BHUTAN CIVIL AVIATION AUTHORITY

Guidance Material

GM-AIR-08

Guidance on BCAR-145 Maintenance Organisation Exposition

Issue 01

September 2026

Foreword

This Guidance Material (GM) is explanatory and interpretative material developed by the Bhutan Civil Aviation Authority (BCAA) to assist in the application of the requirements of BCAR-145 and the associated Acceptable Means of Compliance (AMC). It provides examples, best practices, and clarifications to facilitate a consistent understanding and application of the regulatory requirements without introducing additional regulatory obligations.

This GM has been developed to assist maintenance organisations in the preparation, revision, and maintenance of a Maintenance Organisation Exposition (MOE) in accordance with the requirements of BCAR-145. It is intended to promote a standardized approach to the development of an MOE by outlining the BCAA's expectations regarding its structure, content, and level of detail necessary to demonstrate compliance with the applicable requirements.

The BCAA encourages organisations to use this GM as a practical reference when developing or revising their MOE to facilitate an efficient review and approval process.

The scope, applicability, purpose, and entry into force of this GM are provided in para 0.3, 0.4, and 0.5, respectively.

Head of Authority

DIRECTOR GENERAL
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0. Introduction

0.1 Revision History

Issue	Issue date	Summary of Change
Issue 01	04 September 2026	First issue

0.2 Definitions & Abbreviations

Abbreviations	
AMC	Acceptable Means of Compliance
AML	Aircraft Maintenance Licence
AMO	Aircraft Maintenance Organisation
BARNs	Bhutan Air Navigation Regulations
BCAA	Bhutan Civil Aviation Authority
BCAR	Bhutan Civil Aviation Requirements
AMTO	Approved Maintenance Training Organisation
AOG	Aircraft On Ground
C/S	Certifying Staff
CC/S	Component Certifying Staff
EASA	European Union Aviation Safety Agency
EU	European Union
ESM	Engine Shop Manual
FAA	Federal Aviation Administration (U.S.A)
GM	Guidance Material
ILAC	International Laboratory Accreditation Cooperation
IORS	Internal Occurrence Reporting System
MOA	Maintenance Organisation Approval
MOAP	Maintenance Organisation Approval Procedures
MOE	Maintenance Organisation Exposition
MOR	Mandatory Occurrence Reporting
NDT	Non-Destructive Testing
NDI	Non-Destructive Inspection
OEM	Original Equipment Manufacturer
PMA	Parts Manufacturer Approval
PPB	Principal Place of Business
SRM	Structural Repair Manual
S/S	Support Staff
STCH	Supplemental Type Certificate Holder
TCCA	Transport Canada Civil Aviation
TCH	Type Certificate Holder
WH	Working Hours

0.3 Scope & Applicability

BCAA is the Competent Authority for BCAR-145 organisations. Having their principal place of business located within and outside of Bhutan, and the BCAA is responsible for the approval of these maintenance organisations and for establishing procedures detailing how BCAR-145 applications and approvals are managed.

The provisions of this user guide are complementary to the requirements of BCAR-145 requirement, "as amended", and does not supersede or replace the associated regulatory requirements.

0.4 Purpose

This user guide is designed to be used by:

- Approved Maintenance Organisations - To assist them in the production of their own MOE.
- BCAA – As a comparison document for MOEs submitted for approval

0.5 Entry into Force

This User Guide comes into force 30 days after publication on the BCAA website. Within this time frame the maintenance organisation shall assess the impact of this User Guide on the organisation's procedures and when relevant, propose a revision of the affected procedures to the BCAA.

The entry into force date of this User Guide does not supersede the need to comply with any other entry into force date(s) established by applicable regulatory requirements.

0.6 Associated Instructions

BCAA has developed associated instructions including Guidance, Checklists, Forms and Templates, that detail specific matters which have to be considered as an integral part of this GM. The organisations must refer to BCAA website (www.bcaa.gov.bt) for further information and necessary guidance.

0.7 Communication

All documents and correspondences between the maintenance organisation and BCAA shall be in the English/Dzongkha language. The official email is airworthiness@bcaa.gov.bt.

1. General Guidance

1.1 Preliminary Considerations

The MOE shall be customised by each organisation to demonstrate how they comply with:

- BCAR-145, and
- the BCAR-M paragraphs applicable to Maintenance Organisations and not already referred/mirrored in the BCAR-145 requirement, as listed below:

  - BCAR-M.A.201 (c) – Responsibilities,
  - BCAR-M.A.403 (b) – Aircraft defects.

For each detailed procedure described within the MOE, the BCAR-145 organisation should address the following questions:

  - What and when must it be done? Where and how must it be done? Who should do it?
  - Which procedural documentation should be used?

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

AMC 145.A.70 (a) states: "Where an organisation uses a different format, for example, to allow the exposition to serve for more than one BCAA approval, ……."

This AMC has to be read in conjunction with the implementing rules of the BCARs, thereby limiting the use of the BCAA BCAR-145 MOE for approvals covered by the BCARs.

Since the BCAA does not have any legal power to approve procedures, means and methods for maintenance activities falling outside the Bhutan Civil Aviation Requirements (BCARs), the MOE can only contain procedures, means and methods applicable to maintenance activities covered by the BCARs.

1.2 Exposition Format & Language

The MOE may be produced in hardcopy or electronic format;

- Hardcopy: BCAA does recommend using white paper (format A4); The MOE shall be provided in a binder with section dividers. (recto/verso can be used)

- Electronic Format: The Exposition should be in Portable Document Format (PDF) but a printed copy shall be delivered to the BCAA to facilitate the document study, along with the soft copy (PDF format) submitted via an email @ airworthiness@bcaa.gov.bt

The MOE shall be available in the English language.

1.3 Terms of Use

For the purposes of this guidance material, the references to the MOE document are identified by the following terms:

- "MOE Part" is used to identify the main parts of the MOE (e.g., Part 1 - Management, Part 2 - Maintenance Procedures, Part 3 - Quality System Procedures, etc.) as identified in the AMC 145.A.70.(a).
- "MOE chapter" is used to identify each chapter within an MOE Part (e.g., MOE 1.2 - Safety and quality policy, MOE 3.2 - Quality audit of aircraft, MOE 5.1 - sample of documents, etc.) as identified in the AMC 145.A.70.(a).
  - "MOE paragraph" is used to identify a paragraph within an MOE chapter (e.g., MOE 3.4.1 - "Aircraft Certifying Staff," MOE 3.4.2 - "Components Certifying Staff," etc.). At the paragraph level the

numbering system is not pre-identified in the BCAR-145 and it is left to the need of the organisation. Further division to sub-paragraphs may be also used.

1.4. MOE User Guide writing conventions

To facilitate the reading and understanding of this user guide, the following writing conventions are being used which applies to each MOE chapter:

Regulatory references
Reference to the applicable regulatory requirement and BCAA Guidance material is identified after each MOE chapter/paragraph as applicable.
A cross-reference table between MOE chapters/paragraphs to the regulatory references is provided in the following paragraph 1.5 of this User Guide.

Expected content of the organisation MOE:
This user guide is developed in a "check list format" to facilitate compliance check of the minimum expected content of the organisation MOE. In particular the bullet points are indicating the "expected content" of each chapter/paragraph. The expected content is identified with normal font.

It has to be considered however, that this user guide applies to any maintenance organisation with any scope of approval, therefore it is the organisation responsibility to identify the "expected content" applicable to the organisation.

When an "MOE paragraph" is identified in this user guide, the same paragraphs structure is expected to be found in the organisation MOE.

Examples: when major examples are being made to better visualise the expected MOE content, the term "EXAMPLE" in bold capital letters will proceed the example made. In case of a minor example within a text, which is done only to clarify the meaning of the text, the example is contained in brackets and preceded by the abbreviated term "in example", such as (e.g. text of the example, etc.).

Comments: comments and supporting information are inserted in "italics" font. They are not supposed to be themselves an expected content but only intended to provide additional clarifications.

Track Changes: changes introduced with the current revision of the user guide are identified by a vertical bar on the left hand side of the page.

1.5. Cross reference BCAR-145 versus MOE chapters

The expected content of each MOE chapter of this user guide has been established starting from the BCAR-145 requirements and the other BCAA guidance material according to the following cross reference table.

BCAR-145	MOE	BCAR-145	MOE
		145.40(b)	2.6, 2.5, 2.4
145.15	1.10	145.42(a)	2.19, 2.2, 2.1
145.20	1.9	145.42(b)	2.11, 2.3, 2.2
145.25(a)1	2.22, 1.8	145.42(c)	2.9, 2.2, 1.9
145.25(a)2	2.22, 1.8	145.42(d)	2.20, 2.19, 2.3, 2.2
145.25(b)	1.8		2.2
145.25(c)1	1.8	145.45(a)	2.9, 2.8
145.25(c)2	1.8	145.45(b)1	2.8
145.25(c)3	1.8	145.45(b)2	2.11, 2.8
145.25(c)4	1.8	145.45(b)3	2.8
145.25(c)5	1.8	145.45(b)4	2.8

145.25(c)6	1.8	145.45(b)5	2.8
145.25(d)	2.7, 2.3	145.45(c)	2.27
145.30(a)	1.3	145.45(d)	2.12, 2.8
145.30(a)1	1.4	145.45(e)	2.21, 2.13, 2.8
145.30(a)2	1.4, 1.2	145.45(f)	2.13, 2.8
145.30(a)3	3.14	145.45(g)	2.13, 2.8
145.30(b)1	1.4, 1.3	145.47(a)	2.28
145.30(b)2	1.3	145.47(b)	2.28, 2.22
145.30(b)3	3.14	145.47(c)	2.26, 2.22
145.30(b)4	1.3	145.48(a)	2.16
145.30(c)	1.4	145.48(b)	2.23
145.30(d)	2.22, 1.7	145.48(c)	2.25
145.30(e)	3.14, 3.13, 3.8, 3.7, 3.6, 3.4, 2.10	145.48(d)	2.12, 2.9
145.30(f)	3.14, 3.11, 3.4, 1.3	145.50(a)	2.16
145.30(g)	3.4, 2.16, 1.6	145.50(b)	2.16
145.30(h)1	3.4, 2.16, 1.6	145.50(c)	2.16, 2.15
145.30(h)2	3.4, 2.16, 1.6	145.50(d)	2.16
145.30(i)	3.4, 2.16, 1.6	145.50(e)	2.16, 2.15
145.30(j)1	3.4, 1.6	145.50(f)	2.16
145.30(j)2	3.4, 1.6	145.55(a)	3.12, 2.29, 2.16, 2.14, 2.13
145.30(j)3	2.16	145.55(b)	4.3
145.30(j)4	2.16	145.55(b)	2.17
145.30(j)5	2.16	145.55(c)1	4.3, 2.14
	1.6	145.55(c)2	4.3, 2.21, 2.14
	2.10, 1.6	145.55(c)3	4.3, 2.14
145.35(a)	3.14, 3.4, 2.16, 1.6	145.60(a)	2.18
145.35(b)	3.4	145.60(b)	2.18
145.35(c)	3.4	145.60(c)	2.18

1.6 Structure of the Exposition

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

- Single document: The standard MOE produced i.a.w. AMC 145.A.70 (a) is a unique and complete document. It must contain all the information required to show compliance with the BCAR including detailed maintenance procedures and detailed quality system procedures (see AMC 145.A.70 (a)).

- Several documents: The MOE must contain at least the information as detailed in AMC 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 shall 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, etc).
    Therefore the MOE chapter 1.11 is expected to summarise the associated procedures and/or lists references (refer to the chapter 1.11 for further guidance).

  - These associated documents must meet the same rules as described for the MOE and shall not make reference to any national approval;

  - This/these associated document(s), procedure(s) and form(s) etc. shall be provided to and approved by BCAA (as part of the MOE).

In that case, the MOE shall contain however a minimum information demonstrating compliance to the BCAR. An MOE chapter only referring to an associated procedure is not acceptable.

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

As the BCAA is referring to this user guide when reviewing the MOE submitted by the Maintenance Organisation, a different structure will result in additional workload and time. Therefore the Maintenance Organisation is strongly recommended to stick to the MOE structure described in AMC 145.A.70 and this user guide.

1.6.1 Management Control of the MOE

In order to properly monitor the approval, it is essential that the organisation clearly identifies the particular edition of the MOE and subsequent changes to it.

The MOE 1.11 chapter is intended to detail the methods chosen to identify changes to the MOE (e.g., issue/revision number, vertical bars, etc.).

Depending on the complexity and needs of an organisation, one of the two following possibilities is recommended:

MOE identified by both, an Issue number and Revision number.

This option uses two different numbering systems (Issue and Revision number).

Small changes to the MOE may only require a revision change, however when the organisation makes a change large enough to warrant an issue number change, the revision number will start again from "0".

An organisation may use this technique to delineate between large changes requiring the BCAA approval (Issue change) and small changes, approved by the organisation under an Indirect approval process (revision change). This capability will be considered on request.

Issue number	Issue date	Revision number	Revision date
1 **(initial)**	1/1/2021	0	1/1/2021
		1	17/2/2021
		2	25/3/2021
2	20/4/2021	0	20/4/2021
		1	10/5/2021
		2	15/6/2021

<u>MOE identified only by a revision (or issue) number.</u>

This solution requires any change to the MOE, however small, to be identified by a change of revision (or issue) number. The numbering of the revision (or issue) will start with "0" and increase at each revision.

Revision (or issue) Nr.	Revision (or issue) date
0 **(initial)**	1/1/2012
1	17/2/2012
2	25/3/2012

Note: In either case, the modified text should be clearly identified, e.g., using vertical bars, highlighting the changed text with a specific colour, etc.)

1.6.2 Exposition Pages Presentation

Each page of the MOE shall be identified as follows (this information may be added in the header or footer), as applicable depending on the MOE revision identification option chosen in the previous chapter of this User Guide:

- the name of the organisation (official name as defined on the BCAA Form 3 approval certificate);
- the issue number of the MOE;
- the issue date;
- the revision number of the MOE;
- the revision date;
- the chapter of the MOE (e.g. 1-5);
- the page number;
- the name of the document "Maintenance Organisation Exposition";

The cover page of the volume shall specify:

- the title "BCAR-145 Maintenance Organisation Exposition";
- Unique identification number given to the MOE (e.g. AMONAME-BCAA-DOC1).

A unique identification number is expected for each document which is part of the BCAA approval (refer to MOE 1.11). It is particularly helpful when managing electronic approvals of documents.

- The name of the organisation (the official one defined on the BCAA Form 3 approval certificate);
- The address, telephone, fax numbers and the generic e-mail address[1] of the Principal Place of Business of the Organisation;

- The copy number from the distribution list;
- The approval reference of the BCAR-145 organisation;

1.7 MOE Initial Approval Process

1.7.1 First Submission of the draft MOE.

Prior to submission of the 'draft' MOE to the BCAA for approval, the Accountable Manager must sign and date the Corporate Commitment statement (MOE chapter 1.1). This confirms that they have read the document and understand their responsibilities under the approval. In the case of change of the Accountable Manager the new incumbent shall sign the document and submit a suitable amendment to the BCAA for approval.

