สำนักงานการบินพลเรือนแห่งประเทศไทย
The Civil Aviation Authority of Thailand

GUIDANCE MATERIAL FOR DEVELOPMENT OF MAINTENANCE ORGANISATION EXPOSITION (MOE)

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Approved by

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ABBREVIATIONS

AD	Airworthiness Directive
AMC	Acceptable Means of Compliance
AMEL	Aircraft Maintenance Engineer Licence
AMM	Aircraft Maintenance Manual
AMO	Approved Maintenance Organisation
AOC	Air Operator Certificate
AOG	Aircraft-on-Ground
ARC	Authorised Release Certificate
ATA	Air Transport Association
C/S	Certifying Staff
CAAT	Civil Aviation Authority of Thailand
CDCCL	Critical Design Configuration Control Limitation
CDL	Configuration Deviation List
CEO	Chief Executive Officer
CMM	Component Maintenance Manual
CoC	Certificate of Conformity
CRS	Certificate of Release to Service
DOA	Design Organisation Approval
EASA	European Union Aviation Safety Agency
EDTO	Extended Diversion Time Operations
EMM	Engine Maintenance Manual
ERP	Emergency Response Plan
ESM	Engine Shop Manual
FAA	Federal Aviation Administration
FAMO	Foreign Approved Maintenance Organisation
FC	Flight Cycles
FH	Flight Hours
FTS	Fuel Tank Safety
GM	Guidance Material
IATA	International Air Transport Association
IPC	Illustrated Parts Catalogue
MCF	Maintenance Check Flight
MEL	Minimum Equipment List
MOE	Maintenance Organisation Exposition
MPD	Maintenance Planning Document
MRB	Maintenance Review Board
MTOW	Maximum Take-off Weight
NAA	National Aviation Authority
NDI	Non-Destructive Inspection
NDT	Non-Destructive Testing
OEM	Original Equipment Manufacturer
PAPSI	Prospective Applicant's Pre-assessment Statement of Intent
PPB	Principle Place of Business
RCAB	Regulation of Civil Aviation Board
S/S	Support Staff
SB	Service Bulletin

SMS	Safety Management System
SRM	Structure Repair Manual
STC	Supplemental Type Certificate
SUP	Suspected Unapproved Part
TC	Type Certificate
TCAR	Thailand Civil Aviation Requirements
TPM	Training Program Manual
WH	Working Hours

0. INTRODUCTION

0.1 Scope and Applicability

The Civil Aviation Authority of Thailand (CAAT) is the Competent Authority for maintenance organisations[1] that are involved in the maintenance of Thai registered aircraft and components intended for fitment thereto as established by TCAR Part 145.A.1 General. Therefore, CAAT is responsible for the final approval of these maintenance organisations and for establishing procedures detailing how TCAR Part 145 applications and approvals are managed.

This Guidance Material (GM) is applicable to TCAR Part 145 applicants and TCAR Part 145 maintenance organisations regardless of whether their principal place of business is located within Thailand or other countries. The provisions of this GM are complementary to the maintenance organisation certification requirements detailed in TCAR Part 145 and do not supersede or replace any associated regulatory requirements.

0.2 Purpose

The purpose of this GM is to assist maintenance organisations in the development of their MOE.

0.3 Associated Instructions

CAAT has developed associated provisions (guidance, forms, checklists, and templates) that detail specific matters, which need to be considered as an integral part of this GM. This information is available on the CAAT website (www.caat.or.th)

0.4 Communication

All documents and correspondence between the maintenance organisation and CAAT shall be in English. The official e-mail is air-amo@caat.or.th.

0.5 Management of Approvals by CAAT

All process phases (management of approvals, including issuance of audit reports and findings management) are conducted in CAAT-EMPIC.

0.6 References

- Air Navigation Act B.E. 2497
- Regulation of Civil Aviation Board (RCAB) No. 77 Qualification and Privileges of Applicants for Aircraft Maintenance Engineers
- Requirements of the Civil Aviation Authority of Thailand No. 2 on Repair Station Certificate
- Requirements of the Civil Aviation Authority of Thailand No. 5 on Foreign Repair Station Certificate

1 The terms “Maintenance Organisations” and “Repair Stations” should be read interchangeably in this Guidance Material.

- Requirements of the Civil Aviation Authority of Thailand No. 22 on Reporting of Civil Aviation Occurrences
- Thailand Civil Aviation Regulation on Maintenance Organisation Requirement (TCAR PART 145)
- Acceptable Means of Compliance to Thailand Civil Aviation Regulation on Maintenance Organisation Requirement (AMC to TCAR Part 145)

1. GENERAL GUIDANCE

1.1 Preliminary Considerations

The MOE should be customised by each maintenance organisation to demonstrate how they comply with TCAR Part 145.

For each detailed procedure described within the MOE, the maintenance organisation should address the following questions:

- What must be done?
- Who must do it?
- When must it be done?
- Where must it be done?
- How must it be done?
- Which procedures and forms must be used?

The maintenance organisation may choose to use another format to the one described in this GM, as long as all the applicable sections of the regulation are addressed and cross-referenced.

Foreign maintenance organisations may choose to follow this GM in the development of the MOE or may choose to submit a CAAT MOE supplement with the MOE approved by other authorities.

1.2 Exposition Language and Format

The MOE should be in English and may be produced in hardcopy or electronic format:

- Hardcopy: Use A4 format in a binder with section dividers. Recto/verso can be used.
- Electronic format: Use Portable Document Format (PDF) with a printed copy delivered to CAAT to facilitate the document review.

1.3 Terms in Use

The following terms are used in this GM:

- **MOE Part** is used to identify the main parts of the MOE (e.g. Part 1 General, Part 2 Maintenance Procedures, Part 3 Management System procedures) as identified in AMC1 145.A.70(a).
- **MOE chapter** is used to identify each chapter within an MOE Part (e.g. MOE 1.2 Safety policy and objectives, MOE 3.2 Internal Safety reporting and investigations, MOE 5.1 sample of documents) as identified in AMC1 145.A.70(a).
- **MOE paragraph** is used to identify a paragraph within an MOE chapter (e.g. MOE 3.9.1 “Aircraft Certifying Staff and/or Support Staff”). At the paragraph level the numbering

system is not pre-identified in TCAR Part 145 and it is left to the needs of the maintenance organisation. Further division to sub-paragraphs may be also used.

1.4 MOE GM Writing Conventions

To facilitate the reading and understanding of this GM, the following writing conventions apply to each maintenance organisation MOE chapter:

Item	Location	Format	Remark
Regulatory references	After each MOE heading as applicable	*Italic font*	A cross-reference table between MOE chapters, paragraphs and regulations is provided in paragraph 2.5 of this GM.
Expected content of the maintenance organisation MOE	After each MOE heading as applicable	Normal font, listed in a checklist format: ☐ First level ○ Second level	It is the responsibility of the maintenance organisation to identify the "expected content" applicable to that maintenance organisation. When an "MOE paragraph" is identified in this GM, the same paragraph structure is expected to be found in the maintenance organisation MOE.
Examples	Where appropriate	Normal font	-
Track changes	Where appropriate	In blue color text, identified by a vertical bar on the left-hand side of the page. (Not applicable to the initial issue)	-

1.5 Cross References between TCAR Part 145 and MOE Chapters

TCAR Part 145	MOE Reference
145.A.1	*0.4*
145.A.10	*1.9, 2.8, 3.17*
145.A.15(a)	*1.10*
145.A.15(b)	*1.10*
145.A.20(a)	*1.9*
145.A.20(b)	*1.9*
145.A.25(a)	*1.8, 2.22*
145.A.25(b)	*1.8, 2.22*
145.A.25(c)	*1.8*
145.A.25(d)	*1.8, 2.3, 2.7*
145.A.30(a)	*1.2, 1.3, 1.4, 3.18*

TCAR Part 145	MOE Reference
145.A.42(b)	*1.9, 2.1, 2.2, 2.9, 2.11*
145.A.42(c)	*2.3*
145.A.45(a)	*2.8, 2.27*
145.A.45(b)	*1.9, 2.8,2.11*
145.A.45(c)	*2.8,2.27*
145.A.45(d)	*2.6, 2.8, 2.12*
145.A.45(e)	*2.8, 2.13, 2.14, 2.21*
145.A.45(f)	*2.8, 2.13, 2.14*
145.A.45(g)	*2.8, 2.13*
145.A.47(a)	*2.7, 2.28*
145.A.47(b)	*2.22, 2.28*

TCAR Part 145	MOE Reference
145.A.30(b)	*1.3, 1.4*
145.A.30(c)	*1.4, 3.11*
145.A.30(ca)	*3.6, 3.11*
145.A.30(cb)	*1.3, 1.4*
145.A.30(cc)	*1.3*
145.A.30(d)	*3.8*
145.A.30(e)	*3.18*
145.A.30(f)	*3.16*
145.A.30(g)	*1.6, 2.16*
145.A.30(h)	*1.6, 2.16, 3.9, 3.10*
145.A.30(i)	*1.4, 1.6, 2.16, 3.9*
145.A.30(j)	*1.6, 2.16, 3.9, 3.10*
145.A.35(a)	*1.6, 2.16, 2.24, 3.9, 3.18*
145.A.35(b)	*3.9*
145.A.35(c)	*3.9*
145.A.35(d)	*3.9*
145.A.35(e)	*3.9*
145.A.35(f)	*3.9*
145.A.35(g)	*3.9*
145.A.35(h)	*3.9, 3.10*
145.A.35(i)	*1.4*
145.A.35(j)	*3.10*
145.A.35(k)	*3.10*
145.A.35(l)	*3.10*
145.A.35(m)	*3.9*
145.A.40(a)	*1.8, 2.4, 2.6*
145.A.40(b)	*2.4, 2.5, 2.6*
145.A.42(a)	*2.2, 2.3*
145.A.70(d)	*1.11*
145.A.75(a)	*1.9*
145.A.75(b)	*1.9, 2.1, 2.20, 3.17, 5.2*
145.A.75(c)	*1.9, 2.16, 2.24*
145.A.75(d)	*1.8, 1.9, L2.1 -L2.7, 5.3*
145.A.75(e)	*1.9, 2.16*
145.A.75(f)	*1.9*
145.A.85(a)	*1.1, 1.11*
145.A.85(b)	*1.1, 1.11*
145.A.85(c)	*1.1, 1.11*
145.A.90(a)	*1.1*
145.A.90(b)	*1.4*
145.A.90(c)	*1.4*
145.A.95(a)	*3.8*
145.A.95(b)	*3.8*
145.A.140	*-*
145.A.155	*-*
145.A.200(a)	*3.3*
145.A.200(b)	*-*

TCAR Part 145	MOE Reference
145.A.47(c)	*2.22, 2.26*
145.A.47(d)	*2.22*
145.A.48(a)	*2.16*
145.A.48(b)	*2.23*
145.A.48(c)	*2.12, 2.23, 2.25*
145.A.50(a)	*2.11, 2.16*
145.A.50(b)	*2.16*
145.A.50(c)	*4.3*
145.A.50(d)	*2.21*
145.A.50(e)	*2.15, 2.16*
145.A.50(f)	*2.16*
145.A.55(a)	*2.13, 2.14, 2.16, 2.17, 3.17*
145.A.55(b)	*4.3*
145.A.55(c)	*4.3*
145.A.55(d)	*2.21*
145.A.55(e)	*2.21*
145.A.55(f)	*2.21*
145.A.55(g)	*2.21*
145.A.60(a)	*2.18*
145.A.60(b)	*2.18*
145.A.60(c)	*2.18*
145.A.60(d)	*2.18, 4.3*
145.A.60(e)	*2.18*
145.A.60(f)	*2.18*
145.A.65	*1.11, 2.28*
145.A.70(a)	*1.11*
145.A.70(b)	*1.11*
145.A.70(c)	*1.11*
AMC1 145.A.25(d)(c)	*2.3, 2.7*
AMC1 145.A.30(a)	*1.3, 3.18*
AMC1 145.A.30(b)4	*1.3, 1.4*
AMC1 145.A.30(c)	*1.4*
AMC1 145.A.30(c);(ca)(a)	*1.4*
AMC1 145.A.30(c);(ca)(b)	*1.4*
AMC1 145.A.30(c);(ca)(d)	*1.4*
AMC1 145.A.30(c);(ca)(e)	*1.4*
AMC1 145.A.30(c);(ca)(f)	*1.4*
AMC1 145.A.30(c);(ca)(g)	*1.4*
AMC1 145.A.30(cc)(a)	*1.4*
AMC1 145.A.30(cc)(b)	*1.4*
AMC1 145.A.30(cc)(c)	*1.4*
AMC1 145.A.30(cc)(d)	*1.4*
AMC1 145.A.30(cc)(e)	*1.4*
AMC1 145.A.30(cc)(f)	*1.4*
AMC1 145.A.30(cc)(g)	*1.4*
AMC1 145.A.30(cc)(h)	*1.4*
AMC1 145.A.30(d)1	*1.4, 2.22*

TCAR Part 145	MOE Reference
145.A.200(c)	*-*
145.A.202(a)	*2.18, 3.2*
145.A.202(b)	*2.18, 3.2*
145.A.202(c)	*2.18, 3.2*
145.A.202(d)	*2.18, 3.2*
145.A.202(e)	*2.18, 3.2*
145.A.205(a)	*2.1*
145.A.205(b)	*2.1*
AMC1 145.A.10(1)(a)	*1.4, 1.9, 2.28, 3.17*
AMC1 145.A.10(1)(b)	*1.4, 1.9, 2.28, 3.17*
AMC1 145.A.10(1)(c)	*1.4, 1.9, 2.28, 3.17*
AMC1 145.A.10(1)(d)	*1.4, 1.9, 2.28, 3.17*
AMC1 145.A.10(2)	*1.4, 1.9, 2.28, 3.17*
AMC1 145.A.15	*1.10*
AMC2 145.A.15(a)	*1.10*
AMC2 145.A.15(b)	*1.10*
AMC2 145.A.15(c)	*1.10*
AMC1 145.A.20	*1.9*
AMC1 145.A.25(a)1	*1.8, 2.22*
AMC1 145.A.25(a)2	*1.8, 2.22*
AMC1 145.A.25(a)3	*1.8, 2.22*
AMC1 145.A.25(a)4	*1.8, 2.22*
AMC1 145.A.25(a)5	*1.8, 2.22*
AMC1 145.A.25(b)	*1.8*
AMC1 145.A.25(d)(a)	*2.3, 2.7*
AMC1 145.A.25(d)(b)	*2.3, 2.7*
AMC1 145.A.30(j)5(i)	*2.16*
AMC1 145.A.30(j)5(ii)	*2.16*
AMC1 145.A.35(a)	*2.24, 3.18*
AMC1 145.A.35(b)	*3.9*
AMC1 145.A.65	*2.28, 4.2*
AMC1 145.A.65(2)	*1.11, 3.14, 3.15, 3.16*
AMC1 145.A.70(a)	*0.1, 2.18, 5.1*
AMC1 145.A.70(a)	*0.1, 2.18, 5.1*
AMC1 145.A.75(b)	*2.1, 3.17*
AMC1 145.A.75(f)	*2.1*
AMC1 145.A.85	*-*
AMC2 145.A.85	*-*
AMC1 145.A.95	*-*
AMC1 145.A.200(a)1	*1.2*
AMC1 145.A.200(a)2	*1.2*
AMC1 145.A.200(a)3	*3.1, 3.4, 3.5, 3.8*
AMC1 145.A.200(a)4	*3.8*
AMC1 145.A.200(a)6	*1.4, 3.8*
AMC2 145.A.200(a)6	*1.4, 3.8*
AMC3 145.A.200(a)6	*1.4, 3.8*
AMC4 145.A.200(a)6	*1.4, 3.8*

TCAR Part 145	MOE Reference
AMC1 145.A.30(d)2	*1.4, 2.22*
AMC1 145.A.30(d)3	*1.4, 2.22*
AMC1 145.A.30(d)4	*1.4, 2.22*
AMC1 145.A.30(d)5	*1.4, 2.22*
AMC1 145.A.30(d)6	*1.4, 2.22*
AMC1 145.A.30(d)7	*1.4, 2.22*
AMC1 145.A.30(d)8	*1.4, 2.22*
AMC1 145.A.30(d)9(a)	*1.4, 2.22*
AMC1 145.A.30(d)9(b)	*1.4, 2.22*
AMC1 145.A.30(e)1	*3.16, 3.18*
AMC2 145.A.30(e)(a)	*3.16, 3.18*
AMC2 145.A.30(e)(b)	*3.16, 3.18*
AMC2 145.A.30(e)(c)	*3.16, 3.18*
AMC2 145.A.30(e)(d)	*3.16, 3.18*
AMC2 145.A.30(e)(e)	*3.16, 3.18*
AMC3 145.A.30(e)	*3.16, 3.18*
AMC4 145.A.30(e)	*3.16, 3.18*
AMC5 145.A.30(e)(a)	*3.16, 3.18*
AMC5 145.A.30(e)(b)	*3.16, 3.18*
AMC5 145.A.30(e)(c)	*3.16, 3.18*
AMC5 145.A.30(e)(d)	*3.16, 3.18*
AMC2 145.A.30(f)	*1.3, 1.4, 3.9, 3.16*
AMC1 145.A.30(g)	*1.6, 3.9*
AMC1 145.A.30(h)	*1.6, 3.9*
AMC1 145.A.30(j)(4)	*2.16*
AMC1 145.A.30(j)(5)	*2.16*
AMC1 145.A.50(f)	*2.16*
AMC1 145.A.55	*2.14*
AMC1 145.A.55(a)3	*2.16*
AMC1 145.A.55(d)	*2.21*
GM6 145.A.30(e)(c)	*3.6*
GM1 145.A.42(a)2	*2.2, 2.3*
GM1 145.A.42(b)1	*2.2*
GM2 145.A.42(b)1	*2.1*
GM3 145.A.42(b)1(a)	*2.1*
GM3 145.A.42(b)1(b)	*2.1*
GM3 145.A.42(b)1(c)	*2.2*
GM3 145.A.42(b)1(d)	*2.2*
GM1 145.A.42(b)2	*2.2, 2.11*
GM1 145.A.42(c)1	*2.2*
GM1 145.A.47(b)	*-*
GM1 145.A.47(d)	*-*
GM1 145.A.48	*2.13*
GM1 145.A.48(c)3	*2.25*
GM1 145.A.48(c)4	*2.12*
GM1 145.A.50(a)	*2.16*
GM1 145.A.50(d)	*2.16*

TCAR Part 145	MOE Reference
AMC1 145.A.202	*2.18*
AMC1 to Appendix IV to TCAR Part 145 (e)	-
AMC1 to Appendix IV to TCAR Part 145 – (f)	-
GM1 145.A.10(1)	*1.3, 1.9*
GM1 145.A.10(2)	*1.3, 1.9*
GM1 145.A.10(3)(3.1.1)	*1.3, 1.9*
GM1 145.A.10(3)(3.1.2)	*1.3, 1.9*
GM1 145.A.10(3)(3.1.3)	*1.3, 1.9*
GM1 145.A.10(4.1)	*1.3, 1.9*
GM1 145.A.15(b)	-
GM1 145.A.30(b)	-
GM1 145.A.30(ca)(a)	-
GM1 145.A.30(ca)(b)	-
GM1 145.A.30(e)	*3.6*
GM2 145.A.30(e)	*3.16, 3.18*
GM3 145.A.30(e)	*3.16, 3.18*
GM4 145.A.30(e)	*3.6*
GM5 145.A.30(e)	*3.16, 3.18*
GM6 145.A.30(e)(a)	*3.16, 3.18*
GM6 145.A.30(e)(b)	*3.6*
AMC2 145.A.50(d)	*2.16*
AMC1 145.A.50(e)	*2.16*

TCAR Part 145	MOE Reference
GM1 145.A.55	*2.13, 2.14*
GM1 145.A.55(a)1	*2.13, 2.14*
GM1 145.A.60(b)	*2.18*
GM1 145.A.60(c)	*2.18*
GM1 145.A.65	*2.28, 4.2*
GM1 145.A.70(a)	*1.1, 1.4, 1.11, 4.2*
GM1 145.A.70(d)	*1.1, 1.4, 1.11, 4.2*
GM1 145.A.75(b)	*2.1*
GM1 145.A.200(a)1	*3.3*
GM2 145.A.200(a)1	*3.3*
GM1 145.A.200(a)2	*1.2*
GM1 145.A.200(a)3	*2.1, 3.1*
GM2 145.A.200(a)3	*3.5*
GM1 145.A.200(a)4	*3.6*
GM1 145.A.200(a)5	*3.8*
GM1 145.A.200(a)6	*3.8*
GM2 145.A.200(a)6	*3.8*
GM1 145.A.202	*3.2*
GM1 145.A.205	*2.1*
AMC1 145.A.50(e)	*2.16*

1.6 Structure of the Maintenance Organisation Exposition

The MOE may be produced in the form of a single document or may consist of several separate documents.

- **Single document:** An MOE produced in accordance with AMC1 145.A.70(a) is a unique and complete document. It must contain all the information required to show compliance with the regulation including detailed maintenance procedures and detailed quality system procedures.
- **Several documents:** An MOE must contain at least the information as detailed in AMC1 145.A.70(a) 1.1 to 1.11 (Management). The additional material may be published in separate documents which must be referenced from the MOE. In this case:
  - The MOE must cross refer to the associated procedures, documents, appendices, forms and all other lists which are managed separately (e.g. the list of certifying staff, the capability list, the list of sub-contractors). Therefore, the MOE chapter 1.11 is expected to summarise the associated procedures and/or list references (refer to MOE chapter 1.11 for further guidance);
  - Associated documents must meet the same rules as described for the MOE and must not refer to any foreign approval; and
  - Associated documents, procedures, forms, etc., must be provided to CAAT.

An MOE should contain information demonstrating compliance to the regulation. An MOE chapter referring only to an associated procedure is not acceptable.

For some maintenance organisations, certain sections of the headings defined within AMC1 145.A.70(a) may be 'not applicable'. In this case, they should be annotated as such within the MOE.

Maintenance organisations are strongly recommended to follow the MOE structure described in AMC1 145.A.70 and this GM. A different structure may result in additional processing time.

1.6.1 Management Control of the MOE

In order to properly monitor the approval, it is essential that the maintenance organisation clearly identifies the initial edition of the MOE and each subsequent change. Any change to an approved MOE should be identified, depending upon the numbering system chosen, by:

- A new Issue and/or Revision number
- A new Issue and/or Revision date
- Clear identification of the modified text in each MOE chapter or paragraph (e.g. using vertical bars and highlighting the changed text with a specific colour)

MOE chapter 1.11 is intended to detail the methods chosen to identify changes to the MOE (e.g. Issue or Revision number and vertical bars). In particular, depending upon the complexity and needs of the maintenance organisation, one of the two following possibilities is recommended:

Option 1: MOE identified by both an Issue number and Revision number
This option is intended to use two different numbering systems (Issue and Revision numbers). In particular, each time the Issue number is changed, the Revision number will start again from "0". The following table is given as an example:

Issue Number	Issue Date	Revision Number	Revision Date
1 (Initial)	01 Jan 2020	0	01 Jan 2020
		1	17 Feb 2020
		2	25 Mar 2020
2	20 Apr 2020	0	20 Apr 2020
		1	10 May 2020
		2	15 Jun 2020

Option 2: MOE identified only by a Revision (or Issue) number
Any change to the MOE will be identified only by a change in the Revision or Issue number. The Revision or Issue numbering will start with "0" and increase at each revision, along with a Revision (or Issue) date. The following table is given as an example:

Revision (or Issue) Number	Revision (or Issue) Date
0 (Initial)	01 Jan 2020
1	17 Feb 2020
2	25 Mar 2020

1.6.2 Management Control of the MOE

Depending upon the MOE revision identification option chosen, each page of the MOE, in the header or footer, should be identified as follows:

- Name of the maintenance organisation (official name)
- Name of the document "Maintenance Organisation Exposition"
- Issue number of the MOE
- Issue date
- Revision number of the MOE
- Revision date
- Chapter of the MOE (e.g. 1-5)
- Page number

The cover page of the MOE should specify:

- Title "Part 145 Maintenance Organisation Exposition"
- Unique identification number given to the MOE (e.g. AMONAME-CAAT-DOC1):
  - Unique identification number is expected for each document which is part of the CAAT approval (refer to MOE chapter 1.11). It is particularly helpful when managing electronic approvals of documents.
- Name of the maintenance organisation (official name)
- Address, telephone, fax numbers and the generic e-mail address of the Principal Place of Business (PPB) of the Organisation
- Copy number from the distribution list
- Repair station certificate number (if applicable)

1.7 MOE Initial Approval Process

1.7.1 First Submission of the Draft MOE

Prior to submission of the draft MOE, the accountable manager must sign and date the Corporate Commitment statement (MOE chapter 1.1). This confirms that the accountable manager has read the document and understood the responsibilities under the approval. In the case of change of the accountable manager, the new manager must sign the document and submit a suitable amendment for approval.

1.7.2 Tracking Changes to the Initial Draft MOE

Following receipt of the first draft MOE, CAAT will review and provide comments via CAAT-EMPIC to the maintenance organisation.

