

# **MINISTERO DELLA DIFESA**

Segretariato Generale della Difesa e Direzione Nazionale degli Armamenti Direzione degli Armamenti Aeronautici e per l'Aeronavigabilità

# REQUIREMENTS CONTINUING AIRWORTHINESS ORGANISATIONS FOR IFTS

BASE Edition 15 November 2022

## LIST OF EFFECTIVE PAGES

**NOTE:** This regulation is valid if it is made of the pages listed below, duly updated. Copy of this regulation may be found at the address:

http://www.difesa.it/SGD-DNA/Staff/DT/ARMAEREO/Biblioteca/Pagine/default .aspx

## The issue dates of the original and amended pages are:

Original...... 0...... 15 November 2022

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# 1. INTRODUCTION

The *Direzione Armamenti Aeronautici e per l'Aeronavigabilità*<sup>1</sup> (DAAA), as National Military Airworthiness Authority (NMAA), takes part in the Military Airworthiness Authority Forum (MAWA Forum) of the European Defence Agency (EDA). The aim of the Forum is to establish a common regulatory framework among the European Military Airworthiness Authorities in order to harmonise military airworthiness requirements, processes and procedures across Europe. The MAWA developed a set of European Military Airworthiness Requirements (EMARs) to be implemented by each participant Member States (pMS) in their domestic regulation.

## 1.1. AIM

The aim of this regulation is to adopt EMAR M, "CONTINUING AIRWORTHINESS REQUIREMENTS" within the Italian airworthiness regulations, as applicable to the weapon system of the T-346 series.

This regulation establishes administrative procedures and technical requirements to be met by any Operating Organisation of military aircrafts to qualify for the issue/continuation of an approval for management of aircraft, including any component for installation thereto, which are:

- registered in the REGISTRO AEROMOBILI MILITARI (RAM) (not applicable for Prototype);
- b) registered in the RAM or in a third country and used by a Government operator other than Italian, when, through a Government agreement, DAAA is requested to approve a continuing airworthiness management organisation.

This publication includes 2 Annexes:

- Annex 1 EMAR M Section A, providing all requirements to be met by the Organisation requiring approval;
- Annex 2 providing the Applicable Means of Compliance (AMC) and Guiding Material (GM) for all requirements listed in Annex1.

# 1.2. APPLICABILITY

This regulation is applicable to any Organisations, which operates and/or carries out continuing airworthiness management on the military aircrafts with a Mission Design Series T-346A/B and/or its components.

Military/Government Operating Organisations of the mentioned MDSs may apply for DAAA Approval according to either the Section A Subpart B of the Annex 1 of this regulation or the AER(EP).P-2005.

<sup>&</sup>lt;sup>1</sup> Directorate of Air Armament and Airworthiness

# 1.3. VALIDITY

This Regulation is effective starting from the date of its approval.

## **1.4. DEFINITIONS AND ACRONYMS**

All the terms and acronyms used in this Regulation are defined in the EMAD 1.

# **1.5. REFERENCE REGULATIONS**

- AER(EP).P-1-2 "REQUISITI PER LA QUALIFICA E L'ABILITAZIONE DEL PERSONALE RESPONSABILE PER LA VERIFICA DELLE ORGANIZZAZIONI DI PROGETTAZIONE, PRODUZIONE, MANUTENZIONE, GESTIONE FLOTTA E DI ADDESTRAMENTO DEI MANUTENTORI DI AEROMOBILI MILITARI E RELATIVI SISTEMI"
- AER(EP).P-21 "CERTIFICATION OF MILITARY AIRCRAFT AND RELATED PRODUCTS, PARTS AND APPLIANCES, AND DESIGN AND PRODUCTION ORGANISATIONS"
- AER(EP).P-145 "REQUIREMENTS FOR MAINTENANCE ORGANISATIONS"
- AER(EP).P-147 "AIRCRAFT MAINTENANCE TRAINING ORGANISATIONS"
- AER(EP).P-2005 "MANTENIMENTO DELL'AERONAVIGABILITÀ (CONTINUING AIRWORTHINESS)"

AER(EX).1T-T-346A(F)-6 "INSPECTION REQUIREMENTS HANDBOOK"

AER(EX).1T-T-346B-6 "INSPECTION REQUIREMENTS HANDBOOK"

EMAD 1 "ACRONYMS AND DEFINITIONS DOCUMENT"

# 2. PROCEDURE FOR APPROVAL

This chapter describes the administrative procedures applied by DAAA when exercising its tasks and responsibilities regarding issuing, continuing, changing, suspending or revoking maintenance organisation approvals.

## 2.1. APPLICATION

Organisations specified in § 1.2 shall submit an application to DAAA for the issue or change of an approval, using Attachment "A" by a cover letter.

The organisation shall specify the scope of work deemed to constitute approval in its exposition. In addition, the applicant Organisation shall enclose the following documents:

- Continuing Airworthiness Management Exposition (CAME), edited in accordance with EMAR M.A.704;
- procedures specified in CAME;

- Attachment "B", completed for each person nominated to hold a position as required by EMAR M.A.706 (c);
- the written agreement or the technical specification(s) of the maintenance contract/tasking with AER(EP).P-145 AMO(s), in accordance with the contractual limits and terms of reference;
- list of any CAMO (both AER(EP).P-2005 and AER(EP).P- IFTS-M) that may be contracted/tasked, specifying for each of them the related Scope of Approval, in accordance with the contractual limits and terms of reference.

Differently to the requirement M.A.702(b)2-3, it is not necessary to enclose any AMP or Aircraft Technical Log as:

- the Aircraft Maintenance Programme is proposed by System Design Responsible or MDOA and approved by DAAA as TP AER(EX).1T-T-346A(F)/B-6 "Inspection Requirements Handbook".
- the aircraft technical log shall comply with TP AER.00-1-49 and managed i.a.w. AER(EP).00-1-72, if applicable.

Provided the applicant organisation complies with the requirements M.A.706 (a) and (c) related to personnel, DAAA will formally indicate its acceptance of the personnel, after interviewing those people, to the applicant by countersigning Attachment "B". Within 90 days of the receipt of the application, DAAA will communicate its decision about the result of the Stage 1 of the Auditing Process. This decision concerns only the completeness of the CAME and all the above-mentioned documents. Formal approval will be released after completion of an audit visit (Stage 2) that results "Positive" as defined at a §2.6.

# 2.2. AUDITING TEAM

After receiving the documents specified at §2.1, DAAA will formally communicate its decision and will nominate an audit team, adequate to the size of the Organisation, according to AER(EP).P-1-2.

If necessary this team should include an adequate number of Technical Experts. The Team will:

- verify that the procedures specified in the CAME comply with this regulation and verify that the commitment statement is signed by the accountable manager;
- verify that the applicant complies with the requirements of this regulation;
- at the end of the audit, inform the applicant on all findings identified during the audit, using the APPROVAL RECOMMENDATION REPORT, Attachment "C";
- submit to the Deputy Director, Technical of DAAA the outcome of the audit.

# 2.3. AUDIT VISIT

Within 30 days, from the date of their appointment, the Auditing Team shall verify that CAME and related procedures are in compliance with this Regulation and any

other mandatory applicable regulation and will prepare an audit plan and send it to the applicant at least 15 days before the audit visit.

This Plan will specify:

- a scheduling of the activities to be performed;
- a reference of all the organisation processes to be verified;
- a reference to requirements of this regulation.

The applicant shall guarantee free access to all the facilities and documents related to the approval.

During the audit visit the applicant's Quality Manager or equivalent designated personnel shall always assist Auditing Team. This will ensure that any findings will be well understood and agreed upon.

A meeting between the Auditing Team and the Accountable Manager shall be convened at least once during the audit to ensure that he/she fully understands the significance of the approval and the reason for signing the exposition commitment of the organisation to compliance with the procedures specified in the exposition.

DAAA will notify the applicant all findings identified during the audit.

## 2.4. FINDINGS

The findings identified during the audit shall be substantiated with objective evidences gathered by the Surveyors. They will be classified in:

- Level 1: any significant non-compliance with requirements of this regulation which lowers the safety standard and seriously hazards the flight safety.
- Level 2: any non-compliance with requirements of this regulation which could lower the safety standard and possibly hazard the flight safety.

After receipt of notification of findings, the holder of the continuing airworthiness management organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of DAAA within a period agreed with the authority.

During audits, when evidence is found showing non-compliance with the requirements of this regulation, DAAA shall take the following actions:

- For level 1 findings, DAAA shall evaluate revocation, limitation or suspension in whole or in part – depending upon the extent of Level 1 finding(s), the continuing airworthiness management organisation approval, until successful corrective action has been taken by the organisation;
- For level 2 findings, DAAA will define the corrective action period, appropriate to the nature of the finding(s), in first instance not exceeding three (3) months. In certain circumstances and subject to the nature of the finding(s), DAAA may extend the three-month period subject to a satisfactory corrective action plan

agreed by DAAA. Action shall be taken by DAAA to suspend completely or in part the approval in case of failure to comply within the timescale granted by DAAA. In case the applicant or the approved organisation does not meet the due dates, DAAA can suspend partially or completely the organisation approval.

## **2.5 CONTINUATION OF AN APPROVAL**

Each approved Continuing Airworthiness Management Organisation must be regularly reviewed for compliance with the present regulation at intervals not exceeding 24 months, using the same procedures described in # 2.3. and # 2.4. DAAA may anytime perform out-of-schedule extraordinary audits. In addition:

- DAAA will keep and update a database with the approved Continuing Airworthiness Management Organisations under its supervision, the dates when audit visits are due and when such visits were carried out.
- A meeting with the Accountable Manager shall be convened at least once every 24 months to ensure he/she remains informed of significant issues arising during audits.

# 2.6. ISSUE OF APPROVAL

Surveyors will prepare the Findings List, Attachment E hereto this regulation, within 15 days of the end of the audit visit. This List will be attached to the Approval Recommendation Report (Attachment C).

The Approval Recommendation Report can show one of the following final results:

## Positive when

- applicant meets requirements of this regulation;
- CAME and procedures are well known and applied by the applicant;
- no findings are identified.

In this case, DAAA will formally approve the CAME and related Procedures and issue an approval certificate (Attachment G) signed by the Deputy Director, Technical of DAAA. Conditions and Privileges of the approval will be listed in the certificate.

## Conditional when

- applicant meets requirements of this regulation;
- CAME and procedures are well known and applied by the applicant;
- no level 1 findings are identified;
- level 2 findings are identified.

For level 2 findings, the NMAA shall grant a corrective action period appropriate to the nature of the finding that shall not be more than three months. In certain circumstances, at the end of this first period, and subject to the nature of the finding the NMAA can extend the three-month period subject to a satisfactory corrective action plan. The Auditing Team shall verify if the applicant is following up the corrective action plan as scheduled and the corrective action taken by the applicant in order to solve the level 2 findings.

If the final result is positive, DAAA will formally approve the CAME and its Procedures and issue an approval certificate (Attachment G) signed by the Deputy Director, Technical of DAAA. Conditions and Privileges of the approval will be listed in the certificate.

- Negative when
  - applicant does not meet requirements of this regulation;
  - level 1 findings are identified;
  - the applicant does not solve all level 2 findings.

In case of negative results the applicant can resubmit a new application only when all findings are solved and the effectiveness of the corrective actions is proven.

# 2.7. CONTINUED VALIDITY OF APPROVAL

An approval is issued for an unlimited duration and it remains valid subject to:

- the organisation remaining in compliance with this regulation;
- DAAA being granted access to the organisation to determine continued compliance with this regulation;
- the audit performed by DAAA provide a positive result;
- the certificate not being surrendered or revoked.

Upon surrender or revocation, the approval shall be returned to DAAA.

# 3. MEANS OF ADOPTION

The present Chapter provides additional references on how to adopt EMAR M - Section A requirements, contained in Annex 1.

Note(s)	Requirement(s)	Paragraph(s)
Intend "DAAA" where stated "NMAA"	All requirements	-
Intend "AER(EP).P-21" where stated "EMAR 21"	All requirements	-
Intend "AER(EP).P-145" where stated "EMAR 145"	All requirements	-
Intend "§2.4 of the present TP" where stated EMAR M.B.903	EMAR M.A.905	(a)
Intend "Attachment A" to the present TP where stated "EMAR Form 12" (application)	All requirements	-

# AER(EP).P-M/IFTS

Intend "Attachment B" to the present TP where stated "EMAR Form 4" (approval of	All requirements	-
personnel)		
Intend "Attachment H" to the present TP where stated "EMAR Form 1" (Authorised Release Certificate)	EMAR M.A.305 Appendix II	-
Intend "Attachment G" to the present TP where stated "EMAR Form 14" Continuing Airworthiness Management Organisation Approval	EMAR M.A.703 Appendix IV	-
Intend "Attachment I" to the present TP where stated "EMAR Form 15a e 15b" Military Airworthiness Review Certificate	EMAR M.A.710 EMAR M.A.901 Appendix III	-

Refer to AER(EP).DT-M/IFTS-001 for further detail and clarification on the present TP.



# MINISTERO DELLA DIFESA

### SEGRETARIATO GENERALE DELLA DIFESA E DIREZIONE NAZIONALE DEGLI ARMAMENTI DIREZIONE DEGLI ARMAMENTI AERONAUTICI E PER L'AERONAVIGABILITÀ

EMAR Form 12 Application for AER(EP).P-M/IFTS		
	Initial* / Change* of appro	val
Registered name and address of applicant:		
Trading name (if different):		
Addresses requiring approval:		
Tel Fax	E-mail	
Scope of AER(EP).P-M/IFTS approval relevant to this	initial*/change of* application:	
Military Aircraft Type or Mission Design Series:		
Tail Number or Serial Number:		
State here any existing approvals:		
		*delete as applicable
Name & position of Accountable Manager:		
Signature of Accountable Manager:		Space for
Date of application:		official use
On completion, please send to the:	n 12 A a na na si si sa b 1164 k	
SGD/DNA – Direzione degli Armamenti Aeronautici e pe Vice Direzione Tecnica – 2° Ufficio	r i Aeronavigabilita	
Via di Centocelle 301 – 00175 Roma.		



# **MINISTERO DELLA DIFESA**

#### SEGRETARIATO GENERALE DELLA DIFESA E DIREZIONE NAZIONALE DEGLI ARMAMENTI DIREZIONE DEGLI ARMAMENTI AERONAUTICI E PER L'AERONAVIGABILITÀ

Details of Management Personnel required to be accepted as specified in AER(EP).P-M/IFTS
1. Name:
2. Position:
3. Qualifications relevant to the item position:
4. Work experience relevant to the item position:
Signature: Date:
On completion, please send this form under confidential cover to the: SGD/DNA – Direzione degli Armamenti Aeronautici e per l'Aeronavigabilità Vice Direzione Tecnica – 2° Ufficio
Vice Direzione Techica – 2º Officio Via di Centocelle 301 – 00175 Roma
DAAA use only
DEPUTY DIRECTOR, TECHNICAL
Name:
Signature:
Date:



## MINISTERO DELLA DIFESA SEGRETARIATO GENERALE DELLA DIFESA E DIREZIONE NAZIONALE DEGLI ARMAMENTI DIREZIONE DEGLI ARMAMENTI AERONAUTICI E PER L'AERONAVIGABILITÀ

## APPROVAL RECOMMENDATION REPORT FOR CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION AER(EP).P-M/IFTS

- 1. APPLICANT ORGANISATION:
- 2. LOCATION:
- 3. SCOPE OF WORK:
- 4. MDS:
- 5. MILITARY REGISTRATION NUMBERS:
- 6. AUDIT STARTING DATE:
- 7. RESULTS FROM PREVIOUS AUDIT
- 8. REASON FOR AUDIT:
- 9. AUDIT TEAM:

-

-

-

- Lead Surveyor
- - Surveyor
- - Surveyor (OJT)
- 10. KEY PERSONS OF THE ORGANISATION/PROCESS OWNER:

C-1

#### 11. AUDIT DESCRIPTION (Introduction)

**Subpart B – Accountability of the Operating Organisation** M.A.201 – Responsibilities

M.A.202 - Occurrence reporting

#### Subpart C – Continuing Airworthiness

M.A.301 - Continuing Airworthiness tasks

- M.A.302 Aircraft Maintenance Programme (AMP)
- M.A.303 Airworthiness Directives
- M.A.304 Data for modifications and repairs
- M.A.305 Aircraft continuing airworthiness record system
- M.A.306 Aircraft technical log
- M.A.307 Transfer of aircraft continuing airworthiness records

#### Subpart G – Continuing Airworthiness Management Organisation (CAMO)

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
- M.A.710 Airworthiness review
- M.A.711 Privileges of the organisation
- M.A.712 Quality system
- M.A.713 Changes to the CAMO
- M.A.714 Record-keeping

Subpart I – Military Airworthiness Review Certificate (MARC) M.A.901 – Aircraft airworthiness review

M.A.902 – Validity of the MARC

### 12. DOCUMENTATION EVALUATED

13. CHECK LIST

The audit team has assessed the compliance to AER(EP).P-M/IFTS requirements, by means of the check list (Attachment "1" to this Report).

- 14. FINDINGS
- **15. AUDIT RESULT**
- **16. CORRECTIVE ACTIONS**

The Organisation presented the Corrective Action Plan enclosed in Attachment "2" to this Report.

**17. APPROVED ACTIVITIES** 

Place and date,

Surveyors

Lead Surveyor

## MINISTERO DELLA DIFESA D.A.A.A. Vice Direzione Tecnica Roma

IT IS Acknowledged: ----- approved IT IS NOT

### THE DEPUTY DIRECTOR, TECHNICAL

C-3

# Attachment "D" to AER(EP).P-M/IFTS

## DAAA- VDT - 2° UFFICIO AER.P-M/IFTS

## **CHECK LIST**

ID	Requirement ID	Subject	Compliance	Finding ID
1	M.A.201	Responsibilities	Yes / No	
2	M.A.202	Occurrence reporting	Yes / No	
3	M.A.301	Continuing Airworthiness tasks	Yes / No	
4	M.A.302	Aircraft Maintenance Programme (AMP)	Yes / No	
5	M.A.303	Airworthiness Directives	Yes / No	
6	M.A.304	4 Data for modifications and repairs		
7	M.A.305	Aircraft continuing airworthiness record system	Yes / No	
8	M.A.306	Aircraft technical log	Yes / No	
9	M.A.307	Transfer of aircraft continuing airworthiness records	Yes / No	
10	M.A.704	Continuing Airworthiness Management Exposition (CAME)	Yes / No	
11	M.A.705	Facilities	Yes / No	
12	M.A.706	Personnel requirements	Yes / No	
13	M.A.707	Airworthiness review staff	Yes / No	
14	M.A.708	Continuing airworthiness management	Yes / No	

# Attachment "D" to AER(EP).P-M/IFTS

15	M.A.709	Documentation	Yes / No
16	M.A.710	Airworthiness review	Yes / No
17	M.A.711	Privileges of the organisation	Yes / No
18	M.A.712	Quality system	Yes / No
19	M.A.713	Changes to the CAMO	Yes / No
20	M.A.714	Record-keeping	Yes / No
21	M.A.901	Aircraft airworthiness review	Yes / No
22	M.A.902	Validity of the MARC	Yes / No

# Attachment "E" to AER(EP).P-M/IFTS

## DAAA- VDT - 2° UFFICIO AER.P-M/IFTS

## **FINDINGS LIST**

ID	Requirement	Finding	Finding Lvl	Closing date

### DAAA- VDT - 2° UFFICIO AER.P-M/IFTS

## **CORRECTIVE ACTION PLAN**

ID Audit Report	Requirement	Finding description, in date	Finding Lvl	Closing date	Corrective Action







# MINISTERO DELLA DIFESA

### SEGRETARIATO GENERALE DELLA DIFESA E DIREZIONE NAZIONALE DEGLI ARMAMENTI DIREZIONE DEGLI ARMAMENTI AERONAUTICI E PER L'AERONAVIGABILITÀ

# CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION APPROVAL CERTIFICATE No M.XXX

Pursuant to national regulation for the time being in force and subject to the conditions specified below, the DAAA hereby certifies:

# [CAMO NAME]

[CAMO Address]

As a Continuing Airworthiness Management Organisation in compliance with AER(EP).P-M/IFTS Subpart G, approved to manage the continuing airworthiness of the aircraft listed in the attached schedule of approval and to control the Aircraft Maintenance Programme AER.1T-T346A/T346B-6 as specified in §M.A.708(b)2 and to issue Military Airworthiness Review Certificates after an airworthiness review as specified in §M.A.710.

## CONDITIONS

- 1. This approval is limited to that specified in the scope of approval section of the Continuing Airworthiness Management Exposition as referred to in AER(EP).P-M/IFTS Subpart G.
- 2. This approval requires compliance with the procedures specified in the AER(EP).P-M/IFTS Continuing Airworthiness Management Exposition.
- 3. This approval is valid whilst the Continuing Airworthiness Management Organisation remains in compliance with AER(EP).P-M/IFTS.
- 4. Where the Continuing Airworthiness Management Organisation contracts or tasks under its Quality System the service of an/several organisation(s), this approval remains valid subject to such organisation(s) fulfilling applicable contractual or tasking obligations.
- 5. Subject to compliance with the conditions 1 to 4 above, this approval shall remain valid for an unlimited duration unless the approval has previously been surrendered, superseded, suspended or revoked.

Date of original issue: xx/xx/20xx Date of this Revision: xx/xx/20xx Revision No: x

THE DEPUTY DIRECTOR, TECHNICAL Maj. Gen. SURNAME Name

# CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION APPROVAL SCHEDULE

Organisation: [CAMO NAME]

Site [CAMO Address]

Certificate No: M.xxx Rev. x

Organisation(s) conducting continuing airworthiness management tasks	Aircraft type/series /group	Airworthiness review authorised	AMP controlled by CAMO	CIP MASTER Release	Ente Lead Electronic Record System	EIRC
		[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)
		[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)
		[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)
		[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)
		[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)	[YES/NO] (***)

This approval schedule is limited to that specified in the scope of approval section contained in the Continuing Airworthiness Management Exposition.

CAME Reference:

Date of original issue:

Signed by:

Date of this revision:

Revision no:

## THE DEPUTY DIRECTOR, TECHNICAL Maj. Gen. SURNAME Name

Segretariato Genera Nazionale Direzione degli Arr	O DELLA DIFESA ale della Difesa e Direzione degli Armamenti namenti Aeronautici e per onavigabilità	2. AUTHORISED RELEASE CERTIFICATE EMAR FORM 1			3. Form Tracking Number :	
4. Approved Organisati	on Name and Address:					5. Work Order/Contract/Invoice:
6. Item :	7. Description :	8. Part Number :	9. Quantity :		10. Serial Number. :	11. Status / Work :
12. Remarks :			1			
Certification Statement Certifics that unless other			on Statement hat unless otherwise specified ccomplished in accordance wit	ervice  Other regulation specified in Block 12 in Block 12, the work identified in Block 11 and described in Block h EMAR 145 and in respect to that work the item(s) is/are considered		
13b. Authorised Signat	ture	13c. Approval / Authorisation Nur	3c. Approval / Authorisation Number         14b. Authorised Signature		horised Signature	14c. Approval / Authorisation Number
13d. Name		13e. Date (dd/mm/yyyy) 14d. Name			14e. Date (dd/mm/yyyy)	
USER/INSTALLER RESPONSIBILITIES 'THIS CERTIFICATE DOES NOT AUTOMATICALLY CONSTITUTE AUTHORITY TO INSTALL. WHERE THE USER/INSTALLER PERFORMS WORK IN ACCORDANCE WITH REGULATIONS OF AN NMAA DIFFERENT THAN DAAA SPECIFIED IN BLOCK 1, IT IS ESSENTIAL THAT THE USER/INSTALLER ENSURES THAT HIS/HER NMAA ACCEPTS ITEMS FROM DAAA SPECIFIED IN BLOCK 1. STATEMENTS IN BLOCKS 13A AND 14A DO NOT CONSTITUTE INSTALLATION CERTIFICATION. IN ALL CASES AIRCRAFT MAINTENANCE RECORDS MUST CONTAIN AN INSTALLATION CERTIFICATION ISSUED IN ACCORDANCE WITH THE NATIONAL REGULATIONS BY THE USER/INSTALLER BEFORE THE AIRCRAFT MAY BE FLOWN.						

## EMAR Form 1 - Authorised Release Certificate

These instructions relate to the use of the EMAR Form 1. Attention is drawn to AER(EP).P-21 and AER(EP).P-145, which use the EMAR Form 1 for production and maintenance purposes respectively. The Certificate referenced EMAR Form 1 is called the Authorised Release Certificate.

#### 1. Purpose and use

1.1 The primary purpose of the Certificate is to declare the airworthiness of new aviation products (excluding aircraft), parts and appliances or maintenance work undertaken on products (excluding aircraft), parts and appliances (hereafter referred to as 'item(s)').

1.2 Correlation shall be established between the Certificate and the item(s). The originator shall retain a Certificate in a form that allows verification of the original data.

1.3 For production purposes only:

- The certification may be applicable to more than one NMAA (or Authority) depending on bilateral agreements of the relevant NMAAs. The 'approved design data' mentioned in this certificate is approved by the NMAA of the country under whose approval the certificate was issued.

- The Certificate is prepared and signed by the manufacturer. For production under AER(EP).P-21 Section A Subpart F it is presented for validation by the Authority.

- The Certificate shall be used for import purposes, as well as for domestic and intra-Community purposes, and serves as an official certificate for the delivery of items from the manufacturer to users. The Certificate is not a delivery or shipping note.

- Under AER(EP).P-21 Section A Subpart F the Certificate shall only be issued by the Authority.

- A mixture of items released under AER(EP).P-21 Section A Subpart G and under AER(EP).P-21 Section A Subpart F is not permitted on the same Certificate.

1.4 The Certificate is not a delivery or shipping note.

1.5 NOT USED.

1.6 The Certificate does not constitute approval to install the item(s) on a particular aircraft, engine, or propeller but helps the end user determine their airworthiness approval status.

1.7 A mixture of production released and maintenance released items is not permitted on the same Certificate.

1.8 A mixture of items certified in conformity with "approved data" and to "non-approved data" is not permitted on the same Certificate.

#### 2. General format

2.1 The Certificate shall comply with the format attached including Block numbers and the location of each Block. The size of each Block may however be varied to suit the individual application, but not to the extent that would make the Certificate unrecognisable.

2.2 The Certificate shall be in 'landscape' format but the overall size may be significantly increased or decreased as long as the Certificate remains recognisable and legible. If in doubt consult DAAA.

2.3 The User/Installer responsibility statement can be placed on either side of the Certificate.

2.4 All printing must be clear and legible to permit easy reading.

2.5 The Certificate template may either be pre-printed or computer generated but in either case the printing of lines and characters shall be clear and legible and in accordance with the defined format. Pre-printed wording is permitted in accordance with the attached model but no other certification statements are permitted.

2.6 The Certificate template shall be in English, and if appropriate, in Italian.

2.7 The details to be entered on the Certificate may be either machine/computer printed or handwritten using block letters and must permit easy reading.

2.8 The use of abbreviations shall be kept to a minimum, to aid clarity.

2.9 The space remaining on the reverse side of the Certificate may be used by the originator for any additional information but shall not include any certification statement. Any use of the reverse side of the Certificate shall be referenced in the appropriate Block on the front side of the Certificate.

Note: The original Certificate shall accompany the item(s) and correlation shall be established between the Certificate and the item(s). A copy of the Certificate shall be retained by the organisation that manufactured or maintained the item(s). Where the Certificate format and data is entirely computer generated, subject to acceptance by the DAAA, it is permissible to retain the Certificate format and data on a secure database.

Where a single Certificate was used to release a number of items and those items are subsequently separated out from each other, such as through a parts distributor, then a copy of the original Certificate shall accompany such items and the original Certificate shall be retained by the organisation that received the batch of the items. Failure to retain the original Certificate could invalidate the release status of the items.

2.10 The Certificate that accompanies the item(s) may be attached to the item(s) by being placed in an envelope for durability.

### 3. Copies

3.1 There is no restriction in the number of copies of the Certificate sent to the customer(s) or retained by the originator.

### 4. Error(s) on a Certificate

4.1 If an end-user finds an error(s) on a Certificate, he shall identify it/them in writing to the originator. The originator may issue a new Certificate only if the error(s) can be verified and corrected.

4.2 The new Certificate shall have a new tracking number, signature and date.

4.3 The request for a new Certificate may be honored without re-verification of the item(s) condition. The new Certificate is not a statement of current condition and shall refer to the previous Certificate in Block 12 by the following statement:

'This Certificate corrects the error(s) in Block(s) [enter Block(s) corrected] of the Certificate [enter original tracking number] dated [enter original issuance date] and does not cover conformity/condition/release to service'. Both Certificates should be retained according to the retention period associated with the first.

#### 5. Completion of the Certificate by the originator

Except as otherwise stated, there shall be an entry in all Blocks to make the document a valid Certificate.

Block 1 Approving NMAA:

#### MINISTERO DELLA DIFESA

Segretariato Generale della Difesa e Direzione Nazionale degli Armamenti Direzione degli Armamenti Aeronautici e per l'Aeronavigabilità

Or state the name and country of the NMAA under whose approval the Certificate is issued.

Block 2 EMAR Form 1 header 'AUTHORISED RELEASE CERTIFICATE EMAR FORM 1'.

Block 3 Form Tracking Number

Enter the unique number established by the numbering system/procedure of the organisation identified in Block 4; this may include alphanumeric characters.

Block 4 Approved Organisation Name and Address

Enter the full name and address of the approved organisation (refer to EMAR Form 55 for production organisations or EMAR Form 3 for maintenance organisations) releasing the item(s) covered by this Certificate. Logos, etc., are permitted if the logo can be contained within the Block.

#### Block 5 Work Order/Contract/Invoice

To facilitate customer traceability of the item(s), enter the work order number, contract number, invoice number, or similar reference number.

Block 6 Item

Enter line item numbers when there is more than one line item. This Block permits easy cross-referencing to the Remarks Block 12.

Note: This Block is used to accurately reference a number of parts which may be legitimised by a single EMAR Form 1. For example a single EMAR Form 1 has been generated to include 10 items with the same part number but different material batch numbers or serial numbers.

#### Block 7 Description

Enter the name or description of the item. Preference shall be given to the term used in the Instructions for Continuing Airworthiness or maintenance data (e.g. Illustrated Parts Catalogue, Aircraft Maintenance Manual, Service Bulletin, Component Maintenance Manual).

#### Block 8 Part Number

Enter the part number as it appears on the item or tag/packaging. In case of an engine or propeller the type designation may be used.

The part number as it appears on the item, is usually defined in the design data; however in the case of a kit of parts, media containing software or any other specific condition of supply may be defined in production data developed from design data. Information about the contents of the kit or media may be given in Block 12 or in a separate document cross-referenced from Block 12.

Block 9 Quantity

State the quantity of items contained in each line item.

Block 10 Serial Number

If the item is required to be identified with a serial number, enter it here. If there is no serial number identified on the item, enter 'NOT APPLICABLE'.

#### Block 11 Status/Work

The following describes the permissible entries for Block 11 for production or maintenance purposes. Enter only one of these terms – where more than one may be applicable, use the one that most accurately describes the majority of the work performed and/or the status of the item(s).