1.7.2 Tracking Changes to the Initial draft MOE.

Following the receipt of the first "draft" MOE, the BCAA will review it and formulate eventual remarks in writing to the maintenance organisation.

At the receipt of such remarks, the maintenance organisation is expected to revise the first "draft" and produce a second "draft" MOE, where all the remarks have been addressed. To have a clear tracking of the changes and to allow the review of the revised MOE by the BCAA, the following is expected:

- The maintenance organisation shall reply in writing to each remark explaining how it has been addressed and in which MOE chapter/paragraph.

- The maintenance organisation shall 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), <u>but changing the date to identify the new draft issued.</u>

  - Identifying clearly the text modified in each MOE chapter/paragraph (e.g., using vertical bars, highlighting with a specific colour the changed text, etc.)

This process will be eventually continued with the issue of a third, fourth, etc. "draft" MOE, until the Exposition is considered acceptable by the BCAA in order to proceed further with the technical investigation process.

Important note: The same principle applies to the successive revisions of the MOE and also to the documents associated to the exposition such as procedures and lists subject to BCAA approval.

[1] The generic email address is aimed to be used even though people in charge leave the company. The address should remain independent from a person and therefore without personal name.

2. MOE Structure and Content

PART 0 - INTRODUCTION

The following section provides AMC for the contents of an MOE. The paragraph numbering conforms to that detailed in BCAR-145.

0.1 Table of Contents

AMC 145.A.70(a)

For standardisation purposes and to facilitate the production of the MOE by the BCAR-145 maintenance organisation, the BCAA recommends adoption of the standardised MOE table of contents provided in the chapter 0.1 "table of contents" of this User Guide (MOE Part 0 to Part 5). The maintenance organisation should customise the document to suit their organisation and may add pages/paragraphs, as necessary.

Where any Part is not used or not relevant to the applicable organisation, then it shall be shown in the Exposition as 'Not Applicable.'

0.2 List of Effective Pages

See 1.6.1 of this document for details on Issue/Revision numbering.

This list of issue/revision shall allow traceability from the previously approved version.
The name of the organisation, the date of review, approval and the name of the person who has reviewed, approved the MOE should be included.

"EXAMPLE" 1: *The example below is uses both an Issue number and Revision number and clearly indicated the revision date of each page.*

Page no.	Issue no.	Revision no.	Revision Date	Page no.	Issue no.	Revision no.	Revision Date
PART 0				121	**1**	1	01/01/07
001	**2**	**0**	01/01/12	122	**1**	1	01/01/07
002	**2**	**0**	01/01/12	**PART 2**			
003	**2**	**0**	01/01/12	201	**1**	**0**	19/12/06
004	**2**	**0**	01/01/12	202	**1**	**0**	19/12/06
005	**2**	**0**	01/01/12	203	**1**	**0**	19/12/06
006	**2**	**0**	01/01/12	204	**1**	**0**	19/12/06
007	**2**	**0**	01/01/12	205	**1**	**0**	19/12/06
008	**2**	**0**	01/01/12	206	**1**	**0**	19/12/06
009	**2**	**0**	01/01/12	207	**1**	**1**	01/01/07
PART 1				**PART L2**			
101	**1**	**0**	19/12/06	L201	**1**	**0**	19/12/06
102	**1**	**0**	19/12/06	L202	**1**	**0**	19/12/06
103	**2**	**0**	01/01/12	L203	**1**	**0**	19/12/06
104	**1**	**1**	01/01/07	L204	**1**	**0**	19/12/06
105	**1**	**1**	01/01/07	**PART 3**			
106	**1**	**0**	19/12/06	301	**2**	**0**	01/01/12
107	**1**	**1**	01/01/07	302	**2**	**0**	01/01/12
108	**1**	**1**	01/01/07	303	**1**	1	01/01/07
109	**2**	**0**	01/01/12	304	**1**	1	01/01/07
110	**1**	**1**	01/01/07	305	**1**	**0**	19/12/06
111	**1**	**0**	19/12/06	306	**1**	**0**	19/12/06
112	**1**	**1**	01/01/07	307	**1**	**0**	19/12/06
113	**1**	**0**	19/12/06	308	**1**	**0**	19/12/06
114	**1**	**0**	19/12/06	**PART 4**			
115	**1**	**1**	01/01/07	401	**2**	**0**	01/01/12
116	**1**	**0**	19/12/06	402	**2**	**0**	01/01/12
117	**1**	**0**	19/12/06	403	**2**	**0**	01/01/12
118	**1**	**0**	19/12/06	**PART 5**			
119	**1**	**0**	19/12/06	501	**2**	**0**	01/01/12

MOE **Issue 2**, Revision 0 dated **01/01/12**

MOE internal Review by the organisation:

Reviewed by: (name, position and signature)	**Date:** xx/xxx/xxxx

MOE Approval[2] (to be only used in case of indirect approval):

Indirectly approved by: (name, position and signature of the approving person)	**Date:** xx/xxx/xxxx

[2] - In the case of MOE direct approval by the BCAA, the MOE approval is given through a formal letter issued by the BCAA. This letter shall be made available to the final users also.

- In the case of MOE indirect approval by the Quality Assurance manager, the MOE approval is completed by the organisation entering the date of the MOE approval, the name, position and signature of the approving person.

"EXAMPLE" 2: *the example below is related to a MOE identified only by a revision number.*

Page Number	Revision Date Revision	Revision number	Page Number	Revision Date	Revision number
PART 0			121	01 January 07	Rev. 1
001	1 January 12	Rev. 2	122	01 January 07	Rev. 1
002	1 January 12	Rev. 2	**PART 2**		
003	1 January 12	Rev. 2	201	19 December 06	Rev. 0
004	1 January 12	Rev. 2	202	19 December 06	Rev. 0
005	1 January 12	Rev. 2	203	19 December 06	Rev. 0
006	1 January 12	Rev. 2	204	19 December 06	Rev. 0
007	1 January 12	Rev. 2	205	19 December 06	Rev. 0
008	1 January 12	Rev. 2	206	19 December 06	Rev. 0
009	1 January 12	Rev. 2	207	01 January 07	Rev. 1
PART 1			**PART L2**		
101	19 December 06	Rev. 0	L201	19 December 06	Rev. 0
102	19 December 06	Rev. 0	L202	19 December 06	Rev. 0
103	1 January 12	Rev. 2	L203	19 December 06	Rev. 0
104	01 January 07	Rev. 1	L204	19 December 06	Rev. 0
105	01 January 07	Rev. 1	**PART 3**		
106	19 December 06	Rev. 0	301	1 January 12	Rev. 2
107	01 January 07	Rev. 1	302	1 January 12	Rev. 2
108	01 January 07	Rev. 1	303	01 January 07	Rev. 1
109	1 January 12	Rev. 2	304	01 January 07	Rev. 1
110	01 January 07	Rev. 1	305	19 December 06	Rev. 0
111	19 December 06	Rev. 0	306	19 December 06	Rev. 0
112	01 January 07	Rev. 1	307	19 December 06	Rev. 0
113	19 December 06	Rev. 0	308	19 December 06	Rev. 0
114	19 December 06	Rev. 0	**PART 4**		
115	01 January 07	Rev. 1	401	1 January 12	Rev. 2
116	19 December 06	Rev. 0	402	1 January 12	Rev. 2
117	19 December 06	Rev. 0	403	1 January 12	Rev. 2
118	19 December 06	Rev. 0	**PART 5**		
119	19 December 06	Rev. 0	501	1 January 12	Rev. 2

MOE **Revision 2** dated **01 January 12**

MOE internal Review by the organisation:

Reviewed by: (name, position and signature)	**Date:** xx/xxx/xxxx

MOE Approval[3] (to be only used in case of indirect approval):

Indirectly approved by: (name, position and signature of the approving person)	**Date:** xx/xxx/xxxx

[3] - In the case of MOE direct approval by the BCAA, the MOE approval is given through a formal letter issued by the BCAA. This letter shall be made available to the final users also.

- In the case of MOE indirect approval by the Quality Assurance manager, the MOE approval is completed by the organisation entering the date of the MOE approval, the name, position and signature of the approving person.

"EXAMPLE" 3: *the example below is related to a MOE identified only by a revision number and a revision date, all pages being re-issued each time the MOE is revised with the changes duly identified on each page.*

Page Number	Revision Date Revision	Revision Number	Page Number	Revision Date	Revision Number
PART 0			121	1 January 13	Rev. 5
001	1 January 13	Rev. 5	122	1 January 13	Rev. 5
002	1 January 13	Rev. 5	**PART 2**		
003	1 January 13	Rev. 5	201	1 January 13	Rev. 5
004	1 January 13	Rev. 5	202	1 January 13	Rev. 5
005	1 January 13	Rev. 5	203	1 January 13	Rev. 5
006	1 January 13	Rev. 5	204	1 January 13	Rev. 5
007	1 January 13	Rev. 5	205	1 January 13	Rev. 5
008	1 January 13	Rev. 5	206	1 January 13	Rev. 5
009	1 January 13	Rev. 5	207	1 January 13	Rev. 5
PART 1					
101	1 January 13	Rev. 5	L201	1 January 13	Rev. 5
102	1 January 13	Rev. 5	L202	1 January 13	Rev. 5
103	1 January 13	Rev. 5	L203	1 January 13	Rev. 5
104	1 January 13	Rev. 5	L204	1 January 13	Rev. 5
105	1 January 13	Rev. 5	**PART 3**		
106	1 January 13	Rev. 5	301	1 January 13	Rev. 5
107	1 January 13	Rev. 5	302	1 January 13	Rev. 5
108	1 January 13	Rev. 5	303	1 January 13	Rev. 5
109	1 January 13	Rev. 5	304	1 January 13	Rev. 5
110	1 January 13	Rev. 5	305	1 January 13	Rev. 5
111	1 January 13	Rev. 5	306	1 January 13	Rev. 5
112	1 January 13	Rev. 5	307	1 January 13	Rev. 5
113	1 January 13	Rev. 5	308	1 January 13	Rev. 5
114	1 January 13	Rev. 5	**PART 4**		
115	1 January 13	Rev. 5	401	1 January 13	Rev. 5
116	1 January 13	Rev. 5	402	1 January 13	Rev. 5
117	1 January 13	Rev. 5	403	1 January 13	Rev. 5
118	1 January 13	Rev. 5	**PART 5**		
119	1 January 13	Rev. 5	501	1 January 13	Rev. 5

MOE **Revision 5** dated **01 January 13**

MOE internal Review by the organisation:

Reviewed by: (name, position and signature)	**Date:** xx/xxx/xxxx

MOE Approval[4] (to be only used in case of indirect approval):

Indirectly approved by: (name, position and signature of the approving person)	**Date:** xx/xxx/xxxx

[4] - In the case of MOE direct approval by the BCAA, the MOE approval is given through a formal letter issued by the BCAA. This letter shall be made available to the final users also.

- In the case of MOE indirect approval by the Quality Assurance manager, the MOE approval is completed by the organisation entering the date of the MOE approval, the name, position and signature of the approving person.

0.3 List of Issues / Amendments Record of Revisions.

"EXAMPLE" 1: the example below is related to an MOE identified by both an Issue number and a Revision number.

Issue number	Issue date	Revision number	Revision date	Revision type	Reason for change
1	19/12/06	0	19/12/06	**INITIAL**	**n/a**
		1	01/01/07	minor	New procedure for cleaning
2	01/01/12	0	01/01/12	major	Change of Quality Assurance Manager and extension of the A1 scope of approval

"EXAMPLE" 2: the example below is related to an MOE identified only by a revision number

Revision number	Revision Date	Revision Type	Reason for change
0	19 December 06	**INITIAL**	**n/a**
1	01 January 07	minor	New procedure for cleaning
2	01 January 12	major	Change of Quality Assurance Manager and extension of the A1 scope of approval

0.4 Distribution List.

"EXAMPLE"

MOE COPY NUMBER	MOE HOLDER	FORMAT
Copy No. 1	Accountable Manager	PDF
Copy No. 2	Engineering Director	PDF
Copy No 3	Aircraft Maintenance Manager	PDF
Copy No. 5	Workshop Maintenance Manager	PDF
Copy No. 5	Quality Manager	PAPER
Copy No. 6	BCAA	PDF/PAPER
Copy No. 7	Reserved	
Copy No. 8	Reserved	

0.5 Definitions and Abbreviations

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

PART 1 – MANAGEMENT.

1.1 Corporate Commitment by the Accountable Manager.

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

This Exposition and any associated referenced manuals define the organisation and procedures upon which BCAR-145 approval is based as required by BCAR-145.A.70

These procedures do not apply to aircraft which are outside the remit of the Bhutan Air Navigation Regulations. They are approved by the undersigned and must be complied with at all time and when work/orders are being progressed under the terms of the BCAR-145 approval.

It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published by BCAA from time to time where these new or amended regulations are in conflict with these procedures.

It is understood that BCAA will approve this organisation whilst the BCAA is satisfied that the procedures are being followed and work standards maintained. It is further understood that BCAA reserves the right to suspend, limit or revoke the BCAR-145 approval of the organisation if BCAA has evidence that procedures are not followed or standards not upheld.

Signed_____

Dated_____

Accountable Manager_____(quote position)_____

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

If the Accountable Manager is not the highest level responsible of the organisation, the latter must then countersign the statement.

Whenever the Accountable Manager is changed it is important that the new Accountable Manager signs the statement at the earliest opportunity as part of his/her acceptance by the BCAA.

This statement is a copy of the text given in GM 145.A.70 (a). Any modification to the statement must not alter its intent.

**** Note - A new AM signature is required at each revision of the exposition***

1.2 Safety and Quality Policy.

145.A.30(a)2, 145.A.65(a), AMC 145.A.65(a), 145.A.70(a)2

The Quality and Safety Policy shall, as a minimum, include a statement committing the organisation to:

- Apply human factors principles.
- Encourage personnel to report maintenance related errors/incidents to meet BCAR-145 requirements.
- Recognise safety as a prime consideration at all times for all the staff.
- Recognise that compliance with procedures, quality standards and regulations is the duty of all personnel.
- Recognise the need for all personnel to cooperate with the quality auditors.
- Ensure that safety standards are not reduced by commercial imperatives.
- Ensure good use of resources and pay particular attention to carry out correct maintenance at the first attempt.
- Train all organisation staff to be aware of human factors and set a continuous training programme in this field.

