Overview Of EC Regulations

Civil Aviation Authority

Presenters

Tony Heather	Chief Surveyor's Office Gatwick
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Road Show Venue Logistics

- Emergency Exits etc
- Tea/Coffee and Lunch Arrangements
- Mobile Phones – Please turn them off or to silent
- Question slips
- Posters
- Library
- IT

Road Show Objectives

To provide attendees with an overview of changes brought about by:-

- **EC regulation**
- **Part M Subpart F**
- **Part M Subpart G**
- **Part M Subpart G privileges**
- **Part M Subpart I**
- **Controlled Environment**
- **Non expiring Certificate of Airworthiness (CofA)**
- **Airworthiness Review Certificates (ARC)**
- **Costs and charges**

So What is Changing?

The Main Issues for Aircraft Designated as "EASA Aircraft"

- **If you are not in compliance with EASA Regulations by 28th September 2008 you may run the risk of your aircraft being <u>grounded.</u> Why….**
- **New organisation approvals are required to be in place to support the following changes:-**
  - Maintenance can only be undertaken by organisations/individuals approved or licensed as outlined in EASA Part M.
  - There is a new maintenance organisation approval – Ref: Part M subpart F – for non commercial air transport "light" aircraft and components.

The Main Issues for Aircraft Designated as "EASA Aircraft"

- **Certificates of Airworthiness (CofA) are changing, they will be non expiring.**
- **The non expiring CofA must be validated by an Airworthiness Review Certificate (ARC) either annually or 3 yearly.**
- **For the 3 yearly ARC, aircraft must be within a "controlled environment".**
- **The above will need organisations to gain approval in accordance with Part M subpart G – Continuing Airworthiness Management Organisation.**

Part M Approved Maintenance Providers

- **EASA Part 145**
  - **Commercial Air Transport (CAT) aircraft (any weight)**
  - **CAT helicopters**
  - **Non-CAT aircraft and helicopters (any weight)**
  - **Components for above aircraft**

- **EASA Part M Subpart F**
  - **Non-CAT aircraft 5,700Kg MTOW and below**
  - **Non-CAT single engine helicopters**
  - **Components for above Non-CAT aircraft**

- **EASA Part 66 LAE (outside of an approved organisation)**
  - **Non-CAT aircraft below 5,700Kg MTOW**
  - **Non-CAT single engine helicopters**

Part M Subpart F – Approved Maintenance Organisation

- **This maintenance approval is only valid for aircraft 5700kgs and below, and single engine helicopters.**
- **Aircraft maintained by a Subpart F organisation can qualify as the maintenance provider within a "<u>controlled environment".</u>**
- **If an organisation already holds a CAA maintenance approval the initial charge for Subpart F will be substantially reduced.**
- **This approval can also be used for component maintenance for fitment to the non commercial air transport aircraft above.**

Transition to the New Non-Expiring Certificate of Airworthiness (CofA)

- **With effect from 28th September 2008 every EU member state must be in full compliance with EASA Parts 21, 145, 66, 147 and M.**
- **With regard to the CofA this means that we must change from our current style of expiring document to the EASA Part 21 subpart H non-expiring version.**
- **The non-expiring CofA is validated by the issuance of an Airworthiness Review Certificate (ARC).**

Transition to the New Non-Expiring Certificate of Airworthiness (CofA)

- **It is CAA intention to effect the transition of the documents between 28th September 2007 and 27th September 2008.**
- **To facilitate this transition for every EASA aircraft on the UK register this will require a recommendation to be made to CAA from an appropriate source.**
- **On the basis of this recommendation CAA will issue the new non-expiring CofA and the initial ARC valid for one year.**

Transition to the New Non-Expiring Certificate of Airworthiness (CofA)

- **After 28th September 2008 we are bound by EU regulations in their entirety:**
  - **In order to obtain an EASA non-expiring CofA and an ARC the applicable aspects of EASA Part 21 subpart H and Part M subpart G and I must be met.**

The Controlled Environment

- **The continuing airworthiness of an aircraft is continuously managed by an appropriately approved and contracted Part M subpart G Organisation for a minimum of 12 months, and**
- **Is maintained by an appropriately approved Maintenance Organisation.**

Result of an Aircraft being within a Controlled Environment

- **The approved Part M subpart G organisation (with the additional ARC privileges) can issue and re-issue the 3 year ARC (EASA Form 15b) and extend it twice, on an annual basis, (without direct CAA involvement).**

- **The extension must include a documented "verification" that the aircraft remains airworthy and a copy of the issued or revalidated ARC has been sent to CAA within 10 days.**

Result of an Aircraft NOT being within a Controlled Environment

- **The owner operator must contract the services of a Part M subpart G organisation (holding the ARC privileges for the aircraft in question) once every 12 months.**
- **The Part M subpart G organisation must conduct a <u>full</u> Airworthiness Review (including a physical survey in a hangar) and when satisfied that the aircraft is airworthy make a recommendation to CAA for the issue of an ARC (EASA Form 15a).**
- **The CAA may require to survey the aircraft prior to issuing the ARC.**

EASA Definitions

A few EASA definitions you will need to remember:

Large Aircraft:	**All aircraft above 5,700kgs MTOW and all multi-engine helicopters**
Light Aircraft:	**All aircraft 5,700kgs MTOW and below and all single- engine helicopters**
Aircraft of Simple Design:	**e.g. - 4 passengers and less, Fixed Pitch Propeller, Fixed Undercarriage.**

EASA Overview

Introduction

The Council Regulation 1592/2002

Establishing common rules in the field of civil aviation.

The Commission Regulation 2042/2003

On the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel.

Contents

The Commission Regulation 2042/2003

- 7 Articles
- 4 Annexes
  - Annex 1 Part M
  - Annex 2 Part145
  - Annex 3 Part 66
  - Annex 4 Part 147

European Community Rule Making Where Do They Fit?

Civil Aviation Authority

Council Regulation (EC)1592/2002
(Basic Regulation)
Annex I - Essential Requirements
Annex II - Excluded Aircraft

Established by the **European Parliament**

Implementing Rules Articles 5 & 6 of Basic Regulation

Commission Regulation 1702/2003
[Certification]

Annex I - Part 21
(Includes Subpart H Airworthiness Certificates

Commission Regulation 2042/2003
[Continuing Airworthiness]

Annex I – Part M
Annex II – Part 145
Annex III – Part 66
Annex IV – Part 147

Established by the **European Commission**

Binding in Law

Article 14 of Basic Regulation

AMC & GM
[Certification]

Certification Specifications
Airworthiness Codes
+ associated
AMC & GM

AMC & GM
[Continuing Airworthiness]

EASA
(The Agency)

Article 1 Objective and Scope

Common requirements for ensuring continuing airworthiness of aircraft including components which are registered in a Member State.