For production purposes, enter either 'PROTOTYPE' or 'NEW'.

Enter 'PROTOTYPE' for:

(i) the production of a new item in conformity with non-approved design data;

(ii) re-certification by the organisation identified in Block 4 of the previous Certificate after alteration or rectification work on an item, prior to entry into service (e.g. after incorporation of a design change, correction of a defect, inspection or test, or renewal of shelf-life). Details of the original release and the alteration or rectification work are to be entered in Block 12.

Enter 'NEW' for:

(i) the production of a new item in conformity with the approved design data.

(ii) re-certification by the organisation identified in Block 4 of the previous Certificate after alteration or rectification work on an item, prior to entry into service (e.g. after incorporation of a design change, correction of a defect, inspection or test, or renewal of shelf-life). Details of the original release and the alteration or rectification work shall be entered in Block 12.

(iii) re-certification by the product manufacturer or the organisation identified in Block 4 of the previous Certificate of items from "prototype" (conformity to non-approved data) to "new" (conformity to approved data and in a condition for safe operation), subsequent to approval of the applicable design data, provided that the design data has not changed. The following statement shall be entered in Block 12:

RE-CERTIFICATION OF ITEMS FROM "PROTOTYPE" TO "NEW": THIS DOCUMENT CERTIFIES THE APPROVAL OF THE DESIGN DATA [INSERT MTC/MRTC/MSTC NUMBER, REVISION LEVEL], DATED [INSERT DATE IF NECESSARY FOR IDENTIFICATION OF REVISION STATUS], TO WHICH THIS ITEM (THESE ITEMS) WAS (WERE) MANUFACTURED.

The box "approved design data and are in a condition for safe operation" shall be marked in Block 13a.

(iv) the examination of a previously released new item prior to entry into service in accordance with a specified standard or specification (details of which and of the original release are to be entered in Block 12) or to establish airworthiness (an explanation of the basis of release and details of the original release are to be entered in Block 12).

For maintenance purposes, enter either 'OVERHAULED' or 'REPAIRED' or 'INSPECTED/TESTED' or 'MODIFIED':

(i) OVERHAULED. Means a process that ensures the item is in complete conformity with all the applicable service tolerances specified in the MTC/MRTC/MSTC Holder's or equipment manufacturer's instructions for continuing airworthiness, or in the data which is approved or accepted by the NMAA. The item(s) will be at least disassembled, cleaned, inspected, repaired as necessary, reassembled and tested in accordance with the above specified data.

(ii) REPAIRED. Rectification of defect(s) using an applicable standard (\*).

(iii) INSPECTED/TESTED. Examination, measurement, etc. in accordance with an applicable standard (\*) (e.g. visual inspection, functional testing, bench testing etc.).

(iv) MODIFIED. Alteration of an item(s) to conform to an applicable standard (\*).

(\*) Applicable standard means a manufacturing/design/maintenance/ quality standard, method, technique or practice approved by or acceptable to the NMAA. The applicable standard shall be described in Block 12.

#### Block 12 Remarks

Describe the work identified in Block 11, either directly or by reference to supporting documentation, necessary for the user or installer to determine the airworthiness of item(s) in relation to the work being certified. If necessary, a separate sheet may be used and referenced from the main EMAR Form 1. Each statement shall clearly identify which item(s) in Block 6 it relates to. If there is no statement, state 'NONE'.

For production purposes, examples of conditions which would necessitate statements in Block 12 are:

(i) the justification for release to non-approved design data (e.g. pending MTC/MRTC/MSTC, for test only, pending approved data, etc), if applicable.

(ii) When the Certificate is used for prototype purposes the following statement shall be entered at the beginning of Block 12:

'NOT ELIGIBLE FOR INSTALLATION ON IN-SERVICE MILITARY TYPE-CERTIFICATED AIRCRAFT'.

(iii) For a complete engine, a statement of compliance with the applicable emissions requirements current at the date of manufacture of the engine.

(iv) For EMTSO articles, state the applicable EMTSO number.

(v) Modification standard.

(vi) Compliance or non-compliance with Airworthiness Directives or Service Bulletins (or national equivalent).

(vii) Details of repair work carried out, or reference to a document where this is stated.

(viii) Shelf life data, manufacture date, cure date, etc.

(ix) Information needed to support shipment with shortages or re-assembly after delivery.

(x) References to aid traceability, such as batch number(s).

For maintenance purposes, examples of information to be entered in Block 12 are:

(i) Maintenance data used, including the revision status and reference.

(ii) Compliance with Airworthiness Directives or Service Bulletins (or national equivalent).

- (iii) Repair(s) carried out.
- (iv) Modification(s) carried out.
- (v) Replacement part(s) installed.
- (vi) Life limited part(s) status.
- (vii) Deviation(s) from the customer work order.

(viii) NOT APPLICABLE.

(ix) Information needed to support shipment with shortages or re-assembly after delivery.

(x) NOT APPLICABLE

Note: If printing the data from an electronic EMAR Form 1, any appropriate data not fit for other Blocks should be entered in this Block.

Blocks 13a – 13e

Used for production release only:

Block 13a. Mark only one of the two boxes:

(i) Mark the 'approved design data and are in a condition for safe operation' box if the item(s) was/were manufactured using approved design data and found to be in a condition for safe operation.

(ii) Mark the 'non-approved design data specified in Block 12' box if the item(s) was/were manufactured using applicable non-approved design data. Identify the data in Block 12 (e.g. pending MTC, for test only, pending approved data).

Mixtures of items released against approved and non-approved design data are not permitted on the same Certificate.

Block 13b. Authorised signature:

This space shall be completed with the signature of the authorised person. Only persons specifically authorised under the regulations of the NMAA are permitted to sign this Block. To aid recognition, a unique number identifying the authorised person may be added.

Block 13c. Approval/authorisation Number:

Mark the 'non-approved design data specified in Block 12' box if the item(s) was/were manufactured using applicable non-approved design data. Identify the data in Block 12 (e.g. pending MTC, for test only, pending approved data).

Block 13d. Name:

Enter the name of the person signing block 13b in a legible form.

Block 13e. Date:

Enter the date on which Block 13b is signed, the date shall be in the format dd-mm-yyyy (dd = 2 digit day, mm = 2 digit month, yyyy = 4 digit year).

Blocks 13a – 13e are not used for maintenance release. For maintenance purposes, Blocks 13a – 13e should be shaded, darkened, or otherwise marked to preclude their inadvertent or unauthorised use.

Blocks 14a – 14e

Used for maintenance release only:

Block 14a Certification statement

Mark the appropriate box(es) indicating which regulations apply to the completed work. If the box "other regulations specified in Block 12" is marked, then the regulations of the other airworthiness authority(ies) must be identified in Block 12. At least one box must be marked, or both boxes may be marked, as appropriate.

For all maintenance carried out by maintenance organisations approved in accordance with EMAR 145, the certification statement 'unless otherwise specified in Block 12' is intended to address the following cases:

(a) Where the maintenance could not be completed.

(b) Where the maintenance deviated from the standard required by EMAR 145.

(c) Where the maintenance was carried out in accordance with a requirement other than that specified in EMAR 145. In this case Block 12 shall specify the particular national regulation.

Block 14b Authorised Signature

This space shall be completed with the signature of the authorised person. Only persons specifically authorised under the rules and policies of the NMAA are permitted to sign this Block. To aid recognition, a unique number identifying the authorised person may be added.

Note: This signature can be computer printed subject to the NMAA being satisfied that only the signatory can direct the computer and that a signature is not possible on a blank computer generated form.

Block 14c Approval / Authorisation Number

The EMAR 145 Approved Maintenance Organisation Approval / Authorisation number given by the NMAA.

Block 14d Name

Enter the name of the person signing Block 14b in a legible form.

Block 14e Date

Enter the date on which Block 14b is signed, the date shall be in the format dd-mm-yyyy (dd = 2 digit day, mm = 2 digit month, yyyy = 4 digit year).

Blocks 14a - 14e are not used for production release. For production purposes, Blocks 14a - 14e should be shaded, darkened, or otherwise marked to preclude their inadvertent or unauthorised use.

#### **User/Installer Responsibilities**

Place the following statement on the certificate to notify end users that they are not relieved of their responsibilities concerning installation and use of any item(s) accompanied by the form:

'THIS CERTIFICATE DOES NOT AUTOMATICALLY CONSTITUTE AUTHORITY TO INSTALL.

WHERE THE USER/INSTALLER PERFORMS WORK IN ACCORDANCE WITH REGULATIONS OF AN NMAA DIFFERENT THAN THE NMAA SPECIFIED IN BLOCK 1, IT IS ESSENTIAL THAT THE USER/INSTALLER ENSURES THAT HIS/HER NMAA ACCEPTS ITEMS FROM THE NMAA SPECIFIED IN BLOCK 1.

STATEMENTS IN BLOCKS 13A AND 14A DO NOT CONSTITUTE INSTALLATION CERTIFICATION. IN ALL CASES AIRCRAFT MAINTENANCE RECORDS MUST CONTAIN AN INSTALLATION CERTIFICATION ISSUED IN ACCORDANCE WITH THE NATIONAL REGULATIONS BY THE USER/INSTALLER BEFORE THE AIRCRAFT MAY BE FLOWN.'

### AMC to EMAR Form 1 - Authorised Release Certificate

#### Use of the EMAR Form 1 for production or maintenance

1. The following formats of an issued EMAR Form 1 or equivalent certificate are acceptable:

- A paper Certificate bearing a signature (both originals and copies are accepted);

- A paper Certificate generated from an electronic system (printed from electronically stored data) when complying with the following subparagraph 2;

- An electronic EMAR Form 1 or equivalent when complying with the following subparagraph 2.

2. Electronic signature and electronic exchange of the EMAR Form 1

a) Submission to the NMAA

Any organisation intending to implement an electronic signature procedure to issue EMAR Form 1 and/or to exchange electronically such data contained on the EMAR Form 1, should document it and submit it to the NMAA as part of the documents attached to its Production Organisation Exposition or Maintenance Organisation Exposition.

b) Characteristics of the electronic system generating the EMAR Form 1

The electronic system should:

- guarantee secure access for each certifying staff;

- ensure integrity and accuracy of the data certified by the signature on the form and be able to show evidence of the authenticity of the EMAR Form 1 (recording and record keeping) with suitable security, safeguards and backups;

- be active only at the location where the part is being released with an EMAR Form 1;

- not permit a blank form to be signed;

- provide a high degree of assurance that the data is not modified after signature. If a modification is necessary after issuance (e.g., recertification of a part), a new form is issued with a new number and reference to the initial issuance;

- provide for a 'personal' electronic signature, identifying the signatory. The signature should be generated only in presence of the signatory.

An electronic signature means data in electronic form which is attached to or logically associated with other electronic data and which serves as a method of authentication and should meet the following criteria:

- it is uniquely linked to the signatory;

- it is capable of identifying the signatory;

- it is created using means that the signatory can maintain under his sole control.

This electronic signature should be an electronically generated value based on a cryptographic algorithm and appended to data in a way to enable the verification of the data's source and integrity.

The electronic system should be based on a policy and management structure (confidentiality, integrity and availability), such as:

- Administrators, signatories;
- Scope of authorisation, rights;
- Password and secure access, authentication, protections, confidentiality;
- Track changes;
- Minimum Blocks to be completed, completeness of information;
- Archives;
- etc.

The electronic system generating the EMAR Form 1 may contain additional data such as;

- Manufacturer code;
- Customer identification code;
- Workshop report;
- Inspection results;
- etc.
- c) Characteristics of the EMAR Form 1 generated from the electronic system

To facilitate understanding and acceptance of the EMAR Form 1 released with an electronic signature, the following statement should be in Block 13b or 14b: 'Electronic Signature on File'.

In addition to this statement, it is accepted to print or display a signature in any form, such as a representation of the hand-written signature of the person signing (i.e. scanned signature) or a representation of their name.

When printing the electronic form, the EMAR Form 1 should meet the general format as specified in paragraph 2 of the EMAR Form 1. A watermark-type 'PRINTED FROM ELECTRONIC FILE' should be printed on the document.

When the electronic file contains a hyperlink to data required to determine the airworthiness of the item(s), the data associated to the hyperlink, when printed, should be in a legible format and be identified as a reference from the EMAR Form 1.

Additional information not required by the EMAR Form 1 completion instructions may be added to the printed copies of EMAR Form 1, as long as the additional data does not prevent a person from filling out, issuing, printing, or reading any portion of the EMAR Form 1. This additional data should be provided only in Block 12 unless it is necessary to include it in another Block to clarify the content of that Block.

d) Electronic exchange of the electronic EMAR Form 1

The electronic exchange of the electronic EMAR Form 1 should be accomplished on a voluntary basis. Both parties (issuer and receiver) should agree on electronic transfer of the EMAR Form 1.

For that purpose, the exchange should include:

- all data of the EMAR Form 1, including referenced data required by the EMAR Form 1 completion instructions;

- all data required for authentication of the EMAR Form 1.

In addition, the exchange may include:

- data necessary for the electronic format;
- additional data not required by the EMAR Form 1 completion instructions, such as manufacturer code, customer identification code.

The system used for the exchange of the electronic EMAR Form 1 should provide:

- A high level of digital security: the data should be protected, not altered or not corrupted;

- Traceability of data back to its source.

Trading partners wishing to exchange EMAR Form 1 electronically should do so in accordance with this Acceptable Means of Compliance. It is recommended that they use an established, common, industry method such as Air Transport Association (ATA) Specification 2000 Chapter 16.

The organisations are reminded that additional national and/or European requirements may need to be satisfied when operating the electronic exchange of the electronic EMAR Form 1.

The receiver should be capable of regenerating the EMAR Form 1 from the received data without alteration; if not, the system should revert back to the paper system.

When the receiver needs to print the electronic form, refer to subparagraph c) here above.

### GM to EMAR Form 1 - Authorised Release Certificate

### Use of the EMAR Form 1 Block 12 'Remarks' for maintenance

Examples of data to be entered in this Block as appropriate:

- Maintenance documentation used, including the revision status, for all work performed and not limited to the entry made in Block 11. A statement such as 'in accordance with the Component Maintenance Manual' is not acceptable.

- NDT methods with appropriate documentation used when relevant.
- Compliance with Airworthiness Directives or Service Bulletins (or national equivalent).
- Repairs carried out.
- Modifications carried out.
- Replacement parts installed.
- Life-limited parts status.
- Shelf life limitations.
- Deviations from the CAMO's work order.
- Information needed to support shipment with shortages or re-assembly after delivery.
- References to aid traceability, such as batch numbers.
- etc

#### **Electronic Signatures**

Organisations are reminded that additional national and/or European requirements may need to be satisfied when operating electronic systems.

# **MINISTERO DELLA DIFESA**

Segretariato Generale della Difesa e Direzione Nazionale degli Armamenti Direzione degli Armamenti Aeronautici e per l'Aeronavigabilità

CERTIFICATO DI REVISIONE DELL'AERONAVIGABILITÀ MILITARE (MILITARY AIRWORTHINESS REVIEW CERTIFICATE)

Numero del Certificato (Certificate No.)	XXX	/	MM	/	Anno
	(Prog. Number)	(Mili	tary Registra	tion)	(Year)

In conformità ai regolamenti nazionali, la seguente Organizzazione di Gestione dell'Aeronavigabilità Continua, approvata ai sensi della AER(EP).P-M/IFTS

Pursuant to national regulations, the following Continuing Airworthiness Management Organisation, approved in accordance with AER(EP).P-M/IFTS)

Denominazione dell'Organizzazione e Indirizzo	Numero del Certificato di approvazione
(Name of CAMO and Address)	(Approval Certificate Number)

ha eseguito la Revisione dell'Aeronavigabilità in accordo al requisito M.A.710, utilizzando i rapporti di verifica in annesso I e II, sul seguente aeromobile:

(has performed an airworthiness review in accordance with requirement M.A.710, using the review reports in annex I e II, on the following aircraft)

Costruttore e Tipo di Aeromobile (Aircraft manufacturer and Type)	Matricola Militare (Military Registration)	Ore di volo e cicli attuali (Current Flight Hours & Cycles)

Costruttore e Tipo di Motore	Numero di Parte	Numero di Serie	Ore e cicli attuali
(Engine manufacturer and Type)	(Part Number)	(Serial No.)	(Current Hours & Cycles)

Costruttore e Tipo di Elica	Numero di Parte	Numero di Serie	Ore e cicli attuali
(Propeller manufacturer and Type)	(Part Number)	(Serial No.)	(Current Hours & Cycles)

Precedente CRAM n.	Rilasciato il
(Previous MARC No.)	(Date of Issue)

Edizione e revisione al Programma di Manutenzione (Maintenance Programme Issue and Revision)	Edizione e revisione del Manuale di Volo utilizzato (Flight Manual used Issue and Revision)		

per quanto precede l'aeromobile di cui sopra è da considerarsi aeronavigabile alla data della revisione. (and this aircraft is considered to be airworthy at the time of the review)

Emissione	Data di emissione	Data di scadenza	Firma del Continuing Airworthiness Manager
(Nr of issue)	(Date of issue)	(Date of expiry)	(Signature of Continuing Airworthiness Manager)
Emissione			
(First issue)			
1 <sup>a</sup> Estensione			
(1st Extension)			
2 <sup>a</sup> Estensione			
(2nd Extension)			

## Attachment "I" to AER(EP).P-M/IFTS

Dettagli della verifica documentale (Decum	antal raviau	lataila)	Annesso I (Annex I)	
Dettagli della verifica documentale (Docum	iental review c	ietalis)		
Data inizio verificaLuogo(Date)(Place)			Numero rapporto di verifica (Survey Report Number)	
	I	T		
È stata effettuata tutta la manutenzio		NO	Dettagli (se negativo) (Provide details if negative)	
programmata richiesta? (Has been all scheduled maintenance requi carried out?)	red (yes)	(no)	(Flovide details il negative)	
Dettaglio delle operazioni di manutenz effettuate nel periodo di revisione		ammate	Data di completamento (Date of carried out)	
(Scheduled maintenance checks details accomple	ished in review	v period)		
Tutti i difetti sono stati corretti/differiti accordo con i dati approvati?	in SI (yes)	NO (no)	Dettagli (se negativo) (Provide details if negative)	
(Have been all known defects corrected or defer in accordance with the approved data?)				
	I			
Sono state incorporate tutte le P.T applicabili al tipo di aeromobile nei ter		NO (no)	Dettagli (se negativo) (Provide details if negative)	
previsti? (Have been all applicable P.T.A.s incorpora within the prescribed timeframe?)	ted			
I componenti a vita limitata installati, sono s registrati sui documenti appropriati?	tati SI <i>(yes)</i>	NO (no)	Dettagli (se negativo) (Provide details if negative)	
(Have been installed life limited compone			(Trovide details in negative)	
recorded?)				
È stato verificato che i componenti a v		NO	Dettagli (se negativo)	
limitata installati, non abbiano superato i lir di impiego? <sup>(2)</sup>		(no)	(Provide details if negative)	
(Has been installed life limited components veril not exceeded their approved service life?)	fied			
Il rapporto di peso e bilanciamento è que		NO (no)	Dettagli (se negativo) (Provide details if negative)	
corretto per l'attuale configurazio dell'aeromobile?		(no)		
(Is the Weight and Balance Form correct for current aircraft configuration?)	the			
Dettaglio delle operazioni di pesatura effettu (Weight and balance checks detail)	ate		Data dell'ultima pesata (Date of last weighed aircraft)	

Verificare che i documenti di seguito riportati siano disponibili, aggiornati e completi. (Check that following documents are available, current and complete)

Libretto rapporti di vo manutenzione dell'aerom (Aircraft Flight Logbook Moo	obile (Mod. DP5069)	SI (yes)	NO (no)	Dettagli (se negativo) (Provide details if negative)		
(/ er						
Libretto di Identità del Ve e relative schede access	orio (Mod. DP5243)	SI (yes)	NO (no)	Dettagli (se ne (Provide details		
(Aircraft Logbook Mod. engineering logcard Mod. D						
Libretto di Identità del DP5068) e relative sche		SI (yes)	NO (no)	Dettagli (se ne (Provide details		
DP5243) (Engine/APU Logbook Mo engineering logcard Mod. D						
Libretto di Identità dell'E relative schede accessor (Propeller Logbook Mod.	io (Mod. DP5243)	SI (yes)	NO (no)	Dettagli (se negativo) (Provide details if negative)		
engineering logcard Mod. D						
Libretto di Identità Ali/Semiali velivoli caccia ed addestramento caccia (Mod.746-7); (Fighter and Fighter Training Wing Logbook Mod.			NO (no)	Dettagli (se negativo) (Provide details if negative)		
DP5068 and related eng DP5243)						
Libretto di Peso e Bilanciamento (manuali SI NO della serie -5). (yes) (no) (Provide details if negative)						
(Weight and Balance Form	manuals)					
Sono state messe in atto occasione della verifica d (All known defects and pr addressed?)	ocumentale?				SI (yes) □	NO (no)* □
*Nota: in caso di risposta (note: in case of negative a					porto.	
Data fine verifica	Firma del Revisore de	ell'Aerona	avidabilit	à		

Dettagli della verific	a fisica <i>(Physic</i>	al review details)		Annesso	II (Annex II
Data inizio verifica (Date)	Luogo (Place)			rapporto di Report Numb	
				<u>toport rtarne</u>	
Costruttore e Tipo di (Aircraft manufacturer		Matricola Militare (Military Registration)		blo e cicli at Flight Hours	
Verificare quanto di se (Check following items:)					
Oggetto (item)				Contro (chec	
		narcature e targhette and labels)		SI (yes)	NO (no)
Rispondenza della c la verifica a campior all'aeromobile in esa (Compliance between	configurazione on the della corretta ame (riportare e the aircraft confi	dell'aeromobile con i dati approvati at a applicazione di almeno 20 P.T.A. a elenco su foglio allegato). guration and the approved documents, b T.A. on the aircraft under inspection)	oplicabili	SI (yes) □	NO (no) □
Rispondenza della c la verifica a campio equipaggiamenti in applicabile all'aerom (Compliance between	configurazione one della corri istallati con o nobile in esame the aircraft confi e of min. 20 P/N	dell'aeromobile con i dati approvati at spondenza di almeno 20 PP/NN di quelli riportati dal catalogo nome (riportare elenco su foglio allegato). guration and the approved documents b 's of parts/equipment in applicable catalo	i parti o inclatore iy sample	SI (yes) □	NO (no)
libretto rapporti di DP5069).	volo e registro	e, come prescritto dalla AER.00-1 della manutenzione dell'aeromobil aft to the flight logbook and maintenance	e (Mod.	SI (yes) □	NO (no)
Presenza e corre dell'aeromobile, del	Libretto di Pese		uale -5	SI (yes) □	NO (no) □
Assenza di difetti ev (Absence of evident fa	identi sull'aeroi	nobile.		SI (yes) □	NO (no) □
aeromobile in esame	e.	aggiamenti di sicurezza previsti per	•	SI (yes) □	NO (no)
Sono state messe in occasione della verit	n atto le opport fica fisica?	une azioni per eliminare i difetti risco und during the survey have been app	ontrati in	SI (yes) □	NO (no)* □
		on è consentita la finalizzazione di qu not allowed the finalization of this report)	uesto rapp	oorto.	
Data fine verifica (Date of issue)	Firma de (Signatur	el Revisore dell'Aeronavigabilità e)			



# EUROPEAN MILITARY AIRWORTHINESS REQUIREMENTS

# EMAR M

## CONTINUING AIRWORTHINESS REQUIREMENTS

Edition Number	1.0
Edition Date	12 Oct 2015
Status	Approved



MILITARY AIRWORTHINESS AUTHORITIES FORUM

## **DOCUMENT CONTROL**

### DOCUMENT APPROVAL

The following table identifies the persons who have approved this document

Edition No:		MAWA Forum/TF	Authorised by	DATE
1.0	Prepared by	Task Force 3	Col Pierre-Laurent Borras TF3 Chairman	1 Jul 2015
	Approved by	MAWA Forum F25	Mr Henk Corpraal MAWA Forum Chair	12 Oct 2015

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## DOCUMENT CHANGE RECORD

Edition Number	Edition Date	Status	Reason for change <i>(detailed)</i>	Sections or pages affected
1.0	12 Oct 2015	Approved	Approval by MAWA Forum	All

#### <u>STATUS</u>

The Status of the document can take 3 values:

Working Draft: First version provided during the elaboration of the document by Task Force.

Draft: Draft version when issued by Task Force and proposed to MAWA Forum.

**Approved**: The document is approved by the participating Member States.

#### **EDITION**

Edition will have the following template: Edition X.Y

The value of **X** will change after a **major** modification of the document

The value of **Y** will change after a **minor** modification of the document

#### NOTE:

This EMAR relies on definitions laid down in EMAD 1. The forms referred to in this document can be found in the EMAR Forms document.

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## **SECTION A**

#### **TECHNICAL REQUIREMENTS**

#### **SUBPART A - GENERAL**

#### M.A.101 Scope

This Section establishes the measures to be taken to ensure that airworthiness is maintained. It also specifies the conditions to be met by organisations involved in such continuing airworthiness management.

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#### SUBPART B - ACCOUNTABILITY

#### M.A.201 Responsibilities

(a) The Operating Organisation is accountable for the continuing airworthiness of an aircraft and shall ensure that no flight takes place unless:

1. the aircraft is maintained in an airworthy condition; and

2. any operational and emergency equipment fitted is correctly installed and serviceable or clearly identified as unserviceable; and

3. the Military Certificate of Airworthiness and the Military Airworthiness Review Certificate (MARC) remain valid; and

4. the maintenance of the aircraft is performed in accordance with the Aircraft Maintenance Programme (AMP) as specified in <u>EMAR M.A.302</u>.

Note: For individual aircraft or types for which a Military Certificate of Airworthiness or Military Restricted Certificate of Airworthiness is not appropriate, a Military Permit to Fly may be issued in accordance with national regulations.

(b) NOT APPLICABLE.

(c) Any organisation performing maintenance shall be responsible for the tasks performed.

(d) The Operating Organisation shall be responsible for the satisfactory accomplishment of the pre-flight inspection. This inspection must be carried out by a qualified person but need not be carried out by an EMAR 145 Approved Maintenance Organisation (AMO).

(e) NOT APPLICABLE.

(f) NOT APPLICABLE.

(g) Maintenance of military aircraft, and components thereof shall be carried out by an EMAR 145 AMO.

(h) The Operating Organisation is responsible for the continuing airworthiness of the aircraft it operates and shall:

1. be appropriately approved, in accordance with EMAR M Subpart G, for the management of the continuing airworthiness of the aircraft it operates; and

2. be approved in accordance with EMAR145 or contract/task directly (or through a Continuing Airworthiness Management Organisation (CAMO)) such organisations; and

3. ensure that paragraph (a) is satisfied.

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(i) NOT APPLICABLE

(j) The Operating Organisation is responsible for granting the National Military Airworthiness Authority (NMAA) access to the organisation/aircraft to determine continued compliance with this EMAR.

(k) By derogation to paragraph (h)1, an Operating Organisation may contract/task an organisation approved in accordance with EMAR M.A. Subpart G, for the management of the continuing airworthiness of the aircraft it operates. In this case, a written contract/arrangement shall be made and the CAMO assumes responsibility for the proper accomplishment of these tasks.

#### M.A.202 Occurrence reporting

(a) Any Operating Organisation accountable in accordance with <u>EMAR M.A.201</u> shall report to the NMAA, and all further addressees as required by national regulations, any identified condition of an aircraft or component which endangers flight safety.

(b) The Operating Organisation shall establish an occurrence reporting system to enable the collection and evaluation of such reports, including the assessment and extraction of those occurrences to be reported under paragraph (a). This procedure shall identify adverse trends, corrective actions taken or to be taken by the Operating Organisation to address deficiencies and include evaluation of all known relevant information relating to such occurrences and a method to circulate the information as necessary.

(c) Reports shall be made in a form and manner established by the NMAA and contain all pertinent information about the condition known to the Operating Organisation.

(d) NOT APPLICABLE.

(e) Reports shall be made as soon as practicable, but in any case within 72 hours of the organisation identifying the condition to which the report relates.

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#### SUBPART C – CONTINUING AIRWORTHINESS

#### M.A.301 Continuing airworthiness tasks

- (a) The continuing airworthiness of the aircraft shall be ensured by:
  - 1. the accomplishment of pre-flight inspections;

2. the rectification in accordance with the data specified in <u>EMAR M.A.304</u> of any defect and damage affecting safe operation, taking into account the Minimum Equipment List (MEL) and Configuration Deviation List (CDL) as applicable to the aircraft type;

3. the accomplishment of all maintenance, in accordance with the <u>EMAR M.A.302</u> approved AMP;

- 4. the analysis of the effectiveness of the EMAR M.A.302 AMP;
- 5. the accomplishment of any applicable:
  - (i) Airworthiness Directive;
  - (ii) operational directive with a continuing airworthiness impact;

(iii) continued or continuing airworthiness requirements mandated by the NMAA;

(iv) measures mandated by the NMAA in immediate reaction to a safety problem.

6. the accomplishment of modifications and repairs in accordance with <u>EMAR</u> <u>M.A.304;</u>

7. for non-mandatory modifications and/or inspections, the establishment of an embodiment policy;

- 8. maintenance check flights when necessary.
- (b) An aircraft shall not fly if:

1. the continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of EMAR M; or

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

3. the aircraft has been operated beyond the limitations of the flight manual or the Military Certificate of Airworthiness, without appropriate action being taken; or

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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 is not in compliance with EMAR M.A.304.

#### M.A.302 Aircraft Maintenance Programme (AMP)

(a) Maintenance of each aircraft shall be organised in accordance with an AMP.

(b) An organisation responsible for producing and amending an AMP in accordance with <u>EMAR M.A. 302</u> shall also be responsible for sending the AMP to the NMAA. The AMP and any subsequent amendments shall be approved by the NMAA.

(c) NOT APPLICABLE.

(d) The AMP shall establish compliance with:

1. instructions issued by the NMAA;

2. instructions for continuing airworthiness issued by any organisation recognized by the NMAA;

3. additional or alternative instructions, once approved in accordance with paragraph (b), proposed by the CAMO, except for intervals of safety related tasks referred in paragraph (e), which may be extended, subject to sufficient reviews carried out in accordance with paragraph (g) and only when subject to direct approval in accordance with paragraph (b).

(e) The AMP shall contain details, including frequency, of all maintenance to be carried out, including any specific tasks linked to the type and the specificity of operations.

(f) The AMP shall include a reliability programme, unless otherwise specified by the NMAA.

(g) The AMP shall be subject to periodic reviews and amended accordingly when necessary. These reviews shall ensure that the AMP continues to be valid in light of the operating experience and instructions from the NMAA, whilst taking into account new and/or modified maintenance instructions promulgated by the (Military) Type Certificate (MTC) and (Military) Supplementary Type Certificate (MSTC) holders and any other organisation that publishes such data in accordance with EMAR 21.

#### 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 NMAA.

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#### M.A.304 Data for modifications and repairs

Damage shall be assessed and modifications and repairs carried out using as appropriate:

- (a) data approved by the NMAA; or
- (b) data approved by an EMAR 21 Design Organisation; or
- (c) NOT APPLICABLE;
- (d) data produced by an organisation accepted by the NMAA.