Signed: _____

Dated: DD / MMM /YYYY

Accountable Manager

(quote position in organisation)

on behalf of (quote organisation's name)

**** Note - A reference to the Safety Management (SMS) Manual can be provided here.***

1.3 Management Personnel.

GM 145.A.10, 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)

This chapter shall 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" shall be chosen/identified so that all the BCAR-145 functions are covered under their respective responsibilities and their credentials shall be submitted to the BCAA using an BCAA Form 4.

The MOE chapter 1.3 needs to be at any time consistent with the MOE chapters 1.4 and 1.5 and shall represent the up-to-date description of the maintenance management structure of the organisation

- 1.3.1 Accountable Manager;
- 1.3.2 Nominated Persons;
- 1.3.3 Deputy Nominated Personnel;
- 1.3.4 Managers (if applicable);
- 1.3.5 Responsible NDT Level 3 * (if applicable).

** The AMC 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. In order to consider this requirement met, the Responsible NDT Level 3 shall demonstrate he has been qualified in at least one method in accordance with EN 4179 by an organisation under the control of a European NDT Board.*

The following is an example of a maintenance organisation list of management personnel, where the name of the nominated persons shall also be identified. Procedures shall 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)

"EXAMPLE"

Management personnel List	***Deputies***
Accountable Manager	Deputy Accountable Manager
List of Nominated Personnel: • Base Maintenance Manager; • Line Maintenance Manager; • Workshop Maintenance Manager; • Quality Manager.	• Deputy Base Maintenance Manager; • Deputy Line Maintenance Manager; • Deputy Workshop Maintenance Manager; • Deputy Quality Manager.
List of Managers: • Auditing Manager; • Occurrence Reporting Manager; • Engineering Manager; • Logistic manager.	N/A
NDT Level 3	N/A

1.4 Duties and Responsibilities of Management Personnel.

145.A.70(a)4, 145.A.30(a)1, 145.A.30(a)2, 145.A.30(b)1, AMC 145.A.10, AMC 145.A.30(b), AMC 145.A.30(c), AMC145.A.30(d), 145.A.65(c)1, 145.A.65(c)2, AMC 145.A.65(c)(1), AMC 145.A.65(c)(2), 145.A.30(c), AMC 145.A.30(a), GM145.A.70(a), AMC 145.A.30(f), 145.A.35(i), 145.A.90(b)

The duties and responsibilities of all management personnel identified in the MOE chapter 1.3 must be detailed in this chapter. It shall be ensured that all BCAR-145 functions are addressed, as applicable to the Organisation.

Any BCAR-145 function, which is applicable to the Organisation (e.g. to perform the independent audit, to issue the BCAR-145 C/S - S/S individual authorisation, to have available appropriate facilities, tools and equipment, to issue a certificate of release to service, etc.) shall be under the responsibility of a Nominated Person as listed in MOE chapter 1.3 who shall ensure compliance of that function with the relevant BCAR-145 regulation requirements.

The responsibilities of a Nominated person cannot be delegated to other Manager(s), unless such Manager(s) is/are identified as "Deputy Nominated Person" for the related function (e.g. Deputy Maintenance Manager).

The duties of any Nominated Person may be delegated to other Manager(s) who are reporting to him/her.

The MOE chapter 1.4 needs to be at any time consistent with the MOE chapters 1.3 and 1.5 and shall represent the up- to-date description of the maintenance management structure of the organisation.

1.4.1 Accountable Manager.

- The Accountable Manager is responsible for ensuring that maintenance carried out by the approved organisation meets the standards required by BCAA;
- He/she is responsible for establishing and promoting the safety and quality policy;
- He/she is responsible for nominating the management staff;
- He/she is responsible for 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;
- He/she is responsible for the supervision of the progress of the corrective actions/review of the overall results in terms of quality;
- He/she is responsible for ensuring the competence of all personnel including management personnel has been assessed;
- He/she is responsible for ensuring that any charges are paid, as prescribed by BCAA i.a.w. the fees & charge regulation.
- He/she is responsible to return the approval to the BCAA in case 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 on the structure of the organisation some duties may be distributed differently.
In case the accountable manager is not the chief executive officer, the BCAA needs to be assured that he/she has direct access to the chief executive officer and has sufficiency of "maintenance funding" allocation.

1.4.2 Quality Manager

Duties and Responsibilities. The following list is not exhaustive.

- The Quality Manager is responsible for establishing an independent quality assurance system to monitor compliance of the BCAR-145 organisation with BCAA requirements;
  - He/she shall have direct access to the Accountable Manager on matters concerning the quality system;
  - Defines the human factors principles to be implemented within the organisation;
  - He/she is responsible for implementing a quality audit programme in which compliance with all maintenance procedures is reviewed at regular intervals in relation to each type of aircraft (or component) maintained (including the management and completion of audits and production of audit reports). He/she should ensure that any observed non-compliances or poor standards are brought to the attention of the person concerned via his/her manager;
  - He/she is responsible for follow up and closure of any non-conformance;
  - The Quality Manager should establish regular meetings with the Accountable Manager to appraise the effectiveness of the quality system. This will 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;
  - He/she is responsible for monitoring the amendment of the organisation's procedures and standard practices (MOE, including the associated procedure(s)) and their compliance with the current revision of BCAR-145 plus any other applicable regulatory requirement and guidance material issued by BCAA;
  - He/she is responsible for submission of the MOE and any associated amendments, to the BCAA for approval (which includes completion of and submission of BCAA Form(s) 2, BCAA Form(s) 4 or equivalent);
  - He/she is responsible for assessing providers of materials, standard parts, components and contracted organisations for satisfactory product quality in relation to the needs of the organisation;
  - He/she is responsible for assessing subcontractors working under the quality system and maintaining the expertise necessary to be able to do so, to the satisfaction of BCAA.
  - He/she is responsible for issue /renewal/cancellation of BCAR-145 C/S - S/S individual authorisation;
  - He/she is responsible for co-ordinating action on airworthiness occurrences and for initiating any necessary further investigation and follow-up activity (BCAR-145.A.60, AMC M.A.202(a);
  - He/she is responsible for establishing feedback from maintenance incidents/issues and feeding these back into the continuation training programme;
  - He/she is responsible for acceptance on temporary or occasional cases base maintenance tasks (AD's, SB's) to be performed by a line maintenance organisation.
  - He/she is responsible for the notification to BCAA, as applicable according to the procedures established in the MOE, of maintenance activities conducted outside the approved locations.

It must be reminded that the quality system is required to be "independent" which normally means that the Quality Manager and the Quality Monitoring Staff <u>are not directly involved in</u> the BCAR-145 function being audited (e.g. maintenance process, maintenance certification, issue of authorisations, training, etc).

Depending on the Organisation structure, some of the quality system duties may be delegated to one or several managers who report to the Quality manager and are therefore not subject to an BCAA Form 4.

"EXAMPLE" *of quality system duties that could be delegated:*

1.4.2.1 Occurrence Reporting Manager

Duties

- Establishing feedback from maintenance incidents/issues and feeding these back into the continuation training programme.

1.4.2.2 Auditing Manager

Duties

- implementing a quality audit programme in which compliance with all maintenance procedures is reviewed at regular intervals in relation to each type of aircraft (or component) maintained (including the management and completion of audits and production of audit reports). He/she should ensure that any observed non-compliances or poor standards are brought to the attention of the person concerned via his/her manager;
- Follow up and closure of any non-conformances identified.

1.4.3 Maintenance Manager (may be Aircraft Base MM and/or Aircraft Line MM and/or Workshop MM).

Duties and Responsibilities. (The following list is not exhaustive).

- He/she is responsible for 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);
- He/she is responsible for ensuring that the organisation's procedures and standards are complied with when carrying out maintenance;
- He/she is responsible for ensuring the competence of all personnel engaged in maintenance;
- He/she is responsible of establishing a programme of training and continuation training using internal and/or external sources (this responsibility may be also under the Quality Manager);
- He/she is responsible for 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 contract/work order are fulfilled in respect of inspection;
- He/she is responsible for providing feedback to the Quality System about the services provided by contracted Organisations, Subcontractors;
- He/she is responsible for responding to quality deficiencies in the area of activity for which he/she is responsible, which arise from independent quality audits;
- He/she is responsible for ensuring, through the workforce under his/her control, that the quality of workmanship in the final product is to a standard acceptable to the organisation and BCAA;
- He/she is responsible for the implementation of the safety policy and human factor issues;
- He/she is responsible for availability of facilities appropriate to the planned work including hangars, workshops office accommodation, stores as applicable for the planned work;
- He/she is responsible for availability of a working environment appropriate to the tasks being undertaken;
- He/she is responsible for the incoming inspection of components, parts, materials, tools and equipment, the related classification, segregation and storage according to the manufacturer's recommendations;
- He/she is responsible to develop a production planning system appropriate to the amount and complexity of the maintenance scope of work;
- He/she is responsible for availability of tools, equipment and materials to perform the planned tasks;
- He/she is responsible for availability of sufficient competent personnel to plan, perform, supervise, inspect and certify the work being performed;
- He/she is responsible for availability of all necessary maintenance data;
- He/she is responsible to record and notify any inaccurate, incomplete or ambiguous procedure, practice information or maintenance instruction contained in the maintenance data used by maintenance personnel to the author of maintenance data;
- He/she is responsible to provide a common work card or worksheet system to be used throughout relevant parts of the organisation and ensure such documents comply with BCAR-145.A.45(e);

- He/she is responsible for notifying the Accountable Manager whenever deficiencies emerge which require his attention in respect of finance and the acceptability of standards (Accountable Manager and Quality Manager to be officially informed of any lack of 25% of available man-hours over a calendar month);
- He/she is responsible for supplying the necessary technical documents for customers and storage of the organisation's technical records;

Any additional duties and responsibilities may be added provided they do not conflict with those of other management personnel.

Depending on the Organisation structure, some of the maintenance duties may be delegated to one or several managers who report to the Maintenance Manager ((may be Base MM and/or Line MM and/or Workshop MM). and are therefore not subject to an BCAA Form 4.

"EXAMPLE" of maintenance duties that could be delegated:

1.4.3.1 Engineering Manager

Duties

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

1.4.3.2 Logistics Manager

Duties

- performing the incoming inspection of components, parts, materials, tools and equipment, the related classification, segregation and storage according to the manufacturer's recommendations;

1.4.4 Responsible NDT Level 3[5]

Duties and Responsibilities. The following list is not exhaustive.

- He/she is responsible to ensure that the applicable NDT requirements (e.g. 145.A.30(e), EN4179, etc.) are met and to act on behalf of the employer in this area;
- He/she is responsible to develop the *MOE 3.11 procedures related to the qualification of NDT staff.* He/she is responsible to develop and approve the NDT Manual for specific technique(s) within each method used within the maintenance organisation.

[5]Even though the Responsible NDT level 3 does not directly report to the Accountable Manager, he is strongly recommended to provide an BCAA Form 4.

1.5 Management Organisation Chart.

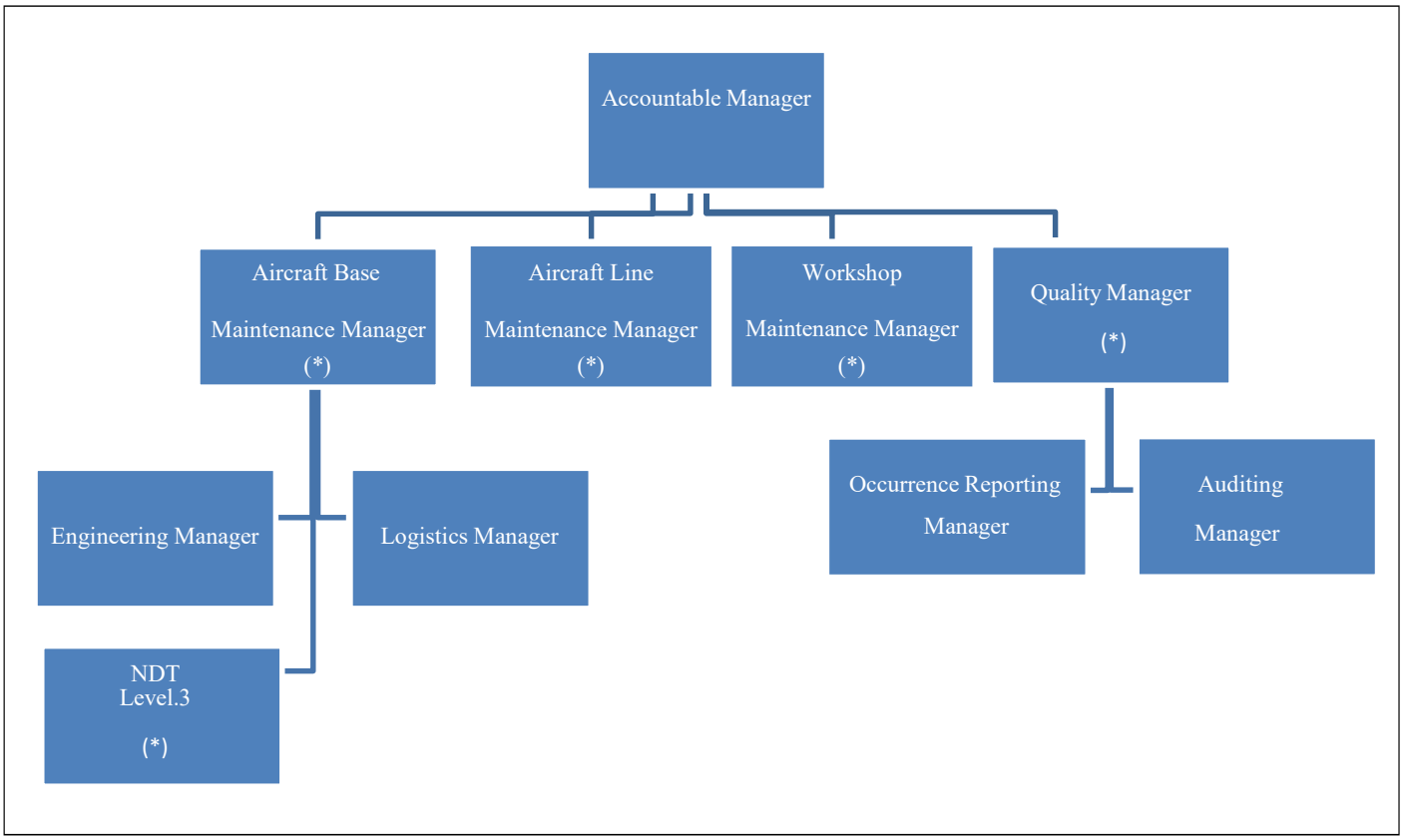
145.A.70(a)5

The organisation chart shall show the associated chains of responsibility of the "nominated persons" identified in Chapter 1.3. When other "Managers" are identified in chapter 1.3 (e.g. Auditing Manager, etc.) they need also to be reflected in the organisation chart to show that they report ultimately through a "nominated person" to the Accountable Manager.