Article 2 Definitions

- **'Aircraft' means any machine that can derive support in the atmosphere from the reactions of the air against the earth's surface. This now covers balloons and gliders.**
- **'Certifying staff' persons responsible for the release of aircraft or components.**
- **'Component' means any engine, part or appliance.**
- **'Continuing airworthiness' means all processes ensuring that the aircraft complies with airworthiness and is in a condition for safe operation.**

Article 2 Definitions (cont)

- **'Large aircraft' means an aeroplane with a maximum take-off mass of more than 5700kg, or a multi-engined helicopter.**
- **'Maintenance' means any or a combination of overhaul,repair, inspection modification, replacement or defect rectification.**
- **'Organisation' means a natural person, a legal person or part of a person. Such an organisation may be established at more than one location whether or not within the territory of the Member States.**
- **'Pre-flight inspection' means the inspection carried out before flight to ensure the aircraft is fit for the intended flight.**

Article 3 - 7

- Article 3 Continuing Airworthiness Requirements (Annex I). Part M.
- Article 4 Maintenance Organisation Approvals (Annex II).Part 145.
- Article 5 Certifying Staff (Annex III) Part 66.
- Article 6 Maintenance Training Organisation Approvals (Annex IV) Part 147.
- Article 7 Entry into force (Implementation dates).

Article 7 Entry into Force

- **Regulation entered into force on 29 November 2003**
- **Derogations to allow additional transition periods for certain parts of the annexes.**
- **Full compliance with all annexes by 28 September 2008**

Current Status of Commission Regulation No 2042/2003

- **Current rules were laid down on the 20 November 2003.**
- **Various Notices of Proposed Amendments (NPA's) for Part M have been raised and are in the process of being assessed by the Agency.**

Part M Overview

Part M – Section A

- Subpart A – General – M.A.101
- Subpart B – Accountability – M.A.201
- Subpart C – Continuing Airworthiness – M.A.301
- Subpart D – Maintenance Standards – M.A.401
- Subpart E – Components – M.A.501
- Subpart F – Maintenance Organisation – M.A.601
- Subpart G – Continuing Airworthiness Management Organisation – M.A.701
- Subpart H – Certificate of Release to Service (CRS) – M.A.801
- Subpart I – Airworthiness Review Certificate – M.A.901

Part M Sections A & B

- **Section M.A.**
  - **Applicable to industry compliance**

- **Section M.B.**
  - **Applicable to competent authority compliance:**

    CAA for UK Industry

    EASA for non-EU Industry

Part M Sections A & B

- AMC - Acceptable means of compliance
- M.B.103 - Acceptable means of compliance

a) An AMC has been developed by the Agency as a means which industry and Member States may use to establish compliance with the appropriate Part (Not legally binding)
b) When the AMC has been met in its entirety, then the appropriate part of the requirement has been complied with.
c) When another means of compliance (outside of the AMC) has been proposed to the Competent Authority, the Competent Authority may accept the proposal as meeting the appropriate Part without further need for consultation with the Agency provided the Competent Authority agrees that the proposal fully meets the appropriate Part (The competent authority may propose to the Agency that this other means of compliance is included in the agency rule making programme)

Part M Introduction

For the purpose of this Part , the CAA shall be responsible:

- **For the oversight of the continuing airworthiness of individual aircraft and the issue of airworthiness review certificates the authority designated by the Member State of registry.**

- **For the oversight of a maintenance organisation as specified in M.A. Subpart F.**

Subpart A Technical Requirements M.A.101 - Scope

This Section establishes the measures to be taken to ensure that airworthiness is maintained, including maintenance.

It also specifies the conditions to be met by the persons or organisations involved in such continuing airworthiness management.

Subpart B Accountability M.A.201 – Responsibilities

The owner is responsible for the continuing airworthiness of an aircraft (and its components) and shall ensure that no flight takes place unless the aircraft is in compliance with M.A. 201(a).

M.A.201 – Responsibilities (Cont)

M.A.201 (b) When the aircraft is leased, the responsibilities of the owner are transferred to the lessee if:

- **the lessee is stipulated on the registration document or;**
- **detailed in the leasing contract**

Subpart C Continuing Airworthiness M.A.301- Continuing Airworthiness tasks

The aircraft continuing airworthiness and the serviceability of both operational and emergency equipment must be ensured.

M.A.302 - Maintenance Programme

Every aircraft shall be maintained in accordance with a maintenance programme approved by the CAA, which shall be periodically reviewed and amended accordingly.

The maintenance programme and any subsequent amendments shall be approved by the CAA.

M.A.803 (c) – Pilot-owner Authorisation

Limited pilot owner maintenance defined in Appendix VII may only be carried out if it has been included in the M.A. 302 aircraft maintenance programme

M.A.303 - Airworthiness Directives

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

M.A.304 - Data for Modifications and Repairs

Damage shall be assessed and modifications and repairs carried out using data approved by the Agency or by an approved Part-21 design organisation, as appropriate.

M.A.305 - Aircraft Continuing Airworthiness Record System

- **At the completion of any maintenance, the associated M.A.801 certificate of release to service shall be entered in the aircraft continuing airworthiness records.**

- **The aircraft continuing airworthiness records shall consist of, as appropriate, an aircraft logbook, engine logbook(s) or engine module log cards, propeller logbook(s) and log cards, for any service life limited component and the operator's technical log.**

M.A.306 - Operator's Technical Log System

In the case of commercial air transport, in addition to the requirements of M.A.305, an operator shall use an aircraft technical log system containing the information for each aircraft as specified in M.A.306

The aircraft technical log system and any subsequent amendment shall be approved by the competent authority. An operator shall ensure that the aircraft technical log is retained for 36 months after the date of the last entry.

N.B The technical log system may be used by a non commercial operator as a means of providing feedback to the contracted Subpart G organisation

Subpart D Maintenance Standards M.A.401 - Maintenance Data

Maintenance Data - The person or organisation maintaining an aircraft shall have access to and use only applicable current maintenance data in the performance of maintenance including modifications and repairs.

M.A.402 Performance of Maintenance

All maintenance shall be performed by qualified personnel, following the methods, techniques, standards and instructions specified in the M.A.401 maintenance data. Furthermore, an independent inspection shall be carried out after any flight safety sensitive maintenance task unless otherwise specified by Part-145 or agreed by the competent authority.

AMC M.A.402 (a) 2

In the case of limited pilot owner maintenance as specified in M.A.803, any person maintaining an aircraft should have had appropriate training or relevant previous experience as accepted by the CAA and be capable of performing the task required.

App VIII Limited Pilot Owner Maintenance

At Present NPA 07/2005 is reviewing extending the limits of Pilot Owner maintenance

Pilot / Owner Maintenance

Subpart E – Components
M.A.501 - Installation

No component may be fitted unless it is in a satisfactory condition, has been appropriately released to service on an EASA Form 1 or equivalent and is marked in accordance with Part 21 Subpart Q, unless otherwise specified in Part-145 and Subpart F.

M.A.502 Component Maintenance

The maintenance of components shall be performed by appropriately approved Subpart F or Part 145 maintenance organisations.

An Proposed Rulemaking Form has been raised by the CAA for presentation to AGNA (Advisory Group of National Authorities)in respect of the acceptance of the FAA Form 8130-3.

EASA Part M Subpart F

Subpart F Fundamentals
An organisation needs:

- **A Facility**
- **Management Structures**
- **Maintenance Data**
- **Equipment to carry out the Approved Tasks**
- **Maintenance Personnel**
- **Certifying Staff**
- **Procedures**
- **Monitoring System**
- **Manual**

Current Status of Subpart F

Part-M Subpart F is contained in Annex I to 2042/2003.