After the receipt of comments, the maintenance organisation is expected to revise the first draft and produce a second draft MOE, where all the comments have been addressed. In order to have a clear tracking of the changes and to allow the review of the revised MOE by CAAT, the following is expected;

- The maintenance organisation must reply to each comment via CAAT-EMPIC, explaining how it has been addressed and in which MOE chapter/paragraph.
- The maintenance organisation must issue a second draft MOE, which clearly identifies the changes introduced. This could be done by:
    - Maintaining the MOE draft identified as initial (i.e. Issue 1, Rev. 0), but changing the date to identify the new draft issued; and
    - Identifying clearly the text modified in each MOE chapter/paragraph (using vertical bars, highlighting with a specific colour the changed text, etc.).

This process will be continued with the issue of a third, fourth, etc. draft MOE, until the MOE is considered acceptable in order to proceed further with the document evaluation process.

The same procedure applies to documents associated with the MOE, such as procedures and lists subject to CAAT approval.

2. MOE STRUCTURE AND CONTENT

MOE Table of Contents

PART 0 INTRODUCTION

0.1 Table of Contents

Reference: AMC1 145.A.70(a)

CAAT recommends adoption of the standardised MOE Table of Contents provided in chapter 0.1 "Table of Contents" of this GM (MOE Part 0 to Part 5). The maintenance organisation should customise the MOE to suit their organisation and may add pages/paragraphs as necessary.

Where an MOE Part is not used, it should be shown as **Not Applicable (N/A)**.

0.2 List of Effective Pages

The list of issues/revisions should allow traceability from the previously approved version. The maintenance organisation name, reviewed/approved date and reviewer's name should be included.

In the case of MOE indirect approval by the Compliance Monitoring manager, the MOE approval is completed by the maintenance organisation entering the date of the MOE approval, the name, position and signature of the approving person.

Following are examples of how the list of effective pages can be shown.

Example 1: The MOE is identified by both an Issue number and a Revision number, as explained in paragraph 2.6.1 of this GM.

Page Number	Issue Number	Revision Number	Revision Date	Page Number	Issue Number	Revision Number	Revision Date
Part 0				**Part L2**			
001	1	0	01 Jan 2018	L201	1	0	01 Jan 2018
002	1	0	01 Jan 2018	L202	1	0	01 Jan 2018
003	1	0	01 Jan 2018	…	…	…	…
004	2	0	15 Jun 2020	**Part 3**			
005	1	1	30 Aug 2019	301	2	0	15 Jun 2020
…	…	…	…	302	2	0	15 Jun 2020
Part 1				…	…	…	…
101	1	0	01 Jan 2018	**Part 4**			
102	1	1	30 Dec 2019	401	2	0	15 Jun 2020
103	2	0	15 Jun 2020	402	2	0	15 Jun 2020
104	1	0	01 Jan 2018	…	…	…	…
105	1	1	30 Dec 2019	**Part 5**			
…	…	…	…	501	2	0	15 Jun 2020
Part 2				502	2	0	15 Jun 2020
201	1	0	01 Jan 2018	…	…	…	…
202…	1	0	01 Jan 2018	**Part 6**			
203…	1	0	01 Jan 2018	601	1	0	01 Jan 2018
204…	1	0	01 Jan 2018	602	1	0	01 Jan 2018
…	…	…	…	…	…	…	…

MOE **Issue 2, Revision 0,** dated **15 Jan 2021**
MOE internal review by the maintenance organisation:

Reviewed by: (Name & Position)	**Reviewed Date:**

MOE Approval (to be used only in cases of approval of changes not requiring prior approval):

Indirectly approved by: (Name, Position, and Signature of the approver)	**Approved Date:**

Example 2: The MOE is identified only by a revision number as explained in paragraph 2.6.1 of this GM.

Page Number	Revision Date	Revision Number	Page Number	Revision Date	Revision Number
Part 0			**Part 2L**		
001	15 Jun 2020	Rev. 2	L201	1 Jan 2018	Rev. 0
002	15 Jun 2020	Rev. 2	L202	30 Aug 2019	Rev. 1
Part 1			…	…	…
101	1 Jan 2018	Rev. 0	**Part 3**		
102	1 Jan 2018	Rev. 0	301	15 Jun 2020	Rev. 2
103	1 Jan 2018	Rev. 0	302	15 Jun 2020	Rev. 2
…	…	…	…	…	…
Part 2			**Part 4**		
201	1 Jan 2018	Rev. 0	401	15 Jun 2020	Rev. 2
202	1 Jan 2018	Rev. 0	402	15 Jun 2020	Rev. 2
203	1 Jan 2018	Rev. 0	…	…	…
204	30 Aug 2019	Rev. 1	**Part 5**		
205	1 Jan 2018	Rev. 0	501	1 Jan 2018	Rev. 0
206	1 Jan 2018	Rev. 0	…	…	…
207	1 Jan 2018	Rev. 0	**Part 6**		
208	30 Aug 2019	Rev. 1	601	30 Aug 2019	Rev. 1
209	30 Aug 2019	Rev. 1	60	30 Aug 2019	Rev. 1
210	30 Aug 2019	Rev. 1	603	15 Jun 2020	Rev. 2
…	…	…	…	…	…

MOE **Revision 2,** dated **15 Jun 2020**

MOE internal review by the maintenance organisation:

Reviewed by: (Name & Position)	**Reviewed Date:**

MOE Approval (to be used only in cases of approval of changes not requiring prior approval):

Indirectly approved by: (Name, Position, and Signature of the approver)	**Approved Date:**

Example 3: The MOE is identified only by a revision number and revision as explained in paragraph 2.6.1 of this GM.

Page Number	Revision Date Revision	Revision Number	Page Number	Revision Date	Revision Number
PART 0			211	1 Jan 2021	Rev. 5
001	1 Jan 2021	Rev. 5	212	1 Jan 2021	Rev. 5
002	1 Jan 2021	Rev. 5	213	1 Jan 2021	Rev. 5
003	1 Jan 2021	Rev. 5	214	1 Jan 2021	Rev. 5
004	1 Jan 2021	Rev. 5	215	1 Jan 2021	Rev. 5
005	1 Jan 2021	Rev. 5	216	1 Jan 2021	Rev. 5
006	1 Jan 2021	Rev. 5	217	1 Jan 2021	Rev. 5
…	…	…	…	…	…
PART 1			**PART 2L**		
101	1 Jan 2021	Rev. 5	L201	1 Jan 2021	Rev. 5
102	1 Jan 2021	Rev. 5	L202	1 Jan 2021	Rev. 5
103	1 Jan 2021	Rev. 5	L203	1 Jan 2021	Rev. 5
104	1 Jan 2021	Rev. 5	…	…	…
105	1 Jan 2021	Rev. 5	**PART 3**		
106	1 Jan 2021	Rev. 5	301	1 Jan 2021	Rev. 5
107	1 Jan 2021	Rev. 5	302	1 Jan 2021	Rev. 5
108	1 Jan 2021	Rev. 5	303	1 Jan 2021	Rev. 5
109	1 Jan 2021	Rev. 5	…	…	…
…	…	…	**PART 4**		
PART 2			401	1 Jan 2021	Rev. 5
201	1 Jan 2021	Rev. 5	402	1 Jan 2021	Rev. 5
202	1 Jan 2021	Rev. 5	…	…	…
203	1 Jan 2021	Rev. 5	**PART 5**		
204	1 Jan 2021	Rev. 5	401	1 Jan 2021	Rev. 5
205	1 Jan 2021	Rev. 5	402	1 Jan 2021	Rev. 5
206	1 Jan 2021	Rev. 5	…	…	…
207	1 Jan 2021	Rev. 5	**PART 6**		
208	1 Jan 2021	Rev. 5	601	1 Jan 2021	Rev. 5
209	1 Jan 2021	Rev. 5	602	1 Jan 2021	Rev. 5
210	1 Jan 2021	Rev. 5	…	…	…

MOE **Revision 5** dated **01 Jan 2021**
MOE internal review by the organisation:

reviewed by: (name & position)	**date:**

MOE Approval (to be used only in cases of approval of changes not requiring prior approval):

Indirectly approved by: (name, position and signature of the approving person)	**date:** 05 Feb 2021

0.3 List of Amendments

Following are examples of how the list of amendments can be shown.

Example 1: The MOE is identified by both an Issue number and a Revision number as explained in paragraph 2.6.1 of this GM.

Issue Number	Issue Date	Revision Number	Revision Date	Revision Type	Reason for Change
1	19 Dec 2006	0	19 Dec 2006	Initial	N/A
		1	01 Jan 2007	Minor	New procedure for cleaning
2	01 Jan 2018	0	01 Jan 2018	Major	Change of Compliance Monitoring Manager and extension of the A1 scope of approval

Example 2: The MOE is identified only by a revision number, as explained in paragraph 2.6.1 of this GM.

Revision Number	Revision Date	Revision Type	Reason for Change
0	19 Dec 2006	Initial	N/A
1	01 Jan 2007	Minor	New procedure for cleaning
2	01 Jan 2018	Major	Change of Compliance Monitoring Manager and extension of the A1 scope of approval

0.4 Distribution List

Example of distribution list

MOE Copy Number	MOE Holder	Format
Copy No. 1	Accountable Manager	Electronic
Copy No. 2	Engineering Director	Paper
Copy No. 3	Aircraft Maintenance Manager	Electronic
Copy No. 5	Workshop Maintenance Manager	Electronic
Copy No. 5	Quality Manager	Paper
Copy No. 6	Reserved	
Copy No. 7	Reserved	

If the MOE is made available in electronic format from a central server, no distribution list is required.

0.5 Definitions and Abbreviations

This MOE chapter is intended to list the definitions, abbreviations and acronyms in use within the MOE.

PART 1 GENERAL

1.1 Corporate Commitment by the Accountable Manager

Reference: 145.A.70(a)1, GM 145.A.70(a), 145.A.90(a)

This maintenance organisation exposition and any associated referenced manuals define the organisation and procedures upon which the TCAR Part 145 approval is based.

These procedures are approved by the undersigned and must be complied with, as applicable, when work orders are being progressed under the terms of the TCAR Part 145 approval.

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

It is understood that the approval of the maintenance organisation is based on the continuous compliance of the organisation with TCAR Part 145, and with the organisation's procedures described in this exposition. CAAT is entitled to suspend or revoke the approval if the organisation fails to fulfil the obligations imposed by Part 145 or any conditions according to which the approval was issued.

Signed: _____

Dated: _____

Accountable Manager: _____(quote name and position)_____

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

1.2 Safety Policy and Objectives

Reference: 145.A.30(a)2, 145.A.65(a), 145.A.70(a)2 (145.A.30(a)3, 145.A.200(a)2, AMC1 145.A.200(a)2, GM1 145.A.200(a)2

The safety policy and objectives must, as a minimum, include a statement committing that the organisation will:

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

The safety objectives should:

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

1.3 Management Personnel

Reference: 145.A.70(a)3, 145.A.30(a), AMC 145.A.30(a), 145.A.30(b)1, 145.A.30(b)2, 145.A.30(b)4, AMC 145.A.30(b), 145.A.30(f), AMC 145.A.30(f), 145. A.30. (c), 145.A.30. (ca), 145.A.30. (cb), 145. A.30. (cc), GM 145.A.10, AMC1 145.A.30(a), AMC1 145.A.30(b)

This MOE chapter should identify the maintenance management personnel of the organisation by listing, as minimum, the title and names of the Accountable Manager plus all the nominated persons. The group of Nominated Persons should be chosen or identified so that all the TCAR Part 145 functions are covered under their respective responsibilities and their credentials shall be submitted to CAAT as part of the MOE.

MOE chapter 1.3 must be consistent at all times with MOE chapters 1.4 and 1.5, and represent the up-to-date description of the maintenance management structure of the organisation, including the following positions:

- ☐ Accountable Manager
- ☐ Nominated Persons
- ☐ Deputy Nominated Personnel
- ☐ Managers (if applicable)
- ☐ Responsible Non-Destructive Test (NDT) Level 3* (if applicable)

Note:
* AMC1 145.A.30(f)(4) requires examinations related to NDT methods to be conducted by personnel or organisations under the general control of an NDT Board acceptable by CAAT. In order to consider this requirement met, the Responsible NDT Level 3 must demonstrate qualification from an organisation under the control of an NDT Board acceptable to CAAT, in at least one method in accordance with EN 4179.

The table below is an example of a maintenance organisation list of management personnel, where the name of the nominated persons must also be identified. Procedures must make clear who deputises for any particular person in the case of lengthy absence of the said person. This may be done by detailing the procedures to appoint a deputy nominated person or by identifying directly the person by name.

Management Personnel List	Management Personnel List of Deputies
Accountable Manager	Deputy Accountable Manager
List of Nominated Personnel: – Base Maintenance Manager – Line Maintenance Manager – Workshop Maintenance Manager – Compliance Monitoring Manager – Safety Manager	 – Deputy Base Maintenance Manager – Deputy Line Maintenance Manager – Deputy Workshop Maintenance Manager – Deputy Compliance Monitoring Manager – Deputy Safety Manager
List of Managers: – Auditing Manager – Occurrence Reporting Manager – Engineering Manager – Logistic Manager	N/A
NDT Level 3	N/A

For further guidance on management personnel classifications, refer to Guidance Material – Management Personnel (CAAT-AIR-GM-505).

1.4 Duties and Responsibilities of Management Personnel

Reference: 145.A.30(a)1, 145.A.30(a)2, 145.A.30. (c), 145.A.30. (ca), 145. A.30. (cb), 145.A.30.(cc), AMC1 145.A.10, AMC1 145.A.30(b), AMC1 145.A.30(c);(ca), AMC1 145.A.30(d), AMC1 145.A.30(f), AMC2 145.A.30(f), 145.A.35(i), 145.A.65(c)1, 145.A.200(a)6, AMC1 145.A.200(a)(6), AMC2 145.A.200(a)(6), AMC3 145.A.200(a)(6), AMC4 145.A.200(a)(6), 145.A.70(a)4, GM1 145. A.70(a), 145.A.90(b)

The duties and responsibilities of all management personnel identified in MOE chapter 1.3 must be detailed in this chapter. It must be ensured that all TCAR Part 145 functions are addressed, as applicable to the maintenance organisation.

Any TCAR Part 145 function must be under the responsibility of a Nominated Person, as listed in MOE chapter 1.3, who must ensure compliance of that function with the relevant TCAR Part 145 requirements. For example:

- to perform an independent audit
- to issue the Certifying Staff – Support Staff (C/S – S/S) individual authorisations
- to have available appropriate facilities, tools and equipment
- etc.

A Nominated Person can only delegate responsibilities to managers who directly report to them and are identified as a "Deputy Nominated Person" for the related function (e.g. Deputy Maintenance Manager).

MOE chapter 1.4 needs to be consistent, at all times, with MOE chapters 1.3 and 1.5 and must represent the up-to-date description of the maintenance management structure of the organisation.

For further guidance on management personnel classifications, refer to Guidance Material – Management Personnel (CAAT-AIR-GM-505).

1.4.1 Accountable Manager

The Accountable Manager is responsible for ensuring that maintenance carried out by the approved maintenance organisation meets the standards required by CAAT, and is responsible for:

- ☐ establishing and promoting the safety policy and objectives
- ☐ nominating the management staff
- ☐ ensuring that the necessary finance, manpower resources and facilities are available to enable the company to perform the maintenance to which it is committed for contracted operators and any additional work which may be undertaken
- ☐ supervising the progress of corrective actions
- ☐ reviewing the overall results in terms of quality
- ☐ ensuring that the competency of all personnel, including management personnel, has been assessed
- ☐ ensuring that any charges are paid, as prescribed by CAAT in accordance with the fees & charges regulation
- ☐ returning the approval to CAAT in cases of surrender or revocation

Any additional duties and responsibilities may be added provided that they do not conflict with those of the other management personnel. Depending upon the structure of the maintenance organisation some duties may be distributed differently.

In case the Accountable Manager is not the Chief Executive Officer (CEO), CAAT needs to be assured that direct access to the CEO and sufficiency of "maintenance funding" allocation is available.

1.4.2 Compliance Monitoring Manager

The Compliance Monitoring Manager must have direct access to the Accountable Manager on matters concerning the compliance monitoring system. The following is the minimum list of duties and responsibilities of the Compliance Monitoring Manager and may be amended as appropriate.

- ☐ Establishing an independent compliance monitoring system to monitor compliance of the maintenance organisation with CAAT requirements
- ☐ Implementing an independent audit program in which compliance with all maintenance procedures is reviewed at regular intervals in relation to each type of aircraft (or component) maintained. This includes the management and completion of audits and production of audit reports and ensuring any observed non-compliances or poor standards are brought to the attention of the person concerned
- ☐ Following-up and closure of any non-conformances
- ☐ Establishing regular meetings with the Accountable Manager to appraise the effectiveness of the compliance monitoring system. This should include details of any reported discrepancy not being adequately addressed by the relevant person or in respect of any

disagreement concerning the nature of a discrepancy

- ☐ Monitoring the amendment of the maintenance organisation's procedures and standard practices, and their compliance with the current revision of TCAR Part 145 as well as any other applicable regulatory requirements and guidance material issued by CAAT
- ☐ Submitting the MOE and any associated amendments to CAAT for approval, which includes completion of and submission of CAAT Form 2 or equivalent
- ☐ Assessing providers of materials, standard parts, components and contracted organisations for satisfactory product quality in relation to the needs of the maintenance organisation
- ☐ Assessing subcontractors working under the compliance monitoring system and maintaining the expertise necessary to be able to do so, to the satisfaction of CAAT
- ☐ Issuing/renewing/cancelling TCAR Part 145 C/S – S/S individual authorisations
- ☐ Coordinating action on airworthiness occurrences and initiating any necessary further investigations and follow-up activities
- ☐ Establishing feedback loops from maintenance incidents/issues and providing feedback into the continuation training program
- ☐ Accepting for temporary or occasional cases, base maintenance tasks (Airworthiness Directives (AD's), Service Bulletins (SB's)) to be performed by a line maintenance organisation
- ☐ Notifying CAAT, as applicable according to the procedures established in the MOE, of maintenance activities conducted outside the approved locations

It is important to note that the compliance monitoring system is required to be "independent" which normally means that the Compliance Monitoring Manager and the compliance monitoring staff are not directly involved in the TCAR Part 145 function being audited (maintenance process, maintenance certification, issue of authorisations, training, etc.).

In addition, depending upon the maintenance organisation structure, some of the compliance monitoring system duties may be delegated to one or several managers who report to the Compliance Monitoring Manager and are therefore not subject to CAAT nominated personnel requirements.

Following are examples of compliance monitoring system duties that could be delegated:

1.4.2.1 Occurrence Reporting Manager

- ☐ Establishing feedback loops from maintenance incidents/issues and providing feedback into the continuation training program.

1.4.2.2 Auditing Manager

- ☐ Implementing an independent audit program in which compliance with all maintenance procedures is reviewed at regular intervals in relation to each type of aircraft (or component) maintained. This includes the management and completion of audits and production of audit reports and ensuring any observed non-compliances or poor standards are brought to the attention of the person concerned
- ☐ Following up and closure of any non-conformances identified

1.4.3 Maintenance Manager (Aircraft Base Maintenance Manager, Aircraft Line Maintenance Manager and/or Workshop Maintenance Manager)

The Maintenance Manager must have direct access to the Accountable Manager on matters concerning maintenance activities. The following is the minimum list of duties and responsibilities of the Maintenance Manager and may be amended as appropriate, provided that they do not conflict with those of other management personnel.

- ☐ Ensuring the satisfactory completion and certification of all work required by contracted operators/customers in accordance with the work specification (work order and approved MOE procedures)
- ☐ Ensuring that the maintenance organisation's procedures and standards are complied with when carrying out maintenance
- ☐ Ensuring the competence of all personnel engaged in maintenance
- ☐ Establishing a program of training and continuation training using internal and/or external sources. This responsibility may also be under the Compliance Monitoring Manager
- ☐ Ensuring that any work for internal workshops or external contracted/subcontracted organisations are correctly detailed in a work order/contract and that the requirements of the work order/contract are fulfilled in respect of inspection
- ☐ Providing feedback to the compliance monitoring system about the services provided by contracted organisations and subcontractors
- ☐ Responding to safety and quality deficiencies in the area of responsibility, which arise from independent compliance monitoring audits
- ☐ Ensuring the quality of workmanship in the final product is to a standard acceptable to the maintenance organisation and CAAT
- ☐ Implementing the safety policy and objectives, including human factors principals
- ☐ ensuring the availability of facilities appropriate for the planned work, including hangars, workshops, office accommodation, stores, etc.
- ☐ Ensuring the availability of a working environment appropriate to the tasks being undertaken
- ☐ Ensuring the incoming inspection of components, parts, materials, tools and equipment, as well as that the related classification, segregation and storage is in accordance with the manufacturer’s recommendations
- ☐ Developing a production planning system appropriate to the amount and complexity of the maintenance scope of work
- ☐ Ensuring the availability of tools, equipment and materials to perform the planned tasks;
- ☐ Ensuring the availability of sufficient competent personnel to plan, perform, supervise, inspect and certify the work being performed
- ☐ Ensuring the availability of all necessary maintenance data
- ☐ Ensuring the recording and notifying of, to the author of the maintenance data, any inaccurate, incomplete or ambiguous procedures, practices, information or maintenance instructions contained in the maintenance data used by maintenance personnel
- ☐ Providing a common work card or worksheet system to be used throughout relevant parts of the maintenance organisation and ensuring such documents comply with TCAR Part 145, 145.A.45(e)
- ☐ Notifying the Accountable Manager whenever deficiencies emerge which require attention in respect of finance and the acceptability of standards
- ☐ Notifying the Accountable Manager and Compliance Monitoring Manager of any lack of 25% of available man-hours over a calendar month
- ☐ Supplying the necessary technical documents for customers
- ☐ Ensuring the storage of the maintenance organisation’s technical records

Depending upon the maintenance organisation structure, some of the maintenance duties may be delegated to one or several managers who report to the Maintenance Manager (may be Base Maintenance, Line Maintenance or Workshop Maintenance), and are therefore not subject to CAAT nominated personnel requirements.

1.4.2.3 Engineering Manager

- ☐ Ensuring the availability of all necessary maintenance data
- ☐ Supplying the necessary technical documents for customers
- ☐ Ensuring the storage of the maintenance organisation's technical record
- ☐ Recording and notifying, to the author of the maintenance data, any inaccurate, incomplete or ambiguous procedures, practices, information or maintenance instructions contained in the maintenance data used by maintenance personnel
- ☐ Providing a common work card or worksheet system to be used throughout relevant parts of the maintenance organisation and ensuring such documents comply with TCAR Part 145, 145.A.45(e)

1.4.2.4 Logistics Manager

- ☐ Performing the incoming inspection of components, parts, materials, tools and equipment, as well as that the related classification, segregation and storage is in accordance with the manufacturer's recommendations

1.4.4 Responsible NDT Level 3

The following is the minimum list of duties and responsibilities of the Responsible NDT Level 3 and may be amended as appropriate.

- ☐ Ensuring that the applicable NDT requirements (e.g. 145.A.30(e), EN4179 or NAS410) are met and acting on behalf of the employer in this area
- ☐ Developing the MOE 3.11 procedures related to the qualification of NDT staff
- ☐ Developing and approving the NDT manual for specific techniques within each method used within the maintenance organisation

Even though the Responsible NDT Level 3 does not directly report to the Accountable Manager, it is strongly recommended to identify that person in the MOE.

1.4.5 Safety Manager

The Safety Manager must have direct access to the Accountable Manager and appropriate senior and other management on matters concerning the Safety Management System (SMS). The following is the minimum list of duties and responsibilities of the Safety Manager and may be amended as appropriate.

The Safety Manager should not hold other positions or responsibilities that may conflict or impair the role as the Safety Manager. This should be a senior management position, not lower than the production or operational functions of the maintenance organisation.