The Organisation chart of this chapter needs to be at any time consistent with the MOE chapters 1.3 and 1.4 and shall represent the up to date description of the maintenance management structure of the organization.

The following is an example of a BCAR-145 Approved Maintenance Organisation structure:

"EXAMPLE"



Any post annotated with * requires a BCAA Form 4

The Form 4 Post-holders shall 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.

Quality compliance monitoring staff (e.g. quality 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 Quality System to ensure the quality compliance monitoring staff remain independent.

1.6 List of Certifying Staff, support staff and airworthiness review staff

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.30(k), 145.A.35(a), 145.A.36, AMC 145.A.30(g), AMC 145.A.30(h), AMC 145.A.36, 145.A.70(a)6, Appendix IV, 145.A.75(f).

1.6.1 Certifying Staff (C/S) and Support Staff (S/S).

This chapter shall detail the scope of the national licence by comparison to BCAA C, B1, B2 and A categories certifying staff and support staff, the different categories of Certifying staff and Support Staff depending on the intended scope of work, the content of the list and its management (in conjunction with Chapter 1.10, 1.11).

1.6.1.1 Scope of the National Licence by Comparison to BCAA Certifying Staff Categories

This comparison is not needed when the maintenance organisation intends to authorise staff holding a BCAR-66 License.

- Summary (preferably in a table) of the privileges of the national license (Associated limitation(s) shall be also recorded);
- Comparison (preferably in a table) of these national privileges with BCAA Certifying staff and support staff privileges (associated limitation(s) shall be also considered).

1.6.1.2 Categories of Certifying Staff (C/S) and Support Staff (S/S).

Based upon the above comparison, the procedure shall define the privileges to be granted under the BCAR-145 approval for each certifying staff category.

- Aircraft Base maintenance certifying staff (category C);
- Aircraft Base maintenance support staff (category B1, B2, B3);
- Aircraft Line maintenance certifying staff[6]:
  - Category B1;
  - Category B2 ;
  - Category B3, if applicable[7];
  - Category A (The tasks each staff is authorized to release, have to be recorded in the individual authorisation).
    - List of tasks which may be authorised

When the organisation is making use of task trained certifying staff (such as cat. A certifying staff, etc.), the specific list of authorised task (as applicable to the scope of work of the organisation) shall be agreed by BCAA by means of an MOE procedure in this chapter. Refer to AMC 145.A.30(g) for the typical tasks which may be permitted after task training.

- Engines certifying staff (BCAA FORM 1);
- Components certifying staff (BCAA FORM 1);
- Specialised Services (NDT) certifying staff (BCAA FORM 1).

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[6] Certifying staff of any line maintenance station located in Bhutan must be qualified in accordance with BCAR-66.

[7] Category B3 is applicable to piston-engine non-pressurized aeroplanes of 2000 Kg MTOM and below (ref. 66.A.3(c))

1.6.2 Airworthiness review staff

Reserved

1.6.3 Content of the list(s).

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

- Name/forename;
- BCAA C/S Category;
- *Reserved*
- Identification of the Support Staff for Base maintenance activity;
- Function;
- 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 certifying staff and support staff only, the aircraft maintenance license identification number;
- Line and base maintenance certifying staff authorised under the protected rights as per BCAR-145 Appendix IV, paragraph 2.

1.6.4 Management of the list(s).

This procedure shall detail the following:

- Identification and management of the list(s);
- Approval of the list in conjunction with MOE chapter 1.10 and 1.11;
- Retention of records:
  - Duration / location;
  - Type of documents (evidences,).

The list(s) may be directly inserted in this chapter of the MOE or managed as a separate associated lists. For example, it is possible to cross-refer from this chapter 1.6 to another record (including a computer record) where a list of the approval holders is kept. In this case an explanation of where the list is maintained and how it is updated shall be included in this paragraph thereby meeting the intent of the BCAA requirement.

This list(s), whatever included to or separated from the basic MOE, is an integral part of the approval. This means that it shall be approved (directly by the authority or by the organisation, through a procedure which has been previously approved by the BCAA (refers to Chapter 1.10, 1.11).

1.7 Manpower Resources.

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

The organisation must be able to demonstrate that they have adequate manpower resources to support the entire scope of approval.

The organisation shall not declare a percentage of staff used but shall indicate the number of staff needed to comply with BCAR-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 impact on the approval shall be captured and notified to BCAA according to the criteria specified in the MOE 1.10.

- ➢ Summary indication of the total number of staff including all the staff categories below

The number of staff declared in this MOE and the latest application Form 2 shall remain consistent.

- ➢ Splitting of the total staff number in the various staff categories. A summary table is expected
  - ❖ Management personnel

- ❖ Technical support staff
- ❖ Quality system staff
- ❖ Certifying staff
- ❖ Base maintenance support staff
- ❖ Maintenance technical staff other than certifying staff and support staff
    - o Store and purchasing department staff
    - o Training staff
    - o Contracted staff

NOTE: Organisations must declare the total number of staff employed within their approved organisation in the Exposition.

1.8 Facilities.

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)iii, Appendix III

This section shall describe each of the facilities, in some detail, at which the organisation intends to carry out maintenance, either outside and, or inside Bhutan. All the facilities need to be identified in this chapter. This shall provide a clear picture of what BCAA is being asked to approve. All sites shall be covered; however, a different emphasis can be placed on sites dependent on the level of work undertaken.

The system of protection against weather, dust and other airborne contaminants (paint, smoke...), ground water protection, heating/air conditioning, lighting, noise protection, safety system (limited accesses, fire, staff security...) should be described either in the diagram or in the associated text.

1.8.1 Principal Place of Business (PPB).

The PPB is the head office or the registered office of the Organisation within which the principal financial functions and operational control of the activities referred to in BCAR-145 regulation are exercised.

The PPB is the address which will be included in the BCAA Form 3 approval certificate together with the main base sites address(es).

1.8.2 Postal (surface mail and e-mail) address

The postal address of the maintenance organisation to be used by BCAA for formal mail communication needs to be clearly identified.

In addition, to ensure an efficient and stable communication channel between BCAA and the maintenance organisation, the organization shall create a "generic" email address (without reference to a family name) to be used regardless any future personnel changes.

1.8.3 Base maintenance facilities

- Hangar accommodation (Hangar facilities shall be equipped with doors).
    - o Hangar layout(s) shall be included specifying the various allowed aircraft parking configurations, as applicable to the aircraft type(s) included in the scope of approval.

As a minimum, this information shall clarify for any approved Hangar, the maximum number of aircraft which can be accommodated at the same time (including any Base and/or Line Maintenance activity), the maximum number of aircraft which can undergo Base Maintenance at the same time and which is the biggest aircraft type which can be accommodated.

- o Aircraft access equipment/platforms/docking
- o Specialised workshops
- o Environmental provisions

- Office accommodation for: (planning, technical records, Quality, technical reference area, Storage, etc)

1.8.4 Line maintenance facilities (at each location) as appropriate.

Organisation should list all appropriate line stations within their approved Exposition.

- Hangar availability (specify if rented or owned)

In case the Hangar facility is not available at the location, this shall be clearly stated. As a general guidance, in such case, the scope of work of the particular line station should not exceed the weekly check. Inclusion of other minor scheduled maintenance tasks is subject to detailed assessment that they can be carried out safely to the required standards at the designated line maintenance station.

1.8.5 Engines / APU and Component maintenance facilities.

1.8.6 Layout of premises

Where the accommodation is not owned by the organisation, as in the case of a hangar where space is rented or shared, proof of tenancy/access may be required and BCAA may wish to have this included in an Appendix or Supplement to the MOE.

In accordance with AMC 145.A.25 (a)3, for line maintenance of aircraft, hangars may be required. In this case the availability of a suitable hangar shall be demonstrated, particularly in the case of inclement weather for minor scheduled work and lengthy defect rectification.

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

1.9 Scope of Work

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)(iii) , 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), 145.A.75(f), Appendix II, Appendix III

This chapter must show the range of work carried out at each approved site. When a maintenance organisation is performing maintenance in multiple locations the corresponding scope of work shall additionally be detailed for each site. This shall also relate to chapters 1.8 & 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 to the case of small organisations.

1.9.1 Aircraft Maintenance.

"EXAMPLE"

RATING	TC HOLDER	AIRCAFT TYPE/GROUP RATING	LIMITATION (Aircraft Model)	MAINTENANCE LEVEL up to and including the 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	The BOEING COMPANY	Boeing 777- 200/300 (GE90)	777-200	112000 FH/ 30000 FC/ 12000 days	X	X
A1	The BOEING COMPANY	Boeing 737-300/400/500 (CFM56)	737-500	2A check		X
A1	The BOEING COMPANY	BOEING 767-200/300 (PW 4000)	767-200	4C check	X	X
A2	The BOEING COMPANY	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			

Legend: FH-flight hours, FC-flight cycles, YRS-years

For A/C, mentioned in this table:

- column TC holder: the information from the column "TC Holder" of the table in Appendix I to AMC to BCAR- 66, as amended.
- column Aircraft Type/Group Rating: the full information from the column "BCAR- 66 Type rating endorsement" of the table in Appendix I to AMC to BCAR-66, as amended, needs to be entered. For example, an organisation only maintaining the model Airbus A321-212, shall enter in this column the full "BCAR- 66 Type rating endorsement" Airbus A318 /A319/A320/A321 (CFM56)
  In case of group rating, each aircraft composing the group shall be listed.
  Some engines may be installed on aircraft as per STC.

- column Limitation (Aircraft Model): the data from column "Model" from the same Appendix I to AMC to BCAR-66, as amended. Only the models which are effectively maintained by the organisation need to be listed
- Column Maintenance level: the scope of maintenance activity agreed by the BCAA.
  The following considerations shall be done on the maintenance level:
  - *The limitation relative to the maintenance checks/tasks shall use the naming convention as referenced in TC Holder data (e.g. MRB/MPD).*
  - *In case of unforeseen maintenance such as but not limited to major repairs and modifications that is not already described within this chapter, the maintenance organisations shall contact the BCAA.*
  - *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 the MOE 2.28 procedure. A maintenance organisations not intending to perform defect rectification shall exclude defect rectification in the 1.9.*
  - *Limitations to unscheduled line maintenance or base maintenance capability shall be stated (e.g. excluding structural repairs, excluding landing gear replacement, etc.)*
  - *In the case of line maintenance, a clear definition of the line maintenance as applicable to the particular organisation, taking into account the regulatory limitations included in AMC 145.A.10 and the actual capability hold.*

1.9.2 Engine Maintenance.

"EXAMPLE"

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 i.a.w CMM 49-XX-XX

For engines only, shall be mentioned in this table:

- in column Engine / APU Type: the engine type as listed in the engine TCDS;
- in the column Limitation: the engine models as defined in the engine TCDS; Only the models which are effectively maintained by the organisation need to be listed;
- in the column Maintenance level: the scope of work agreed by the BCAA, reference to the relevant maintenance data shall be made;
- when the maintenance performed under B1 or B3 rating is limited to boroscoping inspections, the MOE shall specify the engine/APU types associated to the boroscoping technique limitation;

For APU only, shall be mentioned in the table:

- in column Engine / APU type: the APU type;
- in the column Limitation: the APU models as defined by the OEM; Only the models which are effectively maintained by the organisation need to be listed

- in the column Maintenance level: the scope of work agreed by the BCAA, reference to the relevant maintenance data shall be made.

1.9.3 Component Maintenance.

This section shall specify the component manufacturer or the particular component and/or cross refer to a referenced capability list. The part number and the level of work performed shall be included. The reference of the relevant CMM shall also be added.

"EXAMPLE"

Rating	ATA	P/N	Designation	Manufacturer	Reference of the CMM	Level of maintenance	Work Shop
C1 Air Cond & Press	21						
C2 Auto Flight	22						
C3 Comms and Nav	34						
C4 Doors - Hatches	52						
C5							
C6							
C7							
C8							
C9							
C10							
C11							
C12							
C13							
C13							
C13							
C14							
C15							
C16							
C17							
C18							
C19							
C20							
C21							
C22							

For C rating, *shall be mentioned:*

- *in the column Rating: the relevant class C rating, if some C ratings are not used, the line remains empty,*
- *in the column ATA, the ATA Specification 2200 chapter,*
- *in the column P/N, Designation and Manufacturer: the detailed reference number and designation of the component together with identification of the Manufacturer as per CMM,*
- *in the column CMM: the reference of the component maintenance manual (or equivalent document),*
- *in the column Level of maintenance: the scope agreed by the BCAA*
- *in the column Work shop: the base maintenance shop where maintenance takes place.*

When an Organisation is managing a separate "capability list" the information addressed above shall be mentioned in this list. In this case the chapter 1.9 shall only address the rating, the ATA and shall refer to the capability list reference (see example below).

"EXAMPLE"

Rating	ATA	P/N
C1 Air Cond & Press	21	Components in accordance with the capability list reference XXXX
C2 Auto Flight	22	
C3 Comms and Nav	23-34	
C4 Doors- Hatches	52	

This list, whatever included to or separated from the basic MOE, is an integral part of the approval. This means that it shall be approved (directly by the authority or indirectly by the organisation, through a procedure which has been previously approved by the BCAA (refers to Chapter 1.10, 1.11).

1.9.4 Specialised Services Maintenance.

1.9.4.1 NDT with D1 Rating.

When the Organisation intends to perform NDT tasks and release such tasks using an BCAA Form 1, the rating D1 is necessary. Under the D1 rating, the capability to perform maintenance is determined by the "NDT method" listed in the approval schedule, regardless the specific aircraft, engine or component which is subject to the inspection method.

"EXAMPLE"

Rating	Limitation	Detail of limitation
D1	Liquid penetrant (PT)	techniques in accordance to the NDT Manual[8] reference XXXXX, approved by the Nominated NDT level 3
	Magnetic particle(MT)	
	Eddy Current (ET)	
	Ultrasonic (UT)	
	Radiography (RT)	
	Thermography (IRT)	
	Shearography (ST)	

For D1 rating, *shall be mentioned:*

- *in column Rating: D1,*
- *in column Limitation: shall be quoted the NDT method (strikethrough as necessary)*

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

When the 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, components under a C rating) the NDT tasks are considered done in the "course of maintenance".

- In this case, even if the Organisation does not need to hold a D1 rating, the various NDT methods applied during maintenance shall be listed in this paragraph for. When the organisation holds a fixed NDT capability (e.g. personnel, facility, equipment) at different specific sites or workshops, the information has to be stated. It has to be noted that the same requirements in place for being approved under the D1 rating remain applicable.

[8] Refer to chapter 3.11 for further details

1.9.4.3 Other Specialised Activities

- Each specialised maintenance tasks such as but not limited to composite repairs, painting, welding, machining, NDI, shall be detailed in this paragraph
- These specialised services maintenance shall be detailed for each approved site and workshop

It has to be noted that those specialised maintenance tasks may need to be carried out under specific conditions (e.g. 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 chapter).