#### M.A.305 Aircraft continuing airworthiness record system

(a) At the completion of any maintenance, the Certificate of Release to Service required by EMAR 145.A.50 shall be entered in the aircraft continuing airworthiness record system. Each entry shall be made as soon as practicable but in no case more than 30 days after the day of the maintenance action.

(b) The aircraft continuing airworthiness record system shall cover the aircraft, engine(s), propeller(s), any service life limited component(s) as appropriate, and shall include an aircraft technical log.

(c) The aircraft type and registration mark, the date, together with total flight time and/or flight cycles and/or landings and any other airworthiness data as required by the NMAA as appropriate, shall be entered in the aircraft continuing airworthiness record system.

(d) The aircraft continuing airworthiness record system shall also contain as a minimum the current:

1. status of Airworthiness Directives and measures mandated by the NMAA in immediate reaction to a safety problem;

- 2. status of modifications and repairs;
- 3. status of compliance with the AMP;
- 4. status of service life limited components;
- 5. weight and balance report;
- 6. list of deferred maintenance;
- 7. symmetry check report (if required).

(e) In addition to the authorised release certificate, EMAR Form 1 or equivalent, the following information relevant to any component installed (engine, propeller, engine module or service life-limited component) shall be entered into the aircraft continuing airworthiness record system:

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1. identification of the component; and

2. the type, serial number and registration, as appropriate, of the aircraft, engine, propeller, engine module or service life-limited component to which the particular component has been fitted, along with the reference to the installation and removal of the component; and

3. the date together with the component's accumulated total flight time and/or flight cycles and/or landings and/or calendar time, and/or any other approved service life consumption units as appropriate; and

4. the current paragraph (d) information applicable to the component.

(f) The CAMO responsible for the management of continuing airworthiness tasks in accordance with EMAR M.A. Subpart B, shall control the records as detailed in this paragraph and present the records to the NMAA upon request.

(g) All entries made in the aircraft continuing airworthiness record system shall be clear and accurate. When it is necessary to correct an entry, the correction shall be made in a manner that clearly shows the original entry.

(h) An Operating Organisation shall ensure that a system has been established to keep the following records for the periods specified:

1. all detailed maintenance records in respect of the aircraft and any service lifelimited component fitted thereto, until such time as the information contained therein is superseded by new information equivalent in scope and detail but not less than 36 months after the aircraft or component has been released to service; and

2. the total time in service (hours, calendar time, cycles, landings or any other approved service life consumption units) of the aircraft and all service life-limited components, at least 12 months after the aircraft or component has been permanently withdrawn from service; and

3. the time in service (hours, calendar time, cycles, landings or any other approved service life consumption units) as appropriate, since last scheduled maintenance of the component subjected to a service life limit, at least until the component scheduled maintenance has been superseded by another scheduled maintenance of equivalent work scope and detail; and

4. the current status of compliance with all maintenance programme tasks such that compliance with the Aircraft Maintenance Programme can be established, at least until the aircraft or component scheduled maintenance task has been repeated; and

5. the current status of Airworthiness Directives applicable to the aircraft and components, at least 12 months after the aircraft or component has been permanently withdrawn from service; and

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6. details of current modifications and repairs to the aircraft, engine(s), propeller(s) and any other component vital to flight safety, at least 12 months after they have been permanently withdrawn from service.

#### M.A.306 Aircraft technical log

(a) In addition to the requirements of <u>EMAR M.A.305</u>, an Operating Organisation shall use an aircraft technical log containing the following information for each aircraft:

1. information about each flight, necessary to ensure continued flight safety; and

2. the current aircraft Certificate of Release to Service; and

3. the current maintenance statement giving the aircraft maintenance status of what scheduled and out of phase maintenance is next due except that the NMAA may agree to the maintenance statement being kept elsewhere; and

4. all outstanding deferred defects rectifications that affect the operation of the aircraft; and

5. any necessary guidance instructions on maintenance support arrangements.

(b) The aircraft technical log and any subsequent amendments shall be approved by the NMAA.

(c) An Operating Organisation shall ensure that the aircraft technical log is retained for at least 36 months after the date of the last entry.

#### M.A.307 Transfer of aircraft continuing airworthiness records

(a) The Operating Organisation shall ensure when an aircraft is permanently transferred to another Operating Organisation, that the records within the <u>EMAR M.A.305</u> continuing airworthiness records system are also transferred. The time periods prescribed for the retention of records shall continue to apply to the new Operating Organisation.

(b) The Operating Organisation shall ensure that when the continuing airworthiness management tasks are contracted/tasked to an external CAMO, that the records within the <u>EMAR M.A.305</u> continuing airworthiness records system are transferred to that CAMO.

(c) Moved to paragraph (a).

#### SUBPART D – MAINTENANCE STANDARDS

NOT APPLICABLE – See EMAR 145

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#### SUBPART E - COMPONENTS

NOT APPLICABLE – See EMAR 145.

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#### SUBPART F – MAINTENANCE ORGANISATION

NOT APPLICABLE

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# SUBPART G – CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION (CAMO)

#### 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 management of aircraft continuing airworthiness.

#### M.A.702 Application

(a) An application for issue or change of a CAMO approval shall be made on a form and in a manner established by the NMAA.

- (b) It shall include the following documents:
  - 1. the Continuing Airworthiness Management Exposition (CAME); and

2. the Operating Organisation's Aircraft Maintenance Programmes (only if the participating Member State (pMS) requires the CAMO to develop and control the AMP for the aircraft managed); and

3. the aircraft technical log(s); and

4. where appropriate, the technical specification(s) of the <u>EMAR M.A.708(c)</u> maintenance contracts/taskings with the EMAR 145 AMO(s); and

5. any additional documentation required by the NMAA.

#### M.A.703 Extent of approval

(a) The approval is indicated on an EMAR Form 14 issued by the NMAA.

(b) NOT APPLICABLE.

(c) The scope of work deemed to constitute the approval shall be specified in the CAME in accordance with <u>EMAR M.A.704</u>.

#### M.A.704 Continuing Airworthiness Management Exposition (CAME)

(a) The CAMO shall provide a CAME containing the following information:

1. a statement signed by the Accountable Manager to confirm that the organisation will work in accordance with EMAR M and the Exposition at all times; and

2. the organisation's scope of work; and

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3. the title(s) and name(s) of person(s) referred to in <u>EMAR M.A.706(a)</u>, <u>M.A.706(c)</u>, <u>M.A.706(d)</u> and <u>M.A.706(i)</u>; and

4. an organisation chart showing associated chains of responsibility between all the person(s) referred to in <u>EMAR M.A.706(a)</u>, <u>M.A.706(c)</u>, <u>M.A.706(d)</u> and <u>M.A.706(i)</u>; and

5. a list of the airworthiness review staff referred to in EMAR M.A.707; and

6. a general description and location of the facilities; and

7. procedures specifying how the CAMO ensures compliance with this EMAR; and

8. the CAME amendment procedures; and

9. the list of approved AMPs (see EMAR M.A. 302); and

10. a list of all contractors/tasked organisations (where applicable); and

11. the names of all Operating Organisations to which CAMO support activities are provided (if applicable).

(b) The CAME and its amendments shall be approved by the NMAA.

(c) Notwithstanding paragraph (b), minor amendments to the CAME may be approved indirectly through an indirect approval procedure. The indirect approval procedure shall define the minor amendment eligible, be established by the CAMO as part of the CAME and be approved by the NMAA.

#### M.A.705 Facilities

The CAMO shall ensure suitable office accommodation is provided at appropriate locations for the personnel specified in <u>EMAR M.A.706</u>.

#### M.A.706 Personnel requirements

(a) The CAMO shall appoint an Accountable Manager, who has corporate authority for ensuring that all continuing airworthiness management activities can be resourced and carried out in accordance with this EMAR. Where the CAMO is part of an Operating Organisation, the Accountable Manager shall be the same person who has the corporate authority for ensuring that all operations of the Operating Organisation can be resourced and carried out to the standard detailed in <u>EMAR M.A.201(h)</u>.

(b) NOT APPLICABLE.

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(c) A person or group of persons shall be nominated with the responsibility of ensuring that the CAMO is always in compliance with this Subpart. Such person(s) shall be ultimately responsible to the Accountable Manager.

(d) The Accountable Manager shall designate a Continuing Airworthiness Manager. This person shall be responsible for the management and supervision of continuing airworthiness activities, pursuant to paragraph (c).

(e) The Continuing Airworthiness Manager referred to in paragraph (d) shall not be employed by an EMAR 145 AMO under contract to the Operating Organisation, unless specifically agreed by the NMAA.

(f) The CAMO shall have sufficient appropriately qualified staff for the expected work.

(g) All paragraph (c) and (d) persons shall be able to demonstrate relevant knowledge, background and appropriate experience related to aircraft continuing airworthiness.

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

(i) For CAMOs extending Military Airworthiness Review Certificates (MARC) in accordance with <u>EMAR M.A.711(a)4</u> and <u>M.A.901(c)2</u>, the CAMO shall nominate persons authorised to do so, subject to approval by the NMAA.

(j) The CAMO shall define and keep updated in the CAME, the title(s) and name(s) of person(s) referred to in EMAR M.A.706(a), M.A.706(c), M.A.706(d) and M.A.706(i).

(k) The CAMO shall establish and control the competence of personnel involved in the continuing airworthiness management, airworthiness review and/or quality audits, in accordance with a procedure and to a standard agreed by the NMAA.

#### M.A.707 Airworthiness review staff

(a) To be approved to carry out airworthiness reviews, a CAMO shall have appropriate airworthiness review staff to issue Military Airworthiness Review Certificates (MARC) or recommendations referred to in <u>EMAR M.A. Subpart I</u>:

1. These staff shall have acquired:

(i) at least five years' experience in continuing airworthiness; and

(ii) an appropriate Military Aircraft Maintenance Licence (MAML) in compliance with EMAR 66 or an aeronautical degree or a national equivalent; and

- (iii) formal aeronautical maintenance training; and
- (iv) a position within the CAMO with appropriate responsibilities.

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(v) Notwithstanding paragraph (a) to (d), the requirement laid down in <u>EMAR M.A.707</u>(a)1(b) may be replaced by five years of experience in continuing airworthiness additional to those already required by <u>EMAR M.A.707</u>(a)1(i).

2. NOT APPLICABLE.

(b) Airworthiness review staff nominated by the CAMO can only be issued with an authorisation by the CAMO when formally accepted by the NMAA after satisfactory completion of an airworthiness review under supervision.

(c) The CAMO shall ensure that aircraft airworthiness review staff can demonstrate appropriate recent continuing airworthiness management experience.

(d) Airworthiness review staff shall be identified by listing each person in the CAME together with their airworthiness review authorisation reference.

(e) The CAMO shall maintain a record of all airworthiness review staff, which shall include details of any appropriate qualification held together with a summary of relevant continuing airworthiness management experience and training and a copy of the authorisation. This record shall be retained until two years after the airworthiness review staff have left the CAMO.

#### M.A.708 Continuing airworthiness management

(a) All continuing airworthiness management shall be carried out according to the prescriptions of <u>EMAR M.A. Subpart C</u>.

(b) For every aircraft managed, the CAMO shall:

1. have access to and use the applicable current AMP(s) for the aircraft managed;

2. if required by the pMS:

(i) develop and control the AMP for the aircraft managed including any applicable reliability programme; and

(ii) present the AMP and its amendments to the NMAA for approval, unless covered by an indirect approval procedure. In that case, the indirect approval procedure shall be established by the CAMO, as part of the CAME, and shall be approved by the NMAA.

3. manage the accomplishment of modifications and repairs;

4. ensure that all maintenance is carried out in accordance with the AMP and released in accordance with EMAR 145;

5. ensure that all applicable Airworthiness Directives and operational directives with a continuing airworthiness impact are applied;

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6. ensure that all defects discovered or reported, are managed appropriately until corrected by an EMAR 145 AMO;

7. ensure that maintenance is only carried out by an EMAR 145 AMO;

8. coordinate scheduled maintenance, the application of Airworthiness Directives, the replacement of service life limited parts and component inspection and ensure the work is carried out properly;

9. manage and archive all continuing airworthiness records;

10. ensure that the weight and balance statement reflects the current status of the aircraft;

11. ensure the symmetry check statement reflects the current status of the aircraft (if applicable);

12. initiate and coordinate any necessary actions and follow-up activity highlighted by an occurrence report.

(c) Where there is a maintenance contract/tasking with an EMAR 145 AMO, it shall detail the functions specified under <u>EMAR M.A.301</u>(a)2, <u>M.A.301</u>(a)3, <u>M.A.301</u>(a)5, <u>M.A.301</u>(a)6 and <u>M.A.301</u>(a)8, and define the support of the quality functions of <u>EMAR M.A.712</u>(b).

#### M.A.709 Documentation

(a) The CAMO shall have access to and use applicable current maintenance data in accordance with EMAR 145.A.45 for the performance of continuing airworthiness tasks referred to in <u>EMAR M.A.708</u>. This data will be provided by the Operating Organisation/(M)TCH)/any other organisation as defined in EMAR 21 as appropriate, subject to an appropriate contract/tasking being established. In such a case, the CAMO only needs access to such data for the duration of the contract, except when required by <u>EMAR M.A.714</u>.

(b) NOT APPLICABLE.

#### M.A.710 Airworthiness review

(a) To satisfy the requirement for the airworthiness review of an aircraft referred to in <u>EMAR M.A.901</u>, a review of the aircraft records shall be carried out by the CAMO in order to be satisfied that:

1. airframe, engine and propeller flying hours and associated flight cycles and/or landings and any other airworthiness data as required by the NMAA, have been properly recorded; and

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2. the aircraft flight manual and/or any other manuals required by the NMAA are applicable to the aircraft configuration and reflect the latest revision status; and

3. all the maintenance due on the aircraft according to the AMP has been carried out; and

4. all known defects have been corrected or, when applicable, carried forward in a controlled manner; and

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 in compliance with <u>EMAR M.A.304</u>; 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 EMAR 145; and

9. the current weight 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 the NMAA/(M)TCH; and

11. NOT APPLICABLE.

12. if required, the current symmetry report reflects the configuration of the aircraft and is valid.

This review shall be fully documented.

(b) The airworthiness review staff of the CAMO shall carry out a physical survey of the aircraft. For this survey, airworthiness review staff not appropriately qualified to EMAR 66 and authorised in accordance with EMAR 145.A.35 shall be assisted by such qualified/authorised personnel.

(c) Through the physical survey of the aircraft, the airworthiness review staff shall ensure that:

1. all required markings and placards are properly installed; and

2. the aircraft complies with its aircraft flight manual and/or any other manuals required by the NMAA; and

3. the aircraft configuration complies with the approved data; and

4. no evident defect can be found that could not have been reasonably expected to be addressed; and

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5. no inconsistencies can be found between the aircraft and the paragraph (a) review of records.

(d) By derogation to <u>EMAR M.A.901</u>(a), the airworthiness review can be anticipated by a maximum period of 90 days without loss of continuity of the airworthiness review pattern, to allow the physical survey to take place during a maintenance check.

(e) The Military Airworthiness Review Certificate (MARC - EMAR Form 15b) or the recommendation for the issue of the MARC (EMAR Form 15a) can only be issued:

1. by airworthiness review staff appropriately authorised in accordance with <u>EMAR M.A.707</u> on behalf of the CAMO; and

2. when the airworthiness review has been completely carried out and that there is no non-compliance which is known to endanger flight safety.

(f) A copy of any MARC issued or extended for an aircraft shall be sent to the NMAA within 10 days.

(g) All MARC tasks must be completed/supervised/managed by authorised airworthiness review staff.

(h) NOT APPLICABLE.

#### M.A.711 Privileges of the organisation

(a) In accordance with its CAME, for any aircraft listed on its approval certificate a CAMO approved in accordance with Section A, Subpart G:

- 1. shall manage the continuing airworthiness of specific aircraft;
- 2. NOT APPLICABLE;

3. may arrange for any of the continuing airworthiness management tasks to be carried out by another organisation that is:

- (i) working under the quality system of the CAMO; or
- (ii) working under their own EMAR M.A. Subpart G approval.

In either case, the CAMO retains responsibility for all CAMO functions irrespective of who is undertaking them. All such organisations shall be listed on the approval certificate;

4. may extend, under the conditions of <u>EMAR M.A.901(f)</u>, a MARC.

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(b) A CAMO may, additionally, carry out airworthiness reviews referred to in <u>EMAR</u> <u>M.A.710</u> for any aircraft listed on the approval certificate and:

1. issue the related MARC and extend it in due time under the conditions of <u>EMAR M.A.901(c)</u>2; and

2. issue a recommendation for the airworthiness review to the NMAA.

(c) NOT APPLICABLE.

(d) A CAMO may, if required by pMS according to <u>EMAR M.A.708(b)2</u>, develop and control the <u>EMAR M.A.302</u> AMP(s) including any applicable reliability programme for any aircraft listed on the approval certificate.

#### M.A.712 Quality system

(a) To ensure that the CAMO continues to meet the requirements of this Subpart, it shall establish a quality system and designate a Quality Manager to monitor compliance with, and the adequacy of, procedures required to ensure airworthy aircraft. Compliance monitoring shall include a feedback system to the Accountable Manager to ensure corrective action as necessary.

(b) The quality system shall monitor EMAR M.A. Subpart G activities. It shall at least include the following functions:

1. monitoring that all EMAR M.A. Subpart G activities are being performed in accordance with the approved procedures; and

2. monitoring that all contracted/tasked maintenance is carried out in accordance with the contract/tasking; and

3. monitoring the continued compliance with the requirements of this EMAR.

(c) The records of these activities shall be stored for at least two years.

(d) Where an organisation has several EMAR approvals, the quality systems may be combined.

(e) The CAMO's quality system shall be an integrated part of the Operating Organisation's quality system, unless the NMAA approves otherwise.

(f) NOT APPLICABLE.

#### M.A.713 Changes to the CAMO

(a) In order to enable the NMAA to determine continued compliance with this EMAR, the CAMO shall notify the NMAA of any proposal to change any of the following, before such changes take place:

1. the name of the CAMO;

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2. the location of the CAMO;

3. additional locations of the CAMO;

4. the Accountable Manager;

5. any of the persons specified in EMAR M.A.706(c);

6. the facilities, procedures, work scope and staff that could affect the approval;

7. any change that affects the approval certificate.

(b) In the case of proposed changes in personnel not known to the management beforehand, these changes shall be notified at the earliest opportunity.

#### M.A.714 Record-keeping

(a) The CAMO shall record all details of continuing airworthiness management activity carried out. The aircraft records required by <u>EMAR M.A.305</u> and, if applicable, <u>EMAR M.A.306</u> shall be retained.

(b) If the CAMO has the privilege referred to in <u>EMAR M.A.711</u>(b), it shall retain a copy of each MARC and recommendation issued or, as applicable, extended, together with all supporting documents. In addition, the CAMO shall retain a copy of any MARC that it has extended under the privilege referred to in <u>EMAR M.A.711</u>(a)4.

(c) Permits to Fly, and all documents relating to their issue as detailed in EMAR 21 Subpart P, shall be retained.

(d) The CAMO shall retain a copy of all records referred to in paragraphs (b) and (c) for at least two years after the aircraft has been permanently withdrawn from service.

(e) The records shall be stored in a manner that ensures protection from damage, alteration and theft. The records shall remain readable and accessible for the duration of the storage period.

(f) All computer hardware used to ensure backup shall be stored in a different location from that containing the working data, in an environment that ensures they remain in good condition.

(g) Where continuing airworthiness management of an aircraft is transferred to another CAMO, all retained records shall be transferred to the new CAMO. The time periods prescribed for the retention of records shall continue to apply to the new CAMO.

(h) Where a CAMO terminates its operation, all retained records shall be transferred to the Operating Organisation (if applicable), unless determined otherwise by the NMAA.

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#### M.A.715 Continued validity of approval

(a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:

1. the CAMO remaining in compliance with this EMAR, in accordance with the provisions related to the handling of findings as specified under <u>EMAR M.B.705</u> and;

2. the NMAA being granted access to the CAMO to determine continued compliance with this EMAR; and

3. the approval not being surrendered or revoked.

(b) Upon surrender or revocation, the approval certificate shall be returned to the NMAA.

#### M.A.716 CAMO findings by the NMAA

- (a) After receipt of notification of findings according to <u>EMAR M.B.705</u>, the CAMO shall:
  - 1. identify the root cause of the non-compliance; and
  - 2. define a corrective action plan; and

3. demonstrate corrective action implementation to the satisfaction of the NMAA within a period required by the NMAA.

(b) A level 1 finding is any significant non-compliance with EMAR M requirements which lowers the safety standard and hazards seriously the flight safety. Depending upon the extent of the level 1 finding, it leads to an immediate full or partial revocation, limitation or suspension of the approval by the NMAA until successful corrective action has been taken by the CAMO.

(c) A level 2 finding is any non-compliance with the EMAR M requirements which could lower the safety standard and possibly hazards the flight safety.

(d) A CAMO's non-compliance with the actions identified in <u>EMAR M.A.716</u>(a) leads to a full or partial suspension of the approval by the NMAA.

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## SUBPART H – CERTIFICATE OF RELEASE TO SERVICE (CRS)

NOT APPLICABLE

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#### SUBPART I – MILITARY AIRWORTHINESS REVIEW CERTIFICATE (MARC)

#### M.A.901 Aircraft airworthiness review

To ensure the validity of the Military Certificate of Airworthiness an airworthiness review of the aircraft and its continuing airworthiness records shall be carried out periodically.

(a) A MARC is issued in accordance with EMAR Form 15a or 15b on completion of a satisfactory airworthiness review. The MARC is valid one year.

(b) NOT APPLICABLE.

(c) The CAMO may, if appropriately approved, and subject to compliance with paragraph (k):

1. issue a MARC in accordance with EMAR M.A.710; and

2. for MARCs it has issued, extend twice the validity of a MARC for a period of one year each time.

(d) For all aircraft that have their continuing airworthiness managed by a CAMO that does not hold the privilege to carry out airworthiness reviews, the MARC shall be issued by the NMAA upon satisfactory assessment based on a recommendation made by a CAMO appropriately approved in accordance with <u>EMAR M.A.711(b)(2)</u>, sent together with the application from the Operating Organisation. This recommendation shall be based on an airworthiness review carried out in accordance with <u>EMAR M.A.710</u>.

(e) NOT APPLICABLE.

(f) Subject to compliance with paragraph (k), a CAMO may extend twice for a period of one year each time the validity of a MARC that has been issued by the NMAA or by another CAMO approved in accordance with Section A, Subpart G.

(g) NOT APPLICABLE.

(h) Notwithstanding paragraphs (a), (c) and (d) above, the NMAA may carry out a MARC at any time it considers it appropriate to do so.

(i) NOT APPLICABLE.

(j) When the NMAA carries out the airworthiness review and/or issues the MARC itself, the Operating Organisation shall provide the NMAA with:

1. the documentation required by the NMAA; and

2. suitable accommodation at the appropriate location for its personnel; and

3. when necessary, the support of personnel appropriately authorised in accordance with EMAR 145.A.35;

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(k) A MARC cannot be issued nor extended if there is evidence or reason to believe that the aircraft is not airworthy.

#### M.A.902 Validity of the MARC

- (a) A MARC becomes invalid if:
  - 1. surrendered, suspended or revoked; or
  - 2. the Military Certificate of Airworthiness is suspended or revoked; or
  - 3. the aircraft is removed from the military aircraft register of the NMAA; or

4. the (Military) Type Certificate under which the Military Certificate of Airworthiness was issued is suspended or revoked.

- (b) Moved to EMAR M.A.301(b).
- (c) Upon surrender or revocation, the MARC shall be returned to the NMAA.

#### M.A.903 TO BE ADDED LATER IF REQUIRED

#### M.A.904 TO BE ADDED LATER IF REQUIRED

#### M.A.905 Findings from an aircraft airworthiness review carried out by the NMAA

(a) After receipt of notification of findings according to <u>EMAR M.B.903</u>, the Operating Organisation of the aircraft concerned shall:

1. ensure the aircraft subject to the finding does not fly until such time that the specific non-compliance with EMAR M, or other condition as defined in  $\underline{\mathsf{EMAR}}$   $\underline{\mathsf{M.A.301}}(b)$ , has been corrected; and

- 2. identify the root cause of the non-compliance; and
- 3. define a corrective action plan; and

4. demonstrate corrective action implementation to the satisfaction of the NMAA within a period required by the NMAA.

(b) A level 1 finding is any significant non-compliance with EMAR M requirements which lowers the safety standard and hazards seriously the flight safety.

(c) A level 2 finding is any non-compliance with the EMAR M requirements which could lower the safety standard and possibly hazards the flight safety.

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(d) The Operating Organisation shall consider the potential for non-compliance in other aircraft under its responsibility and take appropriate action in accordance with  $\underline{\mathsf{EMAR}}$   $\underline{\mathsf{M.A.905}}$ (a)1.

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# EUROPEAN MILITARY AIRWORTHINESS REQUIREMENT

# EMAR M

AMC & GM

Edition Number	1.0
Edition Date	7 June 2017
Status	Approved



MILITARY AIRWORTHINESS AUTHORITIES FORUM

## **DOCUMENT CONTROL**

### DOCUMENT APPROVAL

The following table identifies the persons who have approved this document

Edition No:		MAWA Forum/TF	Authorised by	DATE
1.0	Prepared by	Task Force 3	Col Stéphane Copéret TF3 Chairman	27 April 2017
	Approved by	MAWA Forum F30	Henk Corporaal MAWA Forum Chair	7 June 2017

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## DOCUMENT CHANGE RECORD

Edition Number	Edition Date	Status	Reason for change (detailed)	Sections or pages affected
1.0	7 Jun 2017	Approved	Initial Issue	All

#### <u>STATUS</u>

The Status of the document can take 3 values:

Working Draft: First version provided during the elaboration of the document by Task Force.

**Draft:** Draft version when issued by Task Force and proposed to MAWA Forum.

**Approved**: The document is approved by the participating Member States at the MAWA Forum for release.

#### **EDITION**

Edition will have the following template: Edition X.Y

The value of X will change after a major modification of the document

The value of Y will change after a minor modification of the document

#### NOTE:

1. This EMAR AMC & GM relies on definitions laid down in EMAD 1. The Forms referred to in this document can be found in the EMAR Forms document.

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# ACCEPTABLE MEANS OF COMPLIANCE & GUIDANCE MATERIAL

**SECTION A** 

**TECHNICAL REQUIREMENTS** 

SUBPART A - GENERAL

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#### SUBPART B - ACCOUNTABILITY

#### GM1 M.A. 201(a) Responsibilities

1. Within the context of EMAR M, a military Operating Organisation is to be understood as a force structure that operates military aircraft and is responsible for their Continuing Airworthiness.

2. The force structure may be a Flight, Squadron, Wing, Command or other organisation as determined by the pMS.

#### GM2 M.A. 201(a) Responsibilities

'Accountability' as used in EMAR M.A.201 stresses that this responsibility cannot be delegated.

#### GM3 M.A. 201(a) Responsibilities

Where an Operating Organisation has responsibility for the Continuing Airworthiness of military aircraft that have been issued with a Military Permit to Fly, the national decrees/laws/regulations applicable to these aircraft are to be followed, supplemented by the conditions identified in EMAR 21 Subpart P.

#### AMC M.A.201(d) Responsibilities

'Qualified person' in this context means an individual who has received appropriate training for the relevant pre-flight inspection tasks to a standard as described in <u>AMC</u> <u>EMAR M.A.301(a)1</u> subparagraph 3.

#### AMC M.A.201(e) Responsibilities

NOT APPLICABLE.

#### AMC M.A.201(h) Responsibilities

1. Reference to aircraft includes the components fitted to or intended to be fitted to the aircraft.

2. The performance of ground de-icing and anti-icing activities does not require a maintenance organisation approval. Nevertheless, inspections required to detect, and when necessary eliminate de-icing and/or anti-icing fluid residues are considered maintenance. Such inspections should only be carried out by suitably authorised personnel.

3. The requirement means that the CAMO is responsible for determining what maintenance is required, when it has to be performed and by whom and to what standard, in order to ensure the continuing airworthiness of the aircraft being operated.

#### EMAR M AMC & GM - CONTINUING AIRWORTHINESS REQUIREMENTS

4. The CAMO should therefore have adequate knowledge of the design status (type design data, Airworthiness Directives (AD), airworthiness limitations from the certification programme, fuel tank system airworthiness limitations including Critical Design Configuration Control Limitations (CDCCL), modifications, repairs, operational equipment and, required and performed maintenance).

5. The CAMO should ensure adequate co-ordination between flight operations and maintenance to ensure that both will receive all information on the condition of the aircraft necessary to enable both to perform their tasks.

6. The requirement does not mean that an Operating Organisation itself performs the maintenance (this is to be done by an EMAR 145 Approved Maintenance Organisation (AMO)) but that the Operating Organisation carries the responsibility for the airworthy condition of aircraft it operates and thus should be satisfied before the intended flight that all required maintenance has been properly carried out.

7. When an Operating Organisation is not appropriately approved in accordance with EMAR 145, the CAMO should provide a clear work order to the EMAR 145 AMO. The fact that an Operating Organisation has contracted/tasked an EMAR 145 AMO should not prevent it (or the organisation it contracts/tasks to manage the continuing airworthiness of the aircraft it operates) from checking at the maintenance facilities on any aspect of the tasked work if it wishes to do so to satisfy its responsibility for the airworthiness of the aircraft.

#### AMC M.A.201(h)1 Responsibilities

1. NOT APPLICABLE.

2. When the Operating Organisation itself is approved in accordance with EMAR M.A. Subpart G, the approval does not prevent the Operating Organisation contracting/tasking certain continuing airworthiness management tasks to competent organisations. This activity is considered as an integral element of the Operating Organisation's EMAR M.A. Subpart G approval. The regulatory monitoring is exercised through the Operating Organisation's EMAR M.A. Subpart G approval. The regulatory monitoring airworthiness elements of the contracts/tasking documents should be acceptable to the National Military Airworthiness Authority (NMAA).

3. The accomplishment of continuing airworthiness activities forms an important part of the Operating Organisation's responsibility with the Operating Organisation remaining accountable for satisfactory completion irrespective of any contract/tasking that may be established.

#### 4. NOT APPLICABLE

5. The Operating Organisation is ultimately responsible and therefore accountable for the airworthiness of its aircraft. To exercise this responsibility the Operating Organisation should be satisfied that the actions taken by contracted/tasked organisations meet the standards required by EMAR M.A. Subpart G. The Operating Organisation's management of such activities should therefore be accomplished by:

#### (a) active control through direct involvement; and/or

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(b) endorsing the recommendations made by the contracted/tasked organisation.

6. In order for the Operating Organisation to retain ultimate responsibility, the CAMO should limit contracted/tasked activities to those specified below:

- (a) Airworthiness Directive analysis and planning;
- (b) Service Bulletin analysis;
- (c) planning of maintenance;

(d) reliability monitoring, engine health monitoring and other forms of health monitoring as agreed by the NMAA;

(e) AMP development and amendments;

(f) any other activities which do not limit the Operating Organisation's responsibilities as agreed by the NMAA.