- ☐ Conducting safety audits, surveys and inspections of any aspect of the operation in accordance with the procedures specified in the SMS documentation
- ☐ Defining the human factors principles to be implemented within the maintenance organisation
- ☐ Conducting investigations of internal safety events in accordance with the procedures specified in the MOE or SMS documentation
- ☐ Managing the SMS implementation plan on behalf of the Accountable Manager
- ☐ Performing and facilitating hazard identification and safety risk analysis
- ☐ Monitoring corrective actions and evaluating results
- ☐ Providing periodic reports on safety performance
- ☐ Maintaining SMS documentation and records
- ☐ Planning and facilitating staff safety training
- ☐ Providing independent advice on safety matters
- ☐ Monitoring safety concerns in the aviation industry and their perceived impact on the organisation's operations aimed at product and service delivery
- ☐ Coordinating and communicating, on behalf of the Accountable Manager with CAAT and other State authorities as necessary on issues relating to safety

1.5 Management Organisation Chart

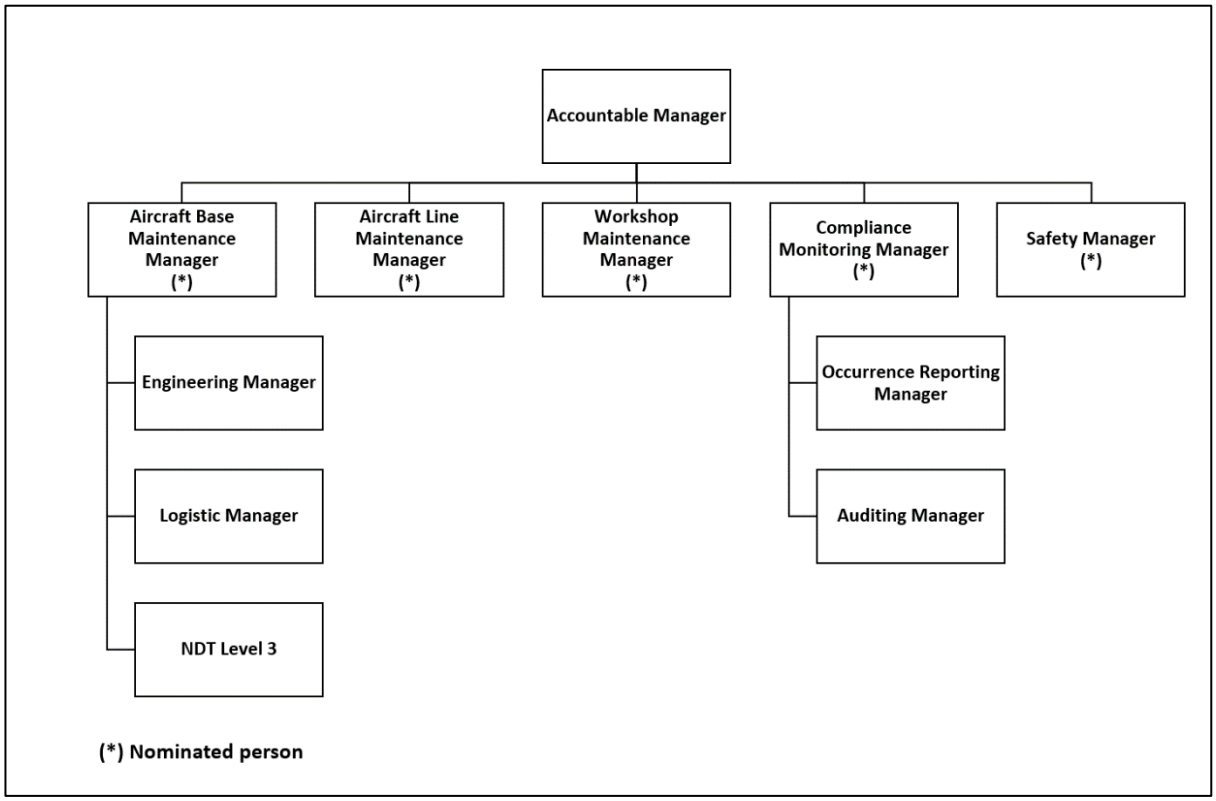
Reference: 145.A.70(a)5

The maintenance organisation chart must show the associated chains of responsibility of the Nominated Persons identified in MOE chapter 1.3. When other Managers are identified in MOE chapter 1.3 (e.g. Auditing Manager) they also need to be reflected in the maintenance organisation chart to show that they report ultimately through a Nominated Person to the Accountable Manager.

MOE chapter 1.5 needs to be consistent, at all times, with MOE chapters 1.3 and 1.4 and must represent the up-to-date description of the maintenance management structure of the organisation.

For further guidance on maintenance organisation structure, refer to Guidance Material – Management Personnel (CAAT-AIR-GM-505).

The following is an example of a TCAR Part 145 Approved Maintenance Organisation Structure.



Nominated Persons must be clearly identified in the chart. The names of the management personnel may be included in the boxes of the organisation chart but this is optional.

Compliance monitoring staff (e.g. Compliance Monitoring Auditor) must be shown to be independent from the Maintenance Managers.

Certifying staff may report to any of the managers specified, excluding the person responsible for the compliance monitoring system, to ensure the compliance monitoring staff remain independent.

1.6 List of Certifying staff and support staff

Reference: 145.A.30(g), 145.A.30(h)1, 145.A.30(h)2, 145.A.30(j)1, 145.A.30(j)2, 145.A.30(i), 145.A.35(a), AMC 145.A.30(g), AMC 145.A.30(h), 145.A.70(a)6, Appendix IV.

This MOE chapter should detail the list of certifying staff and its management in conjunction with MOE chapter 1.10 and 1.11.

1.6.1 Certifying Staff and Support Staff Categories and Scope

1.6.1.1 Categories of C/S and S/S

The procedure should define the privileges to be granted under the TCAR Part 145 approval for each C/S, S/S category.

- ☐ Aircraft base maintenance C/S (RCAB 77 Article 8.A.1)
- ☐ Aircraft base maintenance S/S (RCAB 77 Article 8.A.1, A.2, A.3)
- ☐ Aircraft line maintenance C/S:
  - Category RCAB 77 Article 8.A.1
  - List of tasks which may be authorised

When the maintenance organisation is making use of task trained C/S, the specific list of authorised tasks, as applicable to the scope of work, should be provided by means of an MOE procedure in this chapter. Refer to AMC1 145.A.30(g) for the typical tasks, examples of which are as follows:

- ☐ Engines C/S (CAAT Form 1)
- ☐ Components C/S (CAAT Form 1)
- ☐ Specialised Services (NDT) C/S (CAAT Form 1)

1.6.1.2 Scope of the National Licence by Comparison to CAAT Certifying Staff and Support Staff Categories (Applicable to foreign maintenance organisations)

- ☐ Scope of the national licence by comparison to CAAT RCAB 77 Article 8 A.1, A.2, A.3 categories for staff who do not hold an RCAB 77 Licence
- ☐ Summary (preferably in a table) of the privileges of the national license (associated limitations must be also recorded)
- ☐ Comparison (preferably in a table) of these national privileges with CAAT Aircraft Maintenance Engineer Licence (AMEL) privileges (associated limitations must be also considered)

For further guidance refer to TCAR Part 145 Appendix IV and ICAO Annex I checklist.

1.6.2 Content of the List

This list must include, at least, the following information, as applicable:

- ☐ Name/forename
- ☐ CAAT C/S category
- ☐ Identification of the S/S for base maintenance activities
- ☐ Functions
- ☐ Authorisation identification number
- ☐ Sample of the signature
- ☐ Date of the first issue of the authorisation
- ☐ Expiry date of the authorisation
- ☐ Scope/limitation of the authorisation

For aircraft C/S and S/S only;

- ☐ Aircraft maintenance license identification number
- ☐ Line and base maintenance C/S authorised under the protected rights as described in TCAR Part 145 Appendix IV, paragraph 2

1.6.3 Management of the List

This procedure should detail the following:

- ☐ Identification and management of the List
- ☐ Approval of lists in conjunction with MOE chapter 1.10 and 1.1
- ☐ Retention of records:
  - Duration/location
  - Type of documents (evidence)

A List may be directly inserted in this MOE chapter or managed as a separate associated list. However, it must be possible to cross-refer from this chapter 1.6 to another record, including a computer record, where the List is kept. An explanation of where the List is maintained and how it is updated should be included in this MOE paragraph.

The List, whether included with or separated from the basic MOE, is an integral part of the approval. This means that it should be approved directly by CAAT or by the maintenance organisation through a procedure previously approved by CAAT (refer to MOE chapter 1.10 and 1.11).

1.7 Manpower Resources

Reference: 145.A.70(a)7, 145.A.30(d)

The maintenance organisation must be able to demonstrate adequate manpower resources to support the entire scope of approval. The maintenance organisation should not declare a percentage of staff used but should indicate the number of staff needed to comply with TCAR Part 145 requirements.

There is no need to amend this chapter as result of routine fluctuations. However, any significant re-deployment or loss of staff or any staff change having an impact on the approval should be identified and notified to CAAT according to the criteria specified in the MOE chapter 1.10.

The number of staff declared in the MOE and the latest CAAT Form 2 submission should remain consistent. The following should be included in the MOE:

- ☐ Total staff number including breakdown into the various categories
- ☐ Summary table of the following is expected:
  - Management personnel
  - Technical S/S
  - Quality system staff
  - C/S
  - Base maintenance S/S
  - Maintenance technical staff other than C/S and S/S:
    - Store and purchasing department staff
    - Training staff
    - Contracted staff

For further guidance, refer to Guidance Material – Maintenance Organisation Staff Numbers (CAAT-AIR-GM-506).

1.8 General description of the facilities at each address intended to be approved

Reference: 145.A.70(a)8, 145.A.25(a)1, 145.A.25(a)2, AMC 145.A.25(a), 145.A.25(b), AMC 145.A.25(b), 145.A.25(c)1, 145.A.25(c)2, 145.A.25(c)3, 145.A.25(c)4, 145.A.25(c)5, 145.A.25(c)6, 145.A.75(d), 145.A.40(a)3, Appendix III

This MOE chapter should describe each of the facilities where the maintenance organisation intends to carry out maintenance. A clear diagram or picture of the facilities to be approved should be provided.

Either by way of a diagram or text, the following should be described for each facility:

- ☐ System of protection against weather, dust and other airborne contaminants (paint, smoke, etc.)
- ☐ Ground water protection
- ☐ Heating/air conditioning
- ☐ Lighting
- ☐ Noise protection
- ☐ Safety systems (limited accesses, fire, staff security, etc.)

1.8.1 Principal Place of Business (PPB)

- ☐ The PPB is the location where the principal maintenance functions are carried out and will be the address shown on the CAAT approval certificate.

1.8.2 Postal and E-mail Addresses

- ☐ The postal address of the maintenance organisation for formal mail communication with CAAT needs to be clearly identified.
- ☐ The e-mail address of the maintenance organisation should be a generic address.

1.8.3 Base Maintenance Facilities

- ☐ Hangar accommodation (Hangar facilities should be equipped with doors)
- ☐ Hangar layouts specifying the various allowed aircraft parking configurations, as applicable to the aircraft types included in the scope of approval
  - Maximum number of aircraft which can be accommodated at the same time for each facility, including any base and line maintenance activities.
  - Maximum number of aircraft which can undergo base maintenance at the same time.
  - Largest type of aircraft that can be accommodated.
- ☐ Aircraft access equipment/platforms/docking
- ☐ Specialised workshops
- ☐ Environmental provisions
- ☐ Office accommodation for planning, technical records, quality, technical reference area, storage, etc.

1.8.4 Line Maintenance Facilities at Each Location

☐ Hangar availability specified if rented or owned

It should be clearly stated if a hangar facility is not available at the location. The scope of work of the particular line station should not exceed the weekly check, and the inclusion of other minor scheduled maintenance tasks should be subject to assessment ensuring they can be safely carried out to the required standards.

1.8.5 Engines or APU and Component Maintenance Facilities

☐ Engines or APU and component maintenance facilities

1.8.6 Layout of Premises

☐ Where the accommodation is not owned by the maintenance organisation, as in the case of a hangar where space is rented or shared, proof of tenancy or access is required and should be included in an Appendix or associated document to the MOE.

☐ For line maintenance of aircraft, hangars may be required. In this case, the availability of a suitable hangar should be demonstrated, particularly in the case of inclement weather for minor scheduled work and lengthy defect rectification.

The hangar visit plan requirement is expected to be in MOE chapter 2.22, due to its relationship with the man-hour plan.

1.9 Maintenance Organisation Intended Scope of Work

Reference: 145.A.70(a)9, 145.A.10, AMC 145.A.10, GM 145.A.10, 145.A.20, AMC 145.A.20, 145.A.42(b)(3), AMC1 145.A.42(b)(iii), AMC 145.A.45(b), 145.A.75(a), 145.A.75(b), 145.A.75(c),145. A.75(d), 145.A.75(e), Appendix II, Appendix III

This MOE chapter must show the range of work carried out at each approved site. Where a maintenance organisation is performing maintenance in multiple locations, the corresponding scope of work should be detailed for each site. This should also relate to MOE chapter 1.8 and 5.3 in such a way that it can be clearly seen which specific tasks are performed at each location. Limitations to the scope of approval may apply in the case of small organisations.

1.9.1 Aircraft Maintenance

The following table is an example of the scope of aircraft maintenance.

Rating	Type Certificate Holder	Aircraft Type/Group	Limitation (Aircraft Model)	Maintenance Level (up to and including following)	Base	Line
A1	AIRBUS	Airbus A300 basic model (GE CF6)	A300 C4-203	Daily check		X
A1	AIRBUS	Airbus A300 basic model (PW JT9D)	A300 B2-320	Weekly check excluding defect rectification		X
A1	AIRBUS	Airbus A318/A319/A320/A321 (CFM56)	A318-111 A321-111 A321-212	750 FH/750 FC/ 4 months		X
A1	ATR-GIE Avions de Transport Régional	ATR 42- 400/500/72-212A (PWC PW120)	ATR 42-400 ATR 42-500	5000 FH/3000 FC/ 2 YRS	X	
A1	BOEING	Boeing 777- 200/300 (GE90)	777-200	112000 FH/30000 FC/12000 days	X	X
A1	BOEING	Boeing 737-300/400/500 (CFM56)	737-500	2A check		X
A1	BOEING	Boeing 767- 200/300 (PW 4000)	767-200	4C check	X	X
A2	BOEING	Boeing 767-200/300/400 (GE CF6)	767-200	Weekly checks		X
A2	LAVIA ARGENTINA S.A. (LAVIASA)	Piper PA-25 (Lycoming)	PA-25-235	100H/Annual check	X	
A3	AIRBUS HELICOPTERS	Eurocopter AS 355 (RR Corp 250)	AS355 E AS355 F1	Daily		X
A4	NIL	NIL	NIL	NIL		

Note:

- FH = Flight hours
- FC = Flight cycles
- YRS = Years
- Aircraft Type/Group Rating = Full aircraft type or group rating
- For example, for Airbus A321-212 aircraft, enter “Airbus A318/A319/A320/A321 (CFM56)”
- Limitation (Aircraft Model) = Only the models which are maintained
- Maintenance Level = Scope of maintenance activity agreed by CAAT:
    - The limitation relative to the maintenance checks/tasks should use the naming convention as referenced in the TC holder data (e.g. MRB/MPD).
    - In cases of unforeseen maintenance such as, but not limited to, major repairs and modifications that are not already described within this chapter, the maintenance organisation must contact CAAT.
    - The maintenance level is intended to specifically identify the maximum extent of routine maintenance allowed. Defect rectification, out of phase tasks, SB, deferred items, etc., are considered included in the line and/or base maintenance scope of work, subject to the decision-making process to be described in MOE chapter 2.28. A

maintenance organisation not intending to perform defect rectification should exclude this in MOE chapter 1.9.

- Limitations to unscheduled line maintenance or base maintenance capabilities should be stated (e.g. excluding structural repairs and excluding landing gear replacement).
- In the case of line maintenance, a clear definition is required of the line maintenance as applicable to the particular maintenance organisation, considering the regulatory limitations included in AMC1 145.A.10 and the actual capability held.

For further guidance, refer to the Guidance Material – Aircraft Maintenance (CAAT-AIR-GM-513).

1.9.2 Engine Maintenance

The following table is an example of the scope of engine maintenance.

Rating	Engine/APU Type	Limitation (Engine/APU Model)	Maintenance Level
B1	HONEYWELL TFE731-20 Series	TFE 731- 20AR TFE731-20BR	Modules turbine exchange
B1	GE CF6-80E1 Series	GE CF6-80E1A1 GE CF6-80E1A2	All Modules repair
B1	PWC 545 Series	PWC 545A PWC 545C	Repairs IAW CMM hot section inspection
B2	CONTINENTAL A-65 Series	A-65-14J A-65-3	O/H
B3	HONEYWELL 85 Series	85-115 Series 85-37 Series	Minor repair in accordance with CMM 49-XX-XX

Note:

For engines only, the following should be mentioned in this table:

- Engine Type = Engine type as listed in the engine TCDS
- Limitation = Engine models as listed in the engine TCDS. Only the models which are maintained by the maintenance organisation need to be listed.
- Maintenance Level = Scope of work agreed by CAAT. References to the relevant maintenance data must be made.
- When the maintenance performed under a B1 rating is limited to boroscope inspections, the MOE should specify the engine types associated with the boroscope technique limitation.

For APU only, the following shall be mentioned in this table:

- APU Type = Self explanatory
- Limitation = APU models as defined by the OEM. Only the models which are maintained by the maintenance organisation need to be listed.
- Maintenance level = Scope of work agreed by CAAT. References to the relevant maintenance data must be made.
- When the maintenance performed under a B3 rating is limited to boroscope inspections, the MOE should specify the APU types associated with the boroscope technique limitation.

1.9.3 Component Maintenance

This MOE paragraph should specify the component manufacturer or the particular component and/or cross refer to a referenced capability list. The part number, the level of work performed, and the CMM reference should be included.

Rating	ATA	Part Number	Designation	Manufacturer	Reference of the CMM	Level of Maintenance	Workshop
C1 Air Condition and Pressurisation	21						
C2 Auto Flight	22						
C3 Communication and Navigation	34						
C4 Doors and Hatches	52						
C5							
…							
C22							

Note:
For C rating, the following should be mentioned:

- Rating = Relevant class C rating
- ATA = ATA specification 2200 chapter
- Part Number, Designation and Manufacturer = Detailed reference number and designation of the component together with identification of the Manufacturer as per the CMM
- CMM = Reference of the component maintenance manual (or equivalent document)
- Level of Maintenance = Scope agreed by CAAT
- Workshop = Base maintenance shop where maintenance takes place

When a maintenance organisation is managing a separate capability list the information addressed above should be mentioned in this list. In this case, MOE chapter 1.9 should only address the rating. The ATA chapter number should refer to the capability list reference (see table below).

Rating	ATA Chapter	Part Number
C1 Air Condition and Pressurisation	21	Components in accordance with the capability list reference XXXX
C2 Auto Flight	22	
C3 Communication and Navigation	23-34	
C4 Door and Hatches	52	

The List, whether included with or separated from the basic MOE, is an integral part of the approval. This means that it should be approved directly by CAAT or by the maintenance organisation through a procedure previously approved by CAAT (refer to MOE chapter 1.10 and 1.11).

1.9.4 Specialised Services Maintenance

1.9.4.1 NDT with D1 Rating

When the maintenance organisation intends to perform NDT tasks and release tasks using a CAAT Form 1, a D1 rating is necessary. Under a D1 rating, the capability to perform maintenance is determined by the NDT method listed in the approved schedule, regardless of the specific aircraft, engine or component which is subject to the inspection method.

The following table is an example of the scope of NDT methods.

Rating	Limitation	Detail of Limitation
D1	Liquid penetrant (PT)	Techniques in accordance to the NDT Manual, reference XXXXX, approved by the Nominated NDT Level 3
	Magnetic particle (MT)	
	Eddy Current (ET)	
	Ultrasonic (UT)	
	Radiography (RT)	
	Thermography (IRT)	
	Shearography (ST)	

Note:
For D1 rating, the following should be mentioned:

- Rating = D1
- Limitation = NDT method to be quoted

1.9.4.2 NDT without D1 Rating ("in the course of maintenance")

Where the maintenance organisation intends to perform NDT tasks under another approved rating (e.g. as part of the maintenance carried out on aircraft under rating A1, engines under rating B1, or components under a C rating), the NDT tasks are considered to be done in the "course of maintenance".

- ☐ Where the maintenance organisation does not need to hold a D1 rating, the various NDT methods applied in the course of maintenance should be listed in this paragraph.
- ☐ Where the maintenance organisation holds a fixed NDT capability (e.g. personnel, facility, equipment) at different specific sites or workshops, this information has to be stated.
- ☐ The same requirements in place for being approved under the D1 rating remain applicable.

1.9.4.3 Other Specialised Activities

- ☐ Each specialised maintenance task, such as but not limited to, composite repairs*, painting, welding, machining, Non-destructive Inspection (NDI), should be detailed in this paragraph.
- ☐ Specialised services maintenance should be detailed for each approved site and workshop.

Specialised maintenance tasks may need to be carried out under specific conditions. For example, aircraft painting is considered to be a base maintenance task and, therefore, a base maintenance scope of approval is required in addition to listing such activity in this MOE chapter.

* For further guidance on how to develop the composite repair procedure, refer to Guidance Material – Composite Repair Workshop (CAAT-AIR-GM-514).

1.9.5 Maintenance Away from the Approved Locations as per TCAR Part 145, 145.A.75(c)

☐ If applicable, this paragraph should refer to circumstances where the maintenance organisation may perform works away from the approved locations, subject to the condition specified in MOE chapter 2.24: Specific Maintenance Procedures (for works away from the approved locations).

This privilege is approved based upon the ability of the compliance monitoring system to deal adequately with the TCAR Part 145 requirements. This ability, therefore, cannot be demonstrated at the time of the initial approval. In any case this procedure cannot be detailed in the MOE and, therefore, approved by CAAT before the first 2-year period has been completed.

1.9.6 Parts Fabrication

☐ If applicable, this paragraph should refer to circumstances where the maintenance organisation may fabricate parts in the course of maintenance, subject to the conditions specified in MOE chapter 2.9.

☐ The fabrication of a part is to be considered under an approved rating (e.g. as part of the maintenance carried out on aircraft under rating A1, engines under rating B1, and components under a C rating).

For further guidance, refer to the Guidance Material – Parts Fabrication (CAAT-AIR-GM-512).

1.9.7 Use of Maintenance Data Not Clearly Intended for the Rating Held

☐ AMC1 145.A.45(b) describes the typical maintenance data intended to be used depending upon the class rating approval held by the maintenance organisation.

This paragraph is optional and only intended to cover cases where CAAT agrees on the use of other maintenance data (e.g. an Ax rated maintenance organisation wishing to use engine or component maintenance data on-wing, a Bx rated maintenance organisation wishing to use component or aircraft maintenance data)

☐ Conditions for the use of maintenance data which is not clearly intended for the rating held by the maintenance organisation:

- Justification to CAAT on the need for this privilege
- Procedures to assess that the task is within the technical capability of the maintenance organisation (e.g. staff, tools, maintenance data, materials)
- Assessment of the need to develop maintenance instructions for the use of the particular maintenance data in order to record precisely the part of the maintenance task effectively carried out (e.g. a B1 rated maintenance organisation using the AMM will not take care of circuit breaker deactivation in the cockpit and should not record this task as being done by the maintenance organisation)
- Where applicable, procedures to liaise with the Ax rated maintenance organisation being responsible for some parts of the task, when a Cx or Bx maintenance organisation* are working on-wing (e.g. circuit breaker deactivation)
- Procedures entailing possible CRS limitations (e.g. leak test needed by the Ax maintenance organisation following a task carried out by the Cx or Bx maintenance organisation)
- Procedures to cover cases where the same maintenance task is available in different

maintenance data with different allowed defects. In such cases, the maintenance organisation can only use the particular maintenance data if it is clearly specified in the work order (e.g. a Bx must not use the AMM under its own decision, when the same task is available in Engine Maintenance Manual (EMM))

- Training needs for the use of maintenance data and in the particular maintenance environment (e.g. a Cx or Bx rated maintenance organisation working on-wing in an aircraft line or base maintenance environment)

Note: *The possibility for a Cx or Bx maintenance organisation to work on-wing using AMM data must be carefully assessed. Those maintenance organisations are clearly limited to work at component or engine level carried out on-wing, respectively. It is unreasonable and to be considered outside their scope of approval to perform AMM tasks which are clearly outside the particular component or engine capability.

For example, a Cx or Bx maintenance organisation must not perform any task in the cockpit, even if it is related to verifying the serviceability of the component or engine on which the maintenance organisation is working. They must not perform any deactivation task at aircraft level such as circuit breaker deactivation, etc.

1.10 Procedure for Changes Requiring Prior Approval by CAAT

Reference: 145.A.70(a)10, , 145.A.85, 145.A.15, AMC1 145.A.15, AMC2 145.A.15

The maintenance organisation must notify CAAT of any proposal to carry out any of the changes listed below before such changes take place.

The use of a table is recommended as per the example below, and should be customised as applicable to the scope of activity of the maintenance organisation.