1.9.5 Maintenance Away From the Approved Locations as per BCAR-145.A.75 (c).

- If applicable, this paragraph shall make reference to the fact that the Organisation may perform works away from the approved locations, subject to the condition specified in MOE 2.24 (specific maintenance procedure for works away from the approved locations).

It shall be noted that this privilege, is approved by BCAA based upon the ability of the Quality System to deal adequately with the BCAR-145 requirements. This ability cannot be therefore demonstrated at the time of the initial approval. In any case this procedure cannot be detailed in the MOE and therefore approved by the BCAA before the first 2 year period has been completed.

For further guidance on how to develop this procedure, refer GM-AIR-05 Guidance on the Maintenance Away from Approved Location(s)

1.9.6 Parts Fabrication

If applicable, this paragraph shall make reference to the fact that the Organisation may fabricate parts in the course of maintenance, subject to the condition specified in MOE 2.9 (where the specific parts fabrication procedure is to be entered).

The part fabrication 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, components under a C rating).

1.9.7 Use of maintenance data not clearly intended for the rating held

AMC 145.A.45(b) describes the typical maintenance data which is intended to be used depending from the class rating approval held by the organisation. *This paragraph is optional and only intended to cover the case where the BCAA agrees on the possibility to use other maintenance data as described in Appendix IV to BCAR-M Class and Rating system (e.g. an Ax rated AMO wishing to use engine and/or component maintenance data on-wing, a Bx rated AMO wishing to use component and/or aircraft maintenance data, etc.)*

- ➢ If applicable, this paragraph shall make reference to the fact that the Organisation may maintain components under aircraft or engine ratings, subject to the condition specified in MOE 2.30 (procedures for component maintenance under aircraft or engine rating)

1.9.8 Airworthiness review privileges

Reserved

1.10 Notification Procedure to the Authority Regarding Changes to the Organisation's Activities / Approval / Location / Personnel.

145.A.70(a)10, AMC 145.A.80, 145.A.85, 145.A.15, AMC 145.A.15, Appendix III to AMC 145.A.15

1.10.1 Notification of changes

The organisation shall notify the BCAA of any proposal to carry out any of changes listed below before such changes take place.

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

"**EXAMPLE**"

Type of change		Example of change	Documentation to be provided to BCAA
ADDRESS	Change of Organisation Name		• BCAA 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 *(Minor amendment – Indirect Approval)*
	Change to the locations/facilities of the maintenance organisations 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. (i.e., Addition built working areas such as Hangar, office or workshop within the approved facility).	• BCAA 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 BCAA Form 4 holders identified in the MOE 1.3	Accountable Manager and Nominated Person change	• BCAA Form 2 • MOE & associated documents as applicable • BCAA Form 4
	Reduction or increase of the staff number when the variation: • Is more than 10% of the total staff number declared in the MOE 1.7 or. • Is affecting the approval. **Note:** permanent and contracted staff shall be considered.	• Reduction of 11 staff when the staff to maintain the BCAA approval was 100 • All Certifying Staff for a certain aircraft type approved under A1 rating leave the organisation;	• BCAA Form 2 • MOE & associated documents as applicable

CAPABILITY	Any change to the equipment, tools, materials that could affect the approval.		• BCAA Form 2 • MOE & associated documents as applicable
	Reduction or increase of the scope of work or scope of approval under 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 to an A/C type/model inside a rating Ax already approved.	• BCAA Form 2 • MOE & associated documents as applicable
	Reduction or increase of the scope of work or scope of approval under Bx, rating	• Addition/removal of an 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;	• BCAA Form 2 • MOE & associated documents as applicable
	Reduction or increase of the scope of work or scope of approval under Cx rating	• Addition of a P/N to the capability which requires a new Cx rating;	• BCAA Form 2 • MOE & associated documents as applicable
	Addition or cancellation to the approved capability list where the BCAR-145 "C" rating is held, and any additional component capability is of similar technology & within existing ATA chapter capability (MOE 1.9 refers).		MOE & associated documents as applicable *(Minor amendment – Indirect Approval)*
	Addition or cancellation of NDT method under D1 rating		• BCAA 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	• BCAA Form 2 • MOE & associated documents as applicable
PROCEDURES	Any change to the procedures that could affect the approval.		• BCAA Form 2 • MOE & associated documents as applicable
	Change to the MOE and its associated procedures/lists called out in the MOE 1.11 that do not affect the approval. Changes to No of C/S Staff less than 10%	• C/S &S/S list • Capability list • List of contracted organisations • List of subcontractors • List of internal forms • MOE typing errors	MOE & associated documents as applicable *(Minor amendment – Indirect Approval)*

Note: *Indirect Approval (Maintenance organisation approval and BCAA acknowledgment)*

In addition, this procedure shall also detail:

- When to notify the change (All changes need to be notified before being implemented)
- Cases when an internal audit by the Quality system is required
- Who in the maintenance organisation is in charge of the notification

For initial approval and change of approval applications, the organisation shall carry out an internal audit in accordance with its MOE 3.1 audit procedure, prior to the audit by the BCAA, confirming that processes, areas, activities and personnel subject to the application have been reviewed and audited showing satisfactory compliance with all applicable BCAR-145 requirements. The relevant audit report together with a statement of compliance form the Quality Manager shall be provided to the BCAA.

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

1.10.2. Changes not requiring amendment of the approval/MOE

- In the case the organisation temporarily does not hold all the necessary tools, equipment, material, maintenance data, etc., BCAA shall be informed to determine if a need exist to amend the approval or if it may be maintained subject to further conditions.

1.11 Exposition Amendment Procedures (including delegated procedures).

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(b)2, AMC 145.A.65(b), AMC 145.A.65(b)(2), Appendix III, AMC to Appendix III

The Quality Manager is responsible for reviewing the MOE on a regular basis and amending if necessary, this includes the associated procedure manuals, and the submission of proposed amendments to the BCAA.

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

1.11.1 MOE Amendment.

This procedure shall at least address the Exposition amendment procedure.

- Person responsible for amending the Exposition.
- Definition of minor & major amendments to the Exposition and related approval process.
- Definition of criteria for new issue and/or revision (depending from the MOE revision system numbering adopted as described in this user guide, paragraph 1.6.1 “Management control of the MOE”)
- The record of the BCAR-145 approval certificate and approval of the MOE and subsequent amendment shall be described:
    - Approval letter/email from BCAA as applicable
    - BCAR-145 approval certificate and/or appendix amendments following evolution of the scope of activity and/or evolution of the locations and/or a new issue of the MOE

1.11.2 Associated Procedures, Lists and Forms.

The minimum procedures/lists to be considered are all those identified in AMC 145.A.70(a), which are therefore integrally part of the Exposition. In addition, the MOE together with the associated procedures shall be such to cover all aspects of carrying out maintenance, including the provision and control of specialised services and lay down the standards to which the organisation intends to work.

This procedure shall at least address:

- Summary table of associated procedures and lists:

"EXAMPLE"

Type of Document	*Document reference (enter a unique identification for each document)*	*Indirect approval* (YES/NO)*	*Approved by* (BCAA-for direct approval / In case of indirect approval, enter the TITLE of the nominated person in charge)*	*Minor amendments to which the indirect approval is limited (as agreed with the BCAA)*
Associated Procedures Manual**				
Certifying staff and Support staff list				
Workshop capability list				
List of Subcontractors				
List of Line Maintenance Locations				
NDT Manual				
(…)				

** When an indirect approval is granted, it is important that the chapter 1.11.3 describes the limits of the indirect approval privilege. Even if a document is subject to indirect approval, in the case of a change affecting the scope of work this document shall be approved by BCAA (e.g. amending the capability list to add a P/N belonging to a new C rating)*

*** When the organisation develops second level procedures (for example to describe the details of maintenance processes in each area/workshop), those procedures shall be collected into a separate manual (e.g. associated procedures manual) to be also listed in this table.*

- Definition of criteria for new issue and/or revision

1.11.3 Approval Process

Direct approval:

- The procedure shall at least describe the process followed to get the approval from the BCAA.

Indirect approval:

- the list of documents for which an indirect approval privilege is granted shall be listed in the table provided in paragraph 1.11.2

- for each of the above mentioned documents, the procedure shall at least include:
  - Definition of minor & major amendments. In particular, the limits of changes that can be indirectly approved for each document shall be limited to minor amendments (may be directly identified in the table provided in paragraph 1.11.2, refer to the example)
  - The person responsible for the internal approval of the related documents (may be directly identified in the table provided in paragraph 1.11.2, refer to the example)
  - The notification of such approval to the BCAA
  - The record of such indirect approval.

In case of minor amendment (of the MOE and/or associated procedures and lists) the Quality Manager may be delegated for indirect approval provided the appropriate procedure within this chapter 1.11 of the MOE is approved by BCAA. Such a delegation is to be based upon the ability of the Quality System to deal adequately with the BCAR-145 requirements. This ability cannot be therefore demonstrated at the time of the initial

approval. Therefore an indirect approval procedure cannot be detailed in the MOE before the first 2 year period has been complete.

After this 2 year period the organisation shall demonstrate its ability to manage the quality system in order to be eligible for such an indirect approval privilege.

In any case the BCAA must continue to receive a copy and acknowledge receipt of all such minor changes when "indirectly" approved.

1.11.4 Amendment control of applicable regulations, user guides and airworthiness circulars

The quality system is responsible to assess any revision of the applicable regulations, user guides and airworthiness circulars for their impact on the organisation's procedures/lists. BCAA expects that a traceable evidence is in place to record implementation of this process to be confident that the organisation's procedures/lists finally comply with any applicable requirement.

- Description of the process in place to control amendment of the applicable regulations, user guides and airworthiness circulars, assess their impact on the organisation's procedures/lists and when applicable revise those procedures/lists within any established entry into force date.

- (Optional) this paragraph may be used to list the applicable regulations, user guides and airworthiness circulars, together with their revision status, which have considered for the development of the current revision of the MOE and associated procedures/lists.

PART 2 – MAINTENANCE PROCEDURES.

2.1 Supplier Evaluation and Subcontract Control Procedure.

145.A.42(b)(i)/(ii)/(iii), GM2 145.A.42(b)(i), GM3 145.A.42(b)(i)145.A.75(b), AMC 145.A.75(b),

2.1.1 Type of Providers.

The use of the following terms is made in this paragraph to standardise the nomenclature for the possible various providers of components/parts/materials and providers of maintenance services.

PROVIDER	*Any source of components, material, maintenance services external to the maintenance organisation. Any provider may fall in one of the following category:* • *SUPPLIER* • *CONTRACTED ORGANISATION* • *SUBCONTRACTED ORGANISATION*
SUPPLIER	*Any source providing components, standard parts or materials to be used for maintenance. Possible sources could be: BCAR-145 organisations, operators, distributors, brokers, BCAR-M Subpart F organisations, aircraft owners, etc.* *The list of suppliers is not considered an MOE associated list and can be managed under direct control of the Quality Department.* *The term "supplier" used in this chapter excludes the suppliers of tools and tools calibrations services which shall be described and referred in the MOE chapter 2.4.*
CONTRACTED ORGANISATION	*A BCAR-145 maintenance organisation that carries out maintenance under its own approval for another approved maintenance organisation* *The list of contracted organisations shall be included in the MOE chapter 5.4.*
SUBCONTRACTED ORGANISATION	*An organisation, not itself appropriately approved to BCAR-145 that carries out aircraft line maintenance or minor engine maintenance or maintenance of other aircraft components or a specialised service as a subcontractor for an organisation appropriately approved under BCAR-145, as per BCAR-145.A.75.(d)* *The list of subcontracted organisations shall be included in the 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, etc.)
- Definition of Contracted organisations
  - Sources of services (e.g. BCAR-145 approved maintenance organisation and related approved ratings)
  - Types of services (e.g. specialised work, line maintenance, component maintenance, etc.)
- Definition of Subcontracted organisations
  - Sources of services (non- BCAR-145 approved organisation and related qualification)
  - Types of services (e.g. specialised work, line maintenance, component maintenance, etc.)

2.1.2 Monitoring the Suppliers.

Supplier evaluation may depend on different factors such as the type of component, whether or not the supplier is the manufacturer of the component, the TC holder or a maintenance organisation, or even specific circumstances such as aircraft on ground. This evaluation may be limited to a questionnaire from the BCAR-145 organisation to its suppliers, a desktop evaluation of the supplier's procedures or an on-site audit, if deemed necessary.

- Initial approval of each type of the supplier:
  - Selection processes;
  - Internal acceptance process;
  - Issuance of the internal authorisations (e.g. scope of authorisation, validity, ...);
  - Producing the list of suppliers;
  - Internal distribution of the list – access / authorisation of computerised list

- Monitoring of the lists of each type of supplier versus internal authorisation:

The list of suppliers shall be managed under the control of the Quality Department.

  - Incoming inspection results, audit results, possible internal limitation
  - Assessment of the service provided
  - Updating of the list
  - Withdraw of the internal authorisation, when applicable
- Management of the purchase orders according to the approved suppliers.
- Records of suppliers information:
  - Files;
  - Duration / location;
  - Type of documents (Certificates, audit reports, incoming inspection results, …)

2.1.3 Monitoring the Contracted Organisations.

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

- Initial approval of each contracted organization
- Monitoring of the lists of each type of contracted organisation versus internal authorisation (refer to MOE 5.4);
- Management of the purchase orders according to the approved contracted organisation;
- Records of contracted organisations information;

2.1.4 Monitoring Subcontractors.

The acceptance and monitoring process shall comply with AMC 145.A.75.(b).

- Initial approval of each subcontractor;
  - Pre-audit before approval and inclusion in the internal audit plan;
  - Approved maintenance organisation expertise and procedures to control the sub-contractor;
  - Supervision of the inspection and release from the sub-contractor;
  - Contract to allow access of BCAA to the sub-contractor.

- Monitoring of the lists of each type of subcontractors versus internal authorisation (refer to MOE 5.2);
- Management of the purchase orders according to the approved subcontractors;
- Records of subcontractors information;

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

145.A.42(a)(i)/(ii)/(iii)/(iv)/(v), 145.A.42(b)(i)/(ii)/(iii)/(iv), AMC1 145.A.42(a)(i), AMC1 145.A.42(a)(ii), AMC1 145.A.42(a)(iii), AMC1 145.A.42(a)(iv), AMC2 145.A.42(a)(iv), AMC1 145.A.42(a)(v), AMC1 145.A.42(b)(i), GM1 145.A.42(b), GM1 145.A.42(b)(i), GM1 145.A.42(b)(ii),

This paragraph shall describe the procedures for receiving components, parts, materials incoming from outside the organisation, such as for example from suppliers, contracted organisations, etc.