Currently not published in hard copy

Can be downloaded from EASA website

AMC and Guidance Material in a separate file

M.A 601 Scope

- **M.A.601 establishes the requirements to be met by an organisation to qualify for the issue and continuation of an approval.**
- **Applicable to non Commercial Air Transport aircraft below 5700kgs and the associated components.**
- **N.B A Subpart F approved maintenance organisation which employs only one person will have certain limitations.**

M.A. 602 Application

- **Application on an EASA Form 2, completed by the Accountable Manager.**
- **Application to the CAA Applications and Approvals Department.**

M.A. 603 Extent of Approval

- **Scope of work clearly defined on Approval Certificate issued by the competent authority.**
- **Scope of work in more detail in Maintenance Organisation Manual.**
- **Fabrication activities,(AMC M.A. 603(b) if applicable, will also be identified within the Maintenance Organisation Manual.**

M.A. 604 Maintenance Organisation Manual

- Part A General: including Accountable Manager's statement
- Part B Description
- Part C General Procedures
- Part D Working Procedures
- Part E Appendices
- MOM and amendments to be approved by CAA

M.A. 605 Facilities

- Proof of tenancy.
- Appropriate facilities to protect against environment and contamination.
- Office accommodation for management of all planned work.
- Secure storage and appropriate storage conditions for tools,equipment, components and materials.

M.A. 606 Personnel Requirements

- **Organisation will appoint an Accountable Manager responsible for the all maintenance carried out to the standard required by Part M.**
- **MO must appoint a management structure responsible to the accountable manager and nominated to the competent authority.ref:AMC M.A.606 (b) 5.**
- **Management structure to show relevant knowledge, background and experience (aircraft/component).**

AMC.606(c) Personnel Requirements (cont)

Nominated Personnel:

- **Practical experience and expertise of aviation standards and safe maintenance practices**
- **Comprehensive knowledge of Part M requirements and procedures**
- **Five years aviation experience which three should be practical maintenance**
- **Knowledge of the relevant aircraft or components maintained**
- **Knowledge of maintenance standards**

M.A. 607 Certifying Staff

- Certifying staff must comply with the requirements of Part 66 – not applicable for the release of components.
- In the preceding two years they have had six months of relevant maintenance aircraft or component experience.
- Have an adequate understanding of the relevant aircraft or component and associated procedures.
- Details of all current certifying staff shall be maintained by the organisation.
- Authorisation to be based on a valid licence.

M.A. 607 Certifying Staff (Cont)

What is Competence ?

- The ability of someone to perform a task or job to the necessary standard.
- Competence requires the successful application of skills and knowledge.
- Establishment of individual competence.
- Identify the tasks and jobs expected to be performed.
- Determine the necessary skills, knowledge and experience requirements to do the jobs.
- Determine that the person has the necessary skills knowledge and experience.
- Assess / evaluate their ability to perform the job.

M.A. 608 Components, Equipment and Tools

- **All recommended tooling or equivalent must be available.**
- **Recommended by the Aircraft Manufacturer or OEM.**
- **Control and calibration of tools.**
- **Segregation of all incoming components.**

M.A. 609 Maintenance Data

- MO should have access to and use applicable current maintenance data. This includes instructions for continuing airworthiness, AD's, AWN, MM, IPC, SRM & Standard Practises.
- Includes any applicable requirement, procedure, standard or information issued by the competent authority.
- Common work card / worksheet.
- Maintenance Data should be readily available.
- Procedures to ensure maintenance data is controlled and kept up do date.
- Owner/Operator may supply the approved data to the MO.

M.A. 610 Maintenance Work Orders

Prior to commencement of maintenance the following should be established:

- **A written work order should be agreed between the Organisation and the customer**
- **The maintenance to be carried out should be clearly defined**

M.A. 611 Maintenance Standards

All maintenance to be carried in accordance with Subpart D, Maintenance Standards (M.A.401).

M.A. 612 Aircraft Certificate of Release to Service

A certificate of release to service may be issued i.a.w. M.A.801 by:

1) **An appropriate certifying staff on behalf of the Subpart F approved maintenance organisation; or**
2) **A pilot owner / Part 66 Certifying Staff but limited to (M.A.803 and Appendix VIII)**
   Reference M.A. 901(b) Controlled Environment

M.A. 612 Aircraft Certificate of Release to Service (cont)

The aircraft CRS should contain the following statement:

"Certifies that the work specified except as otherwise specified was carried out in accordance with Part M and in respect to that work the aircraft is considered ready for release to service"

For Pilot-owner maintenance the CRS should contain the following statement:

"Certifies that the limited pilot-owner maintenance specified except as otherwise specified was carried out in accordance with Part M and in respect to that work the aircraft is considered ready for release to service"

App VII – Complex tasks

A Proposed Rulemaking Form has been raised by the CAA for presentation to AGNA (Advisory Group of National Authorities) in respect of defining complex tasks on piston engines.

Complex Tasks

App VIII – Limited Pilot Owner Maintenance

At Present NPA 07/2005 is Reviewing extending the limits of Pilot Owner Maintenance.

Pilot / Owner Maintenance

M.A. 613 Component Certificate of Release to service

- On the completion of component maintenance the certificate of release to service shall be issued in accordance with M.A.802.
- The authorised release certificate EASA Form 1 constitutes the component certificate of release to service.
- Components maintained for the in-house organisation may not require the issue of an EASA Form .1

A Proposed Rulemaking Form has been raised by the CAA for presentation to AGNA (Advisory Group of National Authorities) in respect of the acceptance of the FAA Form 8130-3.

Appendix II

Differences to the EASA Form 1 Appendix II:

Block 13 - Add "Part M Certificate of release to service".

Block 19 - For all maintenance by M.A.Subpart F approved maintenance the box "other regulation box specified in block 13" shall be ticked and the M.A.Subpart F certificate of release statement made in block 13.

Block 21 - The M.A. Subpart F approved maintenance organisation reference number.

M.A.613 Component Certificate of Release to Service (Cont)

1. Approving Competent Authority / Country	2. **AUTHORISED RELEASE CERTIFICATE** **EASA FORM 1**	3. Form Tracking Number.
4 Approved Organisation Name and Address		5. Work Order/Contract/Invoice

6. Item	7. Description	8. Part No	9. Eligibility*	10. Qty	11. Serial/Batch No	12. Status/Work

13. Remarks

"Certifies that the work specified, except as otherwise specified, was carried out in accordance with Part M and in respect to that work the aircraft is considered ready for release to service"

14. Certifies that the items identified above were manufactured in conformity to:	19. ☐ Part-145.A.50 Release to Service ☒ other regulation specified in block 13
☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block13	Certifies that unless otherwise specified in block 13, the work identified in block 12 and described in block 13, was accomplished in accordance with Part-145 and in respect to that work, the items are considered ready for release to service.

15. Authorised Signature	16. Approval / Authorisation Number	20. Authorised Signature	21. Certificate/Approval Ref. No. **Subpart F Approval No**
17. Name	18. Date (d/m/y)	22. Name	23. Date (d/m/y)

EASA Form 1 - Issue 1

* Installer must cross-check eligibility with applicable technical data

M.A. 614 Maintenance Records

Records kept to demonstrate requirements have been met to issue the CRS.

A copy of each CRS provided to the owner/operator.

All maintenance records retained for at least 3 years.

Protected against damage and theft.

