criticality: 1.

**CAME References:** 1.2.2.4 Maintenance Certification, 1.8.3 Deferred Defect Policy, 5.6

**CAMO Meeting Schedule** 

**CAMO responsibility:** Continuing Airworthiness Manager.

Subcontractor responsibility: Technical Records Lead.

Review meeting: Daily exception report.

CAMO specific activity: Review and sign daily exception report.

Item: ATL-5.

**Task:** Monitoring maintenance requirements between scheduled maintenance (repeat inspections, defect deferral, etc)

Criticality: 1.

**CAME References:** 1.3.1.1 Monitoring of maintenance between scheduled maintenance events, 5.6 CAMO Meeting Schedule

**CAMO responsibility:** Continuing Airworthiness Manager.

**Subcontractor responsibility:** Technical Records Lead.

Review meeting: Daily exception report.

CAMO specific activity: Review and sign daily exception report.

# **MAC Table: Aircraft Maintenance Programme (AMP)**

Item	Task	Criticality (1, 2 or 3)	CAME References	CAMO Responsibility	Subcontractor Responsibility	Review Meeting	CAMO Specific Activity
AMP- 1	Aircraft Maintenance Programme Development	1	1.2 AMP – development and amendment     5.6 CAMO Meeting Schedule	Continuing Airworthiness Manager	Maintenance Programme Lead	AMP Review Meeting & Minutes	Sign and accept minutes from AMP meeting and ensure approval of the AMP
AMP- 2	AMP Amendment (add, revise, delete)	1	<ul><li>1.2 AMP – development and amendment</li><li>1.5 Analysis of the effectiveness of AMP</li><li>5.6 CAMO Meeting Schedule</li></ul>	Continuing Airworthiness Manager	Maintenance Programme Lead	AMP Review Meeting & Minutes	Review and sign AMP change Reports (Form XXX)
AMP-	Maintenance Requirement Packaging	3	1.2 AMP – development and amendment     5.6 CAMO Meeting Schedule	Maintenance Operations Manager	Maintenance Programme Lead	AMP Review Meeting & Minutes	Review Maintenance Requirements Packed in work packs in the MMS
AMP-	Maintenance Requirements Optimisation	3	1.2 AMP – development and amendment     1.5 Analysis of the effectiveness of the AMP     5.6 CAMO Meeting Schedule	Maintenance Operations Manager	Maintenance Program Lead	AMP Review Meeting & Minutes	CAMO approval of Maintenance Requirement Optimisation via AMP Review Meeting
AMP- 5	Job Card development and amendment	3	1.2 AMP – development and amendment     1.5 Analysis of the effectiveness of the AMP     5.6 CAMO Meeting Schedule	Maintenance Operations Manager	Maintenance Program Lead	AMP Review Meeting & Minutes	Review Maintenance Activity Report (MRAM) Review/sign change report, Review sign job card report.

Descriptive text of the MAC control table for the Aircraft Maintenance Programme on the previous page.

Item: AMP-1.

Task: Aircraft Maintenance Programme Development

Criticality: 1.

CAME References: 1.2 AMP - development and amendment, 5.6 CAMO Meeting

Schedule

**CAMO responsibility:** Continuing Airworthiness Manager.

Subcontractor responsibility: Maintenance Programme Lead.

Review meeting: AMP Review Meeting & Minutes

CAMO specific activity: Sign and accept minutes from AMP meeting and ensure

approval of the AMP

Item: AMP-2.

Task: AMP Amendment (add, revise, delete)

Criticality: 1.

**CAME References:** 1.2 AMP – development and amendment, 1.5 Analysis of the

effectiveness of AMP, 5.6 CAMO Meeting Schedule

**CAMO responsibility:** Continuing Airworthiness Manager.

**Subcontractor responsibility:** Maintenance Programme Lead.

**Review meeting:** AMP Review Meeting & Minutes

**CAMO specific activity:** Review and sign AMP change Reports (Form XXX)

Item: AMP-3.

Task: Maintenance Requirement Packaging

Criticality: 3.