2.2.1 Classification and Definitions

- Serviceable components
- Unserviceable components
- Standard parts

- Raw and Consumable material
- Unsalvageable components

2.2.2 Component / Material certification.

This chapter is expected to identify the release documents to be expected/accepted for each type of part/material depending from their status (new/used). It is recommended to develop a table listing all the cases, for easy reference to receiving inspection personnel.

"EXAMPLE"

➢ New

STATUS "NEW"	
type of part/material	**document to be expected**
standard parts	Option 1: when the part/material is purchased directly from the manufacturer, the Certificate of Conformity issued by the manufacturer is expected; Option 2: when the part/material is purchased thru a third party supplier (e.g. distributor, operator, maintenance organisation, etc.) the documentation accompanying the part/materials shall contain: • Conformity certification to the part/material applicable standard/specification, and; • identification of the manufacturing source, and; • Identification of the supplier source. For Option 2, the information above may be included in one single Certificate of Conformity (CoC) issued by the supplier (containing cross reference to the manufacturer CoC) or be composed by more documents, such as for example the CoC issued by the manufacturer plus a statement from the supplier source. In any case, the manufacturer CoC shall be made available upon request.
materials (raw materials and/or consumables)	
aircraft parts	Option 1: BCAA Form 1; Option 2: BCAA Form 1 equivalent release documents for new parts, such as: • EASA Form One with status "new"; • FAA Form 8130-3 with status "new"

➢ Used Parts

STATUS "USED"	
type of part/material	**document to be expected**
aircraft parts	Option 1: BCAA Form 1; Option 2: BCAA Form 1 equivalent release documents for used parts, such as: • EASA Form 1 for a used part (e.g. overhauled) issued by an EASA approved organisation • FAA Form 8130-3 for a used part (e.g. overhauled) issued by an FAA approved organisation

2.2.3 Receiving inspection procedure.

➢ Receiving inspection For Components / Materials/ Standard Parts received from external sources:

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

- physical inspection of components, standard parts and/or materials;
  - verify the general condition of components and their packaging in relation to damages that could affect the integrity of the components;
  - verify that the shelf life of the component has not expired;
  - verify that 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;
  - verify that the component has all plugs and caps appropriately installed to prevent damage or internal contamination. Care shall be taken when tape is used to cover electrical connections or fluid fittings/openings because adhesive residues can insulate electrical connections and contaminate hydraulic or fuel units.
  - Materials/standard parts received in batches and related traceability (e.g. split of batches): Items (fasteners, etc.) purchased in batches should be supplied in a package. The packaging shall state the applicable specification/standard, part number, batch number and the quantity of the items. The documentation accompanying the material shall contain the applicable specification/standard, part number, batch number, supplied quantity, and the manufacturing sources. If the material is acquired from different batches, acceptance documentation for each batch shall be provided.
- review of accompanying documentation and data
  - Compliance with order / condition
  - Conformity with company requirements (e.g. type of release requested, Sources)

- Identification of parts/material after receiving inspection (e.g. tag)
  Traceability of parts and materials to the related documentation (e.g. internal tracking number)
- Receiving inspection records
- "Quarantine" procedure
- Modification Standard and AD compliance
- Identification of storage limitation/ life limits
- Components received in 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, condition,
  - "Quarantine" procedure
  - Identification of storage limitation/ life limits
  - Internally fabricated parts
  - Components removed serviceable from aircraft.

- Procedure of treatment of a suspected unapproved part « bogus part ». Refer Airworthiness Circular on Suspected Unapproved Parts.
  - Identification
  - Record
  - notification to BCAA
  - Form used (e.g. refer to the MOE 2.18 occurrence reporting procedure/form)
  - notification address to BCAA

2.2.4 Installation of components/standard parts/materials

- Procedure for verification prior to installation of components/standard parts/materials

Components, standard parts and materials shall only be fitted when specified in the applicable maintenance data. This could include parts catalogue (IPC), service bulletins (SB), aircraft maintenance manual (AMM), etc. So, the installation of a component, standard part and material can only done after checking the applicable maintenance data.

This check shall 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 (i.e. IPC, SB, AMM, CMM, etc.) where the component, standard part or material is going to be installed. The organisation shall establish procedures to ensure that this check is performed before installation.

- verification the applicable maintenance data specifies the particular component, standard part or material
- verification of satisfactory condition and appropriate document for installation
- verification that, a component is eligible to be fitted when different modification and/or airworthiness directive 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 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.

145.A.25(d), AMC 145.A.25(d),145.A.42(a), AMC1 145.A.42(a)(i), AMC1 145.A.42(a)(ii), AMC1 145.A.42(a)(iii), AMC1 145.A.42(a)(iv), AMC2 145.A.42(a)(iv), AMC1 145.A.42(a)(v), 145.A.42(c), AMC1 145.A.42(c) , GM1 145.A.42(c)(i),

2.3.1 Storage Procedures

- Procedures for maintaining satisfactory storage conditions according to manufacturer's recommendation for:
  - aircraft components;
  - consumable, raw material
  - Special storage requirements (condition and limitation) e.g.: ESD sensitive devices, rubber.

- Flammable fluids
- Engines
- Bulky assemblies
- Record of position in the store (s)

- Segregation between serviceable, unserviceable unsalvageable

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

- System and procedure to control shelf life / Life limit and modification standard.
- Access to storage facilities restricted to authorised personnel

2.3.2 Tagging

- Procedures for Tagging / labelling components/standard parts/materials
  - Serviceable components
  - Unserviceable components

The unserviceable status of the component shall be clearly declared on a tag together with the component identification data and any information useful to define actions necessary to be taken. Such information shall 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 shall be provided to prevent unintentional separation of this tag from the component.

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

Mutilation shall 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 case, 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 disposition of the component.

  - records of components with mandatory life limitations or other critical components scrapped/mutilated and information provided to original manufacturer
  - Quarantine

2.3.3 Release to the maintenance process

The release document expected for components/standard parts/materials are described in MOE chapter 2.2

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

2.4 Acceptance of Tools and Equipment.

145.A.40(a)i, AMC 145.A.40(a), 145.A.40(b), AMC 145.A.40(b)

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

- Tools and equipment acceptance procedure
  - Sources
  - Conformity with company requirements (e.g. certification, ...)
  - Records

- Incoming inspection for tools
  - Required documentation
  - Compliance with order / condition
  - "Quarantine" procedure
  - Internal identification
  - Verification of necessary control / calibration

- Monitoring of tool service providers
  - Selection process
  - internal authorisation process
  - Monitoring of the internal authorisations (e.g. scope of authorisation, validity, ...)
  - Withdrawal of the internal authorization
  - List of tools service providers

A list of tools service providers (inspection /servicing/ calibration) has to be established. The list:

- *is not considered an MOE associated list and can be managed under direct control of the Quality Department.*
- *should be normally kept distinguished from the list of suppliers of materials, standard parts and components used in the maintenance process which is referred in the MOE 2.1. However the two lists may be also combined provided that the "suppliers" as defined in MOE 2.1 are clearly distinguished from the "tool service providers".*

For further guidance on how to develop this procedure, refer to the *GM-AIR-10 Guidance on Tools & Equipment.*

2.5 Calibration of Tools and Equipment.

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

This chapter shall describe all the procedures related to the controls, revisions, modifications, checking and calibrations of the tools/ equipment.

- Inspection, servicing and calibration programme / equipment and calibrated tool register.
- Establishment of inspection, servicing and calibration time periods and frequencies.
- Person/ department responsible for the calibration programme, 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 (e.g. 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 on how to develop this procedure, refer to the *GM-AIR-10 Guidance on Tools & Equipment.*

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

145.A.40(a)i, 145.A.40(a)ii, AMC 145.A.40(a), 145.A.40(b), AMC 145.A.40(b), AMC 145.A.45(d)

This chapter shall describe all management procedures for tooling, distribution and return of the tooling after use.

- 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) instrument / tool 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 (PN, SN)
  - Alternative tools validation process
  - Register of alternative tools /tagging/relation between the references of origin tools and alternative tools.
  - Treatment of possible changes of maintenance data according to the new references of alternative tooling (modifications limited to the references of the tooling to be used and/or adaptation of maintenance data regarding alternative tooling)
  - Use/storage/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 on how to develop this procedure, refer to the *GM-AIR-10 Guidance on Tools & Equipment.*

2.7 Cleanliness Standards of Maintenance Facilities.

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

- Organisation of the cleaning of the facilities:
  - “Foreign Object" exclusion programme
  - Cleaning programme
  - Individual responsibilities
  - Timescales
  - Waste material disposal
  - Special procedure for some facilities (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.

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(d), 145.A.45(e), 145.A.45(f), 145.A.45(g), AMC 145.A.45(b), AMC 145.A.45(d), AMC 145.A.45(e), AMC 145.A.45(f), AMC 145.A.45(g)

This chapter shall describe the management of all the technical documentation in use within the Organisation. It shall clearly identify the various types of documentation in use (external and/or internal origin), to be controlled by the 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 paragraph needs to identify the applicable Maintenance data in use coming from external sources such as TCH, STC holders, BCAA (e.g. 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 / amendment control

- Control of customer supplied maintenance data

- Procedure to ensure all applicable maintenance data is readily available for use when required by maintenance personnel

In the case of an Initial or Change of an BCAR-145 approval for Cx ratings, the AMO shall demonstrate having direct access to the TCH/OEM maintenance data. This means:

(a) *The AMO has a subscription for the maintenance data directly with the TCH/OEM, or;*

(b) *In the case of operator/customer provided data, the AMO has direct access to TCH/OEM to verify the revision status of the documentation provided by the customer (e.g. typical example would be that the TCH/OEM provides this information freely available in its website). In addition, the conditions specified below apply:*

1. *A contract shall be in place detailing the responsibilities for ensuring the availability, the update of the maintenance data from the customer/operator and formal authorisation for the use of such data;*
2. *The maintenance data is available at the time of the audit by BCAA;*
3. *the MOE 1.9 is limited as necessary (to the specific customer/operator) and a notification is done according to MOE 1.10 when the contact is terminated/cancelled because this may affect directly the approval*

2.8.2 Documentation/Maintenance Instructions Issued by the maintenance organisation.

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

It has to be noted that the MOE 2.13 chapter shall only describe the templates and their use in the maintenance process, while the MOE 2.8 is intended to cover the procedure on how to ensure that maintenance data are correctly transcribed into work instructions.

Specific instructions from manufacturer maintenance data related to CDCCL shall be considered.

- Modification of maintenance instructions by the organisation, if applicable;
- Maintenance instructions issued in conformity to approved data in order to facilitate/customise the maintenance (e.g. work card/work sheet, engineering orders, technical specifications, etc.) as applicable
  - paper or computer generated work cards and related amendment control
  - qualification requirements for staff involved in preparation/approval of work cards/work sheets, etc.
  - Incorporation of best practice and human factors principles:
    - Complex tasks subdivided into clear stages to allow recording what was actually accomplished by each individual
    - differentiation of disassembly, accomplishment, reassembly, testing tasks

- compliance and traceability with FTS/CDCCL instructions

- Documentation issued for internal information purposes (e.g. quality information bulletins, quality alerts, occurrence investigation reports, etc.) as applicable;
  - procedure to ensure awareness by the staff

- Control of information
  - Technical library
  - Issue / amendment control
  - Distribution: access to the staff

2.9 Repair Procedure.

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 chapter is intended to describe how the organisation is performing repairs on aircraft/components/engines according to already available maintenance data and how is managing the repairs not described in the manufacturers' documentation.

It has to be noted that the privilege given to develop modified maintenance instructions (as described in previous MOE chapter 2.8), is excluding 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 TCH, STCH, etc.
  - Repairs already approved by the TC Holder.
  - Internal process in use and forms to manage the repairs

- Repairs requiring a new approval (not already included in the available maintenance data)
  - Sources of repair approval as per BCAR-M.A.304 (e.g.: TC Holder)
  - Acceptance of Minor/major repairs approvals (it is recommended to develop a table listing the various cases, including the acceptance of repairs under bilateral agreements)
  - Work order
  - internal process in use and forms to manage the repairs
  - Maintenance instruction (job cards,..)

- Control of the scope of work versus the requested repair (limitations and conditions).

- acceptance of standard change and standard repair, if applicable to the scope of work (this procedure is only applicable to airplanes of 5700 Kg MTOM or less, rotorcraft of 3175 Kg MTOM or less and sailplanes, powered seaplanes, balloons and airships).

2.9.2 Fabrication of Parts.

A Maintenance procedure shall be established to address requirements of the BCAR-145.A.42 (c) and its associated AMC.

If this chapter is used/is applicable, the parts fabrication permission shall be also specified in the MOE 1.9 "scope of work", paragraph 1.9.6

2.10 Aircraft Maintenance Programme Compliance.

AMC 145.A.45(b), AMC 145.A.50(b).

This chapter only applies to organisations holding Ax ratings and should be otherwise identified as "not applicable". A procedure is to be included, with intent to explain how the maintenance organisations ensures the operator's maintenance programme is taken into account to comply with the contract for aircraft maintenance. Additional guidance can be found in Appendix XI to AMC M.A.708(c) contracted maintenance.

- Identification of the maintenance programme under which the maintenance has to be carried out
- Maintenance programme access by the maintenance organisation as part of the work order/contract
- Procedure to ensure a CRS is done in compliance with the approved operator's maintenance programme (this procedure may cross-refer to the MOE 2.16 chapter)

The certificate of release to service should relate to the task specified in the (S)TC holder's or operator's instructions or the aircraft maintenance programme which itself may cross-refer to maintenance data.

- Support the maintenance organisation may provide to the operator in order to substantiate a deviation request from the maintenance programme

Deviations from the maintenance programme have to be managed by the CAMO. The contract between the maintenance organisation and the CAMO should specify the support expected by the maintenance organisation on this regard. This MOE chapter is to be used to detail the policy in place on this matter, while dedicated procedures applicable to each customer operator should be included in MOE Part-4 or is separate interface documents.

2.11 Airworthiness Directives Procedure.

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

The follow up of the airworthiness directives is the responsibility of the owner/operator who is responsible to request 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.

It is necessary to make a difference between the activities of management / launching of ADs on behalf of the customers and the one carried under the BCAR-145 approval.

Only the AD related activities which concern the BCAR-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 Airworthiness directives, such as but not limited to establishing compliance with the following:

It is considered a good maintenance practice to have a procedure in place to review ADs as applicable to the scope of approval.

- procedure for control of ADs applicable to components in the store(s) of the maintenance organization
  - *When the airworthiness control is directly ensured by the owner/operator, the maintenance organisation shall demonstrate that a contract is in place, attributing the responsibilities related to the ADs to such owner/operator. This also applies to component(s) directly delivered by the operator to the line stations;*
  - *When the maintenance organisation retains control of the airworthiness status of the component(s) (e.g. the maintenance organisation owns the component), the maintenance organisation shall ensure that all applicable ADs are embodied to the parts they have in store. The maintenance organisation shall employ qualified staff for the AD analysis, issuing internal work orders, performing the AD compliance follow-up*

- procedure to hold and use applicable current airworthiness directives (e.g. ordered by the customer, needed for the control of components in store, etc.)
  - access to the relevant ADs

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

- verification that, prior to installation on an aircraft, a component is eligible to be fitted when different airworthiness directive configuration may be applicable

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

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

This procedure may also refer to a procedure 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 Procedure.