Electronic data to have a backup system located in an independent location.

On the termination of the organisation all retained maintenance records shall be distributed to the appropriate owner / operator.

M.A. 615 Privileges of the Organisation

The organisation may:

- **Maintain any aircraft and/or component for which it is approved at the locations specified in the approval certificate and in the manual**
- **Maintain any aircraft and/or component for which it is approved at any other location subject to such maintenance being only necessary to rectify arising defects**
- **Issue certificates of release to service on completion of maintenance, in accordance with MA 612 or MA 613**

M.A. 616 Organisational Review

Organisational review objectives:

- **To enable the organisation to deliver a safe product.**
- **To ensure the approved maintenance organisation remains in compliance with requirements.**

M.A. 616 Organisational Review

Subpart F Organisation should identify in the MOM:

- **The person responsible for the organisational reviews**
- **The frequency of the reviews, minimum annually**
- **The contents and scope of reviews**
- **Person(s) carrying out the reviews**
- **Procedure for Planning, performing and processing review findings**
- **A procedure for ensuring corrective action responses are actioned in a timely manner**

M.A. 616 Organisational Review

Detailed information can be found in Appendix VIII to AMC M.A. 616.

M.A. 617 Changes to the Approved Maintenance Organisation

Changes affecting the approved maintenance organisation:

- **Name of the organisation**
- **Location of the organisation**
- **Additional sites**
- **Accountable manager**
- **Nominated persons (M.A.606(b)**
- **Facilities Equipment Tools etc.**

M.A. 618 Continuing validity of the Approval

Unlimited duration, non expiry certificate subject to:

- **Remaining in compliance with the regulations**
- **Closing any findings in a timely manner**
- **Granting access to the CAA**
- **Approval not being revoked or surrendered**
- **Be recommended every two years by the CAA, Via a EASA Form 6F**

M.A. 619 Findings

Level 1.

A significant non compliance with Part M requirements which lowers the safety standard and hazards seriously the flight safety.

Level 2.

A non compliance with the Part M requirements which could lower the safety standards and possibly hazard the flight. No more than three months for corrective action

All findings shall have a corrective action plan and time scales agreed by the CAA.

Costs & Charges

Official Record Series 5,No 208

Approval or authorisations of persons and organisations:

d) In the case of an approval in Part-M Subpart G for aircraft above 5700kgs, a charge of £3,350 and for aircraft up to 5700kgs a charge of £1,675. However where the applicant already holds a CAA maintenance approval then a charge of £ 830 will be applied

e) In the case of an approval in Part-M Subpart F, a charge of £1,675. However where the applicant already holds a CAA maintenance approval, then a charge of £830 will be applied

Variation charges

a) In the case of a Part 21 Subpart G, Part 145 or Part-M (Subpart F or Subpart G) a charge of £830

Annual Charges

a) The annual renewal charge will be £1675

Example of Annual Costs & Charges

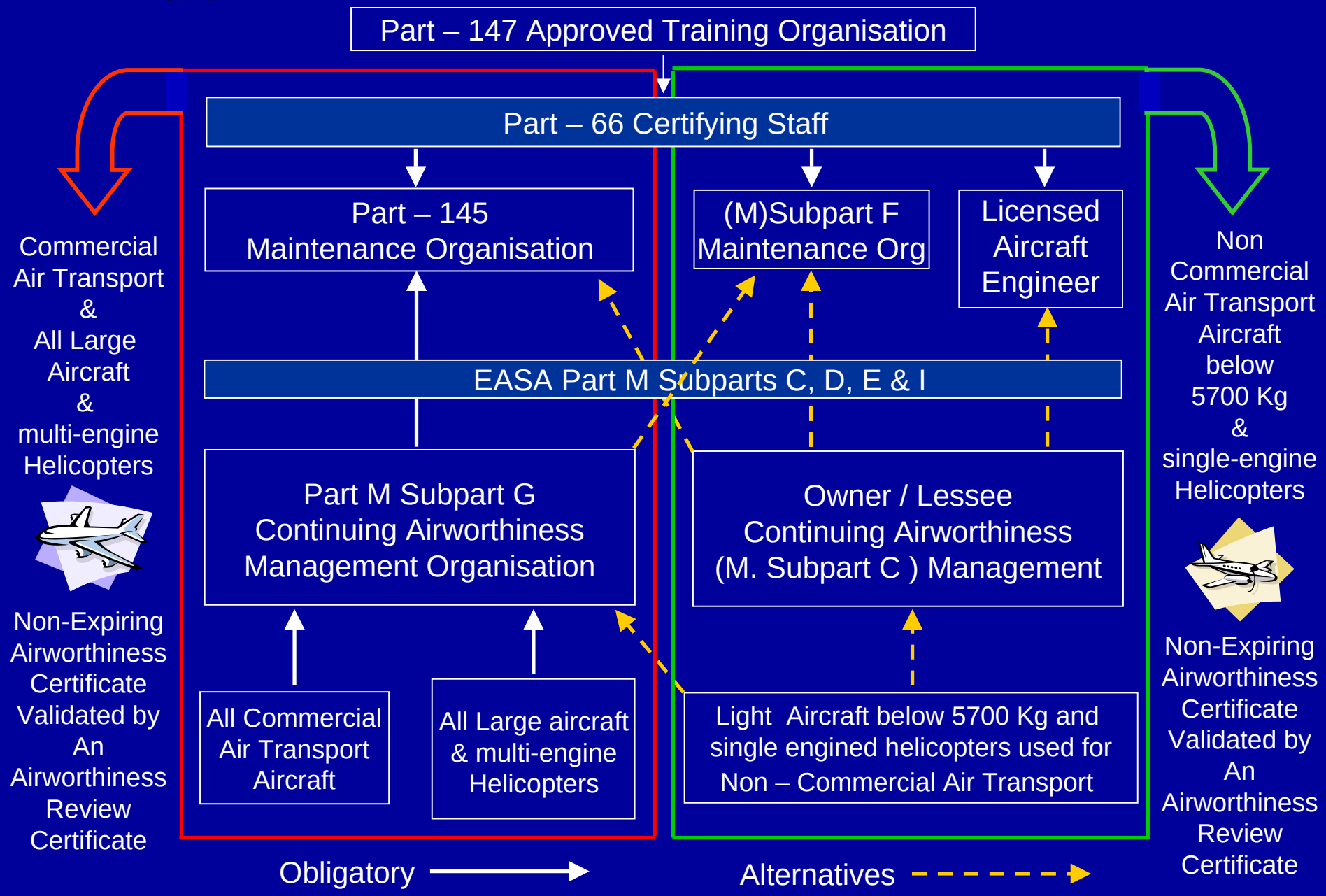
In this example the organisation holds a Part M Subpart G, Subpart F approval for aircraft below 5700kg and an M3 approval with no extra sites The annual turnover is assumed to be below £1.090.000