Type of Change	Examples of Change	Documentation provided to CAAT
Address		
Change of organisation name		– CAAT Form 2 – Certificate of Incorporation – MOE – Associated documents as applicable
Change of postal address of the registered organisation without any change of the maintenance site		– MOE – Associated documents as applicable
Change to the locations or facilities of the maintenance organisation with or without amendment to the scope or capability	– PPB address change; – Address change of any maintenance site already approved; – Additional or cancellation of maintenance sites; – Modification, extension, reduction or re-organisation of an approved maintenance location. (e.g. Addition of working areas such as Hangar, office or workshop within the approved facility).	– CAAT Form 2 – Certificate of Incorporation in the case of PPB change – MOE – Associated documents as applicable
Expansion or transfer of offices/ storage facility layout		– MOE – Associated documents as applicable
Personnel		
Change of the Accountable Manager or Nominated Personnel identified in the MOE chapter 1.3	For guidance on when CAAT nominated personnel is required, refer to GM – Management Personnel (CAAT-AIR-GM-505)	– CAAT Form 2 – MOE – Associated documents as applicable
Reduction or increase of the staff numbers when the variation: – Is more than 10% of the total staff number declared in the MOE 1.7 or; and Is affecting the approval. Note: permanent and contracted staff shall be considered.	– Reduction of 11 staff when the staff to maintain the CAAT approval was 100. – All certifying staff for a certain aircraft type approved under RCAB 77 article 8.A1 rating leave the organisation.	– CAAT Form 2 – MOE – Associated documents as applicable – List of certifying staff
Capability		
Any change to the equipment, tools, materials that could affect the approval		– CAAT Form 2 – MOE – Associated documents as applicable

Type of Change	Examples of Change	Documentation provided to CAAT
Reduction or increase in the scope of work or scope of approval under an Ax rating	– Addition/removal of an Ax rating – Addition of a new aircraft to the Ax scope of approval – Extension of the scope of approval from line to base maintenance – Extension of the maintenance level check from daily to A check for an aircraft already included in the approval – Addition of an engine type associated with an A/C type/model inside an Ax rating already approved	– CAAT Form 2 – MOE – Associated documents as applicable
Reduction or increase in the scope of work or scope of approval under a Bx rating	– Addition/removal of a Bx rating; – Addition of a new engine type to the Bx scope of approval – Extension of the maintenance level check from repair to overhaul for an engine already included in the approval	– CAAT Form 2 – MOE – Associated documents as applicable
Reduction or increase in the scope of work or scope of approval under a Cx rating	Addition of a P/N to the accepted capability which requires a new Cx rating	– CAAT Form 2 – MOE – Associated documents as applicable – Capability list
Addition or cancellation to the approved/accepted capability list where the “C” rating is held and any additional component capability is of similar technology & within exiting ATA chapter capability (Refer to MOE chapter 1.9)		– CAAT Form 2 – MOE – Associated documents as applicable – Capability list
Addition to or cancellation of NDT methods under D1 rating		– CAAT Form 2 – MOE – Associated documents as applicable
Addition of any specialised services under any rating in the course of maintenance	– Addition of welding capability under any rating – Addition of painting capability under any rating – Addition of heat treatment capability – Addition of tap test	– CAAT Form 2 – MOE – Associated documents as applicable

Type of Change	Examples of Change	Documentation provided to CAAT
Procedures		
Any change to the procedures that could affect the approval		– CAAT Form 2 – MOE – Associated documents as applicable
Change to the MOE and its associated procedures/lists specified in the MOE 1.11 that do not affect the approval.	– C/S & S/S list – Capability list – List of contracted organisations; – List of subcontractors – Forms Manual – MOE typing errors	– MOE – Associated documents as applicable

In addition, this procedure should detail:

- ☐ When to notify the change. All changes need to be notified before being implemented
- ☐ Cases where an internal audit by the compliance monitoring function is required
- ☐ Who in the maintenance organisation is responsible for the notification

For further guidance, refer to Guidance Material - Completion of TCAR Part 145 Form 2 (CAAT-AIR-GM-504).

For an initial approval and change of approval applications, the maintenance organisation should carry out an internal audit in accordance with the MOE chapter 3.8: Compliance Monitoring, prior to the CAAT audit.

This internal audit should confirm that processes, areas, activities and personnel subject to the application have been reviewed showing satisfactory compliance with all applicable TCAR Part 145 requirements. The relevant audit report, together with a statement of compliance from the compliance monitoring manager, should be provided.

The requirement to have such an internal audit carried out as part of any application for change, should be addressed in a procedure under MOE chapter 1.10.

1.11 Procedures for Exposition Amendments and Changes Not Requiring Prior Approval by CAAT
Reference: 145.A.70(a)11, 145.A.70(a)12, GM 145.A.70(a), 145.A.70(b), 145.A.70(c), 145.A.85, 145.A.65, AMC 145.A.65(2), Appendix III

The Compliance Monitoring Manager is responsible for reviewing the MOE on a regular basis and amending it, if necessary. This includes the associated procedures manuals and the submission of proposed amendments.

The MOE and associated documents and lists should be amended as necessary to remain an up-to-date description of the maintenance organisation.

In cases where the maintenance organisation temporarily does not hold all the necessary tools, equipment, materials, maintenance data, etc., CAAT must be informed to determine if a need exists to amend the approval, or if it may be maintained subject to further conditions.

1.11.1 MOE Amendment

The MOE amendment procedure should include:

- ☐ Person responsible for amending the MOE
- ☐ Definition of minor and major amendments and related approval processes
- ☐ Definition of criteria for new issue and/or revisions, depending upon the MOE revision system numbering adopted
- ☐ Process for recording and record of revisions:
  - TCAR Part 145 approval certificate and subsequent amendments, including scope of activity, change of locations, etc.
  - MOE approval and subsequent amendments
  - Approval letter from CAAT as applicable

1.11.2 Associated Procedures, Lists and Forms

The associated procedures, lists and forms to be considered are all those identified in AMC1 145.A.70(a). This is an integral part of the MOE.

In addition, the MOE together with the associated procedures should cover all aspects of maintenance activities, including the provision and control of specialised services and detail the standards to which the maintenance organisation intends to work.

- ☐ Definition of criteria for new issue or revision
- ☐ Summary table of associated procedures, lists and forms

The following table is an example of the associated procedures and lists which should be listed as a minimum.

Type of Document	Document Reference	Indirect Approval (Yes/No)	Approved by
Associated Procedures Manual			
C/S – S/S list			
Workshop capability list			
List of Subcontractors			
List of Line Maintenance Locations			
NDT Manual			

Note:

- Document Reference = Enter a unique identification for each document
- Approved by = Enter the tile of the nominated person in charge for an indirect approval
- Associated Procedures Manual = When the maintenance organisation develops second level procedures, for example to describe the details of maintenance processes in each area/workshop, those procedures should be collected into a separate manual.

1.11.3 Approval Process

- ☐ Changes requiring prior approval (direct approval):
  - The process followed to obtain the approval from CAAT
  - How safety risk assessments are conducted and how results are communicated to CAAT

- ☐ Changes not requiring prior approval (indirect approval):
  - List of documents, for which a privilege is granted, should be listed in the table in MOE paragraph 1.11.2
  - For each of the above-mentioned documents, the procedure should at least include:
    - Definition of minor and major amendments
    - In particular, the limits of changes that can be indirectly approved for each document should be limited to minor amendments, and may be directly identified in the table in MOE paragraph 1.11.2
    - Person responsible for the internal approval of the related documents, and may be directly identified in the table in MOE paragraph 1.11.2
    - Notification of such approval to CAAT
    - How safety risk assessments are conducted and how the maintenance organisation manages the risks related to the changes
    - Record of such changes not requiring prior approval (Indirect approval)

In cases of a minor amendment to the MOE, associated procedures and lists, delegation may be made to the Compliance Monitoring Manager for changes not requiring prior approval, provided that the appropriate procedure is listed in MOE chapter 1.11 and approved by CAAT.

Such a delegation is to be based upon the ability of the compliance monitoring system to deal adequately with the TCAR Part 145 requirements. Therefore, this ability cannot be demonstrated at the time of the initial approval. Consequently, a change not requiring prior approval procedure cannot be detailed in the MOE before the first 2-year period has been completed.

After this 2-year period the maintenance organisation must demonstrate its ability to manage the compliance monitoring system in order to be eligible for such a privilege. In any case, CAAT must continue to receive a copy of all such minor changes when indirectly approved.

1.11.4 Amendment Control of Applicable Regulations and GMs

The compliance monitoring function is responsible for assessing any revision to the applicable regulations and GMs for impact on the maintenance organisation's procedures and lists. Traceable evidence must be in place to record implementation of this process, and to be confident that procedures and lists comply with any applicable requirement.

- ☐ Description of the process in place to:
  - control amendments of the applicable regulations and GMs,
  - assess their impact on procedures and lists and,
  - where applicable, revise those procedures and lists within any established entry into force date.
- ☐ List the applicable regulations and GMs, together with their revision status, which have been considered for the development of the current revision of the MOE and associated procedures and lists.

PART 2 MAINTENANCE PROCEDURE

2.1 Supplier Evaluation and Subcontract Control Procedure

Reference: 145.A.42(b)(1)/(2)/(3i), GM2 145.A.42(b)(1), GM3 145.A.42(b)(1),145. A.75(b), AMC1 145.A.75(b), GM1 145.A.75(b), 145.A.200(a)3, 145.A.205, GM1 145.A.200(a)3 & GM1 145.A.205

2.1.1 Types of Provider

The following definitions are used in this Part:

Providers - Any source of components, materials, and maintenance services external to the maintenance organisation. A provider may fall into one of the following categories:

- Supplier
- Contracted organisation
- Subcontracted organisation

Suppliers – Any source providing components, standard parts or materials to be used for maintenance. Possible sources could be: TCAR Part 145 organisations, operators, distributors, brokers, aircraft owners, etc. This excludes suppliers of tools and tool calibrations services, which should be described in MOE chapter 2.4. The list of suppliers must be managed under the control of the Compliance Monitoring Department.

Contracted organisation – TCAR Part 145 maintenance organisation that carries out maintenance under its own approval for another approved maintenance organisation. The list of contracted organisations should be included in MOE chapter 5.4.

Subcontracted organisation – An organisation, not itself approved to TCAR Part 145, that carries out:

- Aircraft line maintenance
- Minor engine maintenance;
- Maintenance of other aircraft components
- Specialised service as a subcontractor

for an organisation approved under TCAR Part145, 145.A.75(d). The list of subcontracted organisations should be included in MOE chapter 5.2.

☐ Definition of suppliers of materials, standard parts, & components:
  - Sources of supplies (e.g. constructor, original manufacturer (OEM), distributor approved by the manufacturer, retailer, airline)
  - Types of supplies (e.g. components, consumables, standards, materials, ingredients)

☐ Definition of contracted organisations:
  - Sources of services (e.g. TCAR Part 145 approved maintenance organisations and related approved ratings)
  - Types of services (e.g. specialised work, line maintenance, component maintenance)

☐ Definition of subcontracted organisations:
  - Sources of services (non-TCAR Part 145 approved organisations and related qualifications)
  - Types of services (e.g. specialised work, line maintenance, component maintenance)

2.1.2 Monitoring the Suppliers

Supplier evaluation may depend upon different factors, such as:

- Type of component
- Whether or not the supplier is the manufacturer of the component, the TC holder or a maintenance organisation
- Specific circumstances such as aircraft on ground

This evaluation may be a questionnaire from the maintenance organisation to its suppliers, a desktop evaluation of the supplier's procedures, or an on-site audit, as deemed necessary.

- ☐ Initial approval of each type of supplier:
  - Selection process
  - Internal acceptance process
  - Issuance of the internal authorisations (e.g. scope of authorisation, validity)
  - Establishing the list of suppliers, contracted organisations and subcontractors
  - Internal distribution of the list – access/authorisation of the list
- ☐ Monitoring of the lists of each type of supplier compared to internal authorisations:
  - The list of suppliers should be managed by the Compliance Monitoring Department
  - Incoming inspection results, audit results, possible internal limitations etc.
  - Assessment of the services provided
  - Updating of the lists
  - Withdrawal of the internal authorisations, where applicable
- ☐ Management of purchase orders according to approved suppliers
- ☐ Records of supplier information:
  - Files
  - Duration/location
  - Type of documents (e.g. certificates, audit reports, incoming inspection results)

2.1.3 Monitoring Contracted Organisations

A process similar to the case of monitoring suppliers may be adopted.

- ☐ Initial approval of each contracted organisation
- ☐ Hazard identification and risk management of contracted activities
- ☐ Monitoring of the lists of each type of contracted organisation compared to internal authorisations, refer to MOE chapter 5.4
- ☐ Management of purchase orders according to the approved contracted organisation
- ☐ Coordination and reporting lines between the maintenance organisation and the contracted organisation
- ☐ Records of contracted organisations information

2.1.4 Monitoring Subcontractors

- ☐ Initial approval of each subcontractor:
  - Pre-audit before approval and inclusion in the internal audit plan
  - Hazard identification and risk management of subcontracted activities
  - Approved maintenance organisation expertise and procedures to control the subcontractor
  - Supervision of the inspection and release from the sub-contractor
  - Contract must allow CAAT access to the sub-contractor

- ☐ Monitoring of the lists of each type of subcontractor compared to internal authorisations, refer to MOE chapter 5.2
- ☐ Management of the purchase orders according to the approved subcontractors
- ☐ Coordination and reporting lines between the maintenance organisation and the subcontracted organisations, including compliance monitoring audits
- ☐ Records of subcontractor information

2.2 Acceptance/Inspection of Aircraft Components and Materials from Outside Contractors

Reference: 145.A.42(a)(1)/(2)/(3)/(4)/(5), 145.A.42(b)(1)/(2)/(3)/(3), AMC1 145.A.42(a)(1), GM1 145.A.42(a)(2), AMC1 145.A.42(a)(3), AMC1 145.A.42(a)(4), AMC2 145.A.42(a)(4), AMC1 145.A.42(a)(5), AMC1 145.A.42(b)(1), GM1 145.A.42(b)(1), GM1 145.A.42(b)(2)

This MOE chapter should describe the procedures for receiving components, parts, and materials from outside the maintenance organisation, such as from suppliers, contracted organisations, etc.

2.2.1 Classification and Definitions

- ☐ Serviceable components
- ☐ Unserviceable components
- ☐ Standard parts
- ☐ Raw and Consumable materials
- ☐ Unsalvageable components

2.2.2 Component/Material Certification

This paragraph should describe the release documents to be expected or accepted for each type of part or material depending upon their status (new or used). It is recommended to develop a table listing all the cases as shown in the example below.

☐ New Parts

Status "NEW"	
Type of Part or Material	**Expected Documents**
Standard parts Materials	**Option 1:** When the part or material is purchased directly from the manufacturer, the Certificate of Conformity (CoC) issued by the manufacturer is expected; **Option 2:** When the part or material is purchased through a third-party supplier (e.g. distributor, operator, maintenance organisation), the accompanying documentation must contain: – Conformity certification to the part or material applicable standard or specification – identification of the manufacturing source – Identification of the supplier source Option 2 information may be included in one single CoC, issued by the supplier containing cross references to the manufacturer CoC. It may also be satisfied by more documents, such as the CoC issued by the manufacturer plus a statement from the supplier source. For both options, the manufacturer CoC must be made available upon request.
Aircraft parts	CAAT Form 1 or one of the following equivalent authorised release certificates: – EASA Form 1 – FAA Form 8130-3 – TCCA Form 1 or TCCA 24-0078 – ANAC Form F-100-01 or ANAC form SEGVÔO 003 – UK CAA Form 1 issued in accordance with applicable production standards and certifying that the parts have been manufactured in conformity to approved design data and are in a condition for safe operation. For new parts designed and manufactured in the United States of America under the Part Manufacturer Approval (PMA), FAA Form 8130-3 will be considered as equivalent only if it is a non-critical component. A statement that the part is a non-critical component must be contained in the "Remarks" Block of the authorised release certificate.

☐ Used Parts

Status "USED"	
Type of Part or material	**Expected Documents**
Aircraft parts	CAAT Form 1 or equivalent: – An authorised release certificate issued by an organisation under the terms of a bilateral agreement signed by CAAT. – An authorised release certificate equivalent to CAAT Form 1 as follows: • EASA Form 1 • FAA Form 8130-3 under bilateral agreement conditions: EASA Part 145.A.50 release to service (dual release) • TCCA Form 1 or TCCA 24-0078 under bilateral agreement conditions: EASA Part 145.A.50 release to service (dual release) • ANAC Form F-100-01 or ANAC form SEGVÔO 003 under bilateral agreement conditions: EASA Part 145.A.50 release to service (dual release) • UK CAA Form 1 under bilateral agreement conditions: EASA Part 145.A.50 release to service (dual release)

In addition, the maintenance organisation should describe the specific requirements applicable to PMA parts, life limited parts, used parts, etc.

2.2.3 Receiving Inspection Procedures

☐ Components, Materials and Standard Parts received from external sources

The procedures for acceptance of components, standard parts and materials should have the objective of ensuring that they are in satisfactory condition and meet the maintenance organisation's requirements. These procedures should be based upon incoming inspections.

☐ Physical inspection of components, standard parts and materials should verify the following:
- Accompanying documentation should contain the applicable specification or standard, part number, batch number, supplied quantity, and the manufacturing sources
- General condition of components and their packaging in relation to damages that could affect integrity
- Shelf life of the component has not expired
- Items are received in the appropriate package in respect of the type of component, e.g. correct ATA 300 or electrostatic sensitive devices packaging, when necessary
- Components have all plugs and caps appropriately installed to prevent damage or internal contamination. Care should be taken when tape is used to cover electrical connections, fluid fittings or openings because adhesive residues can insulate electrical connections and contaminate hydraulic or fuel units
- Materials or standard parts received in batches should be supplied in a package. The packaging should state the applicable specification or standard, part number, batch

number and the quantity of the items. If the material is acquired from different batches, acceptance documentation for each batch should be provided

- ☐ Review of accompanying documentation and data:
  - Compliance with order or condition
  - Conformity with company requirements (e.g. type of release requested, sources)
- ☐ Identification of parts or material after receiving inspection (e.g. tag)
- ☐ Traceability of parts or materials to the related documentation (e.g. internal tracking number)
- ☐ Receiving inspection records
- ☐ Quarantine procedures
- ☐ Modification standard and AD compliance
- ☐ Identification of storage limitation or life limits
- ☐ Components received in Aircraft-on-Ground (AOG). These parts are normally received directly at the AOG location and dedicated procedures need to be in place.
- ☐ Receiving inspection of components from internal sources (e.g. transfer between stores, from the workshops):
  - Conformity with company requirements
  - Records
  - Required documentation
  - Compliance with order, conditions
  - Quarantine procedures
  - Identification of storage limitation or life limits
  - Internally fabricated parts
  - Components removed serviceable from aircraft
- ☐ Procedures for treatment of a suspected unapproved part (bogus part):
  - Identification
  - Records
  - Notification to CAAT
  - Forms used (refer to MOE chapter 2.18)

2.2.4 Installation of Components, Standard Parts and Materials

- ☐ Procedures for verification of components, standard parts and materials prior to installation

Components, standard parts and materials should only be fitted when specified in the applicable maintenance data. This could include an Illustrated Parts Catalogue (IPC), SB, AMM, etc.

This check should ensure that the part number, modification status, limitations, etc., of the component, standard part or material are the ones specified in the applicable maintenance data of the particular aircraft or component (e.g. IPC, SB, AMM, CMM) where it is going to be installed.

The maintenance organisation should establish procedures to ensure that this check is performed before installation, including:

- ☐ Verification that the applicable maintenance data specifies the particular component, standard part or material
- ☐ verification of satisfactory condition and appropriate documentation for installation
- ☐ verification that a component is eligible to be fitted when a different modification and/or AD configuration may be applicable

- ☐ verification prior to installation of standard parts on an aircraft or component (e.g. traceability, applicable standard as per maintenance data requirement)
- ☐ verification prior to use of any raw or consumable material on an aircraft or component (e.g. due dates, applicable specification as per maintenance data requirement)

2.3 Storage, Tagging and Release of Aircraft Components and Materials to Aircraft Maintenance

Reference: 145.A.25(d), AMC 145.A.25(d), 145.A.42(a), AMC1 145.A.42(a)(1), GM1 145.A.42(a)(2), AMC1 145.A.42(a)(3), AMC1 145.A.42(a)(4), AMC2 145.A.42(a)(4), AMC1 145.A.42(a)(5), 145.A.42(c), AMC1 145.A.42(c), GM1 145.A.42(c)(1)

2.3.1 Storage Procedures

- ☐ Procedures for maintaining satisfactory storage conditions according to manufacturer's recommendations for:
  - aircraft components
  - consumables and raw materials
  - Special storage requirements (conditions and limitations) e.g. ESD sensitive devices, rubber
  - Flammable fluids
  - Engines
  - Bulky assemblies
  - Record of position in the stores
- ☐ Segregation between serviceable, unserviceable and unsalvageable

Unserviceable components should be identified and stored in a secure location under the control of the maintenance organisation until a decision is made on their future status.

- ☐ Systems and procedures to control shelf life, life limits and modification standards.
- ☐ Access to storage facilities restricted to authorised personnel

2.3.2 Tagging

- ☐ Procedures for tagging and labelling of components, standard parts and materials:
  - Serviceable components
  - Unserviceable components

The unserviceable status of a component should be clearly stated on a tag together with the component identification data and any information useful to define actions necessary to be taken. Such information should state, as applicable, in-service times, maintenance status, preservation status, failures, defects or malfunctions reported or detected, exposure to adverse environmental conditions, and if the component was installed on an aircraft involved in an accident or incident. Means should be provided to prevent unintentional separation of this tag from the component.

  - Standard parts
  - Raw and Consumable materials
  - Unsalvageable components
  - Mutilation before disposal

Mutilation should be accomplished in such a manner that the components become permanently unusable for their original intended use. Mutilated components should not be able to be reworked or camouflaged to provide the appearance of being serviceable, such as by re-plating, shortening and rethreading long bolts, welding, straightening, machining, cleaning, polishing or repainting.

When, in agreement, with the component owner, the component is disposed of for legitimate non-flight uses, such as training and education aids, research and development, or for non-aviation applications, mutilation may not be appropriate. In such cases, the component may be marked indicating that it is unsalvageable, or the original part number or data plate information can be removed or a record kept of the disposal of the component.

- Records of certified life-limited or other critical components scrapped/mutilated and information provided to original manufacturer
- Quarantine

2.3.3 Release to the Maintenance Process

The release documents expected for components, standard parts and materials are described in MOE chapter 2.2.

☐ Issue of components, standard parts and materials, to the maintenance process (control, identification and batch segregation)

2.4 Acceptance of Tools and Equipment

Reference: 145.A.40(a)1, AMC 145.A.40(a), 145.A.40(b), AMC 145.A.40(b)

This MOE chapter should describe procedures for the acceptance of new, maintained, modified, calibrated tools/equipment and also lent/hired tooling.

☐ Tools and equipment acceptance procedures:
- Sources
- Conformity with company requirements (e.g. certification)
- Records

☐ Incoming inspection for tools:
- Required documentation
- Compliance with orders/conditions
- Quarantine procedures
- Internal identification
- Verification of necessary controls/calibration

☐ Monitoring of tool service providers:
- Selection process
- Internal authorisation process
- Monitoring of the internal authorisations (e.g. scope of authorisation, validity)
- Withdrawal of an internal authorisation
- List of tool service providers

A list of tool service providers (inspection, servicing and calibration) must be established, and:

– is not considered an MOE associated list and can be managed under the direct control of Compliance Monitoring Department.

- should be kept separately from the list of suppliers of materials, standard parts and components used in the maintenance process, as described in MOE chapter 2.1. However, the two lists may be also combined provided that the definitions given in MOE chapter 2.1 for suppliers also include the additional case of tool service providers.

For further guidance, refer to the Guidance Material – Management Tools & Equipment (CAAT-AIR-GM-511).

2.5 Calibration of Tools and Equipment

Reference: 145.A.40(b), AMC 145.A.40(b)

This MOE chapter should describe all the procedures related to the controls, revisions, modifications, checking and calibration of tools and equipment, including:

- ☐ Inspection, servicing and calibration program; equipment and calibrated tool register
- ☐ Establishment of inspection, servicing and calibration time periods and frequencies
- ☐ Person/department responsible for the calibration program, the register, the follow-up, time period and frequencies (link between departments if necessary)
- ☐ Identification of servicing/calibration due dates
- ☐ Management of personal or loaned calibrated tools
- ☐ Procedure for tools found out of tolerance during calibration (feedback to production, safety assessment, process to identify affected components/products and to inform the customer/operator for further actions in case of safety concerns, etc.).

For further guidance, refer to the Guidance Material – Management Tools and Equipment (CAAT-AIR-GM-511).

2.6 Use of Tooling and Equipment by Staff (including alternative tools)

Reference: 145.A.40(a)1, 145.A.40(a)2, AMC 145.A.40(a), 145.A.40(b), AMC 145.A.40(b), AMC 145.A.45(d)

- ☐ Distribution of tools:
  - Record of user
  - Location of use
- ☐ Determining tool serviceability prior to issue
- ☐ Training and control of personnel in the use of tools and equipment (records of training)
- ☐ Personal (own) instruments/tools control
- ☐ Loan tool control and audit
- ☐ Control of alternative tools:
  - Demonstration of equivalence between design/manufacturing data of alternative tools and the data/features of the tools recommended in the maintenance data of the manufacturers
  - In-house identification rule of alternative tools (e.g. P/N, S/N)
  - Alternative tools validation process
  - Register of alternative tools, tagging and relationship between the references of original tools and alternative tools.
  - Treatment of possible changes of maintenance data according to the new references of alternative tooling (e.g. modifications limited to the references of the tooling to be used or adaptation of maintenance data regarding alternative tooling)

- Use, storage and maintenance manuals according to the need
- In-house approval of each alternative tooling before servicing
- Storage of the records of alternative tooling

For further guidance, refer to the Guidance Material – Management Tools and Equipment (CAAT-AIR-GM-511).

2.7 Cleanliness Standards of Maintenance Facilities

Reference: 145.A.25(d), AMC 145.A.25(d), AMC 145.A.47(a)

☐ Organisation of the cleaning of the facilities:
- Foreign Object exclusion program
- Cleaning program
- Individual responsibilities
- Timescales
- Waste material disposal
- Special procedure for some facilities (e.g. painting, white room, parts cleaning)
- Segregation of facilities to prevent cross contamination

2.8 Maintenance Instructions and Relationship to Aircraft & Aircraft Component Manufacturer's Instructions, including Updating and Availability to Staff

Reference: 145.A.45.(a), 145.A.45.(b)1, 145.A.45.(b)2, 145.A.45.(b)3, 145.A.45(b)4, 145.A.45(b)5, 145.A.45(c), 145.A.45(d), 145.A.45(e), 145.A.45(f), 145.A.45(g), AMC1 145.A.45(b), AMC1 145.A.45(c) AMC1 145.A.45(d), AMC1 145.A.45(e), AMC1 145.A.45(f), AMC1 145.A.45(g)

This MOE chapter should describe the management of all the technical documentation in use within the maintenance organisation.