7. The Operating Organisation's management controls associated with contracted/tasked continuing airworthiness management activities should be reflected in the associated written contract/tasking and be in accordance with the Operating Organisation's policy and procedures defined in their Continuing Airworthiness Management Exposition (CAME). When such tasks are contracted/tasked the Operating Organisation's continuing airworthiness management system is considered to be extended to the contracted/tasked organisation.

8. With the exception of engines and auxiliary power units, contracts/tasking should normally be limited to one organisation per aircraft type for any combination of the activities described in <u>Appendix II to AMC EMAR M.A.201(h)1</u>. Where arrangements are made with more than one organisation the Operating Organisation should demonstrate that adequate co-ordination controls are in place and that the individual responsibilities are clearly defined in related contracts/tasking.

9. Contracts/taskings should not authorise the contracted/tasked organisation to further contract/task to other organisations elements of the continuing airworthiness management tasks.

10. The CAMO should ensure that any findings arising from the NMAA monitoring of the contracted/tasked continuing airworthiness management activities will be closed to the satisfaction of the NMAA. This provision should be included in the contract/tasking.

11. The contracted/tasked organisation should agree to notify the CAMO of any changes affecting the contract/tasking as soon as practicable. The CAMO should then inform the NMAA. Failure to do so may invalidate the NMAA acceptance of the continuing airworthiness management elements of the contract.

12. <u>Appendix II to AMC EMAR M.A.201(h)1</u> provides information on the contracting/tasking of continuing airworthiness management activities.

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13. The CAMO should only contract to organisations which are specified by the NMAA on the EMAR Form 14.

#### GM M.A.201(h)2 Responsibilities

1. The requirement is intended to provide for the possibility of the following three alternative options:

(a) an Operating Organisation to be approved in accordance with EMAR 145 to carry out all maintenance of its aircraft and components;

(b) an Operating Organisation to be approved in accordance with EMAR 145 to carry out some of the maintenance of its aircraft and components. This, at minimum, could be limited to line maintenance but may be considerably more but still short of option (a);

(c) An Operating Organisation not approved in accordance with EMAR 145 to carry out any maintenance.

2. An Operating Organisation may apply for any one of these options but it will be for the NMAA to determine which option may be accepted in each particular case.

2.1 NOT APPLICABLE.

2.2 NOT APPLICABLE.

2.3 NOT APPLICABLE.

2.4 NOT APPLICABLE.

#### AMC M.A. 201(k) Responsibilities

1. When an Operating Organisation contracts/tasks an EMAR M.A. Subpart G CAMO in accordance with EMAR M.A.201(k) to carry out continuing airworthiness management tasks, a copy of the arrangement should be sent by the Operating Organisation to the NMAA once it has been signed by both parties. The contracted/tasked organisation is considered to perform the continuing airworthiness management tasks as an integral part of the Operating Organisation's continuing airworthiness system.

2. The arrangement should be developed taking into account the requirements of EMAR M and should define the obligations of the signatories in relation to the management of the continuing airworthiness of the aircraft.

3. The arrangement should contain as a minimum the:

- aircraft registration(s); and
- aircraft type/model/series; and
- aircraft serial number(s); and

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- aircraft Operating Organisation including the address; and,

- EMAR M.A. Subpart G CAMO details including the address.

4. The arrangement should state the following:

"The Operating Organisation entrusts to the CAMO the management of the continuing airworthiness of the aircraft, the development of an Aircraft Maintenance Programme that shall be approved by the NMAA (if applicable), and the organisation of the maintenance of the aircraft according to the Aircraft Maintenance Programme in an EMAR 145 Approved Maintenance Organisation.

According to the present arrangement, both signatories undertake to follow the respective obligations of this arrangement.

The Operating Organisation certifies, to the best of their belief that all the information given to the CAMO concerning the continuing airworthiness of the aircraft is and will be accurate and that the aircraft will not be altered without prior approval of the CAMO.

In case of any non-conformity with this arrangement, by either of the signatories, it will become invalid. In such a case, the Operating Organisation will retain full responsibility for every task linked to the continuing airworthiness of the aircraft and the Operating Organisation shall inform the NMAA as soon as possible."

5. When an Operating Organisation contracts a CAMO in accordance with EMAR M.A.201(k) the minimum obligations of each party should be shared as follows:

5.1. Obligations of the CAMO:

1. have the aircraft type(s) in the scope of its approval;

2. respect the conditions to maintain the continuing airworthiness of the aircraft in accordance with EMAR M.A.708;

3. NOT APPLICABLE;

4. NOT APPLICABLE;

5. inform the NMAA whenever the aircraft is not presented to the EMAR 145 AMO(s) by the Operating Organisation as requested by the CAMO;

6. inform the NMAA whenever the present arrangement has not been respected;

7. if applicable, carry out the airworthiness review of the aircraft when necessary and issue the Military Airworthiness Review Certificate (MARC) or the recommendation to the NMAA;

8. send within 10 days a copy of any MARC issued or extended, to the NMAA;

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9. carry out all applicable mandated occurrence reporting;

10. inform the NMAA whenever the present arrangement is terminated by either party.

5.2. Obligations of the Operating Organisation:

1. NOT APPLICABLE;

2. NOT APPLICABLE;

3. present the aircraft to the EMAR 145 AMO agreed with the CAMO at the due time designated by the CAMO's request;

4. not modify the aircraft without first consulting the CAMO;

5. NOT APPLICABLE;

6. report to the CAMO through the aircraft technical log all defects found during operations;

7. inform the NMAA whenever the present arrangement is denounced by either party;

8. inform the NMAA and the CAMO whenever the aircraft is no longer operated by the Operating Organisation;

9. carry out all applicable mandated occurrence reporting;

10. inform on a regular basis the CAMO about the aircraft flying hours and any other utilisation data, as agreed with the CAMO;

11. NOT APPLICABLE;

12. NOT APPLICABLE.

6. The contracted/tasked CAMO should be approved in accordance with EMAR M.A. Subpart G. However, this approval does not prevent the CAMO contracting/tasking certain continuing airworthiness management tasks to other competent organisations. This activity is considered as an integral element of the CAMO's EMAR M.A. Subpart G approval. The regulatory monitoring is exercised through the CAMO's EMAR M.A. Subpart G approval. The contracts/tasks should be acceptable to the NMAA. Contracts/taskings should not authorise the contracted/tasked organisation to further contract/task to other organisations elements of the continuing airworthiness management tasks. <u>Appendix II to AMC EMAR M.A.201(h)1</u> provides information on the contracting/tasking of continuing airworthiness management.

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#### AMC M.A.202(a) Occurrence reporting

Operating Organisations should ensure that the (Military) Type Certificate ((M)TC) holder receives adequate reports of occurrences for that aircraft type, to enable the M(TC) holder to fulfil its EMAR 21 obligations.

Liaison with the (M)TC holder should be established to determine whether published or proposed service information will resolve the problem or to obtain a solution to a particular problem.

An approved CAMO should assign responsibility for co-ordinating action on airworthiness occurrences and for initiating any necessary further investigation and follow-up activity to a qualified person with clearly defined authority and status.

'Qualified person' in this context means an individual who has received appropriate training and has relevant experience in the management of airworthiness occurrences detailed in EMAR M.A.202. In the case of a contracted/tasked CAMO, close coordination between the CAMO and the Operating Organisation is needed to define the appropriate training and relevant experience and to ensure that such person is officially on record at the CAMO.

'Endanger flight safety' means any instance where safe operation could not be assured or which could lead to an unsafe condition. It typically includes, but is not limited to, significant cracking, deformation, corrosion or failure of primary structure, any evidence of burning, electrical arcing, significant hydraulic fluid or fuel leakage and any emergency system or total system failure. An Airworthiness Directive overdue for compliance is also considered a hazard to flight safety.

#### AMC M.A.202(b) Occurrence reporting

1. The aim of occurrence reporting is to identify the factors contributing to incidents and to make the system resistant to similar errors.

2. An occurrence reporting system should enable and encourage free and frank reporting of any (potentially) safety related occurrence. This should be facilitated by the establishment of a "just culture". A CAMO should ensure that personnel are not inappropriately punished for reporting or co-operating with occurrence investigations.

3. The internal reporting process should be closed-loop, ensuring that actions are taken internally to address safety hazards.

4. Feedback to reportees, both on an individual and more general basis, is important to ensure their continued support for the scheme.

#### AMC M.A.202(c) Occurrence reporting

Occurrence reporting should be in a form and manner as defined by the NMAA, taking into account any confidential/classified information.

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#### GM M.A.202(c) Occurrence reporting

Each report should contain at least the following information:

- (a) CAMO name and approval reference; and
- (b) Information necessary to identify the subject aircraft and / or component; and

(c) Date and time relative to any life or overhaul limitation in terms of flying hours/cycles/landings etc. as appropriate; and

(d) Details of the condition as required by EMAR M.A.202(c); and

(e) Any other relevant information found during the evaluation or rectification of the condition.

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#### **SUBPART C - CONTINUING AIRWORTHINESS**

#### AMC M.A.301(a)1 Continuing airworthiness tasks

1. With regard to the pre-flight inspection it is intended to mean all of the actions necessary to ensure that the aircraft is fit to make the intended flight. These should typically include but are not necessarily limited to:

(a) a walk-around type inspection of the aircraft, its emergency equipment and any stores/weapons carried 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 and the security of attachment of any stores/weapons carried should be checked;

(b) an inspection of the aircraft continuing airworthiness record system or the aircraft technical log 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. Alternatively to this pre-flight assessment, when the type of aircraft and nature of operations allow for it, the build-up of residues may be controlled through scheduled maintenance inspections/cleanings identified in the AMP;

(g) removal of safety/arming pins if applicable.

2. Tasks such as oil and hydraulic fluid uplift and tyre inflation may be considered as part of the pre-flight inspection. The related pre-flight inspection instructions should address the procedures to be taken to determine whether the necessary fluid uplift or tyre inflation results from an abnormal consumption/excessive leakage, thereby possibly requiring additional maintenance action by the AMO or certifying staff as appropriate.

3. Operating Organisations should publish guidance to maintenance, flight and any other personnel performing pre-flight inspection tasks, as appropriate, defining their responsibilities for these actions. It should be demonstrated to the NMAA that pre-flight inspection personnel have received appropriate training for the relevant pre-flight inspection tasks. The training standard for personnel performing the pre-flight inspection should be described in the CAME.

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#### AMC M.A.301(a)2 Continuing airworthiness tasks

The CAMO should have a system to ensure that all defects affecting the safe operation of the aircraft are rectified within the limits prescribed by the approved Minimum Equipment List (MEL) or Configuration Deviation List (CDL) or national equivalents. Such defect rectification cannot be postponed unless agreed by the CAMO and in accordance with a procedure approved by the NMAA.

A system of assessment should be established to support the continuing airworthiness of the aircraft and to provide a continuous analysis of the effectiveness of the CAMO's defect control system in use.

The system should provide for:

(a) significant incidents and defects: monitor incidents and defects that have occurred in flight and defects found during maintenance, highlighting any that appear significant in their own right.

(b) repetitive incidents and defects: monitor on a continuous basis defects occurring in flight and defects found during maintenance, highlighting any that are repetitive.

(c) deferred and carried forward defects: monitor on a continuous basis deferred and carried forward defects. Deferred defects are defined as those defects reported in operational service which are deferred for later rectification. Carried forward defects are defined as those defects arising during maintenance which are carried forward for rectification at a later maintenance input.

(d) unscheduled removals and system performance: analyse unscheduled component removals and the performance of aircraft systems for use as part of the AMP efficiency.

When deferring or carrying forward a defect, the cumulative effect of a number of deferred or carried forward defects occurring on the same aircraft and any restrictions contained in the MEL/CDL or national equivalents should be considered. Deferred defects should be made known to the pilot/flight crew prior to their pre-flight inspection of the aircraft.

#### AMC M.A.301(a)3 Continuing airworthiness tasks

The CAMO should have a system to ensure that all aircraft maintenance checks are performed within the limits prescribed by the AMP and that, whenever a maintenance check cannot be performed within the required time limit, its postponement is allowed in accordance with a procedure agreed by the NMAA.

#### AMC M.A.301(a)4 Continuing airworthiness tasks

The CAMO should have a system to analyse the effectiveness of the AMP, with regard to spares, established defects, malfunctions and damage, and to amend the AMP accordingly.

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#### AMC M.A.301(a)5 Continuing airworthiness tasks

Operational directives with a continuing airworthiness impact include operating rules such as Extended Twin-engine Operations (ETOPS) / Long Range Operations (LROPS), Reduced Vertical Separation Minima (RVSM), Minimum Navigation Performance Specification (MNPS), All Weather Operations (AWOPS), Area Navigation (RNAV), etc.

Any other continued airworthiness requirement made mandatory by the NMAA includes (M)TC related requirements such as: Certification Maintenance Requirements (CMR), certification life limited parts, airworthiness limitations from the aircraft type-certification basis, fuel tank system airworthiness limitations including Critical Design Configuration Control Limitations (CDCCL), etc.

#### AMC M.A.301(a)7 Continuing airworthiness tasks

A CAMO managing the continuing airworthiness of the aircraft should establish and work according to a policy, which assesses non-mandatory information related to the airworthiness of the aircraft. Non-mandatory information includes Service Bulletins (or national equivalent), service letters and other information that is produced for the aircraft and its components by a design organisation accepted by the NMAA, or the manufacturer or the NMAA.

#### AMC M.A.302 Aircraft Maintenance Programme (\*)(AMP)

1. The term 'Aircraft Maintenance Programme (AMP)' is intended to include scheduled maintenance tasks, their associated maintenance procedures and standard maintenance practices. The term "maintenance schedule" is intended to embrace the scheduled maintenance tasks alone.

2. The aircraft should only be maintained to one approved AMP at a given point in time. Where an Operating Organisation wishes to change from one AMP to another, a transfer check or inspection may need to be performed in order to implement the change.

3. The AMP details should be reviewed at least annually. As a minimum, revisions of documents affecting the AMP basis need to be considered for inclusion in the AMP during the annual review. Applicable mandatory requirements for compliance with EMAR 21 should be incorporated into the AMP as soon as possible.

4. The AMP should contain a preface which will define the AMP contents, the inspection standards to be applied, permitted variations to task frequencies and, where applicable, any procedure to manage the evolution of established check or inspection intervals.

<u>Appendix I to AMC EMAR M.A.302 and AMC EMAR M.B.301(b)</u> provides detailed information on the contents of an AMP.

5. Repetitive maintenance tasks derived from modifications and repairs should be incorporated into the AMP.

\* see Appendix I to AMC EMAR M.A.302 and AMC EMAR M.B.301(b).

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#### AMC M.A.302(a) Aircraft Maintenance Programme (AMP)

Moved to GM M.A.302(a).

#### GM M.A.302(a) Aircraft Maintenance Programme (AMP)

An AMP may indicate that it applies to several aircraft registration numbers as long as the AMP clearly identifies the effectivity of the tasks and procedures that are not applicable to all of the listed registration numbers.

#### AMC M.A.302(d) Aircraft Maintenance Programme (AMP)

1. An Operating Organisation's AMP should normally be based upon the Maintenance Review Board (MRB) report or equivalent report where applicable, the Maintenance Planning Document (MPD), the relevant chapters of the maintenance manual or any other maintenance data containing information on scheduling. Furthermore, an Operating Organisation's AMP should also take into account any maintenance data containing information on scheduling for components.

2. Instructions issued by the NMAA can encompass all types of instructions from a specific task for a particular aircraft to complete recommended maintenance schedules for certain aircraft types that can be used by the Operating Organisation directly. These instructions may be issued by the NMAA in the following cases:

• in the absence of specific recommendations of the (Military) Type Certificate Holder;

• to provide alternative instructions to those described in the subparagraph 1 above, with the objective of providing flexibility to the Operating Organisation.

3. Where an aircraft type has been subjected to the MRB report process, the initial AMP should normally be based upon the MRB report.

4. Where an aircraft is maintained in accordance with an AMP based upon the MRB report process, any associated programme for the continuous surveillance of the reliability, or health monitoring of the aircraft should be considered as part of the AMP.

5. AMPs for aircraft types subjected to the MRB report process should contain identification cross reference to the MRB report tasks such that it is always possible to relate such tasks to the current AMP. This does not prevent the AMP from being developed in the light of service experience to beyond the MRB report recommendations but will show the relationship to such recommendations.

6. Some AMPs, not developed from the MRB process, utilise reliability programmes. Such reliability programmes should be considered as a part of the AMP.

7. Alternative and/or additional instructions to those defined in EMAR M.A.302(d)1 and (2), proposed by the Operating Organisation, may include but are not limited to the following:

• Extension of the interval for certain tasks based on reliability data or other supporting information. Appendix I recommends that the AMP contains the corresponding extension procedures. The extension in periodicity of these tasks is directly approved by the NMAA, including ALIs (Airworthiness Limitation Items).

• Reduced intervals from those proposed by the (M)TCH as a result of the reliability data or because of a more stringent operational environment.

• Additional tasks at the discretion of the Operating Organisation.

8. 'Field Evaluation' data from other military Operating Organisations using the same aircraft type in a similar manner may have been used to develop an initial Aircraft Maintenance Programme. However, where an aircraft has been procured from a foreign nation, security constraints or other nationally imposed limitations may result in a lack of complete data being available to support the AMP. In these cases, the Operating Organisation should justify to the NMAA that the available data is sufficient to reduce any risks to As Low As Reasonably Practicable (ALARP).

#### GM M.A.302(f) Aircraft Maintenance Programme (AMP)

- 1. NOT APPLICABLE.
- 2. NOT APPLICABLE.

3. The purpose of a reliability programme is to ensure that the AMP tasks are effective and their periodicity is adequate.

4. The reliability programme may result in the extension or reduction of a maintenance task interval, as well as the deletion or addition of a maintenance task.

5. A reliability programme provides an appropriate means of monitoring the effectiveness of the AMP.

6. <u>Appendix I to AMC EMAR M.A.302 and EMAR M.B.301(b)</u> gives further guidance.

#### AMC M.A.304 Data for modifications and repairs

An EMAR 145 AMO repairing an aircraft or component should assess the damage against published approved repair data and the action to be taken if the damage is beyond the limits or outside the scope of such data. This action could involve any one or more of the following options:

- the repair by replacement of the damaged parts;
- requesting technical support from the (M)TCH or a design organisation approved or accepted by the NMAA;
- NMAA approval of the particular repair data.

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#### GM M.A.304(d) Data for modifications and repairs

An 'organisation accepted by the NMAA' should be understood to mean an organisation which does not have an appropriate EMAR 21 approval, but nonetheless the NMAA possesses sufficient knowledge of the organisation's processes, procedures, quality system and, where appropriate, the regulatory system under which the organisation operates, to enable it to be considered as a legitimate provider of this information.

#### AMC M.A.305(d) Aircraft continuing airworthiness record system

The current status of ADs should identify the applicable ADs including any revision or amendment numbers. Where an AD is generally applicable to an aircraft or component type but is not applicable to the particular aircraft or component type used by the Operating Organisation, then this should be identified. The AD status includes the date when the AD was accomplished, and where the AD is controlled by flight hours or flight cycles it should include the aircraft or engine or component total flight hours or cycles or any other approved service life consumption units as appropriate. For repetitive ADs, only the last application should be recorded in the AD status. The status should also specify which part of a multi-part directive has been accomplished and the method, where a choice is available in the AD.

The status of current modification and repairs means a list of embodied modifications and repairs together with the substantiating data supporting compliance with the airworthiness requirements. This can be in the form of a Supplemental (Military) Type Certificate (S(M)TC), Service Bulletin (or national equivalent), Structural Repair Manual (SRM) or similar approved document.

The substantiating data may include:

(a) compliance programme; and

(b) master drawing or drawing list, production drawings, and installation instructions; and

- (c) engineering reports (static strength, fatigue, damage tolerance, fault analysis, etc.); and
- (d) ground and flight test programme and results; and
- (e) weight and balance change data; and
- (f) maintenance and repair manual supplements; and
- (g) AMP changes and Instructions for Continuing Airworthiness; and
- (h) aircraft flight manual supplement; and
- (i) symmetry check report (if applicable).

#### EMAR M AMC & GM - CONTINUING AIRWORTHINESS REQUIREMENTS

Some gas turbine engines are assembled from modules and a true total time in service for a total engine is not kept. When Operating Organisations wish to take advantage of the modular design, then total time in service and maintenance records for each module are to be maintained. The continuing airworthiness records as specified are to be kept with the module and should show compliance with any mandatory requirements pertaining to that module.

For some gas turbine engines, especially turbo-shaft engines, the true total time of continuous operation for particular power settings is to be maintained if applicable.

# AMC M.A.305(d)(4) and AMC M.A.305(h) Aircraft continuing airworthiness record system

The term 'service life limited components' embraces:

(i) components subject to a certified life limit after which the components should be retired, and

(ii) components subject to a service life limit after which the components should undergo maintenance to restore their serviceability.

The current status of service life limited aircraft components should indicate:

(i) for components subject to a certified life limit: the component life limitation, total number of hours, accumulated cycles, calendar time or any other approved service life consumption units and the number of hours/cycles/time/units remaining before the required retirement time of the component is reached;

(ii) for components subject to a service life limit: the component service life limit, the hours, cycles, calendar time or any other approved service life consumption units since the component has been restored back to their service life and the remaining service life (hours, cycles, calendar time or any other approved service life consumption units) before the components need to undergo maintenance.

Any action that alters the components' life limit (certified or service) or changes the parameter of the life limit (certified or service) should be recorded.

When the determination of the remaining life requires knowledge of the different types of aircraft/engine on which the component has previously been installed, the status of all service life limited aircraft components should additionally include a full installation history indicating the number of hours, cycles, calendar time or any other approved service life consumption units relevant to each installation on these different types of aircraft/engine. The indication of the type of aircraft/engine should be sufficiently detailed with regard to the required determination of remaining life.

Recommendations from the (M)TCH on the procedures to record the remaining life should be considered.

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#### AMC M.A.305(g) Aircraft continuing airworthiness record system

For paper documentation, entries made in error should not to be erased but should be ruled through and initialed by the person making the correction. Opaque correction fluid should not be used in correcting paper records.

For electronic systems, incorrect entries should be flagged to indicate that they have been corrected, and a mechanism should be put in place to retain and easily access copies of the original, if incorrect, data.

#### GM M.A.305(g) Aircraft continuing airworthiness record system

ISO 15489-1 (International Standard on Records Management) and Electronic Document and Records Management System provide further information on this topic.

#### AMC M.A.305(h) Aircraft continuing airworthiness record system

When an Operating Organisation arranges for the relevant EMAR 145 AMO to retain copies of the continuing airworthiness records on their behalf, the Operating Organisation will continue to be responsible for the retention of records. If they cease to be the Operating Organisation of the aircraft, they remain responsible for transferring the records to any other Operating Organisation of the aircraft.

Keeping continuing airworthiness records in a form acceptable to the NMAA normally means in paper form or on a computer database or a combination of both methods. Records stored in microfilm or optical disc form are also acceptable. All records should remain readable and accessible for the duration of the storage period.

'Readable and accessible' means that the organisation should possess the ability to access the stored records in their original format for the duration of the specified storage period. Where the data contained in stored records is no longer compatible with changes and/or upgrades to equipment/computer/hardware/software, the organisation should put in place provisions to ensure that sufficient equipment is retained that is compatible with the storage medium, or that the records in their original format are transferred to an alternative medium.

Paper systems should use robust material, which can withstand normal handling and filing.

Computer systems should have at least one backup system, which should be updated at least within 24 hours of any maintenance. Each terminal is required to contain program safeguards against the ability of unauthorised personnel to alter the database.

Continuing airworthiness records should be stored in a safe way with regard to damage, alteration and theft. Computer backup discs, tapes etc., should be stored in a different location from that containing the current working discs, tapes, etc., and in a safe environment. Reconstruction of lost or destroyed records can be done by reference to other records which reflect the time in service, research of records maintained by repair facilities and reference to records maintained by individual mechanics, etc. When these things have been done and the record is still incomplete, the Operating Organisation may make a statement in the new record describing the loss and establishing the time in

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service based on the research and the best estimate of time in service. The reconstructed records should be submitted to the NMAA for acceptance. The NMAA may require the performance of additional maintenance if not satisfied with the reconstructed records.

#### AMC M.A.305(h)6 Aircraft continuing airworthiness record system

For the purpose of this paragraph, a "component vital to flight safety" means a component that includes certified life limited parts or is subject to airworthiness limitations or a major component such as an engine, propeller, undercarriage or flight controls.

#### AMC M.A.306(a) Aircraft technical log

The Operating Organisation's aircraft technical log is a system for recording 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 flight crew need to know.

Where an NMAA has promulgated instructions on the format and construct of an aircraft technical log, this format should be used by all organisations and personnel engaged in the maintenance and support of military registered aircraft and airborne equipment. These instructions should provide a description of the format and use of military aviation engineering documentation, together with any associated procedures.

#### GM M.A.306(a) Aircraft technical log

Guidance on the typical information contained within an aircraft technical log can be found in AMC to EASA Part M.A.306(a).

#### AMC M.A.306(b) Aircraft technical log

The aircraft technical log can be either a paper or computer system or any combination of both methods acceptable to the NMAA.

In case of a computer system, it should contain program safeguards against the ability of unauthorised personnel to alter the database.

#### AMC M.A.307(a) Transfer of aircraft continuing airworthiness records

NOT APPLICABLE.

#### SUBPART D - MAINTENANCE STANDARDS

NOT APPLICABLE - See EMAR 145.

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#### SUBPART E - COMPONENTS

NOT APPLICABLE – See EMAR 145.

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#### SUBPART F - MAINTENANCE ORGANISATION

NOT APPLICABLE.

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#### SUBPART G - CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION

#### AMC M.A.702(a) Application

'On a form and in a manner established by the NMAA' means that the application should be made by using an EMAR Form 2.

The EMAR Form 2 is valid for the application for EMAR 145 and EMAR M.A. Subpart G organisations. Organisations applying for both approvals may do so using a single EMAR Form 2.

#### AMC M.A.702(b) Application

1. Draft documents should be submitted at the earliest opportunity so that NMAA investigation of the application can begin. 'Issue' or 'Change' cannot be achieved until the NMAA is in possession of completed documents.

2. This information is required to enable the NMAA to conduct its investigation, to assess the volume of maintenance work necessary and the locations at which it will be accomplished.

3. The applicant should inform the NMAA where base and scheduled line maintenance is to take place and give details of any contracted/tasked maintenance which is in addition to that provided in response to EMAR M.A.201(h)2 or EMAR M.A.708(c).

4. At the time of application, arrangements should be in place for all base and scheduled line maintenance for an appropriate period of time, as acceptable to the NMAA. Further arrangements should be established in due course before the maintenance is due.

Base maintenance contracts for high-life time checks may be based on one time contracts/taskings, when the NMAA considers that this is compatible with the Operating Organisation's fleet size.

#### AMC M.A.702(b)5 Application

1. Additional documentation may include, but not be limited to:

a. contract/tasking between the CAMO and other organisations in accordance with <u>AMC EMAR M.A.201(h)1;</u>

b. EMAR M.A.201(k) contract/tasking between the Operating Organisation and the CAMO.

2. As only the technical parts of any contracts have to be acceptable to the NMAA, those elements that address costs, warranty etc. are not required.

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#### AMC M.A.704 Continuing Airworthiness Management Exposition (CAME)

1. The purpose of the CAME is to set forth the procedures, means and methods of the CAMO. Compliance with its contents will assure compliance with EMAR M requirements.

2. A CAME should comprise:

Part 0 General organisation Part 1 Continuing airworthiness management procedures Part 2 Quality system Part 3 Contracted/tasked maintenance Part 4 Airworthiness review procedures (if applicable) Part 5 Appendices

3. Where an Operating Organisation is also approved to EMAR 145, the Exposition required by EMAR 145 may form the basis of the CAME in a combined document:

EMAR 145 Exposition (see equivalent paragraphs in EMAR AMC 145.A.70 (a))
Part 1 Management
Part 2 Maintenance procedures
Part L2 Additional line maintenance procedures
Part 3 Quality system
Part 4 Contracts/tasking with Operating Organisations
Part 5 Appendices
Part 7 (Not Applicable)
Part 8 (Not Applicable)

Part 3 should also cover the functions specified by EMAR M.A.712 Quality system.

Part 4 should also cover contracted/tasked maintenance

Additional parts should be introduced into the combined Exposition covering the following (see equivalent paragraphs in the example CAME contained in Appendix V to <u>AMC EMAR M.A.704</u>):

Part 0 General organisation Part 6 Continuing airworthiness management procedures Part 9 Airworthiness review procedures (if applicable)

4. Personnel should be familiar with those parts of the CAME that are relevant to their tasks.

5. The CAMO should specify in the CAME who is responsible for the amendment of the document.

6. Unless otherwise agreed by the NMAA, the person responsible for the management of the quality system should be responsible for monitoring and amending the CAME, including any associated procedures manuals, and the submission of proposed amendments to the NMAA. The NMAA may agree a procedure, which will be stated in the amendment control section of the CAME, defining the class of amendments which can be incorporated without the prior consent of the NMAA.

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7. The CAMO may use Electronic Data Processing (EDP) for publication of the CAME. The CAME should be made available to the NMAA in a form acceptable to the NMAA. Attention should be paid to the compatibility of EDP publication systems with the necessary dissemination of the CAME, both internally and externally.

8. Part 0 "General organisation" of the CAME should include a corporate commitment by the CAMO, signed by the Accountable Manager, confirming that the CAME and any associated manuals define the organisation's compliance with EMAR M and will be complied with at all times.

9. The Accountable Manager's Exposition statement should embrace the intent of the following paragraph, and this statement may be used without amendment. Any modification to the statement should not alter the intent:

"This Exposition defines the organisation and procedures upon which the (NMAA - \* see note below) EMAR M.A. Subpart G continuing airworthiness management approval is based.

These procedures are approved by the undersigned and should be complied with, as applicable, in order to ensure that all continuing airworthiness tasks of... (quote Operating Organisation's name) fleet of aircraft and/or of all aircraft under contract/tasking in accordance with EMAR M.A.201(k) with ... (quote CAMO's name) ... are carried out on time to an approved standard.

It is accepted that 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 (NMAA\*) will approve this organisation whilst the (NMAA\*) is satisfied that the procedures are being followed and the work standard is maintained. It is understood that the (NMAA\*) reserves the right to suspend, limit or revoke the EMAR M.A. Subpart G continuing airworthiness management approval of the organisation, if the (NMAA\*) has evidence that the procedures are not followed and the standards not upheld."

Signed.....

Dated.....

Accountable Manager and...... (quote position).....

For and on behalf of...... (quote organisation's name).....

Note: Where it states (NMAA\*), please insert the actual name of the pMS's NMAA, for example MAA, DSAE, etc.

10. Whenever the Accountable Manager changes, it is important to ensure that the new Accountable Manager signs the paragraph 9 statement at the earliest opportunity.

Failure to carry out this action could invalidate the EMAR M.A. Subpart G approval.

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11. The CAME should contain information as applicable, on how the CAMO complies with CDCCL instructions.

Appendix V to AMC EMAR M.A.704 contains an example of a CAME lay-out.

#### AMC M.A.705 Facilities

Office accommodation should be such that the occupants, whether they be continuing airworthiness management, planning, technical records or quality staff, can carry out their designated tasks in a manner that contributes to good standards. In a smaller CAMO, the approving NMAA may agree to these tasks being conducted from one office subject to being satisfied that there is sufficient space and that each task can be carried out without undue disturbance. Office accommodation should also include an adequate technical library and room for document consultation.