145.A.45(d), 145.A.48(d), AMC 145.A.45(d), GM 145.A.48(d)

This chapter shall refer to the optional modifications to be embodied on the aircraft/components/engines, under the BCAR-145 approval

The follow up of the Optional Modification is the responsibility of the operator who must ask their enforcement on the work order sent to the maintenance organisation.

Only the activities above which concern the BCAR-145 approval have to be presented in the MOE.

It has to be noted that the privilege to develop modified maintenance instructions (as described in previous MOE chapter 2.8), is excluding the engineering design of repairs and modifications.

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

- Company policy
  - Sources of modification approval (EASA Part 21 DOA, TC Holder or BCAA)
  - embodiment of modifications, including the case of STCs

- Control of the scope of work (limitations and conditions)

2.13 Maintenance Documentation in use and its Completion.

145.A.45(g), 145.A.45(e), 145.A.45(f), 145.A.55(a), GM 145.A.55(a), M.A.201(c), GM 145.A.48

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

2.13.1 Templates in use to record maintenance.

This procedure shall 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 the MOE 2.13 chapter shall only describe the templates and their use in the maintenance process, while the MOE 2.8 is intended to cover the procedure on how to ensure that maintenance data are correctly transcribed into work instructions.

- Identification of the templates in use to record maintenance

This procedure may refer to the MOE chapter 5.1 where the forms and templates in use by the maintenance organisation are included

- Analysis and implementation of Manufacturer data revisions
- Initial approval and revision of the template

2.13.2 Composition of the work package

This procedure shall describe the composition of a standard work package as applicable to the scope of work of the organisation (e.g. for aircraft maintenance will be routine work cards, non-routine cards, ADs, SBs, MEL, deferred items, tally sheet, maintenance release certificate, etc.)

- 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 completed work package for certification
- Control and use of customer supplied work card/worksheets

2.13.3 Completion of Maintenance Documentation.

This procedure shall 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/parts replaced together with the related traceability to the accompanying documents
- Record and management of additional works
- Record and management of deferred items
- Process to correct a maintenance record imperfectly/incorrectly entered during the performance of maintenance. This cannot obviously be done after CRS issuance
- Worksheet / work card completion and maintenance / independent inspection sign-off
    - procedure to ensure correct completion of customer provided work cards (e.g. training on customer paperwork, etc.)
- Use of personal stamps

- Sign-off policy: summary table for tasks sign-off[9]

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

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 inspection) or it is signed-off based on tasks carried out by a contracted or subcontracted organisations.

Any person performing maintenance shall be responsible for the tasks performed. A task can only be signed-off by "authorised personnel"[10].

The use of a sign-off summary table is recommended which shall be consistent to the procedures in MOE 2.25.1 "Procedure to minimise the risk of multiple errors and preventing omissions" and to the job descriptions

identified within the maintenance organisations (e.g. certifying staff/support staff in MOE 3.4, mechanics in

Type of task	task sign-off by "authorised personnel"	aircraft/ component/ engine release to service
Normal task	authorised person for the task performance (e.g. mechanic, C/S) or	Certifying Staff[11]
	Trainee + authorised person for the task performed under supervision (e.g. C/S, inspector)	
Critical Maintenance task (e.g. one engine installation, one flight control rigging, etc.) with error capturing method[12] of **Independent inspection**	authorised person for the task performance (e.g. C/S, mechanic) + authorised person for the independent inspection (e.g. C/S, inspector) or	
	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)	
Critical or identical maintenance task (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, etc.) with error capturing method of **re-inspection**	authorised person for the task performance (e.g. mechanic, C/S) + additional record of re-inspection by the same authorised person	
……	……	

MOE 3.8, qualifying inspectors in MOE 3.7, etc.).

"EXAMPLE"

[9] A "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

[10] "Authorised personnel" means personnel formally authorised by the maintenance organisation approved under BCAR-145 to sign-off tasks. "Authorised personnel" are not necessarily "certifying staff".

[11] In the case of aircraft base maintenance, B1, B2, B3 Support Staff, as applicable, shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C certifying staff issues the certificate of release to service

[12] Refer to MOE 2.23 and 2.25 for the definition of error capturing methods (and priority criteria), critical and identical maintenance tasks

2.14 Technical Records Control.

145.A.55(a), GM 145.A.55(a), 145.A.55(b), 145.A.55(c)1, 145.A.55(c)2, 145.A.55(c)3, AMC 145.A.55(c)

- Composition of maintenance records retained by the maintenance organization
    - CRS copy as applicable to aircraft/engines/components/NDT ratings (e.g. ATL, base maintenance release, BCAA 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 shall be kept on records by the maintenance organisation.

    - copy of any detailed maintenance record associated with the work carried out
    - Release documents of components, standard parts installed and consumable/ raw materials used

Where the release documents are not included in the maintenance records the organisation shall 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 related to aircraft components, the customer/operator agreement is necessary where those documents are only traceable but not included in the maintenance records provided to the customer/operator.

- Format of the maintenance records
    - Paper and/or;
    - Computer system and related backup

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

- Records storage conditions (fire extinguisher system, fire detection,) and retrieval of records (paper or computer based)
- Control of access to records (paper and / or computer based records)
- Lost or destroyed records (reconstruction and BCAA acceptance). This procedure shall only be proposed to BCAA in case of actual need raise.
- Retention of records
    - Periods
    - Methods and security

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 shall 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.

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 shall be brought to the attention of the customer/operator for the specific purpose of obtaining agreement to rectify such defects or completing the missing elements of the maintenance work order.

In the case where the customer declines to have such maintenance carried out, BCAR-145.A.50(e) is applicable in order to issue the release to service (with incomplete/deferred maintenance), as addressed in MOE chapter 2.16

- Procedure to record defects arising during maintenance
- Analysis of defects and rectification
- Notification process (when necessary) to the customer/operator, manufacturer and authority
- Report to the operator/ approval of the customer to launch the rectification according to the contract

2.16 Release to Service Procedure.

145.A.30(g), 145.A.30(h)1, 145.A.30(h)2, 145.A.30(i), 145.A.30(j)5, AMC 145.A.30(j)(5), AMC 145.A.30(j)(5)(i), AMC 145.A.30(j)(5)(ii), 145.A.48(a), 145.A.50(a), AMC 145.A.50(a), 145.A.50(b), 145.A.50(c), 145.A.50(e), 145.A.50(d), 145.A.50(f), AMC 145.A.50(b), AMC1 145.A.50(d), AMC2 145.A.50(d), GM 145.A.50(d), AMC 145.A.50(e), AMC 145.A.50(f), 145.A.80, AMC 145.A.80, M.A.403 (b), 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 certificate of release to service:
  - 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)
  - The date such maintenance was completed
  - The location where the release to service is issued
  - The identity of the organisation, including the approval number of the maintenance organization
  - the identity of the person issuing the release to service, including:
    - the BCAR-145 C/S - S/S individual authorisation number (handwritten or stamped) of the certifying staff issuing such a certificate; and
    - the signature of the certifying staff issuing such a certificate (may include electronic signature system when approved by the BCAA)
  - The limitations to airworthiness or operations, if any.

- Cross-reference to work packs (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 part or material and that all access panels removed have been refitted
- Impossibility to sign a release certificate that could hazard flight safety e.g.:
  - AD ordered or know 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/ engine
- Impossibility to sign a release certificate due to unexpected non-availability of facilities, equipment, tooling material, maintenance data or certifying staff
- Particular cases of issuance of CRS for aircraft/engine/component known to be in un-airworthy conditions:

This procedure is optional and should be only included in case of real need by the maintenance organisation. A CRS in the cases above might be issued as long as the incomplete maintenance/non airworthy condition is properly identified in the CRS statement and communicated to the customer/operator (and to BCAA in case

of disagreement between the maintenance organisation and the customer/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/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, etc.)

- The specificities of BCAA Form 1. This procedure shall at least address the following issues:
  - The address to be recorded in the BCAA Form 1 block nr. 4 is the address of the PPB which is reflected in the first page of the BCAA Form 3 certificate. However, to allow the identification of the maintenance site where the BCAA Form 1 is issued (in the case this is different from the PPB), the Organisation shall ensure a system is in place to retrieve the information of the maintenance site where the BCAA Form 1 was issued, starting from the tracking number of the BCAA Form 1 (block nr. 3)
  - The tracking numbering system of BCAA Form 1 shall be described demonstrating a unique number is used;
  - An identification system shall enable to track the location where the maintenance has been released to service;
  - The recording system allowing to easily retrieve all the issued Form 1;
  - The cancellation or correction of an BCAA Form 1 mistakenly completed/issued.

2.16.2 Aircraft maintenance release to service (Ax ratings).

- Issuance and completion instruction of CRS after Base Maintenance (e.g. Maintenance Release Certificate)
  - Responsibilities of the cat. C certifying staff
  - Responsibilities of the B1 / B2 support staff

- Issuance and completion instruction 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 condition to complete all the maintenance ordered, deferred maintenance, need to perform a maintenance check flight*)

Only the authorised certifying staff, can decide, using maintenance data, whether an aircraft defect hazards seriously the flight safety and therefore decide when and which rectification action shall 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 certifying staff.

**Maintenance Check Flight (MCF): Certain maintenance data issued by the design approval holder (e.g. AMM) require that a maintenance task be performed in flight as a necessary condition to complete the maintenance ordered.*

- Temporary fitting an aircraft component without 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 an BCAA Form 1 for components removed serviceable from A5 registered A/C

This procedure is optional. If the organisation intends to have this procedure approved it shall comply with paragraph 2.6.1 of AMC2 145.A.50(d). The intention of this paragraph is that a BCAR-145 organisation may

issue a 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 /change over serviceable components between A5 registered A/C or between different positions of the same A5 registered aircraft

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

- Issuance of an BCAA Form 1 for components removed serviceable from a non-A5 registered A/C

This procedure is optional. It is only applicable when the maintenance organisation also holds an BCAA CAMO approval. Paragraph 2.6.2 of AMC2 145.A.50(d) applies.

- CRS in the case of one-off authorisation (the MOE 3.4 specifies the related qualification requirement)
  - Notification to BCAA
  - Definition of records to be kept and location of records
  - Task re-checked when affect flight safety

2.16.3 Components/engines/APUs maintenance release to service (Cx/Bx ratings).

- Issuance and completion instruction of CRS after components/engines/APUs maintenance (BCAA Form 1):
  - Responsibilities of the components/engines/APU certifying staff
  - if applicable: CRS on internal tag
  - if applicable: BCAA Form 1 issued for unserviceable component undergoing a series of maintenance processes (limitations to be entered in block 12)

- Particular cases of issuance of a CRS by using an internal release document instead of the BCAA Form 1

The use of this procedure is optional and shall be limited to cases when the maintenance organisation maintains a component for use by the same organisation subject to the acceptance of the customer/operator. The CRS on internal release document shall contain the same level of information included in the BCAA Form 1 and shall be issued by an appropriately authorised certifying staff.

- *Case 1: this procedure may be used under Cx/Bx rating*
- *Case 2: A possible application of this procedure under Ax rating is to allow issuing the component CRS in the case of swap /change over serviceable components between A5 registered A/C without need of issuing an BCAA Form 1.*

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

2.16.4 NDT release to service (D1 rating).

- Issuance and completion instruction of CRS after NDT (BCAA Form 1):
  - Responsibilities of the NDT certifying staff

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

2.17 Records for the Operator.

145.A.55(b)

- Composition of maintenance records to be provided to the customer/operator
- Contracted record keeping for operators/Arrangements for processing and retention of Operator's maintenance records

This procedure is only applicable when the maintenance organisation is retaining records on behalf of the customer operator according to BCAR-M requirements (e.g. Original Aircraft Technical Logbooks, Life limited parts records, etc.)

2.18 Reporting of Defects to the BCAA/ Operator/ Manufacturer.

145.A.60(a), 145.A.60(b), 145.A.60(c), 145.A.60(d), 145.A.60(e), AMC 145.A.60(a), AMC 145.A.60(b), GM 145.A.60(a), GM 145.A.60(c)

2.18.1 Internal Occurrence Reporting System.

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

- Process to report and collect occurrences identified internally within the organisation and just culture
- Collection of occurrence reports received from external sources (e.g. maintenance error identified and notified by a customer following maintenance carried out at the organisation, etc.)
- Description of process to record occurrences (e.g. occurrence database, etc,)
- Extraction of occurrences to be reported as per BCAR-145.A.60 (which are referred in the following paragraph 2.18.2);
- Evaluation of reports to identify adverse trends;
- Description of the process to investigate occurrences (e.g. criteria to identify occurrences to be investigated, investigation report format, methods of maintenance errors investigation such as “maintenance errors decision aid-MEDA” process, corrective actions in response to investigation findings, follow-up system, feedback to staff, etc.)
- Maintenance errors identified to be used for internal human factors training and for amendment of the procedure for critical maintenance tasks (may cross refer to MOE chapter 2.23)

2.18.2 Reportable Occurrences as per BCAR-145.A.60 and BCAR-OR

This procedure must describe the reporting procedure to BCAA, 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 organisation that has resulted or may result in unsafe condition that hazards seriously the flight safety shall be reported.

- List of Reportable occurrences as per AMC 145.A.60(a) and BCAR-OR
    - Shall also include, notification to BCAA of all cases where an occurrence is originated as a result of maintenance carried out by the organisation, regardless of the registration of the aircraft or customer and besides any other reporting responsibility to the BCAA responsible for the approval under which the maintenance was carried out

A typical example is a situation where the organisation is made aware of a technical incident of a non-A5 customer immediately following a maintenance carried out by the organisation itself, e.g. where an incorrect assembly of aircraft parts by the maintenance organisation was identified as the cause of the incident.

- Method to report occurrences to BCAA.
- Reporting Suspected Unapproved Parts.

- 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.

145.A.42(a).(iii)

This chapter shall refer to the process of parts returned by maintenance teams to the store.

- Aircraft component received in serviceable status but found "defective" at installation (e.g. involvement of quality system for investigation, possible need to report the occurrence as per MOE 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.

145.A.75(b)

This chapter shall refer to the process of sending components to outside contractors for repair or modification.