It should clearly identify the various types of documentation in use (external or internal origin), to be controlled by the maintenance organisation, in order to perform the intended scope of work. The documentation may be divided in two main groups identified in the paragraphs below.

2.8.1 Maintenance Data Coming from External Sources

This MOE paragraph should identify the applicable maintenance data in use coming from external sources such as TC holders, STC holders and regulatory authorities (instructions for continued airworthiness, AD, SB, etc.).

☐ Control of Maintenance data obtained directly from the author (ADs, SBs, SIL, CMM, AMM, ESM, etc.):
- Subscriptions control
- Technical library
- Issue and amendment control

☐ Control of customer supplied maintenance data

☐ Procedures to ensure all applicable maintenance data is readily available for use when required by maintenance personnel

In the case of an Initial Issue or Change of a maintenance organisation approval for Cx ratings, the maintenance organisation should demonstrate having direct access to the TCH or OEM maintenance data. This means:

a) the maintenance organisation has a subscription for the maintenance data directly with the TC holder or OEM; or
b) In the case of operator provided data, the maintenance has direct access to the TC holder or OEM to verify the revision status of the documentation provided by the customer (e.g. typical example would be that the TC holder or OEM provides this information freely available in its website). In addition, the conditions specified below apply:
    1. A contract should be in place detailing the responsibilities for ensuring the availability and update of the maintenance data from the operator and formal authorisation for the use of such data.
    2. The maintenance data is available at the time of the audit by CAAT.
    3. MOE chapter 1.9 is limited as necessary (to the specific operator) and a notification is made according to MOE chapter 1.10 when the contact is terminated/cancelled as this may affect directly the approval.

2.8.2 Documentation and Maintenance Instructions Issued by the Maintenance Organisation

This procedure should describe the various types of maintenance instructions, which may be developed by the maintenance organisation originating from the maintenance data (e.g. AMM, CMM).

MOE chapter 2.13 should describe the templates and their use in the maintenance process, while MOE chapter 2.8 is intended to cover the procedure on how to ensure that maintenance data is correctly transcribed into work instructions. Specific instructions from manufacturer maintenance data related to Critical Design Configuration Control Limitations (CDCCL) should be considered.

- ☐ Modification of maintenance instructions by the maintenance organisation, if applicable
- ☐ Maintenance instructions issued in conformity with approved data in order to facilitate or customise the maintenance (work card or work sheet, engineering orders, technical specifications, etc.) as applicable:
    - Paper or computer-generated work cards and related amendment controls
    - Qualification requirements for staff involved in the preparation or approval of work cards or work sheets, etc.
    - Incorporation of best practices and human factors principles:
        - complex tasks subdivided into clear stages to allow the recording of what was actually accomplished by each individual
        - differentiation of disassembly, accomplishment, reassembly, testing tasks
        - compliance and traceability with Fuel Tank Safety (FTS) or CDCCL instructions
- ☐ Documentation issued for internal information purposes (e.g. quality information bulletins, quality alerts, occurrence investigation reports) as applicable:
    - Procedures to ensure awareness by staff
- ☐ Control of information:
    - Technical library
    - Issue or amendment controls.

2.9 Repair Procedures

Reference: 145.A.42(b)(iii) , AMC1 145.A.42(b)(iii) , 145.A.45(a), 145.A.48(d), AMC 145.A.50

2.9.1 Repairs

This MOE chapter describes how the maintenance organisation is performing repairs on aircraft, components and engines according to already available maintenance data and how it is managing repairs not described in the manufacturers' documentation.

The privilege given to develop modified maintenance instructions as described in MOE chapter 2.8, excludes the engineering design of repairs and modifications.

- ☐ Repairs according to already available maintenance data:
  - Repairs in accordance with AMM, SRM, CMM or other maintenance data published by the TC holder, STC holder, etc.
  - Internal processes in use and forms to manage the repairs
- ☐ Repairs requiring a new approval (not already included in the available maintenance data):
  - Repairs in accordance with new maintenance data issued by the TC holder, STC holder, etc.
  - Acceptance of minor or major repair approvals. It is recommended to develop a table listing the various cases
  - Work orders
  - Internal processes in use and forms to manage the repairs
  - Maintenance instructions (job cards, etc.)
- ☐ Control of the scope of work versus the requested repair (limitations and conditions)
- ☐ Acceptance of standard changes and standard repairs, if applicable to the scope of work

2.9.2 Fabrication of Parts

Reference: Requirement of Civil Aviation Authority of Thailand No. 3: Aircraft Part Fabrication under Privilege of Repair Station Certificate

The parts fabrication approval must be specified in MOE chapter 1.9, paragraph 1.9.4.*5*

- ☐ Maintenance procedure in accordance with the Requirement of CAAT No. 3

For further guidance, refer to the Guidance Material – Parts Fabrication (CAAT-AIR-GM-512).

2.10 Aircraft Maintenance Program Compliance

Reference: AMC1 145.A.45(b), AMC1 145.A.50(b)

This MOE chapter only applies to maintenance organisations holding Ax ratings.

A procedure should explain how the maintenance organisation ensures the operator's maintenance program is integrated into the contract for aircraft maintenance. Dedicated procedures applicable to each customer operator should be included in MOE Part 4 or associated documents.

- ☐ Identification of the maintenance program under which the maintenance has to be carried out.
- ☐ Maintenance program access by the maintenance organisation as part of the work order or contract.
- ☐ Procedure to ensure a CRS is issued in compliance with the approved operator's maintenance program. This procedure may cross-refer to MOE chapter 2.16.

The CRS should relate to the task specified in the TC holder's, STC holder's, operator's instructions or the aircraft maintenance program, which itself may cross-refer to maintenance data.

- ☐ Maintenance organisation support provided to the operator in order to substantiate a deviation request from the maintenance program.

Deviations from the maintenance program have to be managed by the operator. The contract between the maintenance organisation and the operator should specify the support expected by the maintenance organisation in this regard.

2.11 Airworthiness Directives Procedures

Reference: 145.A.45(b)2, AMC 145.A.45(b), 145.A.42(b)(2), GM1 145.A.42(b)(2), AMC 145.A.50(a)

The follow-up of ADs is the responsibility of the owner/operator who is also responsible for requesting their enforcement on the work order sent to the maintenance organisation. The maintenance organisation is then responsible to embody the ADs which have been ordered.

Only the AD related activities which concern TCAR Part 145 approval have to be described in the MOE, with particular reference to the following points:

- ☐ Identification of the responsibilities of the maintenance organisation with regards to ADs, such as but not limited to establishing compliance with the following:
  - Procedures for control of ADs applicable to components in the stores of the maintenance organisation:
    - When the airworthiness control is directly ensured by the owner or operator, the maintenance organisation should demonstrate that a contract is in place, attributing the responsibilities related to ADs to such owner or operator. This also applies to components directly delivered by the operator to line stations.
    - When the maintenance organisation retains control of the airworthiness status of components (e.g. the maintenance organisation owns the component), it should ensure that all applicable ADs are embodied to the parts they have in store. The maintenance organisation should employ qualified staff for the analysis of ADs, issuing internal work orders, and performing AD compliance follow-up.
  - Procedures to access, hold and use applicable current ADs (e.g. ordered by the customer, needed for the control of components in store).

This procedure may also refer to a procedure included in MOE chapter 2.8 endorsing this requirement.

  - Verification that, prior to installation on an aircraft, a component is eligible to be fitted when a different AD configuration may be applicable.

This procedure may also refer to a procedure included in MOE chapter 2.2 endorsing this requirement.

  - Procedures to ensure that a CRS is not issued in cases of any non-compliance, which is known to endanger flight safety (e.g. overdue AD known by the maintenance organisation)

These procedures may also refer to procedures included MOE chapter 2.16 endorsing this requirement.

- ☐ Accomplishment of aircraft, components, engines ADs, work orders specifying the status of the document to be used
- ☐ Awareness of the mandatory character of the associated maintenance data
- ☐ Identification of the mandatory requirement in the maintenance documentation

2.12 Optional Modification Procedures

Reference: 145.A.45(d), 145.A.48(d), AMC 145.A.45(d), 145.A.48.(c)4, GM 145.A.48(c)4

This MOE chapter should refer to optional modifications to be embodied on aircraft, engines and components, under TCAR Part 145 approval.

The follow-up of an optional modification is the responsibility of the operator who must ask for its enforcement on the work order sent to the maintenance organisation. Only the activities above which concern the TCAR Part 145 approval have to be presented in the MOE.

The privilege to develop modified maintenance instructions (as described in MOE chapter 2.8), excludes the engineering design of repairs and modifications.

Maintenance procedures should be established to ensure that damage is assessed and modifications and repairs are carried out using data specified in 145.A.48(d).

- ☐ Company policy:
  - Sources of modification approval (TC Holder, etc.)
  - Embodiment of modifications, including STCs
- ☐ Control of the scope of work (limitations or conditions)

2.13 Maintenance Documentation in use and its Completion

Reference: 145.A.45(e), 145.A.45(f), 145.A.45(g), 145.A.55(a), GM1 145.A.48, GM1 145.A.55(a)1, GM1 145.A.55(a)3.

It is recommended to structure this MOE chapter in separate paragraphs as indicated below with clear differentiation between each individual rating in the scope of work (e.g. aircraft, engines, components, and specialised services)

2.13.1 Templates in Use to Record Maintenance

This procedure should identify the process of issuing and updating all the various templates in use by the maintenance organisation to record maintenance, such as work sheets, job cards, non-routine cards, deferred items, etc.

With regards to job cards and work sheets, MOE chapter 2.13 should only describe the templates and their use in the maintenance process, while MOE chapter 2.8 is intended to cover the procedure on how to ensure that maintenance data is correctly transcribed into work instructions.

- ☐ Identification of the templates in use to record maintenance
  This procedure may refer to MOE 5.1 where the forms and templates in use by the maintenance organisation are included
- ☐ Analysis and implementation of revisions to manufacturer data
- ☐ Initial approval and revision of the template

2.13.2 Composition of the work package

This procedure should describe the composition of a standard work package as applicable to the scope of work of the maintenance organisation (e.g. for aircraft maintenance this will be routine work cards, non-routine cards, ADs, SBs, Minimum Equipment List (MEL), deferred items, tally sheets, maintenance release certificates).

- ☐ List of maintenance documents which build up a standard work package (e.g. front page with general information, list of tasks required, work cards, associated work orders, expected CRS)
- ☐ Assembly of work packages for issue to maintenance activities
- ☐ Worksheets for non-routine tasks
- ☐ Assembly of completed work packages for certification
- ☐ Control and use of customer supplied work cards or worksheets

2.13.3 Completion of Maintenance Documentation

This procedure should describe the completion of each of the documents identified in the previous paragraph. This may be done by reference to MOE chapter 5.1, where the related sample document is included together with its related filling instructions.

- ☐ Process of declaring a task not applicable including conditional tasks
- ☐ Process of recording test results and dimensions
- ☐ Process of recording materials or parts replaced together with the related traceability to the accompanying documents
- ☐ Records and management of additional works
- ☐ Records and management of deferred items
- ☐ Process to correct a maintenance record incorrectly entered during the performance of maintenance. Obviously, this cannot be done after CRS issuance.
- ☐ Worksheet or work card completion and maintenance or independent inspection sign-off
  - procedure to ensure correct completion of customer provided work cards (training on customer paperwork, etc.)
- ☐ Use of personal stamps
- ☐ Sign-off policy: summary table for sign-off of tasks*

The procedure should clearly indicate when a task is to be considered signed-off and by which means (e.g. use of personal stamp, use of signature, combination of stamp plus signature).

The sign-off policy is established to assign clear responsibilities for the performance of maintenance tasks, even when a task may be signed-off by more than one person (e.g. additional inspections) or it is signed-off based on tasks carried out by contracted or subcontracted organisations.

Any person performing maintenance must be responsible for the tasks performed. A task can only be signed-off by authorised personnel**

The use of a sign-off summary table, an example of which is shown below, is recommended and should be consistent with the procedures in MOE paragraph 2.25.1 and with the job descriptions identified within the maintenance organisation (e.g. C/S – S/S in MOE chapter 3.4, mechanics in MOE chapter 3.8, qualifying inspectors in MOE chapter 3.7).

Note:
* sign-off is a statement by the competent person performing or supervising the work, that the task or group of tasks has been correctly performed. A sign-off relates to one step in the maintenance process and is, therefore, different from the release to service of the aircraft.

** authorised personnel means personnel formally authorised by the maintenance organisation approved under TCAR Part 145 to sign-off tasks. Authorised personnel are not necessarily C/S.

Type of Task	Task sigh-off by Authorised Personnel	Aircraft/Component/Engine Release to Service
Normal task	Authorised person for the task performed (e.g. mechanic, C/S) or	C/S
	Trainee + Authorised person for the task performed under supervision (e.g. C/S, inspector)	C/S
Critical maintenance task (e.g. one engine installation, one flight control rigging) with error capturing method of independent inspection	Authorised person for the task performed (e.g. C/S, mechanic) + Authorised person for the independent inspection (e.g. C/S, inspector) or	C/S
	Trainee + Authorised person for the task performed under supervision (e.g. C/S, inspector) + Authorised person for the independent inspection (e.g. C/S, inspector)	C/S
Critical or identical maintenance tasks limited to unforeseen circumstances when only one person is available (e.g. dual engine oil uplift, replacement of both cabin pressure controllers on one aircraft) with error capturing method of re-inspection	Authorised person for the task performed (e.g. mechanic, C/S) + Additional record of re-inspection by the same authorised person	C/S
etc.	etc.	etc.

2.14 Technical Records Control

Reference: 145.A.55(a)1, (a)3, (a)4, GM1 145.A.55(a)1, AMC1 145.A.55.(a)3, 145.A.45(e), 145.A.45(f)

- ☐ Composition of maintenance records retained by the maintenance organisation
- ☐ CRS copy as applicable to aircraft, engines, components or NDT ratings (e.g. ATL, base maintenance release, CAAT Form 1)

In the case of aircraft base maintenance, copy of the base maintenance release certificate plus the associated CRS in the aircraft technical logbook system must be kept on record by the maintenance organisation.

- ☐ Copy of any detailed maintenance records associated the work carried out
- ☐ Release documents of components, standard parts installed and consumable or raw materials used

Where release documents are not included in the maintenance records, the maintenance organisation should demonstrate traceability is available, in the maintenance records, to the release documents and that they can be retrieved at any time for all the period to which the records retention requirements apply.

In the case of release documents relating to aircraft components, operator agreement is necessary where those documents are only traceable but not included in the maintenance records provided to the operator.

- ☐ Format of the maintenance records:
  - Paper
  - Computer system and related backup

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

- ☐ Records storage conditions (fire extinguisher system, fire detection, etc.) and retrieval of records (paper or computer based)
- ☐ Control of access to records (paper and computer-based records)
- ☐ Lost or destroyed records (reconstruction and CAAT acceptance). This procedure should only be proposed to CAAT in cases where there is an actual need
- ☐ Retention of records:
  - Periods
  - Methods and security

The minimum records retention period is three years from the date the aircraft or component to which the work relates was released by the maintenance organisation.

- ☐ Commitment that all retained maintenance records covering the last three years will be distributed to the last owner or customer of the respective aircraft or component in case the maintenance organisation terminates its operation.

2.15 Rectification of Defects Arising During Base Maintenance
Reference: 145.A.50(c), 145.A.50(e)

This procedure is applicable to any rating and intended to describe how new defects or incomplete maintenance work orders identified during maintenance should be brought to the attention of the operator. The purpose of this is to obtain agreement to rectify such defects or for completing the missing elements of the maintenance work order.

In cases where the operator declines to have such maintenance carried out, TCAR Part 145, 145.A.50(e) is applicable in order to issue the CRS with incomplete or deferred maintenance, as addressed in MOE chapter 2.16.

- ☐ Procedure to record defects arising during maintenance analysis of defects and rectification
- ☐ Notification process (where necessary) to the operator, manufacturer and CAAT
- ☐ Report to the operator for approval to commence a rectification according to the contract

2.16 Release to Service Procedure

Reference: 145.A.30(g), 145.A.30(h)1, 145.A.30(h)2, 145.A.30(i), 145.A.30(j)5, AMC1 145.A.30(j)(5), AMC1 145.A.30(j)(5)(1), AMC145.A.30(j)(5)(2), 145.A.48(a), 145.A.50(a), GM1 145.A.50(a), 145.A.50(b), 145.A.50(c), 145.A.50(e), 145.A.50(d), 145.A.50(f), AMC1 145.A.50(b), AMC1 145.A.50(d), AMC2 145.A.50(d), GM 145.A.50(d), AMC1 145.A.50(e), AMC1 145.A.50(f), 145.A.35(a), 145.A.55(a), 145.A.75(e), 145.A.75(c), 145.A.30(j)3, 145.A.30(j)4, AMC 145.A.30(j)(4), GM 145.A.30(j)(4), Appendix I

2.16.1 General Requirements of the Release to Service

- ☐ Definition of the CRS statement
- ☐ Minimum information to be contained in the CRS:
  - Basic details of the maintenance carried out (by reference to the maintenance data and related revision status, plus any eventually associated work package or job card as applicable to the product or component being maintained)
  - Date such maintenance was completed
  - Location where the CRS is issued
  - Identity and approval number of the maintenance organisation:
  - Identity of the person issuing the CRS, including:
    - TCAR Part 145 C/S or S/S individual authorisation number (handwritten or stamped) issuing such a certificate
    - Signature of the C/S or S/S issuing such a certificate (may include an electronic signature system when approved by CAAT)
  - Limitations to airworthiness or operations, if any
- ☐ Cross-reference to work packs (e.g. initial work order, additional works) to ensure that all the tasks ordered have been performed
- ☐ General verification carried out after completion of maintenance that the aircraft or component is clear of all tools, equipment and any extraneous parts or materials and that all access panels removed have been refitted
- ☐ Inability to sign a CRS due to hazards to flight safety:
  - AD ordered or known to be applicable which is overdue and not embodied
  - Works, which were carried out not in accordance with approved data
  - Discrepancies that may have consequences on the airworthiness of the aircraft, component and engine
  - etc.
- ☐ Inability to sign a CRS due to an unexpected non-availability of facilities, equipment, tooling materials, maintenance data or certifying staff
- ☐ Particular cases of issuance of CRS for aircraft, engine or components known to be in unairworthy conditions. This procedure is optional and should be only included in cases of real need by the maintenance organisation. A CRS in the cases above might be issued as long as the incomplete maintenance or non-airworthy condition is properly identified in the CRS statement and communicated to the operator (and to CAAT in case of disagreement between the maintenance organisation and the operator on the possibility to issue such CRS):
  - NDT inspections with defects outside limits
  - Need to complete a maintenance work order which leaves the aircraft, engine and

components in non-approved configuration (e.g. CRS of an aircraft where the maintenance organisation is only ordered to remove an engine)
    - Need to issue a CRS for a maintenance check flight, where an STC has been incorporated which is not yet approved (e.g. parts installed in prototype status, maintenance performed using data pending approval)
- ☐ Specific to CAAT Form 1. This procedure should, at least, address the following issues:
    - Address to be recorded in CAAT Form 1 Block 4 is the address of the PPB which is reflected in the first page of the CAAT Repair Station Certificate. However, to allow the identification of the maintenance site where this is different from the PPB, the maintenance organisation should ensure a system is in place to retrieve the information where the CAAT Form 1 was issued, starting from the tracking number of the CAAT Form 1 (Block 3)
    - Tracking numbering system of CAAT Form 1 should be described demonstrating a unique number is used;
    - Identification system should enable tracking of the location where the maintenance has been released to service;
    - Recording system must allow easy retrieval of all issued Form 1s;
    - Cancellation or correction of a CAAT Form 1 mistakenly completed or issued.

2.16.2 Aircraft Maintenance Release to Service (Ax Ratings)

- ☐ Issuance and completion instructions for CRS after Base Maintenance (e.g. Maintenance Release Certificate):
    - Responsibilities of the RCAB No.77 Article 8.A.1 category C/S
    - Responsibilities of the RCAB No.77 Article 8.A.2 and A.3 category S/S
- ☐ Issuance and completion instructions of CRS after Line Maintenance
- ☐ Issuance of a CRS with limitations/incomplete work within aircraft limitations as per approved data (e.g. maintenance organisation not in a condition to complete all the maintenance ordered, deferred maintenance, need to perform a Maintenance Check Flight*)

Only the authorised C/S, can decide, using maintenance data, whether an aircraft defect seriously hazards flight safety and therefore decide when and which rectification action must be taken before further flight and which defect rectification can be deferred. However, this does not apply when the MEL is used by the pilot or by the authorised C/S.

Note:
* Maintenance Check Flight (MCF): Certain maintenance data issued by the design approval holder (e.g. AMM) requires that a maintenance task be performed in flight as a necessary condition to complete the maintenance ordered. Within the aircraft limitations, a C/S should release the incomplete maintenance before the flight on behalf of the maintenance organisation. After performing the flight and any additional maintenance necessary to complete the maintenance ordered, a CRS should be issued in accordance with 145.A.50(a).

- ☐ Temporary fitting an aircraft component without an appropriate release certificate in AOG condition (e.g. 30 hours of flight, agreement of the customer, acceptable certificate, checking the status of the component, technical log record, corrective action when the aircraft returns to its maintenance base)
- ☐ Release to service for components removed serviceable from aircraft
    - Issuance of a CAAT Form 1 for components removed serviceable from Thai-

registered aircraft

This procedure is optional. If the maintenance organisation intends to have this procedure approved, it should comply with MOE paragraph 2.6.1 of AMC2 145.A.50(d). The intention of this MOE paragraph is that a maintenance organisation may issue a CAAT Form 1 for those components only if compliance with paragraph 2.6.1(a) to 2.6.1(i) of the AMC can be demonstrated.

- Swap or change over serviceable components between Thai-registered aircraft or between different positions of the same aircraft

This procedure is optional. A component removed serviceable must be issued a component CRS before being installed in another aircraft or another position on the same aircraft. The CRS may be issued by using a CAAT Form 1 or an internal release document as indicated under paragraph 2.16.3. This procedure should describe how the CRS is issued to ensure compliance with paragraph 2.6.1 of AMC2 145.A.50(d), regardless of the type of CRS the maintenance organisation intends to use (CAAT Form 1 or internal release document).

- Issuance of a CAAT Form 1 for components removed serviceable from a non-Thai registered aircraft.

This procedure is optional. It is only applicable when paragraph 2.6.2 of AMC2 145.A.50(d) applies.

☐ CRS in the case of one-off authorisation. MOE chapter 3.4 specifies the related qualification requirement.
- Notification to CAAT
- Definition of records to be kept and location of records
- Task re-checked when it affects flight safety

2.16.3 Components/Engines/APUs Maintenance Release to Service (Cx/Bx Ratings)

☐ Issuance and completion instructions for CRS after components, engines or APUs maintenance (CAAT Form 1):
- Responsibilities of the components, engines or APU C/S
- CRS on internal tags (if applicable)
- CAAT Form 1 issued for unserviceable components undergoing a series of maintenance processes (limitations to be entered in Block 12) (if applicable)

☐ Particular cases of issuance of a CRS by using an internal release document instead of a CAAT Form 1.

The use of this procedure is optional and should be limited to cases where the maintenance organisation maintains a component for use by the same organisation, subject to the acceptance of the operator. The CRS on an internal release document must contain the same level of information included in the CAAT Form 1 and must be issued by an appropriately authorised C/S:

- Case 1: This procedure may be used under Cx or Bx ratings
- Case 2: A possible application of this procedure under Ax ratings is to allow issuing the component CRS in the case of swap or change-over of serviceable components between Thai-registered aircraft without need for issuing a CAAT Form 1.

- ☐ Issuance of a CRS with limitations or incomplete work within engine, APU or component limitations as per approved data (e.g. a maintenance organisation is not in a condition to complete all the maintenance ordered, deferred maintenance, operator approval)

2.16.4 NDT Release to Service (D1 Rating)

- ☐ Issuance and completion instructions of CRS after NDT (CAAT Form 1):
  - Responsibilities of NDT C/S
- ☐ Issuance of a CRS with limitations or incomplete work within aircraft, engine, APU and component limitations as per approved data (e.g. a maintenance organisation is not in a condition to complete all the maintenance ordered, deferred maintenance, operator approval)

2.17 Records for the Operator

Reference: 145.A.55(a)2

- ☐ Composition of maintenance records to be provided to the operator
- ☐ Contracted record keeping for operators and arrangements for processing and retention of operator's maintenance records

This procedure is only applicable where a maintenance organisation is retaining records on behalf of the operator according to AOCR requirements (Original Aircraft Technical Logbooks, Life limited parts records, etc.).

2.18 Occurrence Reporting

Reference: 145.A.60(a), 145.A.60(b), 145.A.60(c), 145.A.60(d), 145.A.60(e), 145.A.60(f), GM 145.A.60(b), GM 145.A.60(c), AMC1 145.A.70 (a), 145.A.202, AMC1 145.A.202, Requirement of the CAAT No.22

2.18.1 Internal Occurrence Reporting System

The internal occurrence reporting system is intended to collect all the reports generated internally by the maintenance organisation and those received from external sources, such as operators, subcontractors. etc.