#### AMC M.A.706 Personnel requirements

1. The person or group of persons should represent the continuing airworthiness management structure of the CAMO and be responsible for all continuing airworthiness functions. Dependent on the fleet activity and the organisational structure, the continuing airworthiness functions may be divided under individual managers or combined in nearly any number of ways. However, the quality system should be independent from the other functions.

2. The actual number of persons to be employed and their necessary qualifications is dependent upon the tasks to be performed and thus dependent on the size and complexity of the CAMO (e.g. number of aircraft and the aircraft types, complexity of the aircraft and their age, operational usage etc.) and the amount and complexity of maintenance contracting or tasking. Consequently the number of persons needed, and their qualifications, may differ greatly from one CAMO to another and a simple formula covering the whole range of possibilities is not feasible.

3. To enable the NMAA to accept the number of persons and their qualifications, a CAMO 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 individuals/hours and the qualifications needed to perform the tasks. If there are any significant changes that will impact on the number of persons and their qualifications, this analysis should be updated.

4. The nominated person or group of persons should have:

4.1. practical experience and expertise in the application of aviation safety standards and safe operating practices; and

4.2. a comprehensive knowledge of:

(a). relevant military operational requirements and procedures; and

(b). NOT APPLICABLE;

(c). the content of the relevant parts of the Operating Organisation's Operations Manual (or national equivalent) when it impacts the continuing airworthiness of the aircraft operated;

4.3. knowledge of quality systems; and

4.4. five years of relevant experience of which at least two years should be within the aviation environment in a position considered appropriate by the NMAA; and

4.5. a relevant engineering degree or an aircraft maintenance technician qualification with additional education acceptable to the NMAA. 'Relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components;

The above recommendation may be replaced by 5 years of experience additional to those already recommended by paragraph 4.4 above. These 5 years should cover an appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management (engineering) and/or surveillance of such tasks.

4.6. thorough knowledge of the CAME; and

4.7. knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course(s). These course(s) should be at least at a level equivalent to EMAR 66 Appendix III Level 1 familiarisation and could be imparted by an EMAR 147 Maintenance Training Organisation (MTO), by the manufacturer, or by any other organisation accepted by the NMAA;

"Relevant sample" means that these courses should cover typical systems embodied in those aircraft being within the scope of CAMO's approval.

- 4.8. knowledge of maintenance methods; and
- 4.9. knowledge of applicable regulations.

#### AMC M.A.706(a) Personnel requirements

Accountable Manager is normally intended to mean the Chief Executive Officer or a senior military commander of the CAMO approved under EMAR M.A. Subpart G, who by virtue of position has overall (including in particular resource allocation) responsibility for running the organisation. The Accountable Manager may be the Accountable Manager for more than one organisation and is not required to be knowledgeable on technical matters as the CAME defines the continuing airworthiness standards. When the Accountable Manager is not the Chief Executive Officer or senior military commander, the NMAA will need to be assured that such an Accountable Manager has direct access to the Chief Executive Officer or senior military commander and has a sufficiency of 'continuing airworthiness resources' allocation.

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#### AMC M.A.706(e) Personnel requirements

1. The NMAA may accept that the Continuing Airworthiness Manager referred to in paragraph (d) is also part of an EMAR 145 AMO being contracted/tasked by the Operating Organisation in the case where the individual has military command and control responsibilities over both organisations (e.g. a military Commanding Officer with responsibility for both organisations on an airbase).

2. This paragraph only applies to contracted/tasked maintenance and therefore does not affect situations where the organisation approved under EMAR 145 and the Operating Organisation are the same organisation.

#### AMC M.A.706(f) Personnel requirements

Additional training in fuel tank safety as well as associated inspection standards and maintenance procedures should be required of continuing airworthiness management organisations' technical personnel, especially the staff involved with the management of CDCCL (if applicable), Service Bulletin assessment, work planning and maintenance programme management. Further guidance is provided for training of CAMO's continuing airworthiness personnel in Appendix IV to EMAR AMC 145.A.30(e) and EMAR AMC 145.B.10(c).

#### AMC M.A.706(i) Personnel requirements

The approval by the NMAA of the CAME, containing the list of EMAR M.A.706(i) personnel, constitutes formal acceptance by the NMAA and their formal authorisation by the CAMO.

Nominated airworthiness review staff who are accepted by the NMAA are automatically recognised as persons with authority to extend a Military Airworthiness Review Certificate in accordance with EMAR M.A.711(a)4 and EMAR M.A.901(c)2.

#### AMC M.A.706(k) Personnel requirements

Adequate initial and recurrent training should be provided and recorded to ensure continued competence.

#### AMC M.A.707(a) Airworthiness review staff

1. Airworthiness review staff are only required if the CAMO wants to be granted EMAR M.A.711 (b) airworthiness review privileges.

2. "experience in continuing airworthiness" means any appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management (engineering) and/or surveillance of such tasks.

3. A person qualified to the <u>AMC EMAR M.A.706</u> subparagraph 4.5 should be considered as holding the equivalent to an aeronautical degree.

4. An appropriate MAML in compliance with EMAR 66 is any one of the following:

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- a category B1 licence in the subcategory of the aircraft reviewed, or
- a category B2 or C licence.

It is not necessary to satisfy the experience requirements of EMAR 66.A.20(b)(2) at the time of the review.

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

Independence from the airworthiness management process may be achieved, among other ways, 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 type or series, while being involved in the airworthiness management of a different type or series.
- CAMOs that are part of an Operating Organisation that also has an EMAR 145 approval, may nominate maintenance personnel from their EMAR 145 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.
- Nominating as airworthiness review staff personnel from the Quality Department of the CAMO.
- Contracting/tasking staff from another organisation.

Overall authority on the airworthiness management process of complete aircraft may be achieved, among other ways, by:

- Nominating as airworthiness review staff the Accountable Manager or the Continuing Airworthiness Manager.
- Being authorised to perform airworthiness reviews only on those particular aircraft for which the person is responsible for the complete continuing airworthiness management process.

#### AMC M.A.707(a)(1) Airworthiness review staff

Formal aeronautical maintenance training means training (internal or external) supported by evidence on the following subjects:

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- relevant parts of initial and continuing airworthiness regulations; and
- relevant parts of operational requirements and procedures, if applicable; and
- the CAME; and
- knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to EMAR 66 Appendix III Level 1 General Familiarisation and could be imparted by an EMAR 147 MTO, by the manufacturer, or by any other organisation accepted by the NMAA;

"relevant sample" means that these courses should cover typical systems embodied in those aircraft being within the scope of approval;

• maintenance methods.

#### AMC M.A.707(a)(2) Airworthiness review staff

NOT APPLICABLE.

#### AMC M.A.707(b) Airworthiness review staff

The formal acceptance by the NMAA of the airworthiness review staff is granted through the corresponding EMAR Form 4.

An airworthiness review "under supervision" means under the supervision of the NMAA. If the CAMO has already properly authorised airworthiness review staff, the NMAA may accept that the supervision be performed by these existing airworthiness review staff in accordance with an approved procedure. In such cases, evidence of the airworthiness review performed under supervision should be provided to the NMAA together with the EMAR Form 4. If satisfied, the NMAA will issue the formal acceptance through the EMAR Form 4.

Once the airworthiness review staff have been accepted by the NMAA, the inclusion of their name in the CAME (refer to EMAR M.A.704(a)5) constitutes the formal authorisation by the CAMO.

#### AMC M.A.707(c) Airworthiness review staff

In order to keep their authorisations valid, the airworthiness review staff should have either:

- been involved in continuing airworthiness management activities for at least six months in every two year period; or
- conducted at least one airworthiness review in the last twelve month period.

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In order to restore the validity of the authorisation, the airworthiness review staff should conduct at a satisfactory level an airworthiness review under the supervision of the NMAA or, if accepted by the NMAA, under the supervision of another currently valid authorised airworthiness review staff of the CAMO in accordance with an approved procedure.

# AMC M.A.707(e) Airworthiness review staff

The minimum content of the airworthiness review staff record should be:

- Name,
- Rank/Grade and Service Number (if applicable)
- Date of Birth,
- Basic Education,
- Experience,

- Aeronautical Degree and/or EMAR 66 qualification and/or nationally recognised maintenance personnel qualification,

- Initial Training received,
- Type Training received,
- Continuation Training received,
- Experience in continuing airworthiness and within the organisation,
- Responsibilities of current role in the organisation,

- Copy of the authorisation (to include scope, date of first issue, expiry date, and identification number if applicable),

- Security clearance (where applicable).

# GM M.A.708(b)(2) Continuing airworthiness management

It is possible that within a pMS, the AMP will be provided to the CAMO for some aircraft types whilst for other aircraft types the AMP is to be 'developed and controlled' by the CAMO. This will be identified by the NMAA on a platform-by-platform basis. In these cases it is possible that the CAMO's responsibilities towards the 'development and control' of the AMP of the aircraft types for which it is responsible will differ. These differences are to be clearly identified in the CAME.

# AMC M.A.708(b)(3) Continuing airworthiness management

#### NOT APPLICABLE.

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# AMC M.A.708(c) Continuing airworthiness management (\*)

1. Where an Operating Organisation is not approved under EMAR 145 or where an Operating Organisation's maintenance organisation is an independent organisation, formal tasking or a contract should be agreed between the Operating Organisation/CAMO and an EMAR 145 AMO which specifies, in detail the work to be performed by the EMAR 145 AMO. <u>Appendix XI to AMC to EMAR M.A.708(c)</u> gives further details on the subject.

2. Both the specification of work and the assignment of responsibilities should be clear, unambiguous and sufficiently detailed to ensure that no misunderstanding should arise between the parties concerned (Operating Organisation, CAMO and EMAR 145 AMO) that could result in a situation where work that has a bearing on the airworthiness or serviceability of an aircraft is not or will not be properly performed.

3. Special attention should be paid to procedures and responsibilities to ensure that all maintenance work is performed, Service Bulletins (or national equivalent) are analysed and decisions taken on their accomplishment, Airworthiness Directives are completed on time and that all work, including non-mandatory modifications, is carried out to approved data and to the latest standards.

4. NOT APPLICABLE.

5. NOT APPLICABLE.

6. NOT APPLICABLE.

7. The purpose of EMAR M.A.708(c) is to ensure that all maintenance is carried out by EMAR 145 AMOs. This does not preclude a primary maintenance arrangement with an organisation that is not such an EMAR 145 AMO, when it proves that such an arrangement is in the interest of the Operating Organisation by simplifying the management of its maintenance, and the Operating Organisation/CAMO keeps an appropriate control of it. Such an arrangement should not preclude the Operating Organisation/CAMO from ensuring that all maintenance is performed by an EMAR 145 AMO and complying with the EMAR M.A.201 continuing airworthiness responsibility requirements. A typical example of such an arrangement is:

The Operating Organisation may find it more appropriate to have a primary contractor that would dispatch the aircraft and/or components to appropriately approved maintenance organisations, rather than the Operating Organisation itself sending the aircraft and/or different types of components to various EMAR 145 AMOs. The benefit for the Operating Organisation is that the management of maintenance is simplified by having a single point-of-contact for aircraft and/or component maintenance. The Operating Organisation remains responsible for ensuring that all maintenance is performed by EMAR 145 AMOs and in accordance with the approved standard.

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In essence, this does not alter the intent of EMAR M.A.201(h) in that it also requires that the Operating Organisation has to establish formal tasking or a written maintenance contract and, whatever type of acceptable arrangement is made, the Operating Organisation is required to exercise the same level of control on contracted or tasked maintenance, particularly through the EMAR M.A.706(c) continuing airworthiness management group of persons and quality system as referred to in EMAR M.A.712.

\* see Appendix XI to AMC to EMAR M.A.708(c)

# AMC M.A.708(c)(1) Continuing airworthiness management

# NOT APPLICABLE

# AMC M.A.709 Documentation

When a CAMO is contracted/tasked under EMAR M.A.201(k) for the management of the continuing airworthiness of aircraft operated by the Operating Organisation and it uses maintenance data provided by the Operating Organisation, the CAMO is responsible for ensuring that this data is current. As a consequence, it should establish appropriate procedures or provisions in the contract/tasking with the Operating Organisation.

The sentence "..., except when required by EMAR M.A.714", means, in particular, the need to keep a copy of the Operating Organisation's data which was used to perform continuing airworthiness activities during the contract/tasking period.

# AMC M.A.710(a) Airworthiness review

1. A review is a check of at least the following categories of documents:

- registration papers (where applicable);
- EMAR M.A.305 aircraft continuing airworthiness record system;
- EMAR M.A.306 aircraft technical log;
- list of deferred defects, MEL and CDL (if applicable);

- aircraft flight manual and/or any other manuals required by the NMAA including aircraft configuration;

- AMP;
- maintenance data;
- relevant work packages;
- AD status;
- modification and SB status (or national equivalent);
- modification and repair approval sheets;

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- list of service life-limited components (to include list of engine and/or propeller modules where appropriate);

- relevant EMAR Form 1s or equivalent;
- weight and balance report and installed equipment list;
- aircraft, engine and propeller (M)TC Data Sheets;
- if applicable, latest symmetry report.

As a minimum, sample checks within each document category should be carried out.

2. In the context of EMAR M.A.710(a), 'fully documented' means that the CAMO should develop procedures for airworthiness review staff to produce a compliance report that confirms the above have been reviewed and, based on objective evidence, found to be in compliance with EMAR M.

In this context, 'objective evidence' is physical evidence that an individual auditing the airworthiness review can inspect and evaluate for themselves. It provides compelling evidence that the review or audit was actually performed as indicated, and that the criteria in EMAR M.A.710(a) were found to be in order.

# AMC M.A.710(b) and (c) Airworthiness review

1. The physical survey could require actions categorised as maintenance (e.g. operational tests, tests of emergency equipment, visual inspections requiring panel opening etc.). In this case, after the airworthiness review, a CRS for aircraft should be issued in accordance with EMAR 145.

When the airworthiness review staff are not appropriately authorised to release such maintenance, EMAR M.A.710(b) requires them to be assisted by EMAR 145.A.35 certifying staff. However, the function of such certifying staff is limited to performing and releasing the maintenance actions requested by the airworthiness review staff; it is not their function to perform the physical survey of the aircraft. As stated in EMAR M.A.710(b), the airworthiness review staff shall carry out the physical survey of the aircraft, and this survey includes the verification that no inconsistencies can be found between the aircraft and the documented review of records.

2. The physical survey of the aircraft may include verifications to be carried out during flight.

3. The CAMO should develop procedures for the airworthiness review staff to produce a compliance report that confirms the physical survey has been carried out and found satisfactory.

4. To ensure compliance, the physical survey of the aircraft may include relevant sample checks of items.

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# AMC M.A.710(d) Airworthiness review

When an airworthiness review is anticipated by up to 90 days, the expression "without loss of continuity of the airworthiness review pattern" means that the new expiration date is set up one year after the previous expiration date. As a consequence, when the airworthiness review is anticipated, the validity or the airworthiness review certificate is longer than one year (up to 90 days longer).

If for service reasons, an airworthiness review is anticipated by more than 90 days, the next airworthiness review is due 12 months from this earlier anticipated date.

#### AMC M.A.710(e) Airworthiness review

A copy of both the physical survey compliance report and the document review compliance report should be sent to the NMAA together with any recommendation issued.

#### AMC M.A.710(g) Airworthiness review

This means that the airworthiness review staff who is going to sign the MARC (EMAR Form 15b) or the recommendation for the NMAA to issue the MARC (EMAR Form 15a) should be the one who carried out the physical survey of the aircraft and also completed/supervised/managed the documented review. It is not the intent of the requirement to delegate the physical survey of the aircraft to certifying staff who are not airworthiness review staff. Furthermore, the provision of EMAR M.A.710(d) allowing a 90 days anticipation for the physical survey provides enough flexibility to ensure that the airworthiness review staff are present.

# AMC M.A.711(b) Privileges of the organisation

NOT APPLICABLE

# AMC M.A.711(c) Privileges of the organisation

NOT APPLICABLE

# AMC M.A.712(a) Quality system

1. Procedures should be held current such that they reflect best practice within the CAMO. It is the responsibility of all CAMO staff to report any difficulties with the procedures via their CAMO's internal occurrence reporting mechanisms.

2. All procedures, and changes to the procedures, should be verified and validated before use where practicable.

3. The feedback part of the system should address who is required to rectify any noncompliance in each particular case and the procedure to be followed if rectification is not completed within appropriate timescales. The procedure should include the Accountable Manager specified in EMAR M.A.706.

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4. The independent quality audit reports referenced in <u>AMC EMAR M.A.712(b)</u> should be sent to the relevant department for rectification action giving target rectification dates. Rectification dates should be discussed with such department before the quality department or nominated quality auditor confirms such dates in the report. The relevant department is required to rectify findings and inform the Quality Manager or the quality auditor of such rectification.

5. The Accountable Manager should hold regular meetings with staff to check progress on rectification. In large CAMOs such meetings may be delegated on a day to day basis to the Quality Manager, subject to the Accountable Manager meeting at least twice per year with the senior staff involved to review the overall performance and receiving at least a half yearly summary report on findings of non-compliance.

# AMC M.A.712(b) Quality system

1. The primary objectives of the quality system are to enable the CAMO to ensure airworthy aircraft and to remain in compliance with the EMAR M requirements.

2. An essential element of the quality system is the independent audit.

3. The independent audit is an objective process of routine sample checks of all aspects of the CAMO's ability to carry out continuing airworthiness management to the required standards. It includes some on-aircraft sampling as this is the end result of the process.

4. The independent audit represents an objective overview of the complete continuing airworthiness management related activities. It is intended to complement the EMAR M.A.902 requirement for an airworthiness review to be satisfied that all aircraft managed by the organisation remain airworthy.

5. The independent audit should ensure that all aspects of EMAR M.A. Subpart G compliance are checked annually, including all the contracted/tasked activities, and may be carried out as a complete single exercise or subdivided over the annual period in accordance with a scheduled plan. If the continuing airworthiness of more than one aircraft type is managed, the independent audit does not require each procedure to be checked against each aircraft type when it can be shown that the particular procedure is common to more than one aircraft type and the procedure has been checked every year without resultant findings. Where findings have been identified, the particular procedure should be rechecked against other aircraft types until the findings have been rectified after which the independent audit procedure may revert back to the annual interval for the particular procedure.

Provided that there are no safety related findings, the audit time periods specified in this AMC may be increased by up to 100% subject to agreement by the NMAA.

6. Where the CAMO has more than one approved location, the quality system should describe how these are integrated into the system and include a plan to audit each location every year.

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7. A report should be raised each time an audit is carried out describing what was checked and the resulting findings against applicable procedures, contracts/taskings and EMAR requirements.

8. The independence of the audit should be established by ensuring that audits are not carried out by personnel responsible for the function, procedure or products being checked.

9. A CAMO should establish a quality plan acceptable to the NMAA that shows when and how often the activities required by EMAR M.A. Subpart G will be audited.

# AMC M.A.712(f) Quality system

NOT APPLICABLE

# AMC M.A.713 Changes to the CAMO

1. NOT APPLICABLE.

2. Moved to <u>AMC EMAR M.B.706</u>.

# AMC M.A.714 Record-keeping

1. The system to retain the continuing airworthiness records should be described in the CAME.

2. When a CAMO arranges for an EMAR 145 AMO to retain copies of the EMAR M.A.714 continuing airworthiness records on its behalf, the CAMO will nevertheless continue to be responsible for their preservation. If another CAMO assumes responsibility for managing the continuing airworthiness of an aircraft, then the original CAMO is responsible for transferring the records.

3. Keeping continuing airworthiness records in a form acceptable to the NMAA means in paper form or on a computer database or a combination of both methods. Records stored in microfilm or optical disc form are also acceptable. The record should remain readable and accessible throughout the required retention period.

'Readable and accessible' is defined in AMC EMAR M.A.305(h).

4. Paper systems should use robust material which can withstand normal handling and filing.

5. Computer systems should have at least one backup system which should be updated within 24 hours of any new entry. Each terminal is required to contain program safeguards against the ability of unauthorised personnel to alter the database.

6. Microfilming or optical storage of continuing airworthiness records may be carried out at any time. The records should be as legible as the original record and remain so for the required retention period.

# AMC M.A.716(a)2 CAMO findings by the NMAA

The corrective action plan defined by the CAMO should address the effects of the noncompliance, as well as its root cause.

# GM M.A.716 CAMO findings by the NMAA

1. General

(a) Preventive action is the action to eliminate the cause of a potential noncompliance, or other undesirable potential situation.

(b) Corrective action is the action to eliminate or mitigate the root cause(s) and prevent recurrence of an existing detected non-compliance, or other undesirable condition or situation. Proper determination of the root cause is crucial for defining effective corrective actions to prevent reoccurrence.

- (c) Correction is the action to eliminate a detected non-compliance.
- 2. Root-cause analysis

(a) It is important that the analysis does not primarily focus on establishing who or what caused the non-compliance but why it was caused. Establishing the rootcause or causes of a non-compliance often requires an overarching view of the events and circumstances that lead to it, to identify all possible systemic and contributing factors (regulatory, human factors, organisational, managerial, cultural, technical, etc.) in addition to the direct factors. A narrow focus on single events or failures, or the use of a simple method such as fault tree, to identify the chain of events that lead to the non-compliance may not properly reflect the complexity of the issue, and, therefore bears the risk that important factors required to be addressed in order to prevent reoccurrence will be ignored.

(b) Such inappropriate or partial root-cause analysis often leads to defining 'quick fixes' addressing the symptoms of the nonconformity only. A peer review of the results of the root-cause analysis may increase its reliability and objectivity.

(c) A system description of the organisation considering organisational structures, processes and their interfaces, procedures, staff, equipment, facilities and the environment in which the organisation operates will support both effective root-cause (reactive) and hazard (proactive) analysis.

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# SUBPART H - CERTIFICATE OF RELEASE TO SERVICE - CRS

NOT APPLICABLE.

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# SUBPART I - MILITARY AIRWORTHINESS REVIEW CERTIFICATE (MARC)

# AMC M.A.901 Aircraft airworthiness review

NOT APPLICABLE.

# AMC M.A.901(a) Aircraft airworthiness review

EMAR Form 15a is issued by the NMAA while EMAR Form 15b is issued by a CAMO.

# AMC M.A.901(b) Aircraft airworthiness review

NOT APPLICABLE.

# AMC M.A.901(c)(2) Aircraft airworthiness review

It is acceptable to anticipate the extension of the MARC by a maximum of 30 days without a loss of continuity of the airworthiness review pattern, which means that the new expiration date is set up one year after the previous expiration date.

It is also acceptable to perform the extension of a MARC after its expiration date, as long as all the conditions for the extension are met. However, this means that:

- until the MARC is extended the aircraft cannot fly because the MARC has expired; and
- the new expiration date (after extension) is set one year after the previous expiration date (not one year after the extension is performed).

# AMC M.A.901(d) Aircraft airworthiness review

The recommendation sent to the NMAA should contain at least the items described below:

- (a) General information
  - CAMO information;
  - Operating Organisation information;

- date and place the document review and the aircraft survey were carried out;

- period and place the aircraft can be seen if required by the NMAA.
- (b) Aircraft information
  - registration;
  - type;

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- manufacturer;
- serial number;
- Aircraft Flight Manual reference;
- weight and centre of gravity data;
- AMP reference;
- symmetry check data (if applicable).
- (c) Documents accompanying the recommendation
  - copy of the Operating Organisation's request for a new MARC.
- (d) Aircraft status

- aircraft total flight hours and cycles or other service life consumption units if applicable;

- list of organisations having carried out continuing airworthiness activities including maintenance tasks on the aircraft and its components since the last MARC was issued.

(e) Aircraft survey

- a precise list of the areas of the aircraft that were surveyed and their status.

(f) Findings

- a list of all the findings made during the airworthiness review with the corrective action carried out

(g) Statement

A statement signed by the airworthiness review staff recommending the issue of a MARC.

The statement should confirm that the aircraft in its current configuration complies with the following:

- Airworthiness Directives up to the latest published issue; and
- (Military) Type Certificate datasheet; and
- AMP; and
- component service life limitations; and

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- the valid weight and centre of gravity schedule reflecting the current configuration of the aircraft; and

- EMAR 21 for all modifications and repairs; and
- the current Aircraft Flight Manual including supplements; and
- valid symmetry check schedule (if applicable); and
- operational requirements.

The above items should clearly state the exact reference of the data used in establishing compliance; for instance the number and issue of the (M)TC data sheet used should be stated.

The statement should also confirm that all of the above is properly entered and certified in the aircraft continuing airworthiness record system and/or in the aircraft technical log.

# AMC M.A.901(g) Aircraft airworthiness review

# NOT APPLICABLE.

# AMC M.A.901(j) Aircraft airworthiness review

Suitable accommodation should include:

a) an office with normal office equipment such as desks, telephones, photocopying machines etc. whereby the continuing airworthiness records can be reviewed.

b) a hangar when needed for the physical survey.

The support of personnel appropriately authorised in accordance with EMAR 145.A.35 is necessary to assist with depanelling/panelling/functional checks etc.

# AMC M.A.903 Transfer of aircraft registration within the EU

TO BE ADDED LATER IF REQUIRED.

# AMC M.A.904 Airworthiness review of aircraft imported into the EU

TO BE ADDED LATER IF REQUIRED.

# AMC M.A.905(a)1 Aircraft findings by the NMAA

The Operating Organisation should establish an effective system of communication with operating locations to ensure the timely suspension of flight operations of the affected aircraft.

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# AMC M.A.905(a)3 Aircraft findings by the NMAA

The corrective action plan defined by the Operating Organisation should address the effects of the non-compliance, as well as its root cause.

# AMC M.A.905(b) Aircraft findings by the NMAA

The Operating Organisation should consider at least the following:

- (a) Probable root cause and contributory factors;
- (b) Applicability of those to other aircraft under its responsibility;

(c) Other factors that could potentially lead to unsafe condition(s) in those other aircraft.

# GM M.A.905(a) Aircraft findings by the NMAA

See <u>GM EMAR M.A.716</u> for further guidance.

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# **APPENDICES TO AMCs**

# Appendix I to AMC M.A.302 and AMC M.B.301(b): Content of the Aircraft Maintenance Programme (AMP)

#### 1 General requirements

1.1 The AMP should contain the following basic information.

1.1.1 The type/model and registration number of the aircraft, engines and, where applicable, auxiliary power units and propellers.

1.1.2 The name and address of the Operating Organisation(s) and the organisation responsible for producing and amending the AMP.

1.1.3 The reference, the date of issue and issue number of the AMP.

1.1.4 A statement signed by the CAMO's Accountable Manager or their nominated representative to the effect that the specified aircraft will be maintained to the AMP and that the AMP will be reviewed and updated as required.

1.1.5 Contents/list of effective pages and their revision status of the document.

1.1.6 Intervals for scheduled maintenance, which reflect the anticipated utilisation of the aircraft. Such utilisation should be stated and include a tolerance. Where utilisation cannot be anticipated, calendar time limits should also be included.

1.1.7 Procedures for the extension of established intervals for scheduled maintenance, where applicable and acceptable to the NMAA.

1.1.8 Provision to record the date and reference of approved amendments incorporated in the AMP.

1.1.9 Details of pre-flight tasks that are accomplished by maintenance staff.

1.1.10 The tasks and the periods (intervals/frequencies) at which each part of the aircraft, engines, APU's, propellers, components, accessories, equipment, instruments, electrical and radio apparatus, together with the associated systems and installations should be inspected. This should include the type and degree of inspection required.

1.1.11 The periods at which components should be checked, cleaned, lubricated, replenished, adjusted and tested.

1.1.12 If applicable, details of ageing aircraft system requirements together with any specified sampling programmes.

1.1.13 If applicable, details of specific structural maintenance programmes where issued by the MTCH/any organisation recognized by the NMAA including but not limited to:

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a. Damage Tolerance based Structural Maintenance Inspection Programmes and Supplemental Structural Inspection Documents (SSID).

b. Structural maintenance programmes resulting from the SB review performed by the MTCH.

c. Corrosion Prevention and Control Programmes (CPCP).

d. Repair Evaluation Guidelines, Repair Assessment Programmes or similar documents.

e. Widespread Fatigue Damage.

1.1.14 If applicable, details of CDCCLs together with appropriate procedures.

1.1.15 If applicable, a statement of the limit of validity in terms of total flight cycles/calendar date/flight hours/other service life consumption units for the structural programme in 1.1.13.

1.1.16 The periods at which overhauls and/or replacements by new or overhauled components should be made.

1.1.17 A cross-reference to other documents approved by the NMAA which contain the details of maintenance tasks related to mandatory life limitations, Certification Maintenance Requirements (CMR's) and ADs.

Note: To prevent inadvertent variations to such tasks or intervals these items should not be included in the main portion of the AMP document, or any planning control system, without specific identification of their mandatory status.

1.1.18 Details of, or cross-reference to, any required reliability programme or statistical methods of continuous surveillance.

1.1.19 A statement that practices and procedures to satisfy the programme should be to the standards specified in the maintenance instructions promulgated by the (Military) Type Certificate (MTC) and (Military) Supplementary Type Certificate (MSTC) holders and any other organisation that publishes such data in accordance with EMAR 21. In the case of approved practices and procedures that differ, the statement should refer to them.

1.1.20 Each maintenance task quoted should be defined in a definition section of the AMP.

# 2 AMP basis

2.1 An AMP should normally be based upon the MRB report (or equivalent), where applicable, and the MTCH's MPD or the manufacturer's recommended maintenance programme.

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The structure and format of these maintenance recommendations may be re-written to better suit the operation and control of the particular AMP.

2.2 For a newly type-certificated aircraft where no previously approved AMP exists, it will be necessary to comprehensively appraise the manufacturer's recommendations (and the MRB report or equivalent where applicable), together with other airworthiness information, in order to produce a realistic AMP for approval.

2.3 For existing aircraft types it is permissible to make comparisons with AMPs previously approved. It should not be assumed that an AMP approved for one Operating Organisation will automatically be approved for another.

Evaluation should be made of the aircraft/fleet utilisation, landing rate, equipment fit and, in particular, the experience of the Operating Organisation/CAMO/other Operating Organisations when assessing an existing AMP.

Where the NMAA is not satisfied that the proposed AMP can be used as is, the NMAA should request appropriate changes such as additional maintenance tasks or reduction of established intervals of scheduled maintenance tasks as necessary.

2.4 Critical Design Configuration Control Limitations (CDCCLs)

If CDCCLs have been identified for the aircraft type by the M(S)TC Holder, maintenance instructions should be developed. CDCCLs are characterised by features in an aircraft installation or component that should be retained during modification, change, repair, or scheduled maintenance for the operational life of the aircraft or applicable component or part.

#### 3 Amendments

Amendments (revisions) to an approved AMP should be made to reflect changes in the M(S)TCH's recommendations, modifications, service experience, or as required by the NMAA.

#### 4 Permitted variations to maintenance periods

Maintenance periods prescribed by the AMP may only be varied with the approval of the NMAA or through a procedure developed in the AMP and approved by the NMAA.