**CAME References:** 1.2 AMP – development and amendment, 5.6 CAMO Meeting

Schedule

**CAMO responsibility:** Maintenance Operations Manager.

**Subcontractor responsibility:** Maintenance Programme Lead.

Review meeting: AMP Review Meeting & Minutes

**CAMO specific activity:** Review Maintenance Requirements Packed in work packs in the MMS

Item: AMP-4.

Task: Maintenance Requirements Optimisation

Criticality: 3.

**CAME References:** 1.2 AMP – development and amendment, 1.5 Analysis of the

effectiveness of the AMP, 5.6 CAMO Meeting Schedule

**CAMO responsibility:** Maintenance Operations Manager.

**Subcontractor responsibility:** Maintenance Programme Lead.

Review meeting: AMP Review Meeting & Minutes

CAMO specific activity: CAMO approval of Maintenance Requirement Optimisation via

AMP Review Meeting

Item: AMP-5.

**Task:** Job Card development and amendment

Criticality: 3.

**CAME References:** 1.2 AMP – development and amendment, 1.5 Analysis of the

effectiveness of the AMP, 5.6 CAMO Meeting Schedule

**CAMO responsibility:** Continuing Airworthiness Manager.

**Subcontractor responsibility:** Maintenance Operations Manager.

Review meeting: AMP Review Meeting & Minutes

CAMO specific activity: Review Maintenance Activity Report (MRAM) Review/sign

change report, Review sign job card report.

# 5.4 List of contracted maintenance organisations and list of maintenance contracts as per point CAMO.A.300(a)(13)

# 5.5 Copy of contracts for subcontracted work (Appendix II to AMC1 CAMO.A.125(d)(3))

# 5.6 List of approved maintenance programme as per point CAMO.A.300(a)(12)

5.7 List of currently approved alternative means of compliance as per point CAMO.A.300(a)(13)

## 5.8 CAME Compliance Checklist (refer to CAA form SRG1773)

## **5.9 CAMO Complexity Matrix**

To assist with ensuring that the CAA oversight requirements are suitable for the complexity of the organisation, the following questions and answers should be presented in a tabular format. The tables will be used as part of the annual review required by the AMC1 CAMO.B.305(a)&(b) oversight programme. The CAA requests that tables are kept up to date with each amendment to the CAME.

## Table 1 – Static Complexity

- 1) How many staff are actively involved in the CAMO approval?
- 2) Does the organisation manage Part M, Part ML or both types of aircraft?
- 3) How many second sites does the organisation have?
- 4) Does the organisation hold the 'Airworthiness Review Extension' privilege?
- 5) Does the organisation hold the 'Airworthiness Review' privilege?
- 6) Does the organisation hold the 'Permit to Fly privilege?
- 7) Does the organisation hold any 'changes not requiring prior approval' privileges?
- 8) Does the organisation hold any indirect approval privileges for the approval of Aircraft Maintenance Programmes?
- 9) Does the organisation have any 'Power by the Hour' contracts?

## Table 2 – Dynamic Complexity

- Is the organisation a standalone, AOC non-licenced air carrier or AOC licenced air carrier?
- 2) How many different products does the organisation manage? (Airframes, engines, propellors, significant STC's)
- 3) What is the total number of aircraft managed?
- 4) What is the total number of sectors flown per annum by the organisation?
- 5) What is the total number of hours flown by the organisation per annum?
- 6) What is the average age of the fleet?
- 7) Does the organisation hold any 'changes not requiring prior approval' privileges?
- 8) What is the area of operation (select largest)? (Within the UK, Within EU or Worldwide)?
- 9) What is the total number of complex aircraft types managed (as specified in the CAME)?
- 10) What is the total number of contracted line and base maintenance organisations (as specified in the CAME)
- 11) How many subcontract arrangements does the organisation hold?
- 12) What Part SPA approvals does the organisation hold? (PBN, MNPS, RVSM, LVO, ETOPS, NVIS, HHO, HEMS, HOFO, SET-IMC, EFB)
- 13) How many maintenance programmes does the organisation control?
- 14) How many aircraft types does the organisation does the organisation manage that require reliability programmes?
- 15) Does the organisation manage 'National Activities' (as per point 30, Article 2 of the basic regulation)? (i.e. Police services)
- 16) Does the organisation hold BCAR A8-25 approval?
- 17) Does the CAMO predominantly manage rotorcraft aircraft?