- ☐ Process to report and collect occurrences identified internally within the maintenance organisation, including:
  - Maintenance errors, near misses and hazards not being reportable occurrences
  - Subcontracting activities
- ☐ Collection of occurrence reports received from external sources:
  - Maintenance errors identified and notified by a customer following maintenance carried out
  - Safety issues related to subcontracted activities identified by the subcontractor
  - etc.
- ☐ Description of processes to record occurrences (e.g. occurrence database)
- ☐ Extraction of occurrences to be reported as per TCAR Part 145, 145.A.60, refer to paragraph 2.18.2
- ☐ Evaluation of reports to identify adverse trends
- ☐ Description of the process to investigate occurrences. For example:
  - Criteria to identify occurrences to be investigated
  - Investigation report format

- Methods for maintenance errors investigation such as Maintenance Errors Decision Aid (MEDA) processes
- Corrective actions in response to investigation findings
- Follow-up systems
- Feedback to staff
- etc.

☐ Maintenance errors identified to be used for internal human factors training and for amendment of the procedures for critical maintenance tasks (may cross refer to MOE chapter 2.23)

2.18.2 Reportable Occurrences as per TCAR Part 145, 145.A.60

This MOE paragraph must describe the reporting procedure to CAAT, the State of Registry and the organisation responsible for the design of the aircraft or component and where applicable the customer operator. Any condition of the aircraft or component identified by the maintenance organisation that has resulted or may result in an unsafe condition that seriously hazards flight safety must be reported.

☐ List of reportable occurrences as per GM1 145.A.60(c):
- Include the notification to CAAT of all cases where an occurrence is originated as a result of maintenance carried out by the maintenance organisation, regardless of the registration of the aircraft or customer and besides any other reporting responsibility to other NAAs responsible for the approval under which the maintenance was carried out.

An example is a situation where the maintenance organisation is made aware of a technical incident relating to a non-Thai customer immediately following maintenance carried out by the organisation itself, for example where an incorrect assembly of aircraft parts by the maintenance organisation was identified as the cause of the incident.

☐ Method to report occurrences to CAAT using Thailand's Aviation Safety Occurrence Reporting Portal (www.caat.or.th/occurrence):
- Reporting Suspected Unapproved Parts (SUP)

☐ Methods for reporting to:
- State of Registry, when applicable
- Organisation responsible for design
- Operator

☐ Reporting timescale
☐ Reports must contain pertinent information and evaluation of results (where known)
☐ Persons responsible for reporting
☐ Occurrences reported by subcontractors

2.19 Return of Defective Aircraft Components to Store

Reference: 145.A.42(a)3

This MOE chapter should refer to the processing of parts returned by maintenance teams to the store.

☐ Aircraft components received in serviceable status but found defective at installation (e.g. involvement of the quality system for investigation, possible need to report the occurrence as per MOE chapter 2.18)
☐ Labelling and handling of unserviceable components (link between involved departments)

☐ Labelling and handling of unsalvageable components (link between involved departments)

2.20 Defective Components to Outside Contractors

Reference: 145.A.75(b)

This MOE chapter should refer to the process of sending components to outside contractors for repair or modification, and only applicable when the maintenance organisation sending or contracting component maintenance to:

- Contracted TCAR Part 145 approved organisations. This should be reflected in MOE chapter 2.1 and the contracted organisations listed in MOE chapter 5.4; and
- Subcontracted organisations not holding a TCAR Part 145 approval. This should be reflected in MOE chapter 2.1 and the subcontractors listed in MOE chapter 5.2.

☐ Dispatch of components for maintenance
☐ Identification of required work
☐ Return of the serviceable component after maintenance at the contractor or subcontractor facility. Control of dispatch, location and return
☐ Return of unserviceable loan parts
☐ Management of the packaging and special transportation conditions (e.g. wheels, oxygen bottles)

2.21 Control of Computer Maintenance Records Systems

Reference: 145.A.45(e), 145.A.55(e),(f),(g), AMC1 145.A.55(d)

This MOE chapter should refer to the computer systems used to manage or record information regarding the maintenance tasks carried out. This MOE chapter should not be confused with MOE chapter 2.14, which is intended to cover the record keeping requirement addressed in TCAR Part 145, 145.A.55.

☐ Description of the computer records systems in use and relate objectives (e.g. software tools tracking on-going maintenance in the hangar)
☐ Information retrieval
☐ Back-up systems (frequency, means, and delay) and second site storage (frequency, means and delay)
☐ Security and safeguards to prevent unauthorised access

2.22 Control of Man-Hour Planning versus Scheduled Maintenance Work

Reference: 145.A.47(b), 145.A.47(c), 145.A.30(d), AMC 145.A.30(d), 145.A.25(a)1, 145.A.25(a)2, AMC 145.A.25(a)

☐ Maintenance man-hour plan, considering maintenance activities carried out outside the scope of the TCAR Part 145 approval:
  - Reviewed at least every 3 months and updated when necessary
  - Covering all staff (e.g. C/S, inspectors, mechanics, planners, quality auditors)

Attention should be given to the situation when the same person is acting with different roles during a particular maintenance check. In such cases the man-hour plan for the particular maintenance check should consider this aspect to ensure the person is allocated enough time to carry out the necessary activities required for each of the different roles they undertake and appropriate consideration is given to human performance limitations.

☐ Hangar visit plan versus man-hour plan

The hangar visit plan should be made available to demonstrate sufficiency of hangar space to carry out planned base maintenance. The relationship between the hangar visit plan and the man-hour plan should be described. The hangar visit plan should also include non-commercial air transport or other activities.

☐ Management system of company planning versus time available (e.g. aircraft or components base maintenance activity)
☐ Type of planning (man hours availability versus work load)
☐ Type of factors in the planning:
  - Human performance limitations
  - Complexity of work
  - Additional factors
☐ Planning revision process
☐ Organisation of shifts
☐ Use of contracted* personnel

Note:
* Contracted means the person is employed by another organisation and contracted by that organisation to the maintenance organisation.

In order to ensure organisation stability, at least half the staff that perform maintenance in each workshop, hangar or flight line on any shift should be employed by the maintenance organisation.

For the purpose of meeting a specific operational necessity, a temporary increase in the proportion of contracted staff may be permitted by CAAT, in accordance with an approved procedure to be included in this MOE chapter. This must describe the extent, specific duties, and responsibilities for ensuring adequate organisation stability.

☐ Notification must be made to the Compliance Monitoring Manager and Accountable Manager of deviations exceeding 25% between the work load and the man hour availability.

2.23 Critical Maintenance Tasks and Error-capturing Methods

Reference: 145.A.48(c), AMC1 145.A.48(c)2, AMC2 145.A.48(c), AMC3 145.A.48(c), AMC4 145.A.48(c)

2.23.1 Critical Maintenance Tasks

☐ Definition of critical maintenance task

Critical maintenance task means a maintenance task that involves the assembly or any disturbance of a system or any part of an aircraft, engine or propeller that, if an error occurred during its performance, could directly endanger flight safety.

☐ Procedures to identify a list of critical maintenance tasks defined by the maintenance organisation (e.g. tasks that may affect aircraft stability control systems such as autopilot or fuel transfer, tasks that may affect the propulsive force of the aircraft including installation of engines, propellers, rotors):
  - Persons responsible to amend the list
  - Data sources used to identify and amend the list of critical maintenance tasks (e.g.

TC holder data, occurrence reporting, results of audit, feedback from training)

This procedure should ensure that critical maintenance tasks are reviewed to assess their impact on flight safety. The list of critical maintenance tasks should be customised to the scope of work of the maintenance organisation and may contain critical tasks peculiar only to certain aircraft or components. This list may be included into a separate document under the control of the Compliance Monitoring Manager.

The list of critical maintenance tasks should be subject to continuous evaluation and when necessary amended by the maintenance organisation as the result of maintenance error investigations, audit, TC holder data analysis, etc.

When the operator defines its own list of critical maintenance tasks, the effective independent inspection tasks to be carried out are the independent inspections required by the TCAR Part 145 MOE plus the ones required by the operator.

2.23.2 Error-capturing Methods

This MOE paragraph should identify and detail the management of each possible error-capturing method in use by the maintenance organisation.

- ☐ Identification of the error-capturing methods to be used:
  - The primary error-capturing method to be used should be the independent inspection
  - Re-inspection (limited to unforeseen cases when only one person is available)
- ☐ Independent inspection procedure. The requirements of AMC4 145.A.48(c)2 should be addressed:
  - Definition of independent inspection
  - Personnel authorised for the independent inspections, detailed in MOE chapter 3.12
- ☐ How to perform an independent inspection:
  - What has to be checked (e.g. all those parts of the system that have actually been disconnected or disturbed must be inspected for correct assembly and locking)
  - How a task requiring independent inspection is signed-off, refer to MOE chapter 2.13
- ☐ Reinspection procedure, refer to AMC4 145.A.48(c)2:
  - Definition of reinspection
  - How to perform a reinspection by the same person.
  - How to record the identification and the details of the reinspection

2.24 Reference to Specific Maintenance Procedures

Reference: 145.A.75(c), AMC 145.A.35(a)

- ☐ Maintenance outside the approved locations

For further guidance, refer to the Guidance Material – Aircraft Maintenance (CAAT-AIR-GM-513)

- ☐ Special maintenance tasks:
  - Engine run up
  - Aircraft pressure run
  - Aircraft towing
  - Aircraft taxiing
  - Technical wash
  - Control or supervision of de-icing systems
  - MCF

2.25 Procedures to Detect and Rectify Maintenance Errors

Reference: 145.A.48(c), AMC 145.A.48(c), GM 145.A.48(c)

This MOE chapter should describe procedures to minimise the risk of multiple errors and errors being repeated in identical maintenance tasks compromising more than one system or function. Maintenance errors may also be detected as part of the occurrence reporting system, for example following internal or external occurrence reports investigation. This process should be described in MOE chapter 2.18.

2.25.1 Procedures to Minimise the Risk of Multiple Errors and Preventing Omissions

Consistency with MOE 2.13 chapter (sign-off policy) should be ensured.

- ☐ Policy to ensure every maintenance task is signed-off only after completion
- ☐ Describe how the grouping of tasks for the purpose of sign-off allows critical steps to be clearly identified
- ☐ Procedures to ensure work performed by non-authorised personnel (e.g. temporary staff, trainees) is checked and signed-off by an authorised person

2.25.2 Procedures to Minimise the Risk of Errors Being Repeated in Identical Maintenance Tasks Compromising more than One System or Function

- ☐ Criteria to define identical maintenance tasks

The objective is to ensure no person is required to perform a maintenance task involving removal/installation or assembly or disassembly of several components of the same type fitted to more than one system on the same aircraft or component during a particular maintenance check.

2.25.3 Identification of Methods in Use to Minimise Risks

- ☐ Planning methods (only applicable to identical maintenance tasks)

This paragraph should address GM1 145.A.48(c)3 describing how the planning methods are used to minimise the risk of errors being repeated in identical maintenance tasks by planning the work for different authorised persons for the same task in different systems.

- ☐ Identification of the error-capturing methods to be used (the specific procedure on how each error capturing method is accomplished should be detailed in the MOE chapter 2.23)

When more than one error-capturing method is defined, a criteria needs to be established to prioritise the methods to be adopted. The use of a table is recommended. An example is given below.

Refer to MOE chapter 2.13 for details of how to sign-off each type of task.

Type of Task	Description of Task	Minimising the risk of errors being repeated in identical maintenance tasks and error capturing methods priority	
		Primary	**Secondary**
Identical Maintenance Task	Removal, installation, assembly or disassembly of **several components of the same type fitting to more than one system**, a failure of which can have an impact on safety, on the same aircraft or component during a particular maintenance check. (e.g. dual engine oil uplift, replacement of both cabin pressure controllers on one aircraft)	**Performance by different authorised persons** of the same task in different systems (planning method)	**Re-inspection** by the same authorised person who has performed the task (**limited to unforeseen cases when only one person is available**)
Critical Maintenance Task	Maintenance task that involves the assembly or any disturbance of a system or any part of an aircraft, engine or propeller that, if an error occurred during its performance, could **directly endanger flight safety** (e.g. one engine installation, one flight control rigging)	**Independent inspection**	**Re-inspection** by the same authorised person who has performed the task (**limited to unforeseen cases when only one person is available**)
etc.	etc.	etc.	etc.

2.26 Shift/Task Handover Procedures

Reference: 145.A.47(c), AMC1 145.A.47(c)

- ☐ Aims and objectives of the shift handover
- ☐ Training of personnel in shift/task handover processes
- ☐ Recording of shift/task handovers
- ☐ Formalised shift handover process and required information
  - Facility status
  - Work status
  - Manning status
  - Outstanding issues
  - Other possible information
- ☐ Responsible person for managing and detailing the shift/task handover

2.27 Procedures for Notification of Maintenance Data Inaccuracies and Ambiguities to the Type Certificate Holder

Reference: 145.A.45(c), AMC1 145.A.45(c)

- ☐ Definitions of maintenance data ambiguities
- ☐ Method of internal notification of maintenance data ambiguities
- ☐ Method of external notification of maintenance data ambiguities to the authors of that data
- ☐ Method of assessment and extraction of those ambiguities or inaccuracies to be reported under MOE chapter2.18 as mandatory reportable occurrences
- ☐ Feedback to staff and implementation of TC holder or Manufacturer corrections
- ☐ Impact of the data ambiguity on the on-going maintenance task

The authors may be any of the following:

- Aircraft or component design organisation (e.g. AMM, SB, SRM)
- The competent authority
- The organisation itself in the case of organisation job cards
- The customers in the case of job cards issued and furnished by the customers

2.28 Production Planning Procedures

Reference: 145.A.47(a), AMC1 145.A.47(a), 145.A.47(b), AMC1 145.A.47(b), 145.A.10, AMC1 145.A.10, 145.A.65; AMC1 145.A.65, GM 145.A.65

- ☐ Decision making process. Analysis of the work order to ensure:
  - A clear work order or contract has been agreed between the maintenance organisation and the operator to clearly establish the maintenance to be carried out

GM1 145.A.205 provides guidance on the elements that need to be considered for the maintenance contract between the operator and the maintenance organisation. The maintenance organisation should consider these elements to ensure that a clear contract or work order has been concluded before providing maintenance services.

  - Requested maintenance remains within the approved scope of approval
  - Need for special facilities

The main driver to determine whether the requested maintenance is within the scope of approval, should be the content of the specific maintenance activity ordered. Additional tasks or constraints may be also associated with the requested activity, such as deferred items, rectification of defects, inspection requesting skilled workers, qualification of the C/S, environmental conditions, overall length of the tasks etc.

A decision-making process is necessary to assess whether the content of the maintenance activity is within the scope of approval. In addition, access to special facilities (a hangar for line maintenance, etc.) should be part of the decision making.

- ☐ Verification that the maintenance work package provided by the customer is usable by the maintenance organisation. In any case the maintenance organisation must issue an internal work package as detailed in MOE chapter 2.13:
  - Case 1: Customer job cards to be used (with appropriate training)
  - Case 2: Work package to be developed and prepared by the maintenance

organisation based on the customer work order

- ☐ Control of the availability and update of maintenance documents (e.g. list of maintenance manuals, job cards)
- ☐ Procedure for establishing all necessary resources are available before commencement of work (hangar, manpower with required capabilities, staff, facilities, tools, equipment, parts, documentation, etc.)
- ☐ Procedure for outsourcing contractors as necessary
- ☐ Procedure for organising maintenance personnel and providing all necessary support during maintenance
- ☐ Consideration of human performance limitations (Circadian rhythm/24 hours body cycle, etc.)
- ☐ Planning of critical maintenance tasks

For further guidance, refer to the Guidance Material – Aircraft Maintenance (CAAT-AIR-GM-513).

PART L2 ADDITIONAL LINE MAINTENANCE PROCEDURES

MOE Part L2 is intended to provide additional procedures, which are specific for the line maintenance environment and have not been covered in MOE Part 2. Where a procedure has been already covered in MOE Part 2 and there is no need for further detail to be added, a direct reference to the MOE Part 2 chapter may be used in the relevant MOE Part L2 chapter.

L2.1 Line Maintenance Control of Aircraft Components, Tools, Equipment, etc.

Reference: 145.A.75(d)

This MOE chapter should describe the additional or special procedures for the management of:

- Facilities
- Materials
- Ingredients
- Tools
- Equipment
- Technical documentation
- Staff
- etc.

associated with the line maintenance activity. For example, this applies when a line station, separate from the main maintenance site, needs to use procedures to control the components, tools, and equipment which are not the same as those used in the main site as described in MOE Part 2.

- ☐ Components or material acceptance (e.g. required documentation, conditions and quarantine procedures)
- ☐ Components removed serviceable from aircraft
- ☐ Procedures to maintain satisfactory storage conditions (e.g. routable, perishables, flammable fluids, engines, bulky assemblies and special storage requirements)
- ☐ Systems for control of shelf life and modification standards
- ☐ Tagging or labelling system (e.g. serviceable, unserviceable, scrap)
- ☐ Release of components to the maintenance process
- ☐ Tools and test equipment, servicing and calibration programs, equipment register
- ☐ Identification of servicing or calibration due dates

L2.2 Line Maintenance Procedures Related to Servicing, Fueling, De-icing, etc.

Reference: 145.A.75(d)

This MOE chapter should describe the additional or special procedures for management of the specific activities:

- ☐ Technical and maintenance documentation management (control and amendment)
- ☐ Company technical procedures or instructions management
- ☐ Fuel supply quality monitoring (bulk storage and aircraft re-fueling)
- ☐ Ground de-icing (procedures and monitoring of sub-contractors)
- ☐ Maintenance of ground support equipment
- ☐ Monitoring of subcontracted ground handling and servicing

L2.3 Line Maintenance Control of Defects and Repetitive Defects

Reference: 145.A.75(d)

This MOE chapter should describe the general procedures followed by the maintenance organisation regarding the rectification of defects in line maintenance. The identification and management of repetitive defects is an operator responsibility. However, the maintenance organisation may also identify such repetitive defects or be involved by the operator for rectification actions.

- ☐ Rules for deferring (e.g. periods, review, permitted personnel, conformity with MEL or Configuration Deviation List (CDL) provisions)
- ☐ Awareness of deferred defects carried by aircraft
- ☐ Analysis of tech log (e.g. repetitive defects, crew complaints, analysis and transfer of cabin log items as required)
- ☐ Coordination with the operator
- ☐ Procedure on how to deal with defects requiring RCAB 77 Article 8.A.1 Category C/S in the case of line stations where such staff are not permanently available. Refer to Guidance Material – Aircraft Maintenance (CAAT-AIR-GM-513)

L2.4 Line Procedures for Completion of Technical Log

Reference: 145.A.75(d)

This MOE chapter should describe the additional procedures for management or completion of the technical logs in use. It must also cover the procedures for Extended Diversion Time Operations (EDTO) release where applicable. These procedures must be associated to MOE chapters 2.13 and 2.16.

- ☐ Technical log system:
  - Consideration of operator procedures
  - Completion of sector record pages
  - Distribution of copies

- ☐ Training on operator procedures and maintenance record completion – logbook, etc.
- ☐ Certification or Sign-off – maintenance statements
- ☐ Maintenance Independent Inspections
- ☐ EDTO certification
- ☐ Retention of records
  - Periods

- Methods and security

L2.5 Line Procedures for Pooled Parts and Loan Parts

Reference: 145.A.75(d)

This MOE chapter should describe the additional management procedures for pooled or loaned parts specific to the line maintenance activity. It should also cover the removal of serviceable parts from aircraft for use on another aircraft. These procedures must be associated to MOE chapters 2.2, 2.3, 2.19 and 2.20.

- ☐ Verification of approved sources of parts (e.g. sources, conformity with company requirements, modification standards, AD compliance and records)
- ☐ Compliance with loan and contract requirements
  - Tracking and control
  - Required documentation
- ☐ Processing removed loan parts for return to source (e.g. records)
- ☐ Components removed serviceable from aircraft

L2.6 Line Procedures for Return of Defective Parts Removed from Aircraft

Reference: 145.A.75(d)

This MOE chapter should describe the additional management procedures for treatment of defective components associated with the line maintenance activity. These procedures should cover the same subjects specified in MOE chapters 2.19 and 2.20.

- ☐ Required documentation
- ☐ Service records
- ☐ Processing advice of removal (work order) and dispatch to technical records
- ☐ Dispatch of the part for rectification

L2.7 Line Procedures for Critical Maintenance Tasks and Error-capturing Methods

Reference: 145.A.75(d)

This MOE chapter is the equivalent of MOE chapters 2.23 and 2.25 for line maintenance activities. It is intended to describe non-normal issues (if any) for managing critical maintenance tasks in the line maintenance environment, together with any associated error-capturing method.

PART 3 MANAGEMENT SYSTEM

3.1 Hazard Identification and Safety Risk Management

Reference: 145.A.200(a)3, AMC1 145.A.200(a)3, GM1 145.A.200(a)3

This MOE chapter should explain how the hazard identification and safety risk management is organised and managed in accordance with regulatory requirements.

- ☐ Identification of all the parties involved in the maintenance arrangement, including independent experts and non-approved organisations, including details of:
  - Coordination and interfaces between the different parties
  - Applicable procedures
  - Communication between all the parties involved, including reporting and feedback channels
  - Task allocation, responsibilities and authorities (e.g. decision making)
  - Qualifications and competency of key personnel refer to TCAR Part 145, 145.A.30

The procedure should detail:

- ☐ Hazard identification processes, including:
  - Reactive and proactive schemes for hazard identification
  - Formal means of collecting, recording, analysing, acting on, and generating feedback about hazards and the associated risk that may affect safety
  - Particular focus on the limitations of human performance
  - Existence of complex operational or maintenance arrangements (contracting and subcontracting to several maintenance organisations)
- ☐ Safety risk management processes focusing on:
  - Clear assignment of accountability and allocation of responsibilities
  - Only one party responsible for a specific aspect of the arrangement
  - No overlapping or conflicting responsibilities, in order to eliminate coordination errors
  - Evidence of existence of clear reporting lines, both for occurrence reporting and progress reporting
  - Possibility for staff to directly notify the maintenance organisation of any hazard that suggests an obviously unacceptable safety risk
  - Planned implementation or participation of the maintenance organisation in any complex operational and maintenance arrangements such as:
    - when multiple organisations are contracted, or
    - when multiple levels of contracting or subcontracting are included
  - Probability and severity analysis of the consequences of hazards and occurrences
  - Acceptable level of risk assessment
  - Control and mitigation of risks to an acceptable level
- ☐ Regular communication lines between all the parties involved to discuss work progress, risk mitigation actions, and changes to the arrangements, as well as any other significant issues.

3.2 Internal Safety Reporting and Investigations

Reference: 145.A.200(3), AMC 145.A.200(3)(c), 145.A.202, AMC1 145.A.202(a), AMC 145.A.202(b), AMC 145.A.202(c), AMC 145.A.202(d), GM1 145.A.202

This MOE chapter should explain how internal safety reporting and investigations are organised and managed in accordance with regulatory requirements. A reporting system should include both reactive (accident and incident reports, etc.) and proactive (hazard reports) aspects.

- ☐ Describe the respective reporting systems. Factors to consider include report format, confidentiality, addressees, investigation and evaluation procedures, corrective, preventive actions and report dissemination.

3.2.1 Internal Safety Reporting

This MOE paragraph should detail:

- ☐ Confidential internal safety reporting scheme to encourage open reporting of any potentially safety-related occurrences or events such as incidents, errors, near misses, safety issues and identified hazards
- ☐ Effective establishment of a just culture to improve the level of the safety performance of the maintenance organisation and not to attribute blame
- ☐ Internal reporting scheme objectives such as:
  - Identifying those instances in which routine procedures have failed or may fail
  - Enabling an assessment to be made of the safety implications of each reported event (errors, near misses), safety issue and hazard reported, including previous similar issues, so that any necessary action can be initiated
  - Ensuring that knowledge of relevant incidents, safety issues and hazards is shared so that other persons and organisations may learn from them
- ☐ Internal safety reporting scheme should contain:
  - Clearly identified aims and objectives with demonstrable corporate commitment;
  - Just culture policy as part of the safety policy, and related just culture implementation procedures
  - Process to:
    - identify those reports which will require investigation
    - investigate all the causal and contributing factors (technical, organisational, managerial, human factors and any other contributing factors) related to the occurrence that was identified
    - analyse the collective data showing the trends and frequencies of the contributing factors commensurate to the size and complexity of the maintenance organisation
  - Appropriate corrective actions based on the Findings of investigations
  - Initial and recurrent training for staff involved in internal investigations
  - cooperation with the owner or operator on occurrence investigations by exchanging relevant information to improve aviation safety
  - Record keeping allowing retention of reported information that may become obvious at a later date
- ☐ Feedback to staff both on an individual basis (reportee) and a more general basis (recurrent training) to ensure continued support of the safety reporting scheme.

3.2.2 Safety Investigation Procedures

This MOE paragraph should describe how accidents, incidents, and occurrences are investigated and processed within the maintenance organisation, including their correlation with the SMS hazard identification and risk management system.

- ☐ How internal investigations should address:
  - Occurrences reportable to CAAT in accordance with TCAR Part 145, 145.A.60
  - Non-reportable occurrences
- ☐ Internal investigation procedures of accidents and incidents, including:
  - Understanding what happened and how it happened
  - Identifying active failures as well as contributing factors and hazards
  - Proposing follow up action plans to prevent or mitigate the probability or consequence of future recurrences.
- ☐ Dissemination of completed investigation reports to CAAT, or internally as applicable.
- ☐ Effectiveness assessment of implemented corrective actions and recommendations resulting from safety investigation analysis.
- ☐ Disciplinary inquiries and actions associated with investigation report outcomes.
  - Clearly defined conditions under which punitive disciplinary action would be considered (e.g. illegal activity, recklessness, gross negligence, procedure violation or willful misconduct).