Part M Subpart G	1 x £1675
Part M Subpart F	1 x £1675
BCAR A-15 (M3)	1 x £935

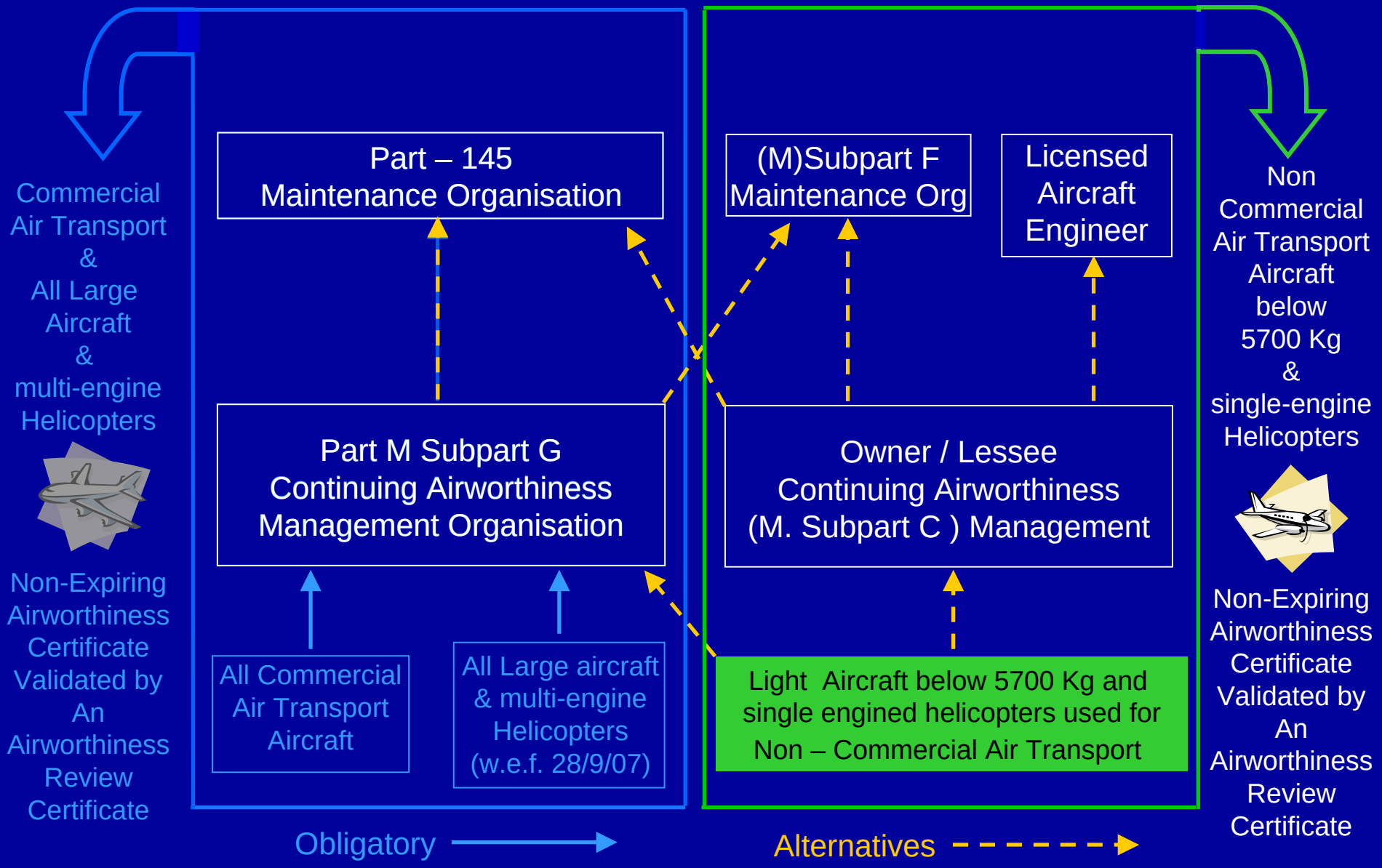
100% of the total highest charge (Subpart G)	=	£1675
25% of other group (Subpart F)	=	£ 418.75
25% of other group (M3)	=	£ 233.75
Total Annual Charge	=	£2327.50

PART M
SUBPARTS G AND I

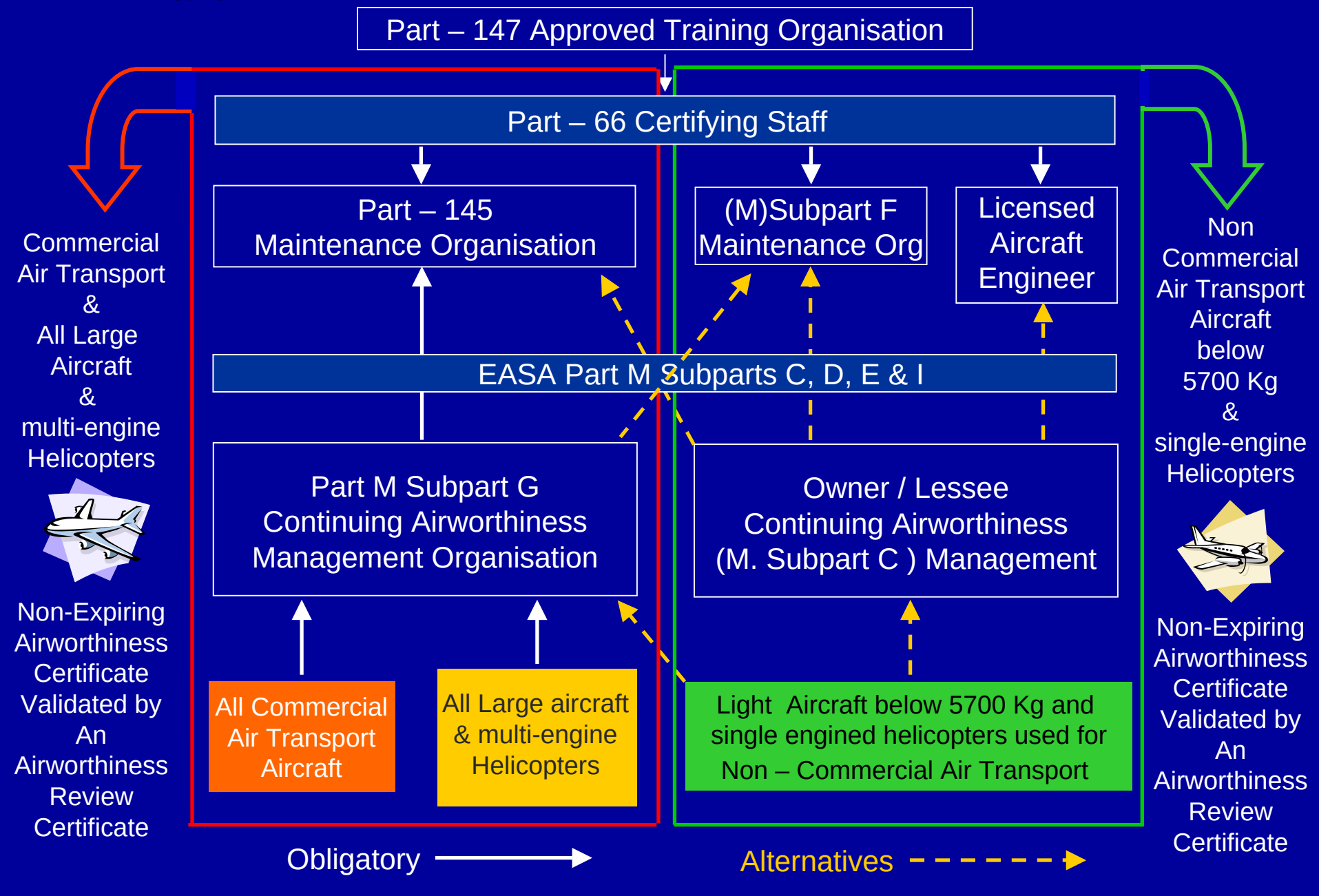
European Continuing Airworthiness Management Structure – Part M