This chapter is only applicable when the maintenance organisation is sending/contracting component maintenance to:

- *Contracted BCAR-145 approved Organisation. This fact shall be reflected in the MOE 2.1 and the contracted organisation(s) listed in MOE chapter 5.4, or*
- *Subcontracted Organisation not holding an BCAR-145 approval. This fact shall be reflected in the MOE 2.1 and the "Subcontractors" listed in the MOE chapter 5.2.*

- Dispatch of components for maintenance
- Identification of required work
- Return of the serviceable component after maintenance at the contractor/subcontractor facility
- Control of dispatch, location and return
- Return of unserviceable loan parts
- Management of the packaging and special transportation condition (e.g.: Wheels – oxygen bottles)

2.21 Control of Computer Maintenance Records System.

145.A.45(e), 145.A.55(c)2, GM 145.A.55(a)

This chapter shall refer to the computer systems used to manage and/or record information regarding the maintenance tasks carried out

This chapter shall not be confused to chapter 2.14 "Technical record control" which is intended to cover the record keeping requirement addressed in BCAR-145.A.55

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

2.22 Control of Man-Hour Planning versus Scheduled Maintenance Work.

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 (taking into account also maintenance activities carried out outside the scope of the BCAR-145 approval)
    - Reviewed at least every 3 months and updated when necessary
    - Covering all staff (e.g. certifying staff, inspectors, mechanics, planners, quality auditors, etc.)

Particular attention shall be given to the situation when the same person is acting with different roles during a particular maintenance check (e.g. a person who is acting at the same time as cat. C certifying staff and B1 support staff during a particular base maintenance check, a person who is acting at the same time as component certifying staff and sign-off staff during a particular component workshop maintenance, etc.). In such cases the man-hour plan for the particular maintenance check should take into account this aspect to ensure the person is allocated enough time to carry out the necessary activities required for each of the different roles he/she undertakes and appropriate consideration is given to human performance limitations.

- Hangar visit plan versus man-hour plan

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

- Management system of company planning versus time available (e.g. A/C or components base maintenance activity …)
- Type of planning (man hours availability versus work load)
- Type of factors taken into account in the planning
    - Human performance limitations
    - Complexity of work
    - Additional factors

- Planning revision process
- Organisation of shifts

- Use of “contracted”[13] personnel

At least half the staff that perform maintenance in each workshop, hangar or flight line on any shift shall be employed to ensure organisational stability. For the purpose of meeting a specific operational necessity, a temporary increase of the proportion of contracted staff may be permitted to the organisation by the BCAA, in accordance with an approved procedure to be included in this MOE chapter, which shall describe the extent, specific duties, and responsibilities for ensuring adequate organisation stability.

- Notification to the Quality Manager and Accountable Manager of deviations exceeding 25% between the work load and the man hour availability

[13] “Contracted” means the person is employed by another organisation and contracted by that organisation to the maintenance organisation approved under BCAR-145.

2.23 Critical maintenance tasks and error-capturing methods

145.A.48(b), AMC1 145.A.48(b), AMC2 145.A.48(b), AMC3 145.A.48(b), AMC4 145.A.48(b)

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 the flight safety.

- Procedure to identify of 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, etc.)
    - Person responsible to amend the list
    - Data sources used to identify and amend the list of "critical maintenance tasks" (TCH data, occurrence reporting, results of audit, feedback from training, etc.)

This procedure shall ensure that critical maintenance tasks are reviewed to assess the impact on flight safety. The list of critical maintenance tasks shall be customised to the scope of work of the 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 Quality Manager

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

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

2.23.2 Error-capturing methods

This paragraph shall identify and detail the management of each possible error-capturing method in use by the organisation

- Identification of the error-capturing method(s) to be used:
    - The primary error-capturing method to be used shall be the independent inspection
    - Re-inspection (limited to unforeseen cases when only one person is available)

- Independent inspection procedure

This paragraph shall address the requirements of AMC4 145.A.48(b) for independent inspection

    - Definition of independent inspection
    - Personnel authorised for the independent inspections

The qualification of this personnel is expected in the MOE 3.7 Qualifying Inspectors

- 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 shall be inspected for correct assembly and locking, etc.)
    - How a task requiring independent inspection is signed-off

This procedure can refer to the MOE 2.13 sign-off policy. Consistency has to be ensured with MOE 2.13 chapter

- Reinspection procedure

This paragraph shall address the requirements of AMC4 145.A.48(b) for reinspection

- 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.

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

- Maintenance outside the approved location (s)

For further guidance refer to the GM-AIR-05 Maintenance Away from Approved Location(s)

- Special Maintenance tasks, e.g.:
  - Engine run up
  - Aircraft pressure run
  - Aircraft towing
  - Aircraft taxiing
  - Technical wash
  - Control/ supervision of de-icing systems
  - Maintenance check flight

2.25 Procedures to Detect and Rectify Maintenance Errors.

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

This chapter shall 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 is expected to be described in the MOE chapter 2.18.

2.25.1 Procedure to minimise the risk of multiple errors and preventing omissions

Consistency with the MOE 2.13 chapter (sign-off policy) shall 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
- Procedure 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 Procedure to minimise the risk of errors being repeated in identical maintenance tasks compromising more than one system or function

- Criteria to define the identical maintenance tasks

The objective of the procedure is to ensure no person is required to perform a maintenance task involving removal/installation or assembly/disassembly of several components of the same type fitted to more than one system[14] on the same aircraft or component during a particular maintenance check.

2.25.3 Identification of methods in use to minimise the risks

- Planning method (only applicable to identical maintenance tasks)

This paragraph shall address the GM 145.A.48(c) describing how the planning method is used to minimise the risk of errors being repeated in identical maintenance tasks planning the performance by different authorized persons of the same task in different systems

[14] the failure of which could have an impact on safety

- Identification of the error-capturing method(s) to be used (the specific procedure on how each error capturing method is accomplished shall be detailed in the MOE 2.23).

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

"EXAMPLE"

Refer to MOE 2.13 "sign-off" policy 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 or assembly/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, etc.)	**Performance by different authorized persons** of the same task in different systems (planning method)	**Re-inspection** by the same authorized person who has performed the task **(limited to unforeseen cases when only one person is available)**
Critical Maintenance Task	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 the flight safety.** (e.g. one engine installation, one flight control rigging, etc.)	**Independent inspection**	
……	……	……	……

2.26 Shift / Task Handover Procedures

145.A.47(c), AMC 145.A.47(c)

- Aims and objectives of the shift handover
- Training of personnel in shift/task handover processes
- Recording of shift/task handover
- Formalised shift handover process and required information
    - Facility status
    - Work status
    - Manning status

  - Outstanding issues
  - Other possible information
- Responsible person for managing and filling up the shift / task handover

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

145.A.45(c), AMC 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/inaccuracies to be reported under MOE 2.18 as mandatory reportable occurrences
- Feedback to staff and implementation of TC Holder/Manufacturer corrections
- Impact of the data ambiguity on the on-going maintenance task

The authors may be any of the following:

  - *Aircraft / component design organisation (AMM, SB, SRM..)*
  - *The BCAA*
  - *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.

145.A.47(a), AMC 145.A.47(a), 145.A.47(b), AMC 145.A.47(b), 145.A.10, AMC 145.A.10, 145.A.65(b)1; GM 145.A.65(b)(1)

- 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 customer/operator to clearly establish the maintenance to be carried out

GM 145.A.65(b)(1) provides guidance on the elements that need to be considered for the maintenance contract between the CAMO and the maintenance organisation. The BCAR-145 organisation should take into account these elements to ensure that a clear contract or work order has been concluded before providing maintenance services.

  - the requested maintenance remains within the approved scope of approval
  - need of special facilities

The main driver to determine whether the requested maintenance is within the scope of approval, shall be the content of the specific maintenance activity ordered. Additional tasks or constraints may be also associated to the requested activity such as deferred items, rectification of defects, inspection requesting skilled workers, qualification of the certifying staff, environmental conditions, overall length of the tasks etc. Therefore 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 (e.g. hangar for line maintenance, etc.) shall be part of the decision making.

- Verification that the maintenance work package provided by the customer is utilizable by the maintenance organisation. In any case the organisation shall 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 (list + MM / job cards /…)

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

2.29 Airworthiness review procedures and records.

Reserved

2.30 Procedure for component maintenance under aircraft or engine rating

AMC 145.A.45(b)

This procedure can only be included when the possibility to use component maintenance data under aircraft or engine ratings is included in the MOE 1.9 chapter.

2.30.1 Conditions for using the privilege

- Justification to the BCAA on the need of this privilege and confirmation that it is a simple component maintenance as defined in the following paragraph
- Procedure to assess the task is within the technical capability of the maintenance organisation (e.g. staff, tools, maintenance data, materials, etc.)

This assessment can be considered met without further demonstration, where the organisation holds the relevant Cx/Bx rating and performs a task included in the already approved capability at P/N level, however using workshop staff "on-wing" under the Ax rating.

- Assessment on the need to develop maintenance instructions for using the particular maintenance data in order to precisely record the part of the maintenance task effectively carried out (e.g. a B1 rated AMO 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 AMO)
- Where applicable, procedure to liaise with the Ax rated AMO being responsible for some parts of the task when a Cx or Bx AMO[15] are working on-wing (e.g. circuit breaker deactivation, etc.)
- Procedure entailing possible CRS limitations (e.g. leak test needed by the Ax AMO following a task carried out by the Cx or Bx AMO)
- Procedure to cover cases where the same maintenance task is available in different maintenance data with different allowed defects. In such cases, the AMO can only use the particular maintenance data if clearly specified in the work order (e.g. a Bx shall not use the AMM under its own decision, when the same task is available in EMM)
- need of training in the use of maintenance data and in the particular maintenance environment (e.g. a Cx or Bx rated AMO working on-wing in an aircraft line or base maintenance environment)
- access to the maintenance data

2.30.2 Definition of Simple component maintenance

This definition is to be customised to the scope of work of the organisation. It is not intended to define simple tasks which are not applicable to the organisation.

The criteria below are only intended to address the case of an Ax rated organisation wishing to use component maintenance data.

- The tasks to be carried out are:
  - not requiring any specific workshop environment (e.g. special temperature/humidity requirements, special cleanness standard) and/or workshop test bench

- limited to cabin related maintenance tasks, such as:
  - cosmetic repairs (e.g. seats, galleys, lavatories, stowage, partitions)
  - minor inspection (e.g. fire extinguisher weighing, seats inspection)
  - minor repairs (e.g. seats subpart replacement)

- The component may be temporarily removed from aircraft in order to improve access to that component, except when such removal generates the need for additional maintenance. The component shall be reinstalled back to the same aircraft, and the related repair recorded in the aircraft maintenance work package
- Amendment status of component maintenance data used under this procedure shall be controlled as per MOE chapter 2.8

Other scenarios may be considered for inclusion in this paragraph subject to the acceptance of the BCAA.

[15] The possibility for a Cx or Bx AMO to work on-wing using AMM data shall be carefully assessed. Those organizations are clearly limited to works respectively at component or engine level carried out on-wing. 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 (e.g. the Cx or Bx AMO shall not perform any task in cockpit even if related to verifying the serviceability of the component or engine on which the organisation is working, shall not perform any deactivation task at aircraft level such as circuit breaker deactivation, etc.)

PART L2 ADDITIONAL LINE MAINTENANCE PROCEDURES

MOE Part L2 is intended to provide additional procedures which are specific for the line maintenance environment, which have not been covered in the MOE Part 2. Where a procedure, was already covered in the MOE part 2 and there is no need of 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.

145.A.75(d)

This chapter must describe the additional / special procedures of the management of the facilities, materials/ ingredients and tools/ equipment, technical documentations, staff associated to 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, equipment which are not the same used in the main site as described in MOE Part 2.

- Component / Material acceptance - (required documentation, condition, "Quarantine" procedure)
- Components removed serviceable from aircraft;
- Procedures to maintain satisfactory storage conditions - (routable, perishables, flammable fluids, engines, bulky assemblies, special storage requirements)
- System for control of shelf life and modification standard
- Tagging / labelling system (serviceable, unserviceable, scrap, etc.)
- Release of components to the maintenance process
- Tools and test equipment, servicing and calibration programme / equipment register
- Identification of servicing / calibration due dates

L2.2 Line Maintenance Procedure Related to Servicing / Fuelling / De-icing / etc.

145.A.75(d)

This chapter must describe the additional / special procedures of management of the specific activities

- Technical and maintenance documentation management (control and amendment)
- Company Technical Procedures / Instructions management
- Fuel supply quality monitoring (bulk storage / aircraft re-fuelling)
- Ground de-icing (procedures / monitoring of sub-contractors)
- Maintenance of ground support equipment
- Monitoring of sub-contracted ground handling and servicing

L2.3 Line Maintenance Control of Defects and Repetitive Defects.

145.A.75(d)

This chapter must describe the general procedures followed by the organisation regarding the rectification of defects in line maintenance. The identification and management of repetitive defect is an operator responsibility, however the maintenance organisation may also identify such repetitive defects or be involved by the operator in related rectification actions and this MOE chapter is also intended to describe this area of activity.

- Rules for deferring (periods - review - permitted personnel - conformity with MEL /CDL provisions)
- Awareness of deferred defects carried by aircraft
- Analysis of tech log (repetitive defects – crew complaints - Analysis and transfer of cabin log items as required)
- Co-ordination with the operator
- Procedure on how to deal with defects requiring B2 certifying staff in the case of line stations where such staff is not permanently available.

L2.4 Line Procedure for Completion of Technical Log.

145.A.75(d)

This chapter must describe the additional procedures of management/completion of the technical log(s) in use. It must also cover the procedures for ETOPS release where applicable. These procedures must be associated to chapters 2.13, 2.16 of the MOE.

- Technical Log system:
  - Taking into account Operator Procedure
  - Completion of Sector Record Page
  - Distribution of copies

- Training on customer operators procedures and maintenance record completion (logbook, …)
- Certification / Sign-off (Maintenance Statements)
- Maintenance Independent Inspections
- ETOPS Certification
- Retention of records
  - Periods
  - Methods and security

L2.5 Line Procedure for Pooled Parts and Loan Parts.

145.A.75(d)

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

- Verification of approved sources of parts (sources, conformity with company requirements, Modification Standard and AD compliance, records)
- Compliance with loan and contract requirements
  - Tracking and control
  - Required documentation

- Processing removed loan parts for return to source (records)
- Components removed serviceable from aircraft

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

145.A.75(d)

This chapter must describe the additional management procedures for treatment of defective components associated with the line maintenance activity. These procedures must cover the same subjects specified in chapters 2.19, 2.20 (return of removed components, sending components...) of the MOE.

- Required documentation
- Service record
- Processing advice of removal (W/O) and dispatch to technical records
- Dispatch of the part for rectification

L2.7 Line procedure for critical maintenance tasks and error-capturing methods.

145.A.75(d)

This chapter is the equivalent of the chapters 2.23 and 2.25 of the MOE for the line maintenance activity.

It is intended to describe peculiarities, if any, for managing the critical maintenance tasks in the line maintenance environment together with any associated error-capturing method.

PART 3 – QUALITY SYSTEM PROCEDURES.

3.1 Quality Audit of