3.3 Safety Action Planning

Reference: 145.A.200 (a)1, GM1 145.A.200(a)1

This MOE chapter should explain how safety action planning is organised and managed in accordance with regulatory requirements.

- ☐ Responsibilities within the maintenance organisation to establish and monitor the safety action plan (SAP) among:
  - Safety manager
  - Safety review board
  - Safety action groups
- ☐ Establishment of the SAP from:
  - Hazard identification
  - Risk management resulting from:
    - Safety reports
    - Safety information
    - Safety investigations
    - Change management
    - etc.
- ☐ Safety action management:
  - Safety action definition to control risks to an acceptable level (e.g. corrective, preventive, proactive actions)
  - Decision making of the proposed safety actions
  - Safety action implementation monitoring:
    - Responsibility assignment
    - Allocated means
    - Planning
  - Efficiency analysis of safety actions
  - Record keeping

- ☐ Monitoring and feedback of the implementation of the SAP
  - Ensuring implementation within agreed timescales
  - Reviewing the effectiveness
  - Assessing the impact on safety performance
  - Safety promotion

Note:
The SAP process could be continuous or performed on a regular basis (e.g. weekly, monthly), or through specific events (e.g. periodic meetings, reviews) depending upon the size and complexity of the maintenance organisation.

3.4 Safety Performance Monitoring

Reference: 145.A.200(a)3, AMC1 145.A.200(a)3(d)

This MOE chapter should describe how safety performance monitoring and measurement are organised and managed.

- ☐ How the safety performance of the maintenance organisation is verified in comparison with the safety policy and the safety objectives.
- ☐ Scope and content of:
  - Reporting to the monitoring system for safety performance, depending upon the size and complexity of the maintenance organisation (safety manager, safety review board, safety action groups):
    - Frequency of reporting
    - Safety reporting records
  - Reviews conducted prior to the implementation of any changes, such as:
    - Introduction of new products and their components, new equipment or technologies
    - Implementation of new or changed procedures
    - Situations of organisational change that may have an impact on safety
    - Safety reviews records
  - Audits:
    - Integrity of the management system
    - Status of safety risk controls
    - Safety audit reports
  - Surveys addressing:
    - Particular elements or procedures in identified problem areas, or bottlenecks in daily maintenance activities
    - Perceptions and opinions of maintenance management personnel
    - Areas of dissent or confusion
    - Safety survey records

3.5 Management of Changes (Including Organisational Changes with Regard to Safety Responsibilities)

Reference: 145.A.200(a)3, AMC 145.A.200(a)3(e), GM2 145.A.200(a)3

The maintenance organisation should manage the safety risks related to a change. The management of change should be a documented process to identify external and internal changes that may have

an adverse effect on safety. It should make use of the maintenance organisation's existing hazard identification, risk assessment and mitigation processes. The MOE chapter should detail:

- ☐ Identification of changes that may affect safety:
  - Changes to the organisational structure
  - Inclusion of a new aircraft type in terms of approval
  - Addition of aircraft of the same or a similar type
  - Significant changes in personnel (affecting key personnel or large numbers of personnel, high turn-over)
  - New or amended regulations
  - Competition (e.g. new competitor)
  - Changes to the customer base (e.g. loss of major customer)
  - Changes to the security arrangements
  - Changes in the financial status of an organisation
  - New schedules, locations, equipment, or operational procedures
  - Addition of new subcontractor
  - etc.
- ☐ Magnitude of a change, its safety criticality, and its potential impact on human performance should be assessed in any change management process
- ☐ Link with the hazard identification and risk assessment processes:
  - Review of previous risk assessments and existing hazards during the change management process
  - How change introduction is the trigger to perform hazard identification and risk management processes.
- ☐ Management of safety risks related to the changes:
  - Structured framework for managing all aspects of the change
    - Engaging the staff
    - Minimising the risks that are inherent in a change
  - Identification of change features that may affect pre-existing human factor issues
    - Computer systems
    - Equipment, technology
    - Personnel changes
    - Management personnel
    - Procedures
    - Work organisation and processes
  - Considering the impact of the change on the people within the maintenance organisation
  - Change management plan featuring transition period and activities to manage identified issues

- ☐ Effective management of change should be supported by the following:
  - Processes for formal hazard identification and risk assessment of major operational changes, major organisational changes, changes in key personnel, and changes that may affect the way maintenance is carried out
  - Identification of changes that are likely to occur in business which would have a noticeable impact on:
    - Resources - material and human
    - Management direction - policies, processes, procedures, training
    - Management control
  - Safety cases and risk assessments that are aviation-safety focused

- Involvement of key stakeholders in the change management process, as appropriate

3.6 Safety Training and Promotion

Reference: GM1 Definitions, 145.A.30(e), GM6 145.A.30(e), AMC2 145.A.30(e), GM4 145.A.145.30(e), GM1 145.A.30(e), GM1 145.A.200(a)4,

The main purpose of the safety training program is to ensure that personnel at all levels of the maintenance organisation maintain their competency to fulfil their safety roles.

Safety training should consider the safety knowledge derived from hazard identification and risk management processes, and support the fostering of a positive safety culture.

Safety management training means specific training for the staff involved in safety management functions in accordance with TCAR Part 145, 145.A.30(ca) or 145.A.200(a)(3).

Safety Culture is the set of enduring values and attitudes regarding safety issues, shared by every member of every level of an organisation. Safety Culture refers to the extent to which every individual and every group of the organisation is:

- aware of the risks and unknown hazards induced by its activities;
- continuously behaving so as to preserve and enhance safety;
- willing and able to adapt when facing safety issues;
- willing to communicate safety issues; and
- consistently evaluates safety related behavior.

The MOE chapter should detail:

☐ Safety training content detailing
- Introduction to safety management and human factors
- Safety culture and organisational factors
  - Address safety management and human factors
  - Statistics
  - Incidents
- Safety risk management
  - Hazard identification
  - Safety risk assessment
  - Risk mitigation and management
  - Effectiveness of safety risk management
- Safety Culture and organisational factors
  - Just culture
  - Reporting culture
  - Informed culture
  - Flexible culture
  - learning culture
- Human errors
  - Error models and theories
  - Types of errors in maintenance tasks
  - Violations
  - Implications of errors
  - Avoiding and managing errors

- Human reliability
- Human performance and limitations
  - Vision
  - Hearing
  - Information-processing
  - Attention and perception
  - Situational awareness
  - Memory
  - Claustrophobia and physical access
  - Motivation
  - Fitness and health
  - Stress
  - Workload management
  - Fatigue and fatigue risk management
  - Alcohol, medication, drugs
  - Physical work
  - Repetitive tasks and complacency
- Environment
  - Peer pressure
  - Stressors
  - Time pressure and deadlines
  - Workload
  - Shift Work
  - Noise and fumes
  - Illumination
  - Climate and temperature
  - Motion and vibration
  - Complex systems
  - Other hazards in the workplace
  - Lack of manpower
  - Distractions and interruptions
- Procedures, information, tools and practices
  - Visual inspection
  - Work logging and recording
  - Procedures (e.g. practices, mismatches, norms)
  - Technical documentation (e.g. access and quality)
  - Critical maintenance tasks and error-capturing methods (e.g. independent inspection, re-inspection)
- Communication
- Teamwork
- Professionalism and integrity
- Maintenance organisation safety program
  - Safety policy and objectives, just culture principles
  - Reporting errors and hazards, internal safety reporting scheme
  - Occurrence investigation process
  - Action to address problems
  - Feedback and safety promotion
- Initial safety training should cover all the topics of the training syllabus specified in GM1 145.30(e) either as a dedicated course or integrated within other training. The syllabus may be adjusted to reflect the particular nature of the maintenance

organisation or to suit the particular nature of work for each function within the maintenance organisation. For example:

- Small organisations that do not work in shifts may cover subjects related to teamwork and communication in less depth; and
- Planners may cover in more depth the scheduling and planning objectives of the syllabus, and in less depth the objective of developing skills for shift working.

☐ Safety trainer
  - Safety trainer competency should include:
    - understanding of safety management and human factors in a maintenance environment at a level sufficient to teach the elements of the initial safety training syllabus - refer to GM1 145.A.30(e);
    - good understanding of training and facilitation techniques, and communication skills that enable the trainer to influence attitudes and behaviors;
    - experience within the aviation industry, or a suitable academic background; and
    - knowledge of the maintenance organisation's safety program – refer to GM1 145.A.30(e).

☐ Safety training, including human factors, combined with safety communication and information sharing, should be provided to management and staff at least:
  - during the initial implementation of safety management processes;
  - for all new staff or personnel recently allocated to any safety management related task;
  - on a regular basis to refresh their knowledge and to understand changes to the management system; and
  - when changing roles affect their safety management roles, accountabilities, responsibilities, and authorities

☐ Safety promotion activities:
  - Maintenance organisation policies, encouraging a positive safety culture, creating an environment that is favorable to the achievement of the organisation's safety objectives
  - Organisational learning
  - Implementation of an effective safety reporting scheme and the development of a just culture

☐ Safety training is subject to record-keeping requirements – refer to TCAR Part 145, 145.A.55(d)

3.7 Immediate Safety Action and Coordination with the Operator's ERP

Reference: 145.A.200(a)3, AMC1 145.A.200(a)3(g)

The purpose of an Emergency Response Plan (ERP) is to ensure delegation of emergency authority, assignment of emergency responsibilities, documentation of emergency procedures and processes, coordination of emergency efforts internally and with external parties, and safe continuation of essential operations while the crisis is being managed.

The MOE procedures should detail means for proactive identification of all possible emergency events/scenarios and their corresponding mitigation actions.

☐ Responsibilities, roles and actions of the various agencies and personnel involved in dealing with specific emergencies

- ☐ Safety Policy and Objectives
- ☐ Direction for responding to emergencies
- ☐ Procedures to act promptly when safety concerns are identified with the potential to have an immediate effect on flight safety
  - including clear instructions on who to contact at the operator
  - and how to contact them, including outside normal business hours
- ☐ Management implementation with respect to:
  - designating who will lead and who will be assigned to the response teams
  - the roles and responsibilities of personnel assigned to the response teams
  - clarifying the reporting lines of authority
  - setting up an emergency management centre (EMC)
  - establishing procedures for receiving a large number of requests for information, especially during the first few days after a major accident
  - designating the corporate spokesperson for dealing with the media
  - defining what resources will be available, including financial authorities for immediate activities
  - designating the representative to any formal investigations undertaken by State officials
  - defining a call-out plan for key personnel

An organisational chart could be used to show organisational functions and communication relationships.

- ☐ The ERP should specify who should be notified of an emergency and who will make external notifications and by what means.
- ☐ The notification needs of the following should be considered:
  - Management
  - State authorities (Search and Rescue, CAAT, Accident Investigation Board, etc.);
  - Local emergency response services (aerodrome authorities, fire fighters, police, ambulance, medical agencies, etc.)
  - Relatives of victims
  - Service provider personnel
  - Media
  - Legal, accounting and insurers
  - etc.

- ☐ Initial response plan:
  - Who should lead the initial response team?
  - Who should be included on the initial response team?
  - Who should speak for the maintenance organisation at the accident site?
  - What would be required by way of special equipment, clothing, documentation, transportation, accommodation, etc.?
- ☐ Additional assistance provisions for assistance from staff with appropriate training and experience to support preparation, exercising and updating of the ERP such as:
  - Acting as operator in exercises
  - Handling survivors or external parties
  - Dealing with next of kin, authorities
  - etc.
- ☐ The ERP should address how the following requirements are to be met:
  - Staffing (perhaps for 24 hours a day, 7 days per week, during the initial response period)

- Communications equipment (telephones, facsimile, Internet, etc.)
- Documentation requirements, maintenance of emergency activity logs
- Impounding related company records
- Office furnishings and supplies
- Reference documents (e.g. emergency response checklists and procedures, company manuals, aerodrome emergency plans and telephone lists)

The services of a crisis centre may be contracted to another organisation to look after the maintenance organisation's interests in a crisis away from home base.

☐ The ERP should address the following types of information required by investigators:
- All relevant records about the product or service concerned
- Lists of points of contact and any personnel associated with the occurrence
- Notes of any interviews (and statements) with anyone associated with the event
- Any photographic or other evidence

☐ The following aspects of activities at the accident site:
- Nominating a senior company representative at the accident site if
- Security of the wreckage
- Handling of human remains and personal property of the deceased
- Preservation of evidence
- Provision of assistance as required to the investigation authorities
- Removal and disposal of the wreckage; etc.

☐ The ERP should provide clear direction regarding communicating to the media:
- What information is protected by law (FDR data, CVR and witness statements, etc.)
- Who may speak on behalf of the maintenance organisation at head office and at the accident site (e.g. public relations manager, chief executive officer or other senior executive, manager, owner)
- Prepared statements for immediate response to media queries
- What information may be released and what should be avoided
- Timing and content of the maintenance organisation's initial statement
- Provisions for regular updates to the media

☐ Guidance for personnel dealing with State accident investigators and police

☐ Guidance on the approach to assisting crisis victims or operators

☐ Dedicate communication lines with the operator and procedures including outside normal working hours

☐ Checklists to be used during ERP activation to be:
- reviewed and updated regularly (e.g. currency of call-out lists and contact details)
- tested through realistic exercises in various operating conditions and environments (winter conditions, night operations, statutory holidays)

☐ Training and emergency exercises:
- Initial and recurrent training provisions
- Regular drills and exercises provisions
  - Call-out and communications plan tests
  - Desktop exercises
  - Larger scale exercise involving outside agencies
  - Planning of desktop and live exercises
- Training and exercises feedback to the ERP
- ERP update provisions

☐ Procedures to enable the maintenance organisation to react promptly if the ERP is triggered by the operator and requires the support of the maintenance organisation

3.8 Compliance Monitoring

Reference: 145.A.200(a)3, AMC1 145.A.200(a)3(g), AMC1 145.A.200(a)6, AMC2 145.A.200(a)6, AMC3 145.A.200(a)6, AMC4 145.A.200(a)6, GM1 145.A.200(a)6, GM2 145.A.200(a)6

This MOE chapter should explain how the audit of an independent monitoring function is organised and managed in accordance with TCAR Part 145 requirements. In particular, this MOE chapter should describe how the requirements for systems and procedures audits are complied with and the methodology of the audit. Small organisations may choose to subcontract the audits to another organisation or an outside person with satisfactory technical knowledge and satisfactory audit experience, but the compliance monitoring system cannot be subcontracted.

3.8.1 Plan and Audit Procedures

- ☐ Definition of the system or procedures audit
  - Single audit or subdivided audit program over 12 months
- ☐ System or procedures audit plan
  - The audit plan should ensure that all aspects of TCAR Part 145 compliance are checked every 12 months. The cross-reference table included in section 1.5 of this GM can be used as a reference for a compliance check of applicable regulation requirements and MOE chapters and can also be used to determine the expected detail in the system or procedures audit.
  - Annual audit planning procedures
  - Grouping of audits
  - Dates and timeframe
  - Audit of the compliance monitoring system by an independent auditor, being either:
    - A person employed by the maintenance organisation and working in another department (e.g. production), or
    - A person contracted by the maintenance organisation (part-time basis or short time contract based on TCAR Part 145, 145.A.30(d)) to perform audits on the compliance monitoring system procedures.
  - Audit of contracted organisations, subcontractors or suppliers, depending upon the monitoring criteria defined in MOE chapter 2.1.
  - Scheduled audits and unannounced audits to be carried out during maintenance, including night shifts.
  - Validation, internal approval and management of changes of the audit plan
  - Follow up of the audit plan (e.g. schedule, audit completed, audit report issued, Findings status as defined in MOE paragraph 3.8.3.)

For an example of the audit plan, refer to the table at the end of this paragraph.

- ☐ Maintenance organisation audit policy, including compliance audit:
  - Audit notification
  - Audit reports (e.g. documents used, writer, issuance, scope, Findings classification, and deadline for non-compliance rectifications)
  - Reference can be made to MOE paragraph 3.8.3 detailing the audit findings and corrective action procedures
  - Allocation of resources to the audit (e.g. audit team, team leader)
  - Procedures when deviations are noted on a line of products
- ☐ Compliance monitoring audit reports and retention:
  - Duration (at least 5 years from the date of the Findings closure) and location
  - Type of documents (e.g. audit notification, audit reports, checklists and audit plans)

- Audit report should be raised every time a system audit is carried out describing what was checked and the resulting Findings against applicable requirements, procedures and products.

The following describes one example of an acceptable audit plan, with associated criteria that should be met:

- Audit plan is intended to monitor compliance with the applicable requirements and at the same time review all areas of the maintenance organisation where such requirements are applicable
- Identification of all regulatory requirements that are applicable to activities and the scope of work under consideration:
  - Each topic (e.g. facilities, personnel) should be cross-referred to the relevant requirements and related procedure in the MOE.
  - If an AMC is applied to demonstrate compliance with TCAR Part 145 requirements, that information should also be stated.
- Identification of all functional areas in which TCAR Part 145 requirements are intended to be carried out, including applicable subcontracting of any topic to each functional area
- A matrix can be used, as shown in the example below:
  - This matrix is intended to be a living document to be customised by each particular maintenance organisation depending upon scope of work and structure.
  - This matrix should show the overall compliance of the audit system and needs to be amended, as necessary, based upon any change to the applicable regulations, the procedures, or functional areas of the maintenance organisation (a change in the scope of work to include line maintenance, etc.).

Topic	**Requirement**	**MOE**	**Functional Areas**				
			Base Maintenance	**Compliance Monitoring**	**Subcontracting**	**Component Workshop**	**…**
Facilities	145.A.25(a)(1)	1.8	X	N/A	X	X	…
	AMC 145.A.25(a)	2.22	X	N/A	N/A	X	…
	…	…	…	…	…	…	…
Personnel	…	…	…	…	…	…	…
	145.A.30(c)	1.4	N/A	X	N/A	N/A	…
	145.A.30(d)	1.7, 2.22	X	X	X	X	…
	…	…	…	…	…	…	…
Record-keeping	145.A.55	…	…	…	…	…	…
…	…	…	…	…	…	…	…

- The audit plan can be presented as a simplified schedule (see below), showing the operational areas of the organisation against a timetable to indicate when each particular area was scheduled for audit and when the audit was completed. The audit plan should include a number of product audits (depending upon the number of product lines), some of which should be unannounced.
  - Example of an audit plan for an organisation, mentioned above, that has 2 base maintenance hangars, hydraulic and electrical workshops and a subcontractor:

Operational Area	Functional Area	Planned	Completed	Remarks
Base maintenance hangar 1	Base maintenance	mmm yyyy	dd mmm yyyy	
Base maintenance hangar 2	Base maintenance	mmm yyyy	dd mmm yyyy	
Hydraulic workshop	Component workshop	mmm yyyy	dd mmm yyyy	
Electrical workshop	Component workshop	mmm yyyy	dd mmm yyyy	
Subcontractor 1	Subcontracting	mmm yyyy	dd mmm yyyy	
Product audit 1	Base maintenance	mmm yyyy	dd mmm yyyy	
Product audit 2	Component workshop	unannounced	dd mmm yyyy	
…	…	…	…	

- The audit of each operational area should review all the topics that are applicable to the relevant functional area:
  - For each topic, the audit should check that the particular TCAR Part 145 requirement is documented in the corresponding procedure in the MOE and that the procedure is effectively implemented in the operational area that is being audited
  - Any practice or process implemented in the operational area, which has not been documented in any procedure in the MOE, should be identified.

3.8.2 Product Audit of Aircraft and Inspections

Reference: 145.A.200(a)3, AMC1 145.A.200(a)3(g), AMC1 145.A.200(a)6, AMC2 145.A.200(a)6, AMC3 145.A.200(a)6, AMC4 145.A.200(a)6, GM1 145.A.200(a)6, GM2 145.A.200(a)6

This MOE paragraph should describe the procedures related to product audits (e.g. aircraft, aircraft components, engines and specialised services) according to TCAR Part 145.

Small maintenance organisations may choose to subcontract the audits to another organisation or an outside person with satisfactory technical knowledge and satisfactory audit experience. For details, refer to MOE chapter 3.11.

☐ Definition of Product Audit

The sample check of a product to witness any relevant testing and visually inspect the product and associated documentation. The sample check should not involve repeated disassembly or testing unless the sample check identifies Findings requiring such action.

☐ Product Audit Policy:
- Dedicated product audit policy may be added, provided it does not conflict with the one described in MOE paragraph 3.8.1.
- Audit procedure should include the quality audit of aircraft, components, or specialised services.

☐ Product Audit Program:
- Product samples for each line of product (e.g. aircraft, components, engines or specialised services)
- Dates and timeframe

☐ Product Auditing Methods:
- Sampling
- Trail or Investigation audits

- ☐ Records of Product Audit Reports:
  - Duration (for at least 5 years from the date of the Findings closure) and location
  - Type of documents (e.g. notifications, audit reports, checklists, audit plans)

An audit report should be raised each time a product audit is carried out, describing what was checked and the resulting Findings against applicable requirements, procedures and products.

3.8.3 Audit Findings and Corrective Action Procedures

Reference: 145.A.200(a)3, AMC1 145.A.200(a)3(g), AMC1 145.A.200(a)6, AMC2 145.A.200(a)6, AMC3 145.A.200(a)6, AMC4 145.A.200(a)6, GM1 145.A.200(a)6, GM2 145.A.200(a)6, 145.A.95(a), 145.A.95(b), 145.A.95(c)

This paragraph should describe the procedures for follow-up of corrective actions.

- ☐ Findings classification refer to TCAR Part 145, 145.A.95
  - Notification to the Accountable Manager and CAAT where a Level 1 Finding is identified by the internal audit and immediate actions to self-limit the approval or privileges as necessary
- ☐ Management of Findings due dates:
  - Alert system, Findings database
  - Extension of due dates
  - Procedure describing maintenance organisation actions when the corrective action deadline has to be postponed or when the rectification has not been completed on time
- ☐ Corrective action process:
  - Corrective action planning and follow-up (e.g. notification, corrective action acceptance, opening and closure)

Findings follow-up should describe the actions taken by the auditor or auditing manager to verify the implementation of corrective actions.

  - The corrective action plan should be designed to identify and record the Findings, the root cause, the relevant immediate and long-term preventive actions with the appropriate timescales
  - Management responsibilities for corrective actions and follow-up
  - Process of corrective actions following Findings from CAAT

- ☐ Description of the compliance monitoring feedback reporting system
  - Access to Accountable Manager
  - Review of the compliance monitoring function overall results
  - Meetings with the Accountable Manager, including record of meeting procedures
  - Regular meetings to check the progress of corrective actions
  - All records pertaining to the independent audit and the feedback system should be retained for the period specified in TCAR Part 145, 145.A.55(c) or for such periods as to support changes to the audit planning cycle in accordance with AMC2 145.A.200(a)6, whichever is the longer.

Note: The compliance monitoring feedback reporting system cannot be subcontracted.

3.8.4 Management System, Contracting and Subcontracting Records

- ☐ Record of management system key processes:
  - Hazard identification
  - Safety risk management
  - Internal investigation
  - Safety performance monitoring and measurement
  - Management of change
  - Continuous improvement
  - Immediate safety action and coordination with the aircraft operator's ERP
- ☐ Record of compliance monitoring
  - Independent audit
  - Feedback system
- ☐ Record of contracting and subcontracting
  - Format of the management system, contracting and subcontracting records
  - Paper or computer system and related backup
- ☐ Records storage conditions (e.g. fire extinguisher system, fire detection) and retrieval of records (paper or computer-based)
- ☐ Control of access to records (paper or computer-based records)
- ☐ Lost or destroyed records (reconstruction and CAAT acceptance). This procedure should only be proposed to CAAT in case of actual need.
- ☐ Retention of records
  - Minimum records retention period is 5 years
  - Methods and security

3.9 Certifying Staff and Support Staff Qualifications and Training Procedures

Reference: 145.A.30(e), 145.A.30(f), 145.A.30(g), AMC 145.A.30(g), 145.A.30(h)1, 145.A.30(h)2, 145.A.30(i), AMC 145.A.30(h), 145.A.30(j)1, 145.A.30(j)2, AMC 145.A.30(f), 145.A.35(a),145.A.35(b), 145.A.35(c), 145.A.35(d), 145.A.35(e), 145.A.35(f), 145.A.35(g), 145.A.35(h), 145.A.35(m), 145.A.35(o), AMC 145.A.35(b), AMC 145.A.35(c), AMC 145.A.35(d), AMC 145.A.35(e), AMC 145.A.35(f), AMC 145.A.35(o), Appendix IV

This MOE chapter should describe qualification procedures for the certifying staff and support staff qualification in accordance with RCAB 77 Article 8.A.1, Article 8.A.2 and Article 8.A.3. Clear differentiation is expected for each different rating in the scope of work (e.g. aircraft, engines, components, specialised services).