#### **5** Periodic review of AMP contents

5.1 Approved AMPs should be subject to periodic review to ensure that they reflect current M(S)TCH's recommendations, revisions to the MRB report (or equivalent) if applicable, mandatory requirements and the maintenance needs of the aircraft.

5.2 A review of the detailed requirements should be carried out at least annually for continued validity in the light of operating experience.

#### 6. Reliability Programmes

6.1 A reliability programme should be developed (see <u>GM EMAR M.A.302(f)</u>)

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6.1.1 Not Applicable.

6.1.2 Not Applicable.

6.1.3 Not Applicable.

6.2 Applicability for small fleets of aircraft

6.2.1 For the purpose of this paragraph, a small fleet of aircraft is a fleet of less than 6 aircraft of the same type.

6.2.2 The requirement for a reliability programme is irrespective of the fleet size.

6.2.3 Complex reliability programmes could be inappropriate for a small fleet. It is recommended that reliability programmes are tailored to suit the size and complexity of operational usage.

6.2.4 One difficulty with a small fleet of aircraft consists in the amount of available data which can be processed: when this amount is too low, the calculation of alert level is very coarse. Therefore "alert levels" should be used carefully.

6.2.5 When establishing a reliability programme for a small fleet of aircraft, the following should be considered:

(a) The programme should focus on areas where a sufficient amount of data is likely to be processed.

(b) When the amount of available data is very limited, engineering judgement is then a vital element. In the following examples, careful engineering analysis should be exercised before taking decisions:

- A "0" rate in the statistical calculation may possibly simply reveal that not enough statistical data is available, rather that there is no potential problem.
- When alert levels are used, a single event may have the figures reach the alert level. Engineering judgement is necessary so as to discriminate an artefact from an actual need for a corrective action.
- In making an engineering judgement, contact should be established and comparisons made with other Operating Organisations/CAMOs of the same aircraft type, where possible and relevant. Making comparison with data provided by the manufacturer may also be possible.

6.2.6 In order to obtain accurate reliability data, it should be recommended to pool data and analysis with one or more other Operating Organisations/CAMOs. Paragraph 6.6 of this Appendix specifies under which conditions it is acceptable that Operating Organisations/CAMOs share reliability data.

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6.2.7 Notwithstanding the above there are cases where the pooling of data is not possible, e.g. at the introduction to service of a new aircraft type. In that case, the NMAA should impose additional restrictions on the scheduled maintenance task intervals (e.g. no variations or only changes with NMAA approval are possible).

6.3 Engineering judgement

6.3.1 Engineering judgement is itself inherent to reliability programmes as no interpretation of data is possible without judgement. In approving the maintenance and reliability programmes, the NMAA is expected to ensure that the organisation responsible for developing and controlling the AMP has sufficiently qualified personnel with appropriate engineering experience and understanding of reliability concepts.

6.3.2 It follows that failure to provide appropriately qualified personnel for the reliability programme may lead to the NMAA rejecting the approval of the reliability programme and therefore the AMP.

6.4 Contracted/Tasked Reliability Programme

6.4.1 The organisation responsible for the development of the AMP may delegate certain functions to a suitably qualified organisation under contract/task, provided this organisation proves to have the appropriate expertise.

- 6.4.2 These functions are:
  - (a) Developing the aircraft maintenance and reliability programmes,
  - (b) Performing the collection and analysis of the reliability data,
  - (c) Providing reliability reports, and

(d) Proposing corrective actions to the organisation responsible for the development of the AMP.

6.4.3 Notwithstanding the above, the decision to implement a corrective action (or the decision to request from the NMAA the approval to implement a corrective action) remains the CAMO's prerogative and responsibility. In relation to paragraph 6.4.2(d) above, a decision not to implement a corrective action should be justified and documented.

6.4.4 The arrangement between the organisation responsible for the development of the AMP and the contracted/tasked organisation should be specified in the contract/task.

6.5 Reliability programme

In preparing the reliability programme details, account should be taken of this paragraph. All associated procedures should be clearly defined.

#### 6.5.1 Objectives

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6.5.1.1 A statement should be included summarising as precisely as possible the scope and prime objectives of the reliability programme. As a minimum it should include the following:

- (a) to recognise the need for corrective action; and
- (b) to establish what corrective action is needed; and
- (c) to determine the effectiveness of that action.

6.5.1.2 The extent of the objectives should be directly related to the scope of the reliability programme. Its scope could vary from a component defect monitoring system to an integrated maintenance management programme. The manufacturer's MPDs may give guidance on the objectives and should be consulted in every case.

6.5.1.3 In case of a MSG-3 (or equivalent) based AMP, the reliability programme should provide a monitor that all MSG-3 (or equivalent) related tasks from the AMP are effective and their periodicity is adequate.

6.5.2 Identification of items.

The items controlled by the reliability programme should be stated, e.g. by S1000D Chapters. Where some items (e.g. aircraft structure, engines, APU) are controlled by separate reliability programmes, the associated procedures (e.g. individual sampling or life development programmes, MTCH's structure sampling programmes) should be cross referenced in the reliability programme.

6.5.3 Terms and definitions.

The significant terms and definitions applicable to the reliability programme should be clearly identified. Terms are already defined in MSG-3 (or equivalent) and other relevant documents.

6.5.4 Information sources and collection.

6.5.4.1 Sources of information should be listed and procedures for the transmission of information from the sources, together with the procedure for collecting and receiving it, should be detailed.

6.5.4.2 The type of information to be collected should be related to the scope and objectives of the reliability programme and should be such that it enables both an overall broad based assessment of the information to be made and also allow for assessments to be made as to whether any reaction, both to trends and to individual events, is necessary. The following are examples of the normal prime sources:

- (a) Pilots' reports.
- (b) Aircraft technical Logs.

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(c) Aircraft maintenance access terminal / On-board maintenance system readouts.

- (d) Maintenance worksheets.
- (e) Workshop reports.
- (f) Reports on functional checks.
- (g) Reports on Special Inspections.
- (h) Stores issues/reports.
- (i) Air Safety Reports.
- (j) Reports on technical delays and incidents.
- (k) Other sources: ETOPS, RVSM, CAT II/III (where applicable).

6.5.4.3 In addition to the normal prime sources of information, due account should be taken of continued airworthiness and safety information promulgated under EMAR 21.

6.5.5 Display of information.

Collected information may be displayed graphically or in a tabular format or a combination of both. The rules governing any separation or discarding of information prior to incorporation into these formats should be stated. The format should be such that the identification of trends, specific highlights and related events would be readily apparent.

6.5.5.1 The above display of information should include provisions for "nil returns" to aid the examination of the total information.

6.5.5.2 Where "standards" or "alert levels" are included in the reliability programme, the display of information should be orientated accordingly.

6.5.6 Examination, analysis and interpretation of the information.

The method employed for examining, analysing and interpreting the reliability programme information should be explained.

6.5.6.1 Examination.

Methods of examination of information may be varied according to the content and quantity of information of individual reliability programmes. These can range from examination of the initial indication of performance variations to formalised detailed procedures at specific periods, and the methods should be fully described in the reliability programme documentation.

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6.5.6.2 Analysis and Interpretation.

The procedures for analysis and interpretation of information should be such as to enable the performance of the items controlled by the reliability programme to be measured; they should also facilitate recognition, diagnosis and recording of significant problems. The whole process should be such as to enable a critical assessment to be made of the effectiveness of the reliability programme as a total activity. Such a process may involve:

(a) Comparisons of operational reliability with established or allocated standards (in the initial period these could be obtained from in-service experience of similar equipment or aircraft types).

(b) Analysis and interpretation of trends.

- (c) The evaluation of repetitive defects.
- (d) Confidence testing of expected and achieved results.
- (e) Statistical analysis of reliability data.
- (f) Reliability predictions.
- (g) Other methods of assessment.

6.5.6.3 The range and depth of engineering analysis and interpretation should be related to the particular reliability programme and to the facilities available. The following, at least, should be taken into account:

(a) Flight defects and reductions in operational reliability.

(b) Defects found during line maintenance and those found during base maintenance.

- (c) Deterioration observed during routine maintenance.
- (d) Workshop and overhaul facility findings.
- (e) Modification evaluations.
- (f) Sampling programmes.
- (g) The adequacy of maintenance equipment and publications.
- (h) The effectiveness of maintenance procedures.
- (i) Staff training.

(j) Service Bulletins (or national equivalent), Technical Instructions, etc.

6.5.6.4 Where there is reliance upon contracted/tasked maintenance and/or overhaul facilities as an information input to the reliability programme, the arrangements for availability and continuity of such information should be established and details should be included in the contract/tasking document.

6.5.7 Corrective Actions.

6.5.7.1 The procedures and time scales both for implementing corrective actions and for monitoring the effectiveness of corrective actions should be fully described. Corrective actions shall correct any reduction in reliability revealed by the reliability programme and could take the form of one or more of the following:

(a) Changes to maintenance, operational procedures or techniques.

(b) Maintenance changes involving inspection frequency and content, function checks, overhaul requirements and time limits, which will require amendment of the scheduled maintenance periods or tasks in the AMP. This may include the extension or reduction of task intervals, or the addition, modification or deletion of tasks.

(c) Amendments to approved manuals (e.g. AMM, crew manual etc.).

- (d) Initiation of modifications.
- (e) Special inspections or 'fleet campaigns'.
- (f) Spares provisioning.
- (g) Staff training.
- (h) Manpower and equipment planning.

<u>Note</u>: Some of the above corrective actions may need the NMAA's approval before implementation.

6.5.7.2 The procedures for making changes to the AMP should be described. The associated documentation should include a planned completion date for each corrective action, where applicable.

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6.5.8 Organisational Responsibilities.

The organisational structure and the department responsible for the administration of the reliability programme should be stated. The chains of responsibility for individuals and departments (Engineering, Production, Quality, Operations etc.) in respect of the reliability programme, together with the information and functions of any reliability programme control committees (reliability group), should be defined. Participation of the NMAA should be stated.

6.5.9 Presentation of information to the NMAA.

The following information should be submitted to the NMAA for approval as part of the reliability programme:

(a) The format and content of routine reports.

(b) The time scales for the production of reports together with their distribution.

(c) The format and content of reports supporting requests for increases in periods between maintenance (extension) and for amendments to the AMP. These reports should contain sufficient detailed information to enable the NMAA to make its own evaluation where necessary.

6.5.10 Evaluation and review.

Each reliability programme should describe the procedures and individual responsibilities in respect of continuous monitoring of the effectiveness of the AMP as a whole. The time periods and the procedures for both routine and non-routine reviews of maintenance control should be detailed (progressive, monthly, quarterly, or annual reviews, procedures following reliability "standards" or "alert levels" being exceeded, etc.).

6.5.10.1 Each reliability programme should contain procedures for monitoring and, as necessary, revising the reliability "standards" or "alert levels". The organisational responsibilities for monitoring and revising the "standards" should be specified together with associated time scales.

6.5.10.2 Although not exclusive, the following list gives guidance on the criteria to be taken into account during the review.

- (a) Utilisation (high/low/operational environment).
- (b) Fleet commonality.
- (c) Alert Level adjustment criteria.
- (d) Adequacy of data.
- (e) Reliability procedure audit.

- (f) Staff training.
- (g) Operational and maintenance procedures.

# 6.5.11 Approval of AMP amendments

The NMAA may authorise the organisation responsible for the development and control of the AMP to implement changes to the AMP arising from the reliability programme results prior to their formal approval by the NMAA, when it is satisfied that;

(a) the reliability programme monitors the content of the AMP in a comprehensive manner; and

(b) the procedures associated with the functioning of the "Reliability Group" provide the assurance that appropriate control is exercised over the internal validation of such changes.

# 6.6 Pooling Arrangements.

6.6.1 In some cases, in order that sufficient data may be analysed it may be desirable to 'pool' data: i.e. collate data from a number of Operating Organisations of the same type of aircraft. For the analysis to be valid, the aircraft concerned, mode of operation, and maintenance procedures applied should be substantially the same: variations in utilisation between two Operating Organisations may, more than anything, fundamentally corrupt the analysis. Although not exhaustive, the following list gives guidance on the primary factors which need to be taken into account.

(a) Certification factors, such as: aircraft MTC data sheet compliance (variant)/modification status, including SB (or national equivalent) compliance.

(b) Operational Factors, such as: operational environment/utilisation (e.g. low/high/operational environment, etc.)/respective fleet size operating rules applicable (e.g. ETOPS/RVSM/All Weather etc.)/operating procedures/MEL/CDL and MEL/CDL utilisation.

(c) Maintenance factors, such as: aircraft age maintenance procedures; maintenance standards applicable; lubrication procedures and lubrication programme; MPD revision or extensions applied or AMP applicable.

6.6.2 Although it may not be necessary for all of the above to be completely common, it is necessary for a substantial amount of commonality to exist. The decision on whether pooling data is appropriate should be taken by the NMAA on a case by case basis.

6.6.3 NOT APPLICABLE.

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6.6.4 Changes by any one of the Operating Organisations to the paragraph 6.6.1 factors will require re-assessment in order to determine whether or not the pooling benefits can be maintained. Where an organisation responsible for the development and control of an AMP wishes to pool data in this way, the approval of the NMAA should be sought prior to any formal agreement being signed between the pooling organisations.

6.6.5 Paragraph 6.6 is intended to address the pooling of data directly between Operating Organisations. It is also acceptable that the organisation responsible for the production and control of an AMP participates in a reliability programme managed by the MTCH, when the NMAA is satisfied that the MTCH manages a reliability programme which complies with the intent of this paragraph.

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# Appendix II to AMC M.A.201(h)(1): Contracting/tasking of continuing airworthiness management tasks

# 1. CONTRACTED/TASKED CONTINUING AIRWORTHINESS MANAGEMENT ACTIVITIES

#### 1.1 NOT APPLICABLE.

1.2 The CAMO should conduct a pre-contract audit to establish that the contracted/tasked organisation can achieve the standards required by EMAR M.A. Subpart G in connection with those activities to be contracted/tasked.

1.3 The CAMO should ensure that the contracted/tasked organisation has sufficient qualified personnel who are trained and competent in the activities to be contracted/tasked. In assessing the adequacy of personnel resources the CAMO should consider the particular needs of those activities that are to be contracted/tasked, while taking into account the contracted/tasked organisation's existing commitments.

1.4 To be appropriately approved to contract/task continuing airworthiness management activities the CAMO should have procedures for the management control of these arrangements. The CAME should contain relevant procedures to reflect the CAMO's control of those arrangements made with the contracted/tasked organisation(s).

1.5 Contracted/tasked continuing airworthiness management activities should be addressed in a contract/formal tasking document between the CAMO and the contracted/tasked organisation. The contract/formal tasking document should also specify that the contracted/tasked organisation is responsible for informing the CAMO who is, in turn, responsible for notifying the NMAA, of any subsequent changes that affect their ability to support the contract/formal tasking document.

1.6 Contracted/tasked organisations should use procedures which set out the manner by which the organisation fulfils its responsibility to those contracted/tasked activities. Such procedures may be developed by either the contracted/tasked organisation or the CAMO.

1.7 Where the contracted/tasked organisation develops its own procedures, these should be compatible with the CAME and the terms of the contract/formal tasking document. These should be accepted by the NMAA as extended procedures of the CAMO and as such should be cross-referenced from the CAME. One current copy of the contracted/tasked organisation's relevant procedures should be kept by the CAMO and should be accessible to the NMAA when needed.

Note: Should any conflict arise between the contracted/tasked organisation's procedures and those of the CAMO then the policy and procedures detailed in the CAME will prevail.

1.8 The contract/formal tasking document should also specify that the contracted/tasked organisation's procedures may only be amended with the agreement of the CAMO. The CAMO should ensure that these amendments are compatible with their CAME and are in compliance with EMAR M.A. Subpart G.

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EMAR M AMC & GM - CONTINUING AIRWORTHINESS REQUIREMENTS

The CAMO should nominate who will be responsible for continued monitoring and acceptance of the contracted/tasked organisation's procedures and their amendments. The controls used to fulfil this function should be clearly set out in the amendment section of the CAME detailing the level of CAMO involvement.

1.9 Whenever any elements of continuing airworthiness management activities are contracted/tasked the CAMO's personnel should have access to all relevant data in order to fulfil their responsibilities.

Note: The CAMO retains authority to override any recommendation of the contracted/tasked organisation where necessary, for the continuing airworthiness of the aircraft for which they have responsibility.

1.10 The CAMO should ensure that the contracted/tasked organisation continues to have qualified technical expertise and sufficient resources to perform the contracted/tasked activities while in compliance with the relevant procedures. Failure to do so may invalidate the approval of the CAMO's continuing airworthiness management system.

1.11 The contract/formal tasking document should provide for NMAA monitoring.

1.12 The contract/formal tasking document should address the respective responsibilities to ensure that any findings arising from NMAA monitoring will be closed to the satisfaction of the NMAA.

#### 2. ACCOMPLISHMENT

This paragraph describes topics which may be applicable for contract/tasking activities.

2.1 Scope of work

The type of aircraft and their military registrations, engine types and/or components subject to the contract/tasking should be specified.

2.2 AMP development and amendment (where applicable - EMAR M.A.708(b)2 refers)

The CAMO may contract/task the preparation of the draft AMP and any subsequent amendments. However, the CAMO remains responsible for assessing that the draft proposals meet their needs and obtaining NMAA approval; the relevant procedures should specify these responsibilities. The contract/tasking should also stipulate that any data necessary to substantiate the approval of the initial AMP or an amendment to the AMP should be provided for CAMO and/or NMAA agreement upon request.

2.3 AMP effectiveness and reliability (where applicable - EMAR M.A.708(b)2 refers)

The CAMO should have in place a system to monitor and assess the effectiveness of the AMP based on maintenance and operational experience. The collection of data and initial assessment may be made by the contracted/tasked organisation; the required actions are to be endorsed by the CAMO.

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Where reliability monitoring is used to establish AMP effectiveness, this may be provided by the contracted/tasked organisation and should be specified in the relevant procedures. Reference should be made to the CAMO's AMP and reliability programme. Participation of the CAMO's personnel in reliability meetings with the contracted/tasked organisation should also be specified.

In providing reliability data the contracted/tasked organisation is limited to working with primary data/documents provided by the CAMO or data provided by the Operating Organisation's EMAR 145 AMO(s) from which the reports are derived. The pooling of reliability data from other CAMOs/Operating Organisations/EMAR 145 AMOs is permitted if accepted by the NMAA.

2.4 Permitted variations to the AMP (where applicable - EMAR M.A.708(b)2 refers)

The reasons and justification for any proposed variation to scheduled maintenance may be prepared by the contracted/tasked organisation. The proposed variation should be reviewed by the CAMO and accepted or rejected as appropriate. The means by which CAMO acceptance is given should be specified in the relevant CAME procedures. When these proposed variations go outside the limits detailed in the approved data, the CAMO is required to obtain approval by the NMAA.

2.5 Scheduled maintenance

Where the contracted/tasked organisation plans and defines maintenance checks or inspections in accordance with the AMP, the required liaison with the CAMO, including feedback, should be defined.

The planning control functions and required documentation should be specified in the appropriate supporting CAME procedures. These procedures should typically set out the CAMO's level of involvement in each type of check. This will normally involve the CAMO assessing and agreeing to a work specification on a case-bycase basis for base maintenance checks. For routine line maintenance checks this may be controlled on a day-to-day basis by the contracted/tasked organisation subject to appropriate liaison and CAMO controls to ensure timely compliance. This typically may include, but is not limited to:

- Applicable work package, including job cards,
- Scheduled component removal list,
- ADs to be incorporated,
- Modifications to be embodied

The associated procedures should ensure that the CAMO is advised in a timely manner on the accomplishment of such activities.

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# 2.6 Quality monitoring

The CAMO's quality system should monitor the adequacy of the performance of the contracted/tasked continuing airworthiness management activities for compliance with the contract/formal tasking document and EMAR M.A. Subpart G. The terms of the contract/formal tasking document should therefore include a provision allowing the CAMO to perform a quality surveillance (including audits) upon the contracted/tasked organisation. The aim of the surveillance is primarily to investigate and judge the effectiveness of those contracted/tasked activities and thereby to ensure compliance with EMAR M.A. Subpart G and the contract/formal tasking document. Audit reports may be subject to review when requested by the NMAA.

2.7 Access by the NMAA

The contract/formal tasking document should specify that the contracted/tasked organisation should grant access to the NMAA when requested to determine continued compliance with the CAMO's EMAR M.A. Subpart G approval.

2.8 Maintenance data

The approved maintenance data used for the purpose of the contract/tasking should be specified, together with the organisations responsible for providing such data. The CAMO should ensure such data, including revisions, is readily available to the contracted/tasked organisation who may be required to assess such data. The CAMO should establish a 'fast track' means of ensuring that urgent data is transmitted to the contracted/tasked organisation in a timely manner. Maintenance data may include, but is not necessarily limited to:

- AMP,
- ADs,
- Service Bulletins (or national equivalent),
- Major repairs/modification data,
- Aircraft Maintenance Manual,
- Engine overhaul manual,
- Aircraft Illustrated Parts Catalogue,
- Wiring diagrams,
- Trouble shooting manual,

# 2.9 ADs

While the various aspects of AD assessment, planning and follow-up may be accomplished by the contracted/tasked organisation, embodiment is performed by an EMAR 145 AMO. The CAMO is responsible for ensuring timely embodiment of applicable ADs and is to be provided with notification of compliance. It therefore follows that the CAMO should have clear policies and procedures on AD embodiment which will ensure that the CAMO finds the contracted/tasked organisation's proposed means of compliance acceptable.

The policies and procedures should specify:

- What information (e.g. AD publications, continuing airworthiness records, flight hours/cycles, etc.) the contracted/tasked organisation needs from the CAMO. It is the responsibility of the contracted/tasked organisation to request from the CAMO any additional information that may be felt necessary.

- What information (e.g. AD planning listing, detailed engineering order, etc.) the CAMO needs from the contracted/tasked organisation in order to ensure timely compliance with ADs.

To fulfil their above responsibility, CAMOs should ensure that they are in receipt of current mandatory continued airworthiness information for the aircraft and equipment that they operate.

2.10 Service Bulletin (or national equivalent)/modifications

The contracted/tasked organisation may be required to review and make recommendations on the embodiment of an SB (or national equivalent) and other associated non-mandatory material based on a clear CAMO policy. This should be specified in the contract/formal tasking document.

2.11 Service life limit controls & component control/removal forecast.

Where the contracted/tasked organisation performs planning activities, it should be specified that the contracted/tasked organisation should be in receipt of the current flight time and/or flight cycles and/or landings and/or calendar time, and/or any other approved service life consumption units as applicable, at a frequency to be specified in the contract/formal tasking document. The frequency should be such that it allows the organisation to properly perform the contracted/tasked planning functions. It therefore follows that there will need to be adequate liaison between the CAMO, the EMAR 145 AMO(s) and the contracted/tasked organisation.

Additionally, the contract/formal tasking document should specify how the CAMO will be in possession of all current flight cycles, flight hours, etc. in order that the CAMO may assure the timely accomplishment of the required maintenance.

#### 2.12 Health monitoring

If the CAMO contracts/tasks health monitoring activities (for example on-wing engine health monitoring), the contracted/tasked organisation should be in receipt of all the relevant information to perform these activities, including any parameter reading deemed necessary to be supplied by the CAMO for this control. The contract/formal tasking document should also specify what kind of feedback information (such as engine limitation, appropriate technical advice, etc.) the contracted/tasked organisation should provide to the CAMO.

#### 2.13 Defect control

Where the CAMO has contracted/tasked the day-to-day control of aircraft technical log deferred defects this should be specified in the contract/formal tasking document and should be adequately described in the appropriate procedures. The CAMO's MEL/CDL provides the basis for establishing which defects may be deferred and associated limits. The procedures should also define the responsibilities and actions to be taken for defects such as 'Aircraft On Ground' situations, repetitive defects, and damage beyond the MTC holder's limits.

For all other defects identified during maintenance, the information should be brought to the attention of the CAMO who, dependent upon the procedural authority granted by the NMAA, may determine that some defects can be deferred. Therefore, adequate liaison between the CAMO, the contracted/tasked organisation and the EMAR 145 AMO should be ensured.

The contracted/tasked organisation should make a positive assessment of potential deferred defects and consider potential hazards arising from the cumulative effect of any combination of defects. The contracted organisation should liaise with the CAMO to gain their agreement following this assessment.

Deferment of MEL/CDL allowable defects/deviations can be accomplished by an EMAR 145 AMO in compliance with the relevant aircraft technical log procedures; they are subject to acceptance by the aircraft commander.

#### 2.14 Mandatory occurrence reporting

All incidents and occurrences that fall within the reporting criteria defined in EMAR M.A.202 and EMAR 145.A.60 should be reported as required. The CAMO should ensure adequate liaison exists with the contracted/tasked organisation and the EMAR 145 AMO.

2.15 Continuing airworthiness records

These may be maintained and held by the contracted/tasked organisation on behalf of the CAMO who remains responsible for the control of the records. However, the CAMO should be provided with the current status of AD compliance and service life limited components in accordance with agreed procedures. The CAMO should also be provided with unrestricted and timely access to original

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records as and when needed. On-line access to the appropriate information systems is acceptable.

The record keeping requirements of EMAR M should be satisfied. Access to the records by duly authorised members of the NMAA should be arranged upon request.

2.16 Maintenance check flight procedures

Maintenance check flights are carried out under the control of the Operating Organisation. Maintenance check flight requirements from the contracted/tasked organisation or the EMAR 145 AMO should be agreed by the Operating Organisation.

2.17 Communication between the CAMO and contracted/tasked organisation

2.17.1 To exercise its airworthiness responsibility the CAMO needs to be in receipt of all relevant reports and relevant maintenance data. The contract/formal tasking document should specify what information should be provided and when.

2.17.2 Meetings provide one important corner stone whereby the CAMO can exercise part of its responsibility for ensuring the airworthiness of the operated aircraft for which it is responsible. The meetings should be used to establish good communications between the CAMO, the contracted/tasked organisation and the EMAR 145 AMO. The terms of the contract/formal tasking document should include, whenever appropriate, the provision for a certain number of meetings to be held between involved parties. Details of the types of liaison meetings and associated Terms of Reference of each meeting should be documented. The meetings may include but are not limited to all or a combination of:

a – Contract/Tasking review

Before the contract/formal tasking document comes into force, it is very important that the technical personnel of both parties that are involved in the application of the contract/tasking meet in order to be sure that every point leads to a common understanding of the duties of both parties.

b – Work scope planning meeting

Work scope planning meetings may be organised so that the activities to be performed may be commonly agreed.

c – Technical meeting

Scheduled meetings should be organised in order to review on a regular basis and agree actions on technical matters such as ADs, SBs (or national equivalent), future modifications, major defects found during maintenance facility visits, reliability, etc.

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# d – Quality meeting

Quality meetings should be organised in order to examine matters raised by the CAMO's quality surveillance and the NMAA's monitoring activity and to agree upon necessary corrective actions.

e – Reliability meeting

When a reliability programme exists, the contract/formal tasking document should specify the CAMO's and EMAR 145 AMO's respective involvement in that programme, including the participation at reliability meetings. Provision to enable NMAA participation in these meetings should also be provided.

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	Title	Description	
Α.	AIRCRAFT CONFIGURATION		
A.1	Type design and changes to type design	Type design is the minimum set of approved design information necessary to define the product type, as detailed in EMAR 21.A.31.	
		Any changes to type design shall be approved and, for those embodied, shall be recorded with the reference to the approval.	
A.2	Airworthiness limitations	An airworthiness limitation is a boundary beyond which an aircraft or a component thereof must not be operated, unless the instruction(s) associated to this airworthiness limitation is (are) complied with.	
A.3	Airworthiness Directives	An Airworthiness Directive means a document issued or adopted by the NMAA, which mandates actions to be performed on an aircraft to restore an acceptable level of safety, when evidence shows that the safety level of this aircraft may otherwise be compromised (EMAR 21.A.3B).	
В.	AIRCRAFT OPERATION		
B.1	Aircraft documents	Aircraft certificates and documents necessary for operations.	
B.2	Aircraft Flight Manual	An Aircraft Flight Manual is a manual, associated with the Military Type Certificate, containing limitations within which operation of the aircraft is to be considered airworthy, and instructions and information necessary to the flight crew members for the safe operation of the aircraft.	
B.3	Weight & balance	Weight and balance data is required to make sure the aircraft is capable of operating within the approved envelope.	
B.4	Markings & placards	Markings and placards are defined in the individual aircraft type design. Some information may also be found in the Military Type Certificate Data Sheet, the Military Supplemental Type Certificates, the Aircraft Flight Manual, the Aircraft Maintenance Manual, the Illustrated Parts Catalogue, etc.	
B.5	Operational requirements	Requirements for the type of operation are complied with (e.g. equipment, documents, approvals).	
B.6	Defect management	Defect management requires a system whereby information on faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the airworthiness of the aircraft are captured. This system should be properly documented. It may include, amongst others, the Minimum Equipment List system (or national equivalent), the Configuration Deviation List system and deferred defects management.	
B.7	Symmetry check	Symmetry check data is required to make sure the aircraft is within the approved design data issued by the relevant design approval holder.	

C.	AIRCRAFT MAINTENANCE		
C.1	Aircraft Maintenance Programme	A document which describes or incorporates by reference the specific scheduled maintenance tasks and their frequency of completion, the associated maintenance procedures and related standard maintenance practices necessary to preserve the airworthiness of those aircraft to which it applies.	
C.2	Component control	Component control should consider two objectives for component maintenance: - maintenance for which compliance is mandatory; - maintenance for which compliance is recommended.	
C.3	Repairs	All repairs and unrepaired damage/degradations need to comply with the instructions of the appropriate maintenance manual (e.g. the SRM, the AMM, the CMM). All repairs not defined in the appropriate maintenance manual need to be appropriately approved and recorded with the reference to the approval. This includes any damage or repairs to the aircraft/engine(s)/propeller(s), and their components.	
C.4	Records	Continuing Airworthiness records are defined in EMAR M.A.305 and EMAR M.A.306 and their related AMCs.	

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A.1	Type design and changes to type design	Type Design is the minimum set of approved design information necessary to define the product type, as detailed in EMAR 21.A.31.
		Any changes to type design shall be approved and, for those embodied, shall be recorded with the reference to the approval.
Supporti	ng information	Typical inspection items
The type design consists of: 1. the drawings and specifications, and a listing of those drawings and specifications, necessary to define the configuration and the design		1. Use the current Military Type Certificate Data Sheets (airframe, engine, propeller as applicable) and check that the aircraft conforms to its type design (correct engine(s) installed, mission equipment, etc.).
the apple environment	of the product shown to comply with licable type-certification basis and ental protection requirements (where	2. Check that changes have been approved properly (approved data is used, and a direct relation to the approved data).
<ul><li>applicable);</li><li>2. information on materials and processes and on methods of manufacture and assembly of the product necessary to ensure the conformity of</li></ul>		3. Check for unintentional deviations from the approved type design (sometimes referred to as concessions), divergences, or non-conformances, Technical Adaptations, Technical Variations, etc.
the product; 3. an approved Airworthiness Limitation Section (ALS) of the Instructions for Continuing Airworthiness (ICA) as defined by the applicable airworthiness codes; and		<ul> <li>4. Check cabin configuration (LOPA) (if applicable).</li> <li>5. Check for embodiment of (M)STC's and, if any Airworthiness Limitations Section (ALS)/ Aircraft Flight Manual /Minimum Equipment List/Weight &amp; Balance Manual and revisions are needed, they have been</li> </ul>
<ul> <li>4. any other data necessary to allow by comparison the determination of the airworthiness, the characteristics of noise, fuel venting, and exhaust emissions (where applicable) of later products of the same type. The individual aircraft design is made of the type design supplemented with changes to the type design (e.g. modifications) embodied on the considered aircraft.</li> <li>Depending on the product State of Design, Recognition Agreements and/or Authority decisions on acceptance of certification findings may exist and should be taken into account.</li> </ul>		<ul> <li>approved and complied with.</li> <li>6. Check that the individual aircraft design/configuration is properly established and used as a reference. The following are typical points that should be checked:</li> </ul>
		a. Aircraft S/N applicable b. Applicable engines and propellers c. Applicable APU
		d. Max. certified weights e. Seating/cargo configuration (if applicable) f. Exits (including emergency egress) g. Mission equipment
Referenc	e documents:	- EMAR 21.A.31 - EMAR 21.A.41 - EMAR 21.A.61 - EMAR 21.A.90 - EMAR 21.A.107 - EMAR 21.A.120
		- EMAR 21.A.111 - EMAR M.A.304 - EMAR M.A.305 - EMAR 145.A.45

A.2	Airworthiness limitations	Each mandatory replacement time, structural inspection interval, and related structural inspection task which are contained in a section of the Instructions for Continuing Airworthiness.
Supporti	ng information	Typical inspection items
Supporting information Airworthiness limitations are exclusively associated with instructions whose compliance is mandatory as part of the type design. They apply to some scheduled or unscheduled instructions that have been developed to prevent and/or to detect the most severe failure. They mainly apply to maintenance (mandatory modification, replacement, inspections, checks, etc.), but can also apply to instructions to control critical design configuration Control Limitations (CDCCL) for the fuel tank safety).		<ol> <li>Check that the Aircraft Maintenance Programme (AMP) reflects airworthiness limitations and associated instructions issued by the relevant design approval holders and is approved by the NMAA.</li> <li>Check that the aircraft and the components thereof comply with the approved AMP.</li> <li>Check the current status of service life-limited components. The current status of service life-limited components is to be maintained throughout the operating life of the component.</li> <li>Typical Airworthiness Limitation Items:         <ul> <li>Safe Life Airworthiness Limitation Item (SL ALI)/Life limited components,</li> <li>Damage Tolerant Airworthiness Limitation Item (DT ALI)/Structure, including ageing aircraft structure,</li> <li>Certification Maintenance Requirements (CMR),</li> <li>Ageing Systems Maintenance (ASM), including Airworthiness Limitations for Electrical Wiring Interconnection System (EWIS),</li> <li>Fuel Tank Ignition Prevention (FTIP)/Flammability Reduction Means (FRM),</li> <li>CDCCL, check wiring if any maintenance carried out in same area - wiring separation,</li> <li>Ageing fleet inspections mandated through ALS or AD are included in the AMP.</li> </ul> </li> </ol>
Referenc	e documents:	- EMAR 21.A.31
		<ul> <li>EMAR 21.A.61</li> <li>Relevant ICA certification requirement for the aircraft type being inspected (refer to Type Certification basis)</li> <li>EMAR M.A.302</li> <li>EMAR M.A.305 EMAR M.A.710(a)(7)</li> </ul>

A.3	Airworthiness Directives	An Airworthiness Directive means a document issued or adopted by the NMAA, which mandates actions to be performed on an aircraft to restore an acceptable level of safety, when evidence shows that the safety level of this aircraft may otherwise be compromised (EMAR 21A.3B).	
Supporti	ng information	Typical inspection items	
Any Airworthiness Directive issued by the NMAA shall apply.		<ol> <li>Check if all ADs applicable to the airframe, engine(s), propeller(s) and equipment have been incorporated in the AD-status, including their revisions.</li> <li>Check records for correct AD applicability (including ADs incorrectly listed as non-applicable).</li> <li>Check by sampling in the current AD status that applicable ADs have been or are planned to be (as appropriate) carried out within the requirements of these Airworthiness Directives, unless otherwise specified by the NMAA.</li> <li>Check that applicable ADs related to maintenance are included into the Aircraft Maintenance Programme.</li> <li>Check that workcards correctly reflect AD requirements or refer to procedures and standard practices referenced in ADs.</li> </ol>	
		6. Sample during a physical survey some ADs for which compliance can be physically checked.	
Reference documents:		<ul> <li>EMAR 21.A.3B</li> <li>EMAR 21.B.60</li> <li>EMAR 21.B.326</li> <li>EMAR 21.B.327</li> <li>EMAR M.A.201 &amp; <u>AMC EMAR M.A.201(h)</u> paragraph 4</li> <li>EMAR M.A.303</li> <li>EMAR M.A.305 paragraphs (d) &amp; (h)</li> <li>EMAR 145.A.45</li> <li>EMAR M.A.708 paragraphs (b)5 &amp; (b)8</li> <li>EMAR M.A.709(a)</li> <li>EMAR M.A.710 paragrah (a)5</li> </ul>	

B.1	Aircraft documents	Aircraft certificates and documents necessary for operations.	
Supportin	ng information	Typical inspection items	
The aircraft certificates and documents necessary for operations may include, but are not necessarily limited to: - Certificate of Registration (if applicable); - Military Certificate of Airworthiness;		<ol> <li>Check that all certificates and documents pertinent to the aircraft and necessary for operations (or copies, as appropriate) are available.</li> <li>Check MCoA modification/Aircraft identification.</li> <li>Not Applicable.</li> </ol>	
	Certificate of Release to Service; al log book, if required;	<ol> <li>Check Military Permit to Fly and Flight Conditions when necessary.</li> </ol>	
<ul> <li>Military Airworthiness Review Certificate;</li> <li>Etc.</li> </ul>		5. Check that there is an appropriate aircraft Certificate of Release to Service.	
Referenc	e documents:	- EMAR 21.A.175	
		- EMAR 21.A.177	
		- EMAR 21.A.182	
		- EMAR 21.A.708	
		- EMAR 21.A.711	
		- EMAR 21.A.801	
		- EMAR M.A.201(a)(2)	
		- EMAR M.A.305	
		- EMAR M.A.306	
		- EMAR 145.A.55	

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B.2	Aircraft Flight Manual	An Aircraft Flight Manual (AFM) is a manual, associated with the Military Type Certificate, containing limitations within which operation of the aircraft is to be considered airworthy, and instructions and information necessary to the flight crew members for the safe operation of the aircraft.
Supporti	ng information	Typical inspection items
status/cor not, it ma wrong info This may	v lead to errors and/or to override that could contribute to unsafe	<ol> <li>Check the conformity of the AFM, latest issue with aircraft configuration, including modification status, (AD, SB, MSTC etc.).</li> <li>Check:         <ul> <li>the AFM approval, revision control, Supplement to AFM;</li> <li>the impact of modification status on weight &amp; balance;</li> <li>additional required manuals;</li> <li>AFM limitations.</li> </ul> </li> </ol>
Referenc	e documents:	- EMAR 21.A.174(b)2(iii) and (b)3(ii)
		- EMAR M.A.305 & <u>AMC EMAR M.A.305(d)</u>

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B.3	Weight & balance	Weight and balance data is required to make sure the aircraft is capable of operating within the approved envelope.
Supporting information		Typical inspection items
The weight and balance report needs to reflect the actual configuration of the aircraft. When it does not, the aircraft might be operated outside the certified operating envelope.		<ol> <li>Check that the weight and balance report is valid, considering current configuration.</li> <li>Make sure that modifications and repairs are taken into account in the report.</li> <li>Check that equipment status is recorded on the weight and balance report.</li> <li>Compare current weight and balance report with previous report for consistency.</li> </ol>
Referenc	e documents:	- EMAR M.A.305(d)5 - EMAR M.A.708(b)(10)

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B.4	Markings & placards	Markings and placards are defined in the individual aircraft type design. Some information may also be found in the Military Type Certificate Data Sheet, the Military Supplemental Type Certificates, the Aircraft Flight Manual, the Aircraft Maintenance Manual, the Illustrated Parts Catalogue, etc.
Supporti	ng information	Typical inspection items
Markings and placards on instruments, equipment, controls, etc. shall include such limitations or information as necessary for the direct attention of the crew during flight. Markings and placards or instructions shall be provided to give any information that is essential to the ground handling in order to preclude the possibility of mistakes in ground servicing (e.g. towing, refuelling) that could pass unnoticed and that could jeopardise the safety of the aircraft in subsequent flights. Markings and placards or instructions shall be provided to give any information essential in the prevention of passenger injuries. National military registration markings/insignia must be installed. Product data plates must be installed. When markings and placards are missing, or unreadable, or not properly installed, mistakes or aircraft damage may occur and could subsequently contribute to an unsafe situation.		<ol> <li>Check that the required markings and placards are installed on the aircraft, especially the emergency exit/egress markings instructions and passenger information signs and placards (where applicable).</li> <li>Check that all installed placards are readable.</li> <li>Check the Aircraft Flight Manual versus the instruments.</li> <li>Check registration markings/national insignia.</li> <li>Check product data plates.</li> <li>Examples of markings &amp; placards:         <ul> <li>markings related to military equipment/operations (e.g. weapons, ejection seats, AAR, etc).</li> <li>door means of opening,</li> <li>each compartment's weight/load limitation/placards stating limitation on contents,</li> <li>passenger information signs, including no smoking signs (where applicable),</li> <li>emergency exit marking,</li> <li>pressurised cabin warning (if applicable),</li> <li>cockpit placards and instrument markings,</li> <li>Oxygen system information data,</li> <li>accesses to the fuel tanks with flammability reduction means (CDCCL),</li> <li>fuelling markings (fuel vent, fuel dip stick markings),</li> <li>EWIS identification,</li> <li>towing limit markings,</li> <li>break-in markings,</li> <li>inflate tyres with nitrogen,</li> <li>RVSM + pitot static markings</li> </ul> </li> </ol>
Referenc	e documents:	<ul> <li>EMAR 21.A.175</li> <li>EMAR 21.A.715</li> <li>EMAR 21 Subpart Q</li> <li>Relevant certification requirement for the aircraft type being inspected (refer to Type Certification basis)</li> <li>EMAR 145.A.42 &amp; AMC EMAR 145.A.42</li> </ul>

B.5	Operational requirements	Requirements for the type of operation are complied with (e.g. equipment, documents, approvals).
Supporting information		Typical inspection items
This includes all equipment required by the applicable operational military requirements.		1. Check permits & approvals required for type of operation.
In case of malfunction, faulty equipment can create a hazardous situation. In particular, emergency equipment is to be examined during		2. Check for the presence and serviceability of equipment required by operational military requirements.
this inspection.		3. Check safety equipment, check that emergency equipment is readily accessible (if applicable).
Reference documents:		- EMAR M.A.201(a)(2) - National operational military requirements

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B.6	Defect management	Defect management requires a system whereby information on faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft are captured. This system should be properly documented. It may include, amongst others, the Minimum Equipment List system (or national equivalent), the Configuration Deviation List system and deferred defects management.	
Supporti	ng information	Typical inspection items	
managem	addresses the effectiveness of defect nent, it should also consider defects ing the physical inspection.	1. Check that the deferred defects have been identified, recorded, and rectified/deferred in accordance with approved procedures and within approved time limits.	
		2. Check that operations outside published approved data have only been performed under a Military Permit to Fly	
		3. Sample on:	
		a. Deferred defect list,	
		b. maintenance task cards,	
		c. engine shop report,	
		<ul> <li>d. (major) component shop report,</li> <li>e. maintenance/repair/modification working party files</li> </ul>	
		after embodiment of modifications or repairs,	
		f. occurrence reporting data,	
		g. communications between the user of maintenance data and the maintenance data author in case of inaccurate, incomplete, ambiguous procedures and practices.	
		4. Check that the consequences of the deferral have been managed with the Operating Organisation/CAMO.	
		5. Check that defects are being deferred in accordance with approved data (current revision of the MEL, CDL, Aircraft Maintenance Programme).	
		6. Compare physical location of parts/serial numbers with recorded locations to identify undocumented part- swaps for troubleshooting.	
		7. Check that the root-cause of defects have been identified.	
Reference	e documents:	- EMAR M.A.301(a)(2) & <u>AMC EMAR M.A.301(a)(2)</u>	
		- EMAR M.A.306(a)4	
		- EMAR 145.A.45(c)	
		- EMAR 145.A.48(c)	
		- EMAR 145.A.50(c) - EMAR 145.A.60	

B.7	Symmetry check	Symmetry check data is required to make sure the aircraft is within the approved design data issued by the relevant design approval holder.
Supporti	ng information	Typical inspection items
Supporting information A symmetry check is done by taking selected measurements for comparison with the measurements taken at the same points on the aircraft when the aircraft was prepared for delivery by the Original Equipment Manufacturer (OEM). All reference points and dimensions are defined in last revision of the Aircraft Maintenance Manual (AMM).		<ol> <li>Check that the required reference points are present and readable on the aircraft.</li> <li>Check that the symmetry check report is valid, considering current configuration.</li> <li>Make sure that a symmetry check is performed after the following conditions have occurred:         <ul> <li>a. hard or overweight landing,</li> <li>b. abnormal loads to the structure due to 'g' limits being exceeded or due to other causes e.g. severe turbulence,</li> <li>c. a major structural component is changed,</li> <li>d. when the flying characteristics of the aircraft are such as to cause doubt in the correctness of the symmetry check.</li> </ul> </li> <li>Check that the position relationship of each major component is inspected.</li> <li>Compare current symmetry check report with previous report for consistency.</li> </ol>
Referenc	e documents:	- EMAR M.A.305(d)7 - <u>AMC EMAR M.A.305(d)</u> - EMAR M.A.708(b)(11) - <u>AMC EMAR M.A.901(d)</u>

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C.1	Aircraft Maintenance Programme	A document which describes or incorporates by reference the specific scheduled maintenance tasks and their frequency of completion, related standard maintenance practices and the associated procedures necessary to preserve the airworthiness of those aircraft to which it applies.
Supporti	ng information	Typical inspection items
intended tasks, the maintena reliability Tasks inc - tasks instruction Directives Limitation Certificati (CMRs). is include Airworthin - tasks for additiona Maintena equivaler Documer other no informatic holder or - addition by the C with EMA The AW frequency including	The Airworthiness Limitations Section ed in the Instructions for Continuing ness (ICA) of a design approval holder; or which compliance is recommended:	<ul> <li>Review of AMP contents:</li> <li>1. Check that the AMP properly reflects mandatory continuing airworthiness instructions (ALIs, CMRs (the latest source documents' revision)). Sample check that tasks are implemented within approved compliance times and that no tasks have been omitted.</li> <li>2. Check how recommended scheduled maintenance tasks (such as TBO intervals, recommended through Service Bulletins, Service Letters, etc., the latest source documents' revision) are considered when updating the AMP. If applicable, check embodiment policy as required by EMAR M.A.301(a)7.</li> <li>3. Check that the AMP properly reflects the maintenance tasks specified in repetitive ADs.</li> <li>4. Check that the AMP properly reflects additional Instructions for Continuing Airworthiness resulting from specific installed equipment or modifications embodied.</li> <li>5. Check that the AMP properly reflects additional Instructions for Continuing Airworthiness resulting from repairs embodied.</li> <li>6. If applicable, check that the AMP properly reflects additional Instructions for Continuing Airworthiness resulting from repairs embodied.</li> <li>7. Check for any additional scheduled maintenance measures required due to the use of the aircraft and the operational environment.</li> <li>8. Not Applicable</li> <li>9. Check the approval status of additional or alternative instructions (EMAR M.A.302(d)(3)).</li> <li>10. Check if a reliability programme is present and active when required.</li> <li>Review of aircraft compliance with an AMP:</li> <li>11. Check if the AMP used is valid for the aircraft, is approved and is amended correctly.</li> <li>12. Check that no task has been omitted without justifications accepted by the NMAA (at the time of decision).</li> </ul>

	14. Check the reporting of performed scheduled maintenance into the aircraft continuing airworthiness record system.
	15. Analyse the effectiveness of the AMP and the reliability programme by reviewing the unscheduled tasks.
Reference documents:	- EMAR M.A.302 and <u>AMC EMAR M.A.302</u> . - EMAR M.A.708(b)(1), (2), (4)

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C.2	Component control	Component control should consider a two objectives for component maintenance: - maintenance for which compliance is mandatory. - maintenance for which compliance is recommended.
Supporti	ng information	Typical inspection items
Refer to Programm One or mare utilistic compone 1. Hard-T at a spectrum check, ette 2. On-Co be inspective some a determine standard removed normal op 3. Conditic compone maintena process. means Organisation	shment is scheduled or unscheduled. b KRE C.1 'Aircraft Maintenance ne'. more primary maintenance processes ed during scheduled maintenance of nts: time (HT) that requires a specific action ecific interval (e.g. overhaul, bench c.) per the (M)TCH recommendations, ndition (OC) that requires a component cted periodically or checked against appropriate physical standard to e if it can continue in service. The ensures that the component is from service before failure during beration, tion Monitoring (CM) is a process for nts that have neither HT nor OC nce as their primary maintenance It is accomplished by appropriate available to an Operating tion/CAMO for finding and solving areas. The Operating tion/CAMO must control the reliability	<ol> <li>Check that the mandatory maintenance tasks are identified as such and managed separately from recommendations.</li> <li>Sample check installed components (P/N and S/N) against aircraft records:         <ul> <li>Correct Part Number and Serial Number installed.</li> <li>Correct authorised release document available.</li> </ul> </li> <li>Check the current status of components for which the AMP requires their periodical removal for restoration, their replacement, or the quantitative inspection of their performance, with due consideration to deferred items. They must identify:         <ul> <li>The affected components (Part Number and Serial Number).</li> <li>For components subject to a repetitive task: the task description and reference, the applicable threshold/interval, the last accomplishment data (date, the component's total accumulated life in hours, cycles, landings, calendar time, or any other approved service life consumption units as necessary) and the next planned accomplishment data.</li> <li>For components subject to an unscheduled task: the task description and reference, the accomplishment data (date, the component's total accumplishment data.</li> <li>For components subject to an unscheduled task: the task description and reference, the accomplishment data (date, the component's total accumulated life in hours, cycles, landings, calendar time, or any other approved service life consumption units as necessary). Pay attention to ETOPS and CDCCL components.</li> </ul> </li> <li>Check current status of service life-limited component's life limitation, the component's total accumulated life, and the life remaining before the component's life limitation is reached (indicating hours, cycles, landings, calendar time, or any other approved service life consumption units as necessary).</li> <li>If relevant for the determination of the remaining life, a full installation history indicating</li></ol>

	<ul> <li>5. Check if the AMP and reliability programme results impact the component control.</li> <li>6. Check that service life-limited components for which the AMP requires their periodical removal/replacement quantitative inspection of their performance are correctly marked during a physical survey.</li> </ul>
Reference documents:	- EMAR 21.A.805 - EMAR M.A.302 - EMAR M.A.305 - EMAR M.A.710

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C.3	Repairs	All repairs and unrepaired damage/degradations need to comply with the instructions of the appropriate maintenance manual (e.g. the SRM, the AMM, the CMM). All repairs not defined in the appropriate maintenance manual need to be appropriately approved and recorded with the reference to the approval. This includes any damage or repairs to the aircraft/engine(s)/propeller(s), and their components.
Supporti	ng information	Typical inspection items
but is not the ration the evide accordance reference or to an drawings/ instruction operationa 'Repair st - the re- delivery aircraft/er - the unre It also inc supporting substantia the applic The repair reference item (i.e and a pri date and other se accumula finding of Cross-referincluded, Dependin Recognitic Decisions may exist the deterr	ns, as well as the maintenance and al instructions. atus' means a list of: pairs embodied since the original of (and still existent upon) the ngine/propeller/component; and paired damage/degradations. dudes, either directly or by reference to g documentation (i.e. repair files), the ating data supporting compliance with able airworthiness requirements. ir status should identify the repair file , the repair classification, the repaired . aircraft/engine/propeller/component, ecise location if necessary), and the total life in flying hours/flight cycles/any service life consumption units ted by the item at the time of repair or the un-repaired damage/degradations. erence to the AMP should also be as necessary. g on the product State of Design, on Agreements and/or Authority and should be taken into account for mination of acceptable data for repairs.	<ol> <li>Sample the repair status to confirm it appropriately traces repairs and un-repaired damage/deteriorations.</li> <li>Sample repair files (at least one file for each type of repaired item) to check that repaired and unrepaired damage/deterioration have been assessed against the latest published approved repair data.</li> <li>Check that repair instructions detailed in the repair file comply with published approved repair data.</li> <li>Check that major repairs resulting in new or amended airworthiness limitations and associated mandatory instructions (including ageing aircraft programme) have been included in the AMP.</li> <li>Check that new or amended maintenance instructions resulting from repairs have been considered for inclusion in the AMP.</li> <li>Compare the repair status and the physical status of the repaired aircraft/engine(s)/propeller(s), and their repaired components (physical survey) in order to confirm the accuracy of the repair status. Sample embodied repairs to check their conformity against the repair files (physical survey).</li> </ol>
Referenc	e documents:	- EMAR 21.A.431
		- EMAR M.A.304 & <u>AMC EMAR M.A.304</u>
		- EMAR M.A.305 & <u>AMC EMAR M.A.305(d)</u>
L		- EMAR 145.A.45 & AMC EMAR 145.A.45

C.4	Records	Continuing Airworthiness records are defined in EMAR M.A.305 and EMAR M.A.306 and their related AMCs.
Supporti	ng information	Typical inspection items
that the s can be re Task acc periodical event). A system compone workshee to: - sched	I/Transfer of the records is required so tatus of the aircraft and its components adily established at any time. Implishment is scheduled (one time or lly), or unscheduled (e.g. following an ircraft continuing airworthiness record (refer to logbooks, technical logbooks, nt log cards or workcards or ets) shall provide the status with regard luled tasks: Implies the state of the state of tasks.	<ol> <li>Check the aircraft continuing airworthiness record system: EMAR M.A.305 and EMAR M.A.306 (as applicable) require that certain records are kept for defined periods.</li> <li>Pay attention to the continuity, integrity and traceability of records:         <ul> <li>a. integrity: Check the data recorded is legible,</li> <li>b. continuity: Check that records are available for the applicable retention period,</li> <li>c. traceability: Check the link between Operating Organisation/CAMO and maintenance documentation, traceability to approved data, traceability to appropriate release documents, etc.</li> </ul> </li> <li>If applicable, make sure that the Aircraft Technical Log is used correctly, including:         <ul> <li>a. current aircraft Certificate of Release to Service and the current maintenance statement</li> <li>b. pre-flight inspections signed-off by authorised persons;</li> </ul> </li> <li>Check that any maintenance required following abnormal operation/event (such as overspeed, overweight operation, hard landing, excessive turbulence, and operation outside of Aircraft Flight Manual limitations) has been performed, as applicable.</li> </ol>
Referenc	e documents:	- EMAR M.A.305 & <u>AMC EMAR M.A.305(d)4 and (h)</u> - EMAR M.A.306 & AMC EMAR M.A.306 - EMAR M.A.307 & <u>AMC EMAR M.A.307(a)</u>

#### Abbreviations used in Appendix III:

AAR	Air to Air Refueling
AD	Airworthiness Directive
AFM	Aircraft Flight Manual
ALI	Airworthiness Limitation Items
ALS	Airworthiness Limitations Section
AMC	Acceptable Means of Compliance
AMM	Aircraft Maintenance Manual
AMP	Aircraft Maintenance Programme
APU	Auxiliary Power Unit
ASM	Ageing Systems Maintenance
CAMO	Continuing Airworthiness Management Organisation
CDCCL	Critical Design Configuration Control Limitations
CDL	Configuration Deviation List
CMM	Component Maintenance Manual
CMR	Certification Maintenance Requirement
DT	Damage Tolerant
ETOPS	Extended Range Operations with Two-engined aeroplanes
EWIS	Electrical Wiring Interconnection System
FRM	Flammability Reduction Means
FTIP	Fuel Tank Ignition Prevention
ICA	Instructions for Continuing Airworthiness
KRE	Key Risk Element
LOPA	Layout of Passenger Accommodation
MCoA	Military Certificate of Airworthiness
MEL	Minimum Equipment List
MRBR	Maintenance Review Board Report
MPD	Maintenance Planning Document
(M)STC	(Military) Supplemental Type Certificate
NMAA	National Military Airworthiness Authority
OEM	Original Equipment Manufacturer
P/N	Part Number
RVSM	Reduced Vertical Separation Minima
S/N	Serial Number
SB	Service Bulletin
SL	Safe Life
SRM	Structural Repair Manual
ТВО	Time Between Overhauls
TC	Type Certificate
TCDS	Type Certificate Data Sheet

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## Appendix IV to AMC M.A.604: NOT APPLICABLE

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# Appendix V to AMC M.A.704: Continuing Airworthiness Management Exposition (CAME)

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- 0.6 CAME amendment procedure.

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- 1.4 Accomplishment and control of Airworthiness Directives (ADs).
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- 5.3 List of contractors/tasked organisations as per <u>AMC EMAR M.A.201(h)1</u> and EMAR M.A.711(a)3.
- 5.4 List of contracted/tasked EMAR 145 AMOs.
- 5.5 Copy of contracts/taskings for contracted/tasked activities (<u>Appendix II to</u> <u>AMC EMAR M.A.201(h)1</u>).
- 5.6 Copy of contracts/taskings with EMAR 145 AMOs.
- 5.7 List of Operating Organisations to whom the organisation provides the management of the continuing airworthiness of the aircraft as per EMAR M.A.201(k).
- 5.8 Copy of continuing airworthiness arrangements with Operating Organisations as per <u>AMC EMAR M.A.201(k)</u>.

#### LIST OF EFFECTIVE PAGES

Page	Revision	Page	Revision	Page	Revision
1	Original	3	Original	5	Original
2	Original	4	Original		

#### **DISTRIBUTION LIST**

(The document should include a distribution list to ensure proper distribution of the CAME and to demonstrate to the NMAA that all personnel involved in continuing airworthiness have access to the relevant information. This does not mean that all personnel have to be in receipt of a CAME but that a reasonable number of copies are distributed within the organisation(s) so that all personnel may have quick and easy access to it. Reference should also be made to the location of any e-copies of the CAME.

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Accordingly, the CAME should be distributed to:

- the Operating Organisation's or the CAMO's management personnel and any person at a lower level as necessary; and,

- the EMAR 145 contracted/tasked AMO(s); and,

- the NMAA.)

#### PART 0 GENERAL ORGANISATION

#### 0.1 Corporate commitment by the Accountable Manager

(The Accountable Manager's CAME statement should embrace the intent of the following paragraph and this statement may be used without amendment. Any modification to the statement should not alter the intent.)

"This Exposition defines the organisation and procedures upon which the (NMAA - \* see note below) EMAR M.A. Subpart G continuing airworthiness management approval is based.

These procedures are approved by the undersigned and must be complied with, as applicable, in order to ensure that all the continuing airworthiness tasks of (quote Operating Organisation's name) fleet of aircraft and/or of all aircraft under contract/tasking in accordance with EMAR M.A.201(k) with (quote CAMO's name) are carried out on time to an approved standard.

It is accepted that 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 (NMAA\*) will approve this organisation whilst the (NMAA\*) is satisfied that the procedures are being followed and the work standard is maintained. It is understood that the (NMAA\*) reserves the right to suspend, limit or revoke the EMAR M.A. Subpart G continuing airworthiness management approval of the organisation if the (NMAA\*) has evidence that the procedures are not followed and the standards not upheld."

Signed.....

Dated.....

Accountable Manager and...... (quote position).....

For and on behalf of..... (quote organisation's name).....

Note: Where it states (NMAA\*), please insert the actual name of the pMS's NMAA, for example MAA, DSAE, etc.

#### 0.2 General Information

a) Brief description of the organisation

(This paragraph should describe broadly how the whole organisation (i.e. including the Operating Organisation and EMAR 145 AMO when other approvals are held) is organised under the management of the Accountable Manager, and should refer to the organisation charts of paragraph 0.4.)

b) Relationship with other organisations

(Insert details of those organisations involved in the delivery of continuing airworthiness and/or maintenance of the aircraft and its components, including other contracted/tasked organisations.

Details of specific contracts/taskings should be included in Part 3 of the CAME, with a cross reference to the relevant element included here.)

c) Aircraft managed – Fleet composition

(This paragraph should list the aircraft types/models/series and the serial/registration numbers of all aircraft managed by the CAMO. It should be updated each time an aircraft is removed from, or added to, the list.)

d) Type of operation

(This paragraph should give broad information on the type of military operations such as: combat missions, transport (personnel/cargo), Search and Rescue, surveillance, etc.)

#### 0.3 Management personnel

a) Accountable Manager

(This paragraph should address the duties and responsibilities of the Accountable Manager as far as EMAR M.A. Subpart G is concerned and demonstrate that he/she has corporate authority for ensuring that all continuing airworthiness activities can be resourced and carried out in accordance with EMAR M.)

b) Continuing Airworthiness Manager

(This paragraph should:

- Emphasise that the Continuing Airworthiness Manager is responsible for ensuring that all maintenance is carried out on time to an approved standard.

- Describe the extent of his/her authority as regards his/her EMAR M responsibility for managing the continuing airworthiness of the aircraft for which he/she is responsible.)

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c) Continuing airworthiness coordination

(This paragraph should list the job functions that constitute the "group of persons" as required by EMAR M.A.706(c) in enough detail so as to show that all the continuing airworthiness responsibilities as described in EMAR M are covered by the persons that constitute that group.)

d) Duties and responsibilities

(This paragraph should further develop the duties and responsibilities of:

- the personnel listed in paragraph c): 'Continuing airworthiness coordination',

- the Quality Manager, as regards the quality monitoring of the maintenance system (which includes the EMAR 145 AMO(s)). This should include the links between the Continuing Airworthiness Manager and the Accountable Manager and how independence will be achieved from the activity subject to audit.)

e) Manpower resources and training policy

#### (1) Manpower resources

(This paragraph should give broad figures to show that the number of people dedicated 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 organisation but only the number of those involved in continuing airworthiness. All posts and/or organisations conducting activity on behalf of the CAMO, including details of the activity being carried out by them, should be included. This could be presented as follows:)

	Full Time	Part Time in equivalent full time
Quality monitoring	AA	aa = AA'
Continuing Airworthiness Management	BB	bb = BB'
(Detailed information about the	BB1	bb1 = BB1'
management group of persons)	BB2	bb2 = BB2'
Other	CC	cc = CC'
Total	TT	tt = TT'
Total Staff	TT + TT'	

(Note: According to the size and complexity of the organisation, this table may be further developed or simplified)

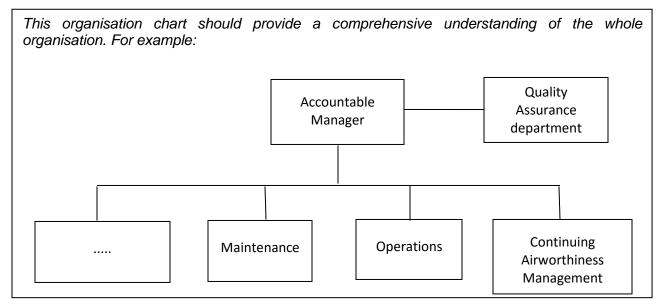
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(2) Training policy

(This paragraph should show that the training and qualification standards for the personnel quoted above are consistent with the size and complexity of the organisation. It should also explain how the need for recurrent training is assessed, and how the recording of training and follow-up activity is performed)

#### 0.4 Management organisation charts

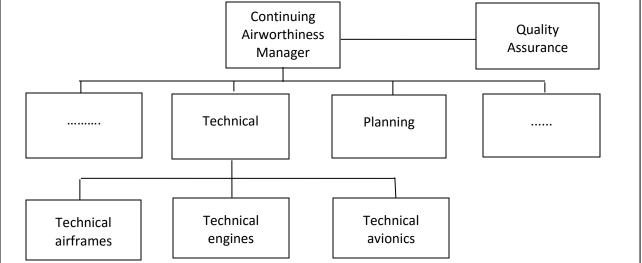
a) General organisation chart



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#### b) CAMO chart

This organisation chart should give further details on the continuing airworthiness management system, and should clearly show the independence of the quality monitoring system, including the links between the Quality Assurance department and the other departments (see example below). This organisation chart may be combined with the one above or subdivided as necessary, depending on the size and the complexity of the organisation. For example:



## 0.5 Notification procedure to the NMAA regarding changes to the organisation's activities / approval / location / personnel

(This paragraph should explain on which occasions the CAMO should inform the NMAA prior to incorporating proposed changes; for instance:

The Accountable Manager (or any delegated person such as the Continuing Airworthiness Manager or the Quality Manager) will notify to the NMAA any change concerning:

- (1) the name of the CAMO;
- (2) the location of the CAMO;
- (3) additional locations of the CAMO;
- (4) the Accountable Manager;
- (5) any of the persons specified in paragraph 0.3.c);
- (6) the facilities, procedures, work scope and staff that could affect the approval;
- (7) any change that affects the approval certificate.

Such changes will not be incorporated until they have been assessed and approved by the NMAA.)

#### 0.6 CAME amendment procedure

(This paragraph should explain who is responsible for the amendment of the CAME and its submission to the NMAA for approval. This may include, if agreed by the NMAA, the possibility for the CAMO to internally approve minor changes that have no impact on the approval held (EMAR M.A.704(c) refers). The paragraph should then specify what types of changes are considered as minor and major and what the approval procedures for both cases are.)

#### PART 1 CONTINUING AIRWORTHINESS MANAGEMENT PROCEDURES

## 1.1 Utilisation of aircraft continuing airworthiness record system and aircraft technical log and MEL and/or CDL

a) Aircraft technical log and continuing airworthiness record system

(1) General

(The introductory paragraph should explain how the aircraft technical log system and the aircraft continuing airworthiness record system are configured (EMAR M.A.305 and EMAR M.A.306 refer.))

(2) Instructions for use

(This paragraph should provide instructions for using the aircraft technical log and the aircraft continuing airworthiness record system. It should identify the respective responsibilities of the maintenance personnel and aircrew. Samples of the technical log and/or aircraft continuing airworthiness record system should be included in Part 5 "Appendices" in order to provide enough detailed instructions.)

(3) Aircraft technical log approval

(This paragraph should identify who is responsible for submitting the template for the aircraft technical log and any subsequent amendment to the NMAA for approval and what is the procedure to be followed.)

b) MEL and/or CDL utilisation (if applicable)

Although the decision of whether or not to accept a MEL and/or CDL tolerance remains the responsibility of the aircraft commander, this paragraph should explain in sufficient detail the MEL and/or CDL utilisation procedure. This is because the MEL and CDL are tools that maintenance personnel should be familiar with in order to ensure proper and efficient communication with the aircraft commander in case of a decision to defer defect rectification.

This paragraph does not apply to those types of aircraft that do not have an MEL and/or CDL.)

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#### (1) General

(This paragraph should explain broadly what a MEL and/or CDL document is. The information could be extracted from the aircraft flight manual.)

(2) MEL/CDL categories

(Where an NMAA or Operating Organisation uses a classification system placing a time constraint on the rectification of MEL/CDL related defects, the general principles of such a system should be explained. It is essential for the personnel involved in maintenance to be familiar with the classification system for the effective management and rectification of MEL/CDL related deferred defects.)

(3) Utilisation

(This paragraph should explain how the maintenance personnel identify a MEL/CDL limitation to the aircraft commander. This should refer to the aircraft technical log procedures.)

(4) Acceptance by the aircraft commander

(This paragraph should explain how the aircraft commander notify his/her acceptance (or non-acceptance) of the MEL/CDL deferment in the aircraft technical log.)

(5) Management of the MEL/CDL time limits

(After a technical limitation is accepted by the aircraft commander, the defect must be rectified within the time limit specified in the MEL/CDL. There should be a system to ensure that the defect will actually be corrected before that time limit. This system could be the aircraft technical log for those CAMOs that use it as a planning document, or a specific follow-up system in other cases, where control of the maintenance time limit is ensured by another means such as data processed planning systems.)

(6) MEL/CDL Time Limitation Overrun

(The NMAA may authorise the CAMO to overrun MEL/CDL time limitations under specified conditions. Where applicable, this paragraph should describe the specific duties and responsibilities for controlling these extensions.)

## **1.2 Aircraft Maintenance Programmes (AMPs) - development, amendment and approval**

a) General

(This introductory paragraph should also include reference to the fact that the purpose of an AMP is to provide maintenance planning instructions necessary for the safe operation of the aircraft.)

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#### b) Content

(This paragraph should explain what is/are the format(s) of the AMP(s) used. <u>Appendix I</u> to <u>EMAR AMC M.A.302(a)</u> and <u>EMAR M.B.301(b)</u> should be used as a guideline to develop this paragraph.)

c) Development

(1) Sources

(This paragraph should explain what are the sources (MRB report, MPD, Maintenance Manual, etc.) used for the development of the AMP(s).)

(2) Responsibilities

(This paragraph should explain who is responsible for the development of the AMP(s).)

(3) AMP amendments

(This paragraph should demonstrate that there is a system for ensuring the continuing validity of the AMP. Particularly, it should show how any relevant information is used to update the AMP. This should include, as applicable, MRB report revisions, consequences of modifications, manufacturers and NMAA recommendations, in-service experience, and reliability reports.)

(4) Acceptance by the NMAA

(This paragraph should explain who is responsible for the submission of the AMP to the NMAA and what the procedure to follow is. This should in particular address the issue of the NMAA approval for variation to maintenance periods. This may include, if agreed by the NMAA, the possibility for the CAMO to internally approve certain changes. The paragraph should then specify what types of changes can be internally approved and what the approval procedures are.)

## 1.3 Usage and continuing airworthiness records, responsibilities, retention, access

a) Flying hours, flight cycles, landings etc. recording

(The recording of airframe, engine and propeller flying hours and associated flight cycles and/or landings and any other approved service life consumption units. is essential for the planning of maintenance tasks. This paragraph should explain how the CAMO has access to the current information on airframe, engine and propeller flying hours and associated flight cycles and/or landings and any other approved service life consumption units and how they are processed through the CAMO.)

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#### b) Records

(This paragraph should give in detail the type of documents that are required to be recorded and what are the recording period requirements for each of them. This can be provided by a table or series of tables that would include the following:

- Type of document (if necessary),
- Name of document,
- Retention period,
- Responsible person for retention,
- Place of retention.)
- c) Preservation of records

(This paragraph should set out the means provided to protect the records from damage, alteration and theft and that the records remain readable and accessible for the duration of the storage period. Specific procedures should be set out to guarantee that the records will not be altered during the retention period (especially for computer records).)

d) Transfer of continuing airworthiness records

(This paragraph should set out the procedure for the transfer of records to another CAMO. In particular, it should specify which records have to be transferred and who is responsible for the coordination (if necessary) of the transfer.)

#### **1.4 Accomplishment and control of Airworthiness Directives (ADs)**

(This paragraph should demonstrate that there is a comprehensive system for the management of ADs and operational directives with a continuing airworthiness impact. This paragraph may include the following Sub-paragraphs:)

a) AD information

(This paragraph should explain what are the sources of the ADs and operational directives with a continuing airworthiness impact and who receives them in the CAMO.)

#### b) AD decision

(This paragraph should explain how and by whom the information in ADs and operational directives with a continuing airworthiness impact is analysed and what kind of information is provided to the contracted/tasked EMAR 145 AMOs in order to plan and to perform the AD. This should as necessary include a specific procedure for emergency Airworthiness Directives (or equivalent) management)

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#### c) AD control

(This paragraph should specify how the CAMO ensures that all the applicable ADs are performed and that they are performed on time. This should include a closed-loop system that allows for the verification that for each new or revised AD and for each aircraft:

- the AD is not applicable or,
- if the AD is applicable:
  - the AD is not yet performed but the time limit is not overdue; or
  - the AD is performed, and any repetitive inspections are identified and performed.

This may be a continuous process or may be based on scheduled reviews.)

#### 1.5 Analysis of the effectiveness of the AMP

(This paragraph should show what tools are used in order to analyse the effectiveness of the AMP, such as:

- pilot reports (including air turn-backs, etc.),
- spares consumption,
- repetitive technical occurrence and defects,
- technical delays analysis (through statistics if relevant),
- technical incidents/accidents analysis (through statistics if relevant),
- etc.

The paragraph should also indicate by whom and how this data is analysed, what is the decision process to take action and what kind of action could be taken. This may include:

- amendment of the AMP,
- amendment of maintenance or operational procedures,
- etc.)

#### 1.6 Non-mandatory modification embodiment policy

(This paragraph should specify how the information on non-mandatory modifications is processed through the CAMO, who is responsible for their assessment against the Operating Organisation's need and operational experience, what are the main criteria for decisions to be made and who takes the decision of implementing (or not) a non-mandatory modification.)

#### **1.7 Major repair and modification standards**

(This paragraph should set out a procedure for the assessment of the approval status of any major repair or modification before embodiment. This will include the assessment of the need of an NMAA or EMAR 21 Design Organisation Approval (DOA). It should also identify the type of approval required and the procedure to follow to have a repair or modification approved by the NMAA or by the (Military) Type Certificate Holder (MTCH).)

#### **1.8 Defect reports**

a) Analysis

(This paragraph should explain how the defect reports provided by the contracted/tasked EMAR 145 AMOs are processed by the CAMO. Analysis should be conducted in order to give elements to activities such as AMP evolution and non-mandatory modification policy.)

b) Liaison with MTCH and the NMAA

(Where a defect report shows that such defect is likely to occur to other aircraft, a liaison should be established with the (M)TCH and the NMAA, so that they may take all the necessary action.)

c) 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. This will include appropriate liaison with the (M)TCH.)

#### **1.9 Engineering activity**

(Where applicable, this paragraph should identify the scope of the CAMO's engineering activity in terms of approval of modification and repairs. It should set out a procedure for developing and submitting a modification/repair design for approval to the NMAA/MTCH 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 NMAA/MTCH.

Where the CAMO has a (M)DOA capability under EMAR 21, it should be indicated here and the related manuals should be referred to.)

#### 1.10 Reliability programmes

(This paragraph should explain the management of any reliability programme(s). It should at least address the following:

- extent and scope of the reliability programmes,
- specific organisational structure, duties and responsibilities,
- establishment of reliability data,
- analysis of the reliability data,
- corrective action system (AMP amendment),
- scheduled reviews (reliability meetings, the participation of the NMAA).)

(This paragraph may, where necessary, be subdivided as follows:

- a) Airframe
- b) Propulsion
- c) Component)

#### 1.11 Pre-flight inspections

(This paragraph should show how the scope and definition of the <u>AMC EMAR</u> <u>M.A.301(a)1</u> pre-flight inspections (usually performed by the aircrew) are kept consistent with the scope of the maintenance performed by the contracted/tasked EMAR 145 AMOs. It should show how the evolution of the pre-flight inspection content and the AMP remains coherent.)

(The following paragraphs are self-explanatory. Although these activities are normally not performed by continuing airworthiness personnel, these paragraphs have been placed here in order to ensure that the related procedures are consistent with the continuing airworthiness activity procedures.)

- a) Preparation of aircraft for flight
- b) Ground handling function
- c) Cargo and Baggage loading
- d) Control of refueling, Quantity/Quality

e) Control of snow, ice, residues from de-icing or anti-icing operations, dust/sand/salt contamination to an approved standard.

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#### 1.12 Aircraft weighing

(This paragraph should state on which occasions an aircraft should be weighed (for instance after a major modification because of weight and balance, operational requirements, etc.) who performs it, which procedure is used, who calculates the new weight and balance and how the results are processed into the CAMO.)

#### **1.13 Maintenance check flight procedures**

(The criteria for performing a maintenance check flight are normally included in the AMP. This paragraph should explain how the maintenance check flight procedure is established in order to meet its intended purpose (for instance after a base maintenance check, after engine or flight control removal or installation, etc.), and the release procedures to authorise such a maintenance check flight.)

#### PART 2 QUALITY SYSTEM

## 2.1 Continuing airworthiness quality policy, quality plan and quality audit procedure

a) Continuing airworthiness quality policy

(This paragraph should include a formal Quality Policy statement. This should provide a commitment on what the Quality System is intended to achieve. It should include, as a minimum, monitoring compliance with EMAR M and any additional standards specified by the CAMO.)

b) Quality plan

(This paragraph should show how the quality plan is established. The quality plan will consist of a quality audit and sampling schedule that should cover all the areas specific to EMAR M in a definite period of time. However, the scheduling process should also be dynamic and allow for special evaluations when trends or concerns are identified. In the case of contracting/tasking of non-approved organisations, this paragraph should also address the planning of the auditing of non-approved organisations at the same frequency as the rest of the CAMO.)

c) Quality audit procedure

(The quality audit is a key element of the quality system. Therefore, the quality audit procedure should be sufficiently detailed to address all the steps of an audit, from the preparation to the conclusion, show the audit report format (e.g. by reference to paragraph 5.1 'Sample documents'), and explain the procedures for the distribution of audit reports within the organisation (e.g. involvement of the Quality Manager, Accountable Manager, Continuing Airworthiness Manager, etc.).)

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d) Quality audit remedial action procedure

(This paragraph should explain what system is put in place in order to ensure that the root-cause of any findings is identified, corrective actions are implemented on time and that the result of the corrective action meets the intended purpose. For instance, where this system consists of periodical corrective action reviews, instructions should be given on how such reviews should be conducted and what should be evaluated.)

#### 2.2 Monitoring of continuing airworthiness management activities

(This paragraph should set out a procedure to periodically review the activities of the maintenance management personnel and how they fulfil their responsibilities, as defined in Part 0.1t should also set out a procedure to periodically review the activities of the contracted/tasked continuing airworthiness management activities (<u>Appendix II to AMC EMAR M.A.201(h)1 refers</u>).)

#### 2.3 Monitoring of the effectiveness of the AMP(s)

(This paragraph should set out a procedure to periodically review that the effectiveness of the AMP(s) is/are actually analysed as defined in Part 1.)

## 2.4 Monitoring that all maintenance is carried out by an appropriate EMAR 145 Approved Maintenance Organisation (AMO)

(This paragraph should set out a procedure to periodically review that the approval of the contracted/tasked EMAR 145 AMOs are relevant for the maintenance being performed on the Operating Organisation's aircraft. This may include feedback information from any contracted/tasked organisation on any actual or contemplated amendment, in order to ensure that the maintenance system remains valid and to anticipate any necessary change in the maintenance agreements.

If necessary, the procedure may be subdivided as follows:

- a) Aircraft maintenance
- b) Engines
- c) Components)

# 2.5 Monitoring that all contracted/tasked maintenance is carried out in accordance with the contract/tasking, including maintenance organisations not approved to EMAR 145 used by the maintenance contractor/tasked organisation

(This paragraph should set out a procedure to periodically review that the CAMO personnel are satisfied that all contracted/tasked maintenance is carried out in accordance with the contract/tasking. This may include a procedure to ensure that the system allows all the personnel involved in the contract/tasking (including the EMAR 145 AMO personnel and any non-approved organisations they contract/task) to be acquainted with the terms of the contract/tasking and that, for any contract/tasking

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amendment, relevant information is dispatched in the EMAR 145 AMO and at their contracted/tasked organisation(s).)

#### 2.6 Quality audit personnel

(This paragraph should establish the required training and qualification standards of auditors. Where an individual is not a full-time auditor, it should be emphasized that this person must not be directly involved in the activity he/she audits.)

#### PART 3 CONTRACTED/TASKED MAINTENANCE

#### 3.1 Maintenance contractor/tasked organisation selection procedure

(This paragraph should explain how an EMAR 145 AMO is selected by the CAMO. Selection should not be limited to the verification that the EMAR 145 AMO is appropriately approved for the type/model/series of aircraft, but also that the EMAR 145 AMO has the capacity and resources to undertake the required maintenance. This selection procedure should preferably include a contract/tasking review process in order to ensure that:

- the contract/tasking is comprehensive and that no gap or unclear area remains,

- everyone involved in the contract/tasking (both at the CAMO and at the EMAR 145 AMO) agrees with the terms of the contract/tasking and fully understand their responsibility.

- that functional responsibilities of all parties are clearly identified.)

#### 3.2 Quality audit of aircraft

(This paragraph should set out the procedure when performing an EMAR M.A.706(k) quality audit of an aircraft. It should set out the differences between an airworthiness review and a quality audit. This procedure may include:

- compliance with approved procedures;
- contracted/tasked maintenance is carried out in accordance with the contract/tasking;
- continued compliance with EMAR M.)

#### PART 4 AIRWORTHINESS REVIEW PROCEDURES (IF APPLICABLE)

#### 4.1 Airworthiness review staff

(This paragraph should establish the working procedures for the assessment of the airworthiness review staff. The assessment addresses experience, qualification, training etc. A description should be given regarding the issuance of authorisations for the airworthiness review staff and how records are kept and maintained.)

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#### 4.2 Review of aircraft records

(This paragraph should describe in detail the aircraft records that are required to be reviewed during the airworthiness review. The level of detail that needs to be reviewed and the number of records that need to be reviewed during a sample check should be described.)

#### 4.3 Physical survey

(This paragraph should describe how the aircraft physical survey needs to be performed. It should list the topics that need to be reviewed, the physical areas of the aircraft to be inspected, which documents onboard the aircraft that need to be reviewed, etc.)

#### 4.4 Not Applicable

#### 4.5 Recommendations to the NMAA for the issue of a MARC

(This paragraph should stipulate the communication procedures with the NMAA in the case of a recommendation for the issuance of a MARC. In addition, the content of the recommendation should be described.)

#### 4.6 Issuance of a MARC

(This paragraph should set out the procedures for the issuance of a MARC. It should address record keeping, distribution of the MARC copies etc. This procedure should ensure that only after an airworthiness review that has been properly carried out, a MARC will be issued.)

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

(This paragraph should describe how records are kept, the periods of record keeping, location where the records are being stored, access to the records and responsibilities.)

#### 4.8 Extension of a MARC

(This paragraph should describe the procedure used to extend a MARC (EMAR M.A.901(f) refers). It should address record keeping, distribution of MARC copies etc.)

#### PART 4B NOT APPLICABLE

#### PART 5 APPENDICES

#### 5.1 Sample documents

(A self-explanatory paragraph)

#### 5.2 List of airworthiness review staff

(A self-explanatory paragraph)

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## 5.3 List of contractors/tasked organisations as per AMC EMAR M.A.201(h)1 and EMAR M.A.711(a)3.

(A self-explanatory paragraph. In addition, it should set out that the list should be periodically reviewed.)

#### 5.4 List of contracted/tasked EMAR 145 AMOs

(A self-explanatory paragraph. In addition it should set out that the list should be periodically reviewed.)

## 5.5 Copy of contracts/taskings for contracted/tasked work (Appendix II to AMC EMAR M.A.201(h)1)

(A self-explanatory paragraph)

#### 5.6 Copy of contracts/taskings with EMAR 145 AMOs

(A self-explanatory paragraph)

5.7 List of Operating Organisations to whom the CAMO provides the management of the continuing airworthiness of the aircraft as per EMAR M.A.201(k).

(A self-explanatory paragraph)

# 5.8 Copy of continuing airworthiness arrangements with Operating Organisations as per AMC EMAR M.A.201(k).

(A self-explanatory paragraph)

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# Appendix VI to AMC M.B.602(f): NOT APPLICABLE

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## Appendix VII to AMC M.B.702(f) and M.B.704(b): EMAR Form 13

EMAR Form 13 is contained in the EMAR Forms document.

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## Appendix VIII to AMC M.A.616: NOT APPLICABLE

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## Appendix IX to AMC M.A.702: EMAR Form 2

EMAR Form 2 is contained in the EMAR Forms document.

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## Appendix X to AMC M.A.702(a): EMAR Form 4

EMAR Form 4 is contained in the EMAR Forms document.

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#### Appendix XI to AMC to EMAR M.A.708(c): Contracted/Tasked Maintenance

#### 1. Maintenance contracts/tasking

The following paragraphs are not intended to provide a standard maintenance contract/tasking document but to provide a list of the main points that should be addressed, when applicable, in a maintenance contract/tasking between an Operating Organisation/CAMO and an EMAR 145 AMO. The following paragraphs only address technical matters and exclude matters such as costs, delay, warranty, etc.

When maintenance is contracted/tasked to more than one EMAR 145 AMO (for example aircraft base maintenance to X and engine maintenance to Y), attention should be paid to the consistency of the different maintenance contracts/taskings.

A maintenance contract/tasking is not normally intended to provide appropriate detailed work instruction to the personnel (and is not normally distributed as such). Accordingly there should be established organisational responsibility, procedures and routines in the CAMO & EMAR 145 AMOs to take care of these functions in a satisfactory way such that any person involved is informed about his/her responsibility and the procedures which apply. These procedures and routines can be included/appended to the CAME and the EMAR 145 AMO's MOE or be located in separate procedures. Procedures and routines should always reflect the conditions of the contract/tasking.

Note: In the case where an Operating Organisation contracts/tasks an EMAR 145 AMO through a CAMO (in accordance with EMAR M.A.201(h)2 and EMAR M.A.201(k)), it is important that all organisations fully understand their responsibilities for the continuing airworthiness of the aircraft operated. The text in this Appendix should be modified accordingly to ensure that the allocation of responsibilities is clearly detailed.

#### 2. Aircraft/Engine maintenance

The following subparagraphs may be adapted to a maintenance contract/tasking that applies to aircraft base maintenance, aircraft line maintenance and engine maintenance.

Aircraft maintenance also includes the maintenance of the engines and APU while they are installed on the aircraft.

#### 2.1. Scope of work

The type of maintenance to be performed by the EMAR 145 AMO should be specified unambiguously. In case of line and/or base maintenance, the contract/tasking should specify the aircraft type and include the aircrafts' registrations.

In case of engine maintenance, the contract/tasking should specify the engine type.

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#### 2.2. Locations identified for the performance of maintenance/ Certificates held

The place(s) where base, line or engine maintenance, as applicable, will be performed should be specified. The approval certificate held by the EMAR 145 AMO at the place(s) where the maintenance will be performed should be referred to in the contract/tasking. If necessary the contract/tasking may address the possibility of performing maintenance at any location subject to the need for such maintenance arising either from the unserviceability of the aircraft or from the necessity of supporting occasional line maintenance.

# 2.3. EMAR 145 AMO contracting/tasking with approved/non-approved organisations

The maintenance contract/tasking should specify under which conditions the EMAR 145 AMO may contract tasks to a third party (whether this third party is EMAR 145 approved or not). At least the contract/tasking should make reference to EMAR 145.A.75. Additional guidance is provided by AMC EMAR 145.A.75. In addition the CAMO may require the EMAR 145 AMO to obtain the Operating Organisation's agreement before contracting to a third party. Access should be given to the Operating Organisation/CAMO to any information (especially the quality monitoring information) about the EMAR 145 AMO's contractors involved in the contract/tasking.

#### 2.4. Aircraft Maintenance Programme

The AMP under which the maintenance has to be performed should be specified.

#### 2.5. Quality monitoring

The terms of the contract/tasking should include a provision allowing the CAMO to perform a quality surveillance (including audits) upon the EMAR 145 AMO. The maintenance contract/tasking should specify how the results of the quality surveillance are taken into account by the EMAR 145 AMO (see also paragraph 2.22. 'Meetings').

#### 2.6. NMAA involvement

#### TO BE ADDED LATER IF REQUIRED.

#### 2.7. Airworthiness data

The airworthiness data used for the purpose of this contract/tasking should be specified. This may include, but not be limited to:

- AMP,
- Airworthiness Directives,
- operational directives with a continuing airworthiness impact,
- Service Bulletins (or national equivalent),

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- major repairs/modification data,
- Aircraft Maintenance Manual,
- aircraft Illustrated Parts Catalogue,
- wiring diagrams,
- trouble shooting manual,
- Minimum Equipment List (if applicable),
- Configuration Deviation List (if applicable)
- operators manual,
- Aircraft Flight Manual,
- engine maintenance manual,
- engine overhaul manual.

#### 2.8. Incoming Conditions

The contract/tasking should specify in which condition the Operating Organisation should send the aircraft to the EMAR 145 AMO. For larger maintenance activities, it may be beneficial that a work scope planning meeting be organised so that the tasks to be performed may be commonly agreed (see also paragraph 2.23: 'Meetings').

#### 2.9. Airworthiness Directives and Service Bulletin/Modifications

The contract/tasking should specify what information the CAMO is responsible to provide to the EMAR 145 AMO, such as the due date of the Airworthiness Directives (ADs), the selected means of compliance, the decision to embody Service Bulletins (SBs) or modifications, etc. In addition, the type of information the CAMO will need in return to complete the control of ADs and modification status should be specified.

#### 2.10. Hours & Cycles control

Hours and cycles control is the responsibility of the CAMO, but there may be cases where the EMAR 145 AMO should receive the current flight hours and cycles on a regular basis so that it may update the records for its own planning functions (see also paragraph 2.22: 'Exchange of information').

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#### 2.11. Service life-limited components

Service life-limited components control is the responsibility of the CAMO.

The EMAR 145 AMO will have to provide the CAMO with all the necessary information about the service life-limited components removal/installation so that the CAMO may update its records (see also paragraph 2.22 'Exchange of information').

#### 2.12. Supply of parts

The contract/tasking should specify whether a particular type of material or component is supplied by the Operating Organisation/CAMO or by the contracted/tasked EMAR 145 AMO, which type of component is pooled, etc. The contract/tasking document should clearly state that it is the EMAR 145 AMO's responsibility to be satisfied that the component in question meets the approved data/standard and to ensure that the aircraft component is in a satisfactory condition for installation. The EMAR 145 AMO should not 'blindly' accept whatever is supplied by the Operating Organisation/CAMO. Additional AMC and GM is detailed for EMAR 145.A.42 'Acceptance of components'.

#### 2.13. NOT APPLICABLE.

#### 2.14. Scheduled maintenance

When planning scheduled maintenance, the support documentation to be given to the EMAR 145 AMO should be specified. This may include, but not be limited to:

- applicable work package, including job cards;
- scheduled component removal list;
- modifications to be incorporated.

When the EMAR 145 AMO determines, for any reason, to defer a maintenance task, it has to be formally agreed with the CAMO. If the deferment goes beyond an approved limit, refer to paragraph 2.17: 'Deviation from the maintenance schedule'. This should be addressed, where applicable, in the maintenance contract/tasking document.

#### 2.15. Unscheduled maintenance/Defect rectification

The contract/tasking should specify to which level the EMAR 145 AMO may rectify a defect without reference to the Operating Organisation/CAMO. As a minimum, the acceptance and incorporation of major repairs should be addressed. The deferment of any defect rectification should be submitted to the CAMO and, if applicable, to the NMAA.

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#### 2.16. Deferred maintenance

See paragraphs 2.14 and 2.15 above and AMC EMAR 145.A.50(e). In addition, for aircraft line and base maintenance the use of the MEL and CDL (if applicable) should be addressed.

#### 2.17. Deviation from the maintenance schedule

Deviations have to be granted by the CAMO in accordance with a procedure approved by the NMAA. The contract/tasking should specify the support the EMAR 145 AMO may provide to the CAMO in order to substantiate a request for deviation from the maintenance schedule.

#### 2.18. Maintenance check flight

If a maintenance check flight is required after aircraft maintenance, it should be performed in accordance with the procedures established in the CAME.

#### 2.19 Engine Test

The contract/tasking should specify the acceptability criterion and whether a representative of the Operating Organisation/CAMO should witness an engine undergoing test.

#### 2.20 Release to service documentation

The release to service has to be performed by the EMAR 145 AMO in accordance with its MOE procedures. The contract/tasking should, however, specify which aircraft documentation should be used (e.g. Aircraft technical log,) and the documentation the EMAR 145 AMO should provide to the CAMO upon delivery of the aircraft. This may include, but not limited to:

- Certificate of Release to Service mandatory,
- maintenance check flight report,
- list of modifications embodied,
- list of repairs,
- list of ADs incorporated,
- engine test report.

#### 2.21. Maintenance recording

The Operating Organisation/CAMO may contract/task the EMAR 145 AMO to retain some of the maintenance records required by EMAR M.A. Subpart C. It should be ensured that every requirement of EMAR M.A. Subpart C is fulfilled by either the Operating Organisation/CAMO or the EMAR 145 AMO. In such a case,

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free and quick access to the above-mentioned records should be given by the EMAR 145 AMO to the Operating Organisation/CAMO.

#### 2.22. Exchange of information

Each time exchange of information between the Operating Organisation/CAMO and the EMAR 145 AMO is necessary, the contract/tasking should specify what information should be provided and when (i.e. on what occasion or at what frequency), how, by whom and to whom it has to be transmitted.

#### 2.23. Meetings

To ensure that a good communication system exists between the Operating Organisation/CAMO and the EMAR 145 AMO, the terms of the maintenance contract/tasking should include the provision for a certain number of meetings to be held between all parties.

#### 2.23.1. Contract/tasking review

Before the contract/tasking is applicable, it is very important for the technical personnel of all parties that are involved in the application of the contract/tasking to meet, in order to be sure that every point leads to a common understanding of the duties of all parties.

#### 2.23.2. Work scope planning meeting

Work scope planning meetings may be organised so that the tasks to be performed may be commonly agreed.

#### 2.23.3. Technical meeting

Scheduled meetings may be organised in order to review on a regular basis technical matters such as ADs, SBs (or national equivalent), future modifications, major defects found during maintenance check, reliability, etc.

#### 2.23.4. Quality meeting

Quality meetings may be organised in order to examine matters raised by the CAMO's EMAR M.A.712 quality surveillance and to agree upon necessary corrective actions.

#### 2.23.5. Reliability meeting

When a reliability programme exists (EMAR M.A.302(f) refers), the contract/tasking should specify the CAMO's and the EMAR 145 AMO's respective involvement in that programme, including the participation in reliability meetings.

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## Appendix XII to AMC to M.A.706(f) and M.B.102(c): Fuel Tank Safety Training

This Appendix is contained within Appendix IV to EMAR AMC 145.A.30(e) and EMAR AMC 145.B.10(c).

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# Appendix XIII to AMC M.A.712(f): NOT APPLICABLE

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