European Continuing Airworthiness Management Structure – Part M



European Continuing Airworthiness Management Structure – Part M



Part M Subpart G – Continuing Airworthiness Management Organisation

M.A.701	-	Scope
M.A.702	-	Application
M.A.703	-	Extent of Approval
M.A.704	-	Continuing Airworthiness Management Exposition (CAME)
M.A.705	-	Facilities
M.A.706	-	Personnel Requirements
M.A.707	-	Airworthiness Review Staff
M.A.708	-	Continuing Airworthiness Management
M.A.709	-	Documentation

Part M Subpart G – Continuing Airworthiness Management Organisation

M.A.710 - Airworthiness Review

M.A.711 - Privileges of the Organisation

M.A.712 - Quality System

M.A.713 - Changes to the Approved Continuing Airworthiness Organisation

M.A.714 - Record Keeping

M.A.715 - Continued Validity of the Approval

M.A.716 - Findings

Part M Subpart G – M.A.701

Scope

This subpart establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the <u>management of aircraft continuing airworthiness</u>.

(Note: the organisation may additionally apply for Airworthiness Review and ARC signatory privileges.)

Part M Subpart G – M.A.702

Application for Initial Issue or a Variation of the Approval:

For Commercial Air Transport, an application for the issue of a Part M Subpart G - Continuing Airworthiness Management approval shall be made to the CAA Flight OPS Department as part of the AOC application.

For the issue of a stand-alone (independent) Part M Subpart G approval, or variation, an application shall be made to A&A Department, Aviation House, Gatwick Airport.

Part M Subpart G – M.A.703

Extent of Approval

(a) Specified by the issue of an EASA Form 14 and further defined in the scope of work in the Continuing Airworthiness Management Exposition (CAME).

(b) Part of the Air Operators Certificate for Commercial Air Transport Operators.

Part M Subpart G – M.A.704

Continuing Airworthiness Management Exposition (CAME)

1. Accountable Managers Statement
2. Scope of Work
3. Nominated Post Holders
4. Organisation Chart
5. Airworthiness Review Staff
6. Description and Location of Facilities
7. Organisational Procedures
8. Amendment Process

Part M Subpart G – M.A.705

Facilities

- **The continuing airworthiness management organisation shall provide suitable office accommodation at appropriate locations for the personnel specified in M.A.706.**

Part M Subpart G – M.A.706

Personnel Requirements

- Accountable Manager
- Nominated persons (management)
- Nominated Post Holder for continuing airworthiness activities
- Sufficient appropriately qualified staff
- Relevant knowledge and experience
- Qualifications shall be recorded

Part M Subpart G – M.A.706

Accountable Manager

Has corporate authority for ensuring that all continuation airworthiness activities can be financed and carried out i.a.w. Part M.

Part M Subpart G – M.A.706

Nominated Person(s)

A person or group of persons shall be nominated with the responsibility of ensuring that the organisation is always in compliance with Subpart G. They will be ultimately responsible to the Accountable Manager.

Part M Subpart G – M.A.706

Sufficient Appropriately Qualified Staff

The organisation shall have sufficient qualified staff for the expected work.

Part M Subpart G – M.A.706

Relevant Knowledge and Experience

The nominated person(s) shall be able to show relevant knowledge, background and appropriate experience related to aircraft continuing airworthiness.

Part M Subpart G – M.A.706

Qualifications shall be Recorded

The qualifications of all personnel involved in continuing airworthiness management shall be recorded.

Part M Subpart G – M.A.707

Airworthiness Review Staff

These staff will be qualified to M.A.706 plus the following additional aspects:

1. **at least five years experience in continuing airworthiness, and;**
2. **an appropriate Part-66 licence or an aeronautical degree or equivalent, and;**
3. **formal aeronautical maintenance training, and;**
4. **a position within the approved organisation with appropriate responsibilities.**

Part M Subpart G – M.A.707

Airworthiness Review Staff

AMC M.A.707 (a):

4. To hold a position with appropriate responsibilities means the airworthiness review staff should have a position in the organisation independent from the airworthiness management process or with overall authority of the airworthiness management process of complete aircraft.

Part M Subpart G – M.A.707

Airworthiness Review Staff

(b) Airworthiness review staff nominated by the approved continuing airworthiness organisation can only be issued an authorisation by the approved continuing airworthiness organisation when <u>formally accepted</u> by the competent authority after satisfactory completion of an airworthiness review <u>under supervision</u>.

Part M Subpart G – M.A.708

Continuing Airworthiness Management

(a) The management of Subpart C tasks.

(b) For every aircraft the organisation (if contracted) shall:

1) **Develop a maintenance programme.**
2) **Present the programme and it's amendments to the CAA for approval and provide a copy to the owner/operator**
3) **Manage the approval of changes (i.e. mods and repairs).**
4) **Ensure all maintenance is carried out.**
5) **Ensure all airworthiness directives are complied with.**

Cont…

Part M Subpart G – M.A.708

Continuing Airworthiness Management

b) For every aircraft the organisation (if contracted) shall:

6) Ensure reported defects are corrected.

7) Ensure that the aircraft goes to an approved maintenance organisation when necessary.

8) Co-ordinate all scheduled maintenance.

9) Manage continuing airworthiness records.

10) Ensure the mass & balance report is correct.

Part M Subpart G – M.A.709

Documentation

The approved continuing airworthiness management organisation shall <u>hold</u> and use applicable current M.A.401 maintenance data in the performance of M.A.708 continuing airworthiness tasks.

Part M Subpart G – M.A.710

Airworthiness Review

To satisfy the requirement for an M.A.902 airworthiness review of an aircraft, a full documented review of the aircraft records shall be carried out by the approved continuing airworthiness management organisation in order to be satisfied that:

1. **airframe, engine and propeller flying hours and associated flight cycles have been properly recorded, and;**
2. **the flight manual is applicable to the aircraft configuration and reflects the latest revision status, and;**
3. **all the maintenance due on the aircraft according to the approved maintenance programme has been carried out, and;**
4. **all known defects have been corrected or, when applicable, carried forward in a controlled manner, and;**

Part M Subpart G – M.A.710

5. all applicable airworthiness directives have been applied and properly registered, and;
6. all modifications and repairs applied to the aircraft have been registered and are approved according to Part-21, and;
7. all service life limited components installed on the aircraft are properly identified, registered and have not exceeded their approved service life limit, and;
8. all maintenance has been released in accordance with this Part, and;
9. the current mass and balance statement reflects the configuration of the aircraft and is valid, and;
10. the aircraft complies with the latest revision of its type design approved by EASA.

Part M Subpart G – M.A.710

Airworthiness Review

b) The approved continuing airworthiness management organisation's airworthiness review staff <u>shall carry out a physical survey of the aircraft</u>. For this survey, airworthiness review staff not appropriately qualified to Part-66 shall be assisted by such qualified personnel.

c) Aircraft survey shall include, Placards and Markings, Flight Manual, Configuration Approved, Defects Addressed i.a.w M.A. 403, no inconsistencies between aircraft and records.

d) The airworthiness review can be anticipated by a maximum period of 90 days to allow the physical review to take place during a maintenance check.

Part M Subpart G – M.A.710

Airworthiness Review

e) An M.A.902 airworthiness review certificate (EASA Form 15b) or a recommendation is issued by appropriately authorised M.A.707 airworthiness review staff on behalf of the approved continuing airworthiness management organisation when satisfied that the airworthiness review has been properly carried out.

f) Where a Form 15(b) is issued or extended by a Part M Subpart G organisation for an aircraft in a controlled environment, a copy shall be sent to the Member State of Registry of that aircraft within 10 days.

Part M Subpart G – M.A.710

Airworthiness Review

g) Airworthiness Reviews <u>shall not</u> be sub-contracted.

- **The Part M Subpart G applying for the additional airworthiness review privilege will need to demonstrate they have the in-house expertise and resources to carryout airworthiness reviews.**

h) Should the outcome of an airworthiness review be inconclusive, the Part M Subpart G organisation shall inform the competent authority.

Part M Subpart G – M.A.711

a) **Privileges of the Subpart G approved organisation**

1) **Manage the continuing airworthiness of <u>non</u> commercial air transport aircraft as listed on the approval certificate.**

2) **For a Commercial Air Transport Operator, manage the continuing airworthiness of the commercial air transport aircraft list on their Air Operators Certificate.**

3) **Sub-contract continuing airworthiness tasks to another organisation working under its quality system. (Ref. Part M Appendix II).**

Part M Subpart G – M.A.711

b) A Subpart G approved organisation may <u>additionally</u> be approved to carry M.A.710 reviews and:

- **Issue Form 15(b) ARC for aircraft as listed on their approval certificate which are within a controlled environment, and;**
- **Make a recommendation based on an Airworthiness Review to a Member State of Registry for the issue of an ARC.**

c) An organisation <u>shall be registered in one of the Member States</u> to be granted the privilege to issue or recommend Airworthiness Review Certificates.

Part M Subpart G – M.A.711

AMC M.A.711(b)

It is not necessary for a Part M Subpart G organisation to be approved to carryout airworthiness reviews. In such cases the airworthiness review should be carried out every year and the ARC (Form 15a) issued by the CAA following a recommendation from an appropriately approved Part M Subpart G organisation.

Part M Subpart G – M.A.712

Quality system:

- **It will be necessary to comply with the full requirements of M.A.712 if the terms of approval allow for the organisation to manage the continued airworthiness of commercial air transport aircraft or aircraft above 2,730Kg MTOW or multi engine helicopters.**

Part M Subpart G – M.A.712 (Ref: NPA No. 07/2005)

Quality system:

- **If the Terms of Approval limit the organisation to only manage the continued airworthiness of aircraft, below 2,730Kg MTOW, or single engine helicopters <u>not</u> used for commercial air transport, the quality system can be replaced by performing an "organisational review".**

PART M SUBPART I

Part M subpart I – Airworthiness Review Certificate

M.A.901	**-**	**Aircraft Airworthiness Review**
M.A.902	**-**	**Validity of the Airworthiness Review Certificate**
M.A.903	**-**	**Transfer of aircraft registration within the EU**
M.A.904	**-**	**Airworthiness Review of Aircraft imported into the EU**
M.A.905	**-**	**Findings**

Part M Subpart I – M.A.901

Aircraft airworthiness review:

To ensure the validity of the aircraft airworthiness certificate an airworthiness review of the aircraft and its continuing airworthiness records must be carried out periodically.

Part M Subpart I – M.A.901

(b) An aircraft in a <u>controlled environment</u> is an aircraft continuously managed by an M.A. Subpart G approved continuing airworthiness management organisation, which has not changed organisations in the previous 12 months, and which is maintained by approved maintenance organisations. This includes M.A.803(b) *(i.e. Limited Pilot Maintenance)* maintenance carried out and released to service according to M.A.801(b)2 *(a Part 66 LAE)* or M.A.801(b)3 *(the pilot owner).*

(the following slides depict this requirement)

Controlled Environment – Commercial Air Transport, Any Aircraft (Option A)

Operator Must Hold an AOC

AOC holder also holds Part M subpart G (inc. ARC privileges)

AND

Aircraft managed by the above organisation for a minimum period of 12 months

Aircraft Maintained by a EASA Part 145 Maintenance Organisation

Above Part M subpart G Organisation can now Issue / revalidate the ARC

Controlled Environment – Commercial Air Transport, Any Aircraft (Option B)

Civil Aviation Authority

Operator must hold an AOC

AOC Holder also holds Part M Subpart G (without additional ARC privileges)

Aircraft managed by the above organisation for a minimum of 12 months

AND

Annually contract a Part M Subpart G (with ARC privileges) to conduct a full Airworthiness Review (inc. a physical survey)

This organisation then make a recommendation to CAA to issue an ARC

AND

Aircraft maintained by EASA Part 145 Maintenance Organisation

Controlled Environment, Non Commercial Air Transport, Large Aircraft & Multi Engine Helicopters

Owner must CONTRACT a Part M subpart G organisation (Holding ARC privileges) To manage the CAW of his aircraft

AND

The above Part M subpart G organisation manages the CAW for a minimum of 12 months

Aircraft is maintained by an EASA Part 145 Maintenance Organisation

Above Part M subpart G Organisation can now issue / revalidate the ARC

Controlled Environment Non Commercial Air Transport, Small Aircraft (below 5,700kgs MTOW)

Owner must CONTRACT a Part M subpart G organisation (Holding ARC privileges) To manage the CAW of his aircraft

OR

OR

AND

Aircraft is maintained by an EASA Part M subpart F Maintenance Organisation

The above Part M subpart G organisation manages the CAW for a minimum of 12 months

Aircraft is maintained by an EASA Part 145 Maintenance Organisation

Above Part M subpart G Organisation can now issue / revalidate the ARC

Controlled Environment Non-Commercial Air Transport, Small Aircraft (of Simple Design and below 2,730Kg MTOW)

Owner must CONTRACT a Part M subpart G organisation (Holding ARC privileges) To manage the CAW of his aircraft

OR

OR

AND

Aircraft is maintained by an EASA Part 145 Maintenance Organisation in addition:

The above Part M subpart G organisation manages the CAW for a minimum of 12 months

Aircraft is maintained by an EASA Part M subpart F Maintenance Organisation in addition:

Pilot Maintenance i.a.w. Part Appendix VIII certified either by the pilot-owner or appropriate Part 66 LAE

Above Part M subpart G Organisation can now issue / revalidate the ARC

Pilot Maintenance i.a.w. Part Appendix VIII certified either by the pilot-owner or appropriate Part 66 LAE

Part M Subpart I – M.A.901

(c) **If an aircraft is within a controlled environment, the continuing airworthiness management organisation managing the aircraft may <u>if appropriately approved</u>:**

1) **issue the airworthiness review certificate in accordance with M.A.710, and;**

2) **extend twice the validity of the airworthiness review certificate, it has issued, for a period of one year each time. An airworthiness review certificate shall not be extended if the organisation is aware or has reason to believe that the aircraft is unairworthy.**

Part M Subpart I – M.A.901

(d) If an aircraft is:

Not within a controlled environment, or

The managing Subpart G approved organisation does not hold the additional ARC privileges, then:

The airworthiness review certificate shall be issued by the CAA following a satisfactory assessment based on a recommendation made by a Subpart G approved organisation holding the privilege to carry out airworthiness reviews, together with the application from the owner or operator.

Part M Subpart I – M.A.901

Aircraft Airworthiness Review:

(e) Whenever circumstances show the existence of a potential safety threat, the competent authority may decide to carry out the airworthiness review and issue the airworthiness review certificate itself. In this case, the owner or operator shall provide the competent authority with:

- **the documentation required by the competent authority,**
- **suitable accommodation at the appropriate location for its personnel, and**
- **when necessary the support of personnel appropriately qualified in accordance with Part-66.**

Part M Subpart I – M.A.902

Validity of the Airworthiness Review Certificate:

a) An airworthiness review certificate becomes invalid if:

1. **suspended or revoked; or**
2. **the airworthiness certificate is suspended or revoked; or**
3. **the aircraft is not on the aircraft register of a Member State; or**
4. **the type certificate under which the airworthiness certificate was issued is suspended or revoked.**

Part M Subpart I – M.A.902

Validity of the airworthiness review certificate:

(b) An aircraft must not fly if the airworthiness certificate is invalid or if:

1. **the continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of this Part, or;**

2. **the aircraft does not remain in conformity with the type design approved by the Agency; or**

Part M Subpart I – M.A.902

Validity of the airworthiness review certificate (cont):

3. **the aircraft has been operated beyond the limitations of the approved flight manual or the airworthiness certificate without appropriate action being taken; or**

4. **the aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without subsequent appropriate action to restore airworthiness; or**

5. **a modification or repair has not been approved in accordance with Part-21.**

Note: The above 5 items must be verified at each annual ARC extension. (Ref: AMC M.A.901(c) 2)

Part M Subpart I – M.A.903

Transfer of aircraft registration within the EU:

(a) When transferring an aircraft registration within the EU, the applicant shall:

1. **inform the former Member State in which Member State it will be registered, then;**

2. **apply to the new Member State for the issuance of a new airworthiness certificate in accordance with Part 21.**

(b) Notwithstanding M.A.902(a)(3) *[i.e. the aircraft not being on an EU member state register],* the former airworthiness review certificate shall remain valid until its expiry date.

Part M Subpart I – M.A.904

Airworthiness review of aircraft imported into the EU:

(a) When importing an aircraft onto a Member State register from a third country, the applicant shall:

1. **apply to the CAA for the issuance of a new airworthiness certificate in accordance with Part - 21; <u>and</u>**

2. **have an airworthiness review carried out by an appropriately approved continuing airworthiness management organisation; <u>and</u>**

3. **have all maintenance as requested by the continuing airworthiness management organisation carried out.**

Part M Subpart I – M.A.904

Airworthiness review of aircraft imported into the EU:

(b) When satisfied that the aircraft is in compliance with the relevant requirements, the continuing airworthiness management organisation shall send a documented recommendation for the issuance of an airworthiness review certificate to the CAA.

Cont….

Part M Subpart I – M.A.904

Airworthiness review of aircraft imported into the EU:

(c) The owner shall allow access to the aircraft for inspection by the CAA.

(d) A new airworthiness certificate will be issued by the CAA when it is satisfied the aircraft complies with the prescriptions of Part-21.

(e) The CAA shall also issue the airworthiness review certificate valid normally for one year unless the CAA has a safety reason to limit the validity.

Part M Subpart I – M.A.905

Findings:

After receipt of notification of findings from CAA, either from aircraft surveys *(Ref: M.B.303)* or organisation oversight *(Ref: M.B.903)* the person or organisation accountable according to M.A.201 shall define a corrective action plan and demonstrate corrective action to the satisfaction of the CAA within a period agreed with the authority including appropriate corrective action to prevent reoccurrence of the finding and its root cause.

Issue of an EASA Non-expiring Certificate of Airworthiness and Associated Airworthiness Review Certificate

EASA Part 21 Subpart H

- **Part 21 Subpart H details how Airworthiness Certificates are to be issued for aircraft covered by EASA regulation.**
- **With effect from 28th September 2007 CAA will be issuing the new <u>non-expiring</u> certificates.**
- **For aircraft already on the UK register, in order to facilitate the transition, it is planned that this will be achieved via a recommendation from existing approved sources.**
- **Based upon the same recommendation CAA will also issue the first ARC at this time. Valid for 12 months.**

EASA Part 21 Subpart H

- **With effect from 28th September 2008, all new CofA applications must be accomplished fully in accordance with Part 21.**
- **There are four scenarios that have different elements to the process:**

  1. **New aircraft manufactured within the EU**
  2. **New aircraft manufactured outside the EU**
  3. **Used aircraft transferred within the EU**
  4. **Used aircraft imported from outside the EU**

New aircraft manufactured within the EU

- **If the aircraft is manufactured by an EASA Part 21 subpart G production organisation CAA will normally issue a CofA and ARC "without further showing" on presentation of:**
  - **A completed and signed application form, together with:**
  - **An EASA Form 52 "Aircraft Statement of Conformity" completed and signed by the above production organisation**
  - **A Weight and Balance Report, with a loading schedule**
  - **Flight manual that reflects the configuration of the** presented aircraft

New aircraft manufactured outside the EU

- **Provided the aircraft is being exported from a country where EASA has established agreed and published "Working Arrangements", CAA will normally issue a CofA "without further showing" on presentation of:**
  - **A completed and signed application form, together with:**
  - **A statement signed by the exporting authority that the aircraft conforms to a design <u>approved by EASA</u> (e.g. Export CofA)**
  - **A Weight and Balance Report, with a loading schedule**
  - **Flight manual that reflects the configuration of the presented aircraft**

Used aircraft transferred within the EU

Provided that the aircraft has a valid CofA and current ARC from the EU member state CAA will normally issue a CofA "without further showing" on presentation of:

- **A completed CofA application form containing signed declarations that the aircraft is in an airworthy condition, together with -**
- **The current valid ARC in order for CAA to amend the aircraft details. The ARC remaining period will be honoured**
- **Flight Manual and Placards are in English**

Note: if the airworthiness condition is in doubt for any reason CAA will wish to Survey the aircraft.

Used aircraft imported from outside the EU

For the time being CAA will be directly involved with the issue of the CofA and ARC for these aircraft, including an aircraft survey. The applicant must submit, or provide details of where they can be accessed:

- **A completed and signed application form, together with:**
- **A statement by the competent authority of the State where the aircraft is, or was, registered, reflecting the airworthiness status of the aircraft on its register at time of transfer.**
- **A weight and balance report with a loading schedule.**
- **A Flight Manual that reflects the configuration of the presented aircraft.**

Cont….

Used aircraft imported from outside the EU

- **Historical records to establish the production, modification, and maintenance standard of the aircraft.**
- **A recommendation for the issuance of a certificate of airworthiness *(from an appropriately approved Part M subpart G organisation i.a.w. a CAA approved CAME procedure).***
- **A recommendation for the issuance of an airworthiness review certificate following an airworthiness review in accordance with Part M *(from the same Part M subpart G organisation).***