3.9.1 Aircraft C/S – S/S

- ☐ The minimum age for C/S and S/S is 21 years.
- ☐ Experience, training and competency requirements, including compliance with TCAR Part 145 Appendix IV for staff not qualified in accordance with the applicable regulation for CAAT aircraft maintenance licensing.
- ☐ TCAR Part 145 C/S – S/S individual authorisation - requirements for initial issue, extension (scope of work), renewal, withdrawal of the authorisation, including, as applicable:
  - Certification Authorisation for aircraft line or base maintenance C/S
  - Individual Authorisation for aircraft base maintenance S/S
- ☐ Continuation training procedures (e.g. maintenance organisation procedures, new technology, human factors issues)
- ☐ Demonstration of 6/24 months maintenance experience, including a table of similar

aircraft types (relevant to the scope of work held by the maintenance organisation) to be used for the demonstration of 6/24 months requirement

☐ One-off certification authorisation - CRS procedure following one-off authorisation to be included in MOE chapter 2.16

The competency assessment process for issuance, extension, and renewal of the TCAR Part 145 C/S – S/S individual authorisation should be described in MOE chapter 3.18.

For further guidance, refer to:

- Guidance Material – Aircraft C/S and S/S (CAAT-AIR-GM-507)
- Guidance Material – Aircraft Type Training (Theoretical and Practical) (CAAT-AIR-GM-508)
- Guidance Material – Demonstration Of 6/24 Months Maintenance Experience (CAAT-AIR-GM-509)
- Guidance Material – Aircraft Maintenance (CAAT-AIR-GM-513)

3.9.2 Components, Engines and APU Certifying Staff

☐ The minimum age for C/S and S/S is 21 years.
☐ Experience, training and competency requirements
☐ TCAR Part 145 C/S individual authorisation - initial issue, extension (scope of work), renewal and withdrawal procedures

The competency assessment process for issuance, extension, renewal of the TCAR Part 145 C/S individual authorisation should be described in MOE chapter 3.18.

☐ Continuation training procedures (e.g. maintenance organisation procedures, new technology, human factors issues)
☐ Demonstration of 6/24 months maintenance experience including criteria to define similarity of engines, components or APUs, relevant to the scope of work held by the maintenance organisation, to be used for the demonstration of 6/24 months requirement.

For further guidance, refer to:

- Guidance Material – Components, Engines and APU Certifying Staff (CAAT-AIR-GM-510)
- Guidance Material – Demonstration of 6/24 Months Maintenance Experience (CAAT-AIR-GM-509)

3.9.3 Specialised Services (NDT) Certifying Staff

☐ The minimum age for C/S and S/S is 21 years
☐ Internal experience, training and competency requirements in addition to EN4179
☐ TCAR Part 145 C/S individual authorisation - initial issue, extension (scope of work), renewal and withdrawal procedures

Note:
The competency assessment process for issuance, extension, renewal of TCAR Part 145 C/S individual authorisation should be described in MOE chapter 3.18.

☐ Continuation training procedures (e.g. maintenance organisation procedures, new technology, human factors issues)
☐ Demonstration of 6/24 months maintenance experience

For further guidance, refer to Guidance Material – Demonstration of 6/24 Months Maintenance Experience (CAAT-AIR-GM-509).

3.10 Certifying Staff and Support Staff Records

Reference: 145.A.35(j), AMC 145.A.35(j), 145.A.35(k), 145.A.35(l), 145.A.35(h)

This MOE chapter should describe how the C/S – S/S records are managed.

- ☐ Composition of the records:
  - Identity
  - date of birth
  - TCAR Part 145 C/S – S/S individual authorisation reference number
  - Experience
  - Scope of the authorisation, date of issue, validity
  - Copy of the licence
  - Copy of diplomas, copy of training certificate
  - Continuation training
  - Copy of the TCAR Part 145 C/S – S/S individual authorisation
  - Summary sheet
  - C/S assessment check lists and associated documents and materials
  - Type of records - electronic or paper copy
  - Management of C/S records
  - etc.
- ☐ Retention of records
  - Duration and location
  - Type of documents
- ☐ Format of the TCAR Part 145 C/S – S/S individual authorisation document and authorisation codes
- ☐ Procedure to ensure C/S can show their authorisation certificate to any authorised person within 24 hours, including line maintenance locations and activities outside the approved locations, etc.
- ☐ Control of C/S records:
  - Authorised persons
  - CAAT personnel
  - Authorised managers
  - Delivery of a copy of their TCAR Part 145 C/S – S/S individual authorisation in either a documented or electronic format. The scope of work has to be detailed, including limitations when applicable.
- ☐ Access to records
  - C/S – S/S should be given access upon request to their personal records
  - Maintenance organisation should furnish C/S – S/S with a copy of their personal record upon request, when leaving the organisation.

3.11 Compliance Monitoring and Safety Management Personnel

Reference: 145.A.30(c), 145.A.30(ca)

This MOE chapter should describe how compliance monitoring and safety management personnel are managed.

- ☐ Required experience and competency (e.g. professional background, minimum number of audits performed under supervision)
- ☐ Required training including audit techniques, regulations, MOE and continuation training
- ☐ Specific experience and technical training in order to be authorised to audit specific areas or to cover specific audit functions, as applicable to the maintenance organisation (e.g. audit of NDT areas, Lead Auditor)
- ☐ Scope of authorisation for auditors (e.g. Product Auditor, System Auditor, NDT Auditor)
- ☐ Authorisation issuance, extension, renewal or withdrawal procedures

Note: The competency assessment process for issuance, extension, and renewal of the TCAR Part 145 authorisation should be described in MOE chapter 3.18.

- ☐ Independence of compliance monitoring audit personnel when the maintenance organisation uses skilled personnel working within another department, other than that of compliance monitoring
- ☐ Retention of records:
  - Duration and location
  - Type of documents
- ☐ Process to check that the number of compliance monitoring personnel remains relative to the maintenance activity to be supervised, refer to MOE chapter 2.22
- ☐ Allocated man-hours (if not full-time employed)

3.12 Qualifying Inspectors

Reference: 145.A.30(e)

This MOE chapter should describe the qualification and authorisation of the inspectors, which undertake inspection functions and sign-off related tasks.

- ☐ Identification of the various types of inspectors in the maintenance organisation

The various types of inspector personnel, as applicable to the maintenance organisation, should be addressed (e.g. aircraft inspector, component inspector, engine inspector, store receiving inspector), with a clear differentiation for each different rating in the scope of work (e.g. aircraft, engines, components, specialised services).

It is recommended that a list of all maintenance personnel, formally authorised to sign-off tasks as Inspectors, is available in the maintenance organisation under the control of the compliance monitoring Manager

For example, they may be authorised:

- As aircraft, component and engine inspectors, in order to sign-off the tasks performed under supervision, refer to MOE chapter 2.13 table
- As aircraft, component and engine inspectors, in order to sign-off independent inspection tasks, refer to MOE chapter 2.13 table
- As receiving inspectors, to perform and attest to the receiving inspection of aircraft components and materials as detailed in MOE chapter 2.2

An aircraft, component and engine inspector is not authorised to issue a release to service for aircraft or components or engines, unless they also hold a certifying staff privilege.

In the aircraft base maintenance environment, the inspector's function does not correspond to the S/S function. After the task sign-off, a further inspection stage is necessary by RCAB 77 Article 8.A.1, 8.A.2, and 8.A.3 S/S, as applicable. S/S should ensure that all relevant tasks or inspections have been carried out to the required standard before the RCAB 77 Article 8.A.1 C/S issues the CRS.

Where staff are holding more than one authorisation (e.g. mechanic, inspector and C/S), the different authorisations must be clearly distinguished. For example, a person may be at the same time:

- airframe mechanic on the A320 (CFM56), B777 (GE90) and ERJ-170 (GE CF34)
- airframe inspector on the A320 (CFM56) and B777 (GE90)
- holding an authorisation as C/S only for the B777 (GE90)

☐ Experience, training and competency requirements:
  - Aeronautical and practical experience
  - General Training (FTS, CDCCL, EWIS when needed and Human Factors, MOE, standard practices, etc.)
  - Specific training requirements applicable to the scope of activity (aircraft, engines, stores, etc.)
  - Knowledge of the language in which the maintenance approved data is written
  - Authorisation issuance, extensions, renewals or withdrawal procedures including scope of authorisation

The competency assessment process for issuance, extension, renewal of the TCAR Part 145 authorisation should be described in MOE chapter 3.18.

☐ Continuation training procedures, including:
  - Training program (MOE and associated procedures, TCAR Part 145, Human Factors, special requirements, etc.)
  - Training set-up
  - Duration and intervals

☐ Retention of records
  - Duration and location
  - Type of documents

3.13 Qualifying Mechanics

Reference: 145.A.30(e)

This MOE chapter should refer to the different specialties of mechanics (e.g. airframe mechanics, powerplant mechanics, avionics, sheet metal workers, cabin, fuel, engines, painters, welders, cleaners, components, NDT staff, composites, line maintenance), as applicable to the maintenance organisation. Those personnel have to be authorised by the maintenance organisation approved under TCAR Part 145 to sign-off tasks that they have personally performed. Consistency should be ensured with the sign-off policy described in MOE chapter 2.13. An authorised mechanic is not authorised to issue a release to service for aircraft, components, engines or NDT, unless they also hold a certifying staff privilege.

☐ Identification of the various types of mechanics in the maintenance organisation

It is recommended, that a list of all maintenance personnel, formally authorised to sign-off tasks as mechanics, is available in the maintenance organisation under the control of the Compliance Monitoring Manager.
Where staff hold more than one authorisation (e.g. mechanic, inspector, C/S), the different authorisations must be clearly distinguished. For example, a person may be at the same time:

- airframe mechanic on the A320 (CFM56), B777 (GE90) and ERJ-170 (GE CF34)
- airframe inspector on the A320 (CFM56) and B777 (GE90)
- holding an authorisation as C/S only for the B777 (GE90)

There should be clear differentiation for each different rating in the scope of work (e.g. aircraft, engines, components and specialised services)

- ☐ Experience, training and competency requirements
- ☐ Aeronautical and practical experience,
- ☐ General training (e.g. FTS, CDCCL, EWIS when needed and Human Factors, MOE, standard practices)
- ☐ Specific training requirements applicable to the scope of activity (e.g. aircraft, engines)
- ☐ Knowledge of the language in which the maintenance approved data is written
- ☐ Authorisations issuance, extensions, renewals or withdrawal procedures including scope of authorisation

The competency assessment process for issuance, extension, renewal of the TCAR Part 145 Authorisation should be described in MOE chapter 3.18.

- ☐ Continuation training procedures
  - Training program (e.g. MOE and associated procedures, TCAR PART 145, Human Factors, specific technical requirements)
  - Training set-up
  - Duration and intervals
- ☐ Retention of records
  - Duration and location
  - Type of documents

3.14 Control of the Process for Exemptions from Aircraft/Aircraft Component Maintenance Tasks

Reference: 145.A.65(2), AMC1 145.A.65(2)

This MOE chapter should describe the procedures of the maintenance organisation regarding exceptional authorisations related to maintenance tasks. Deviations have to be requested by the operator to CAAT or granted by the operator in accordance with a procedure acceptable to CAAT. The contract between the operator and the maintenance organisation must specify the level of support that the maintenance organisation may provide to the operator in order to substantiate the deviation request. This MOE chapter should be applicable only under these circumstances.

- ☐ System for control and processing with CAAT for exemptions:
  - Support to operator for a one-time extension of a task interval due to unavailability of tools, materials, parts, etc.
  - Relationship with the operator in a case of exemption for an intervention in progress by the workshop
  - Supply the operator with information enabling the formulation of requests for

exceptional authorisation applications
- Control of the approval by CAAT (linked with CRS)

The difference between work associated with the exceptional authorisation application related to maintenance tasks, on behalf of the operator and the normal TCAR Part 145 activities should be considered.

3.15 Concession Control for Deviations from Organisational Procedures

Reference: AMC 145.A.65(2)

This MOE chapter should describe the procedures to be followed by the maintenance organisation in order to deviate from the approved MOE procedures.

Any request for concession to deviate from MOE procedures must remain in compliance with any regulatory requirement, with particular reference to TCAR Part 145. Under no circumstances may this MOE chapter be used to deviate from regulatory requirements.

- ☐ Concession criteria:
  - Objective, procedures involved, justifications, compensatory conditions, period of validity, etc.
  - Concession management procedure
  - Internal evaluation
  - Drafting process
  - Response
  - Internal validation process and follow-up
  - System of approval and control of concession
- ☐ Feedback from the compliance monitoring system to CAAT
  - Any concession must be approved by CAAT

3.16 Qualification Procedure for Specialised Activities (e.g. NDT, Welding)

Reference: 145.A.30(f), AMC1 145.A.30(f), AMC 145.A.65(b)(2), AMC1 145.A.30(e), GM2 145.A.30(e), GM3 145.A.30(e)

This MOE chapter must refer to the qualification of specialised services staff such as defined in AMC1 145.A.30(f). It should apply to all the specialised services mentioned in MOE paragraph 1.9.4 (e.g. NDT, painting, welding, machining, NDI).

This MOE chapter should be structured to provide qualification requirements for each group of specialised services staff in a separate paragraph.

EN4179 requires that an NDT written practice must be in place to define:

- ☐ Specific techniques for each NDT method used in the maintenance organisation
- ☐ Qualification and authorisation of NDT staff to meet the requirements of EN4179

The following document must be issued:

- ☐ A document associated to the MOE to be referred to as the NDT Manual, detailing only the technical compliance of NDT activities and techniques under the control and approval of the responsible NDT Level 3 – refer to MOE chapter 1.9. In addition, the related approval

process is to be described in MOE chapter 1.11.

☐ A procedure detailing the qualification and authorisation of NDT staff is to be included in MOE chapter 3.11.

3.16.1 NDT Personnel

☐ NDT staff
- List of NDT personnel
- Levels of qualification and authorisations
- Role and privileges of these staff (including responsible Level 3 person who must approve the organisation's NDT Manual)

☐ Experience and qualification
- Criteria regarding experience, training and skills
- Experience required by NDT methods for each level of authorisation
- Responsible NDT Level 3 must demonstrate an appropriate knowledge of the manufacturers' maintenance data, TCAR Part 145 requirements, MOE, Human Factors, FTS and EWIS
- Level 3 requires suitable training and examination provided by an organisation under the general control of an EU NDT Board, or any other NDT Board acceptable to CAAT

☐ Training
- Basic NDT training for each level of authorisation
- Training on the NDT procedures of the maintenance organisation

☐ Examination
- Procedure for skills assessment (practical assessment and examination related to the job card)
- General examination on the fundamentals of the NDT methods
- Specific examination by NDT method
- Practical examination by level of authorisation
- Medical examination
- Eyesight testing

☐ Continuation training and testing

☐ Authorisations issuance, renewal or withdraw procedures

☐ Retention of NDT staff records
- Duration and location
- Types of documents

☐ Contract arrangement, applicable in the case of contracted staff as per AMC1 145.A.30(d)

The C/S authorised in accordance with RCAB 77 Article 8.A.1 of the applicable regulation for CAAT aircraft maintenance engineer license (limited to staff holding a CAAT AMEL), can carry out or control colour contrast dye penetrant tests.

When maintenance organisation uses NDT methods defined by EN 4179 paragraph 6.4 as an emerging NDT method, the related requirements for personnel training, experience and examination should be established by the maintenance organisation in accordance with EN 4179 and the particular equipment manufacturers' recommendations.

This MOE chapter should also describe the qualification requirements applicable to NDT Level 3, particularly when they are contracted or not C/S.

For further guidance on NDT Level 3 qualification requirements, refer to Guidance Material –

Management Personnel (CAAT-AIR-GM-505).

3.16.2 Other Specialised Activities Personnel (Welders, Painters, etc.)

- ☐ Identification of the various types of specialised activities personnel in the maintenance organisation

The maintenance organisation should include the qualification process for each specialised activity (refer to MOE paragraph 3.16.1 for an example of the topics listed for NDT staff qualification procedure). The qualification process should be based on international industry standards or manufacturer published standards.

3.17 Management of External Working Teams

Reference: 145.A.75(b), AMC 145.A.75(b), AMC 145.A.10, 145.A.55(a)

This MOE chapter should refer to the role of outside teams acting in the premises of the maintenance organisation to carry out a maintenance task on an aircraft, engine or component in the scope of a task under the responsibility of the maintenance organisation.

3.17.1 External Team Working under their own TCAR Part 145 Approval

In this case, at the end of the work, the external team must issue their own CRS for the work done (aircraft CRS or CAAT Form 1, as applicable).

- ☐ Segregation between the two maintenance organisations working in the same premises
- ☐ Clear work order provided to the external working team
- ☐ Type of support (e.g. tools, equipment, facilities) made available to the external team
- ☐ Management of the progress of work (e.g. meetings)
- ☐ TCAR Part 145 CRS to be expected from the external team

3.17.2 External Working Team not holding TCAR Part 145 Approval

In this case, the external working team should be considered as a subcontractor and the applicable procedures developed in MOE chapter 2.1 should be followed. The maintenance organisation should be listed in MOE chapter 5.2 together with the scope of authorisation.

- ☐ Control of the subcontractor
- ☐ System for control of materials, tools, working instructions and procedures
- ☐ System for control of documentation such as drawings, modification, repairs instructions
- ☐ Management of the progress of work (e.g. meetings)
- ☐ Certification procedure for work performed by the outside team (e.g. repairs, replacements, modifications, overhauls, tests, inspections)
- ☐ Environmental conditions
- ☐ Final certification
- ☐ Training on internal procedures to external staff

3.18 Competency Assessment of Personnel

Reference: 145.A.30(a)3, 145.A.30(cc), 145.A.30(e), AMC 145.A.30(a), AMC1 145.A.30(e) , AMC3 145.A.30(e) ,AMC4 145.A.30(e), AMC5 145.A.30(e), GM2 145.A.30(e), GM3 145.A.30(e), 145.A.35(a), AMC 145.A.35(a)

This MOE chapter applies to all maintenance personnel involved in TCAR Part 145 activities (management personnel, C/S, mechanics, inspectors, compliance monitoring auditors, engineering staff, production planning staff, store inspectors, tools administrators, purchasers, etc.).
The qualification requirements to be assessed for each category of staff (being different for each staff category) are expected to be found in the relevant MOE chapter, for example:

- MOE chapter 3.10 in the case of C/S – S/S
- MOE chapter 3.11 for compliance monitoring and safety management auditors
- MOE chapter 3.12 for inspectors
- MOE chapter 3.13 for mechanics
- etc.

☐ Management of competency assessments
  - Procedures for initial issuance, extension and renewal of an authorisation (process and methods used)
  - Responsible person
  - Intervals
  - Assessors
  - Examination and assessment committee
  - Actions to be taken when the assessment is not satisfactory

☐ Competency assessment should include:
  - Verification that all the applicable qualification requirements for the specific category of staff as detailed in the relevant MOE chapter and Job Description are met, for example MOE chapter 3.9 in the case of C/S.
  - Verification of the competencies listed in GM2 145.A.30(e) and include verification of:
    - relevant knowledge skills and experience on the product or technical area as applicable to the job function
    - appropriate attitude towards safety and observance of procedures
    - knowledge of the procedures as applicable to the job function (e.g. handling and identification of components, MEL use)

☐ Competency assessments should be based on:
  - Review of personnel records
  - Interviews
  - Evaluation of competency On-the-Job performance or testing of knowledge by appropriately qualified staff (e.g. in the case where the assessment is related to a new activity for which the maintenance organisation is not yet approved, such as a new aircraft type, new component, new maintenance level)

☐ Assessment records
  - Retention at least 5 years
  - Location
  - Type of documents
  - Clear identification of the scope of the assessment (initial, extension or renewal of an TCAR Part 145 C/S – S/S individual authorisation).

For example:

- For aircraft C/S, which aircraft types and which of the following categories are assessed for endorsement in the authorisation (initial or extension of privileges)
  - RCAB 77 Article 8.A.1 C/S, S/S
  - RCAB 77 Article 8.A.2 and 8.A.3 S/S
  - RCAB 77 Article 8.A.1 base maintenance C/S
  - etc.

- For components C/S, which ratings (e.g. C14, C6, C5) and which specific components associated to each rating (e.g. Landing Gears P/N, Battery P/N) are assessed for endorsement in the authorisation (initial or extension of privileges);
- For compliance monitoring and safety management auditors, what is the scope of the auditor authorisation (e.g. system, procedures or product audit)
- etc.

☐ The maintenance organisation should provide staff with a copy of their personal records, upon request, when leaving the organisation

A template in GM3 145.A.30(e) may be used to record the professional experience gained and the training received in the maintenance organisation. This document can be provided to staff when leaving the organisation together with associated evidence, such as training certificates or experience logbooks, etc., and be considered during the competency assessment of the individual in another organisation.

☐ Procedures to take credit for experience and training for new maintenance personnel joining the maintenance organisation - refer to GM3 145.A.30(e)
☐ Procedures to assess the need for EWIS training for the various categories of maintenance personnel, when applicable to the scope of approval of the maintenance organisation

For further guidance on EWIS training programs for maintenance organisation personnel, refer to Guidance Material – EWIS Training Program (CAAT-AIR-GM-515).

☐ Procedure to assess the need for FTS training for the various categories of maintenance personnel, with particular reference to those involved in the compliance of CDCCL tasks, when applicable to the scope of approval of the maintenance organisation - refer to Appendix I to AMC3 145.A.30(e)

PART 4 OPERATORS

This MOE Part is to be considered applicable only when the maintenance organisation is holding a maintenance contract for aircraft, and is intended to cover any operator specific requirement, which has to be endorsed in the MOE for the purpose of being used in the performance of maintenance. An example of this could be how to acquire the necessary information for removal of serviceable components, etc. It is recommended to have a separate procedure for each operator.

When the maintenance organisation provides a service in accordance with the IATA Standard Ground Handling Agreement, this part is not applicable. Line maintenance procedures to be followed are the ones indicated in MOE Part L2, and any other line maintenance procedures directly provided by the operator (e.g. operator line station manual).

4.1 Contracting Operators

Reference: 145.A.70(a)13

This MOE chapter should list those operators for whom maintenance is provided, with details of the types of aircraft, engines, APUs and the scope of work undertaken (e.g. Base maintenance, Line maintenance, Defect rectification) with any limitations.

4.2 Operator Procedures and Paperwork

Reference: 145.A.65(1), AMC1 145.A.65, GM1 145.A.65(1), GM1 145.A.70(a)

This MOE chapter should describe the special mode of operation between the maintenance organisation and each contracting operator.

- ☐ Details of:
  - Procedures
  - Documents
  - Exchange of information, regarding:
    - Planning meetings
    - Technical issues
    - Quality of the maintenance performed
    - Reliability of the maintenance performed
- ☐ Training on customer operator procedures, including procedures to ensure correct completion of customer provided work cards (e.g. training on customer paperwork)

4.3 Completion of Operator Records

Reference: 145.A.60(d), 145.A.65(b)1, 145.A.55(b), 145.A.55(c)1, 145.A.55(c)2, 145.A.55(c)3

This MOE chapter should describe, for each contracting operator, how the maintenance organisation:

- ☐ completes operator's log books
- ☐ maintains the operator's technical records
- ☐ retains records on behalf of the operator
- ☐ communicates with the operator

PART 5 SUPPORTING DOCUMENTS

5.1 Sample of Documents

Reference: AMC 145.A.70(a)

This MOE chapter should list all the documents and forms in use by the maintenance organisation. Each form should be uniquely identified with a number and revision date to allow traceability of changes.

The following list is given as an example:

- ☐ Request to CAAT for approval of an MOE amendment
- ☐ Request to CAAT for acceptance of a capability list change
- ☐ Material tags: serviceable, unserviceable and scrap labels
- ☐ Tooling identification tag
- ☐ Maintenance task card (scheduled maintenance)
- ☐ Maintenance task card (additional defects)
- ☐ Base maintenance CRS
- ☐ Line maintenance CRS
- ☐ CAAT Form 1
- ☐ Compliance monitoring audit report form
- ☐ Compliance monitoring audit corrective action report form
- ☐ Personnel training records
- ☐ TCAR Part 145 C/S – S/S individual authorisations
- ☐ etc.

5.2 List of Subcontractors as per 145.A.75(b)

Reference: 145.A.70(a)14, 145.A.75(b)

This MOE chapter should:

- ☐ list the subcontractors, not holding a TCAR Part 145 approval, working under the maintenance organisation compliance monitoring system;
- ☐ be linked with MOE chapter 2.1 and 2.2.

5.3 List of Line Maintenance Locations as per 145.A.75(d)

Reference: 145.A.70(a)15, 145.A.75(d)

This MOE chapter should:

- ☐ list the line station locations, including airports and address;
- ☐ be linked with MOE chapter 1.8 and 1.9.

5.4 List of Contracted Organisations as per 145.A.70(a)16

Reference: 145.A.70(a)16

This MOE chapter should:

- ☐ list the contracted organisations holding a CAAT approval for the maintenance activity contracted;
- ☐ be linked with MOE chapter 2.1 and 2.2.

The lists shown in 5.2, 5.3 and 5.4, whether included in or associated with the basic MOE, are an integral part of the approval. This means that they should be approved directly by CAAT or by the maintenance organisation through a procedure previously approved by CAAT (refer to MOE chapter 1.10 and 1.11).

PART 6 OPERATOR MAINTENANCE PROCEDURES

This MOE Part is reserved for those maintenance organisations approved under TCAR Part 145, who are also operators. Details of operator maintenance procedures should be referred to in this MOE Part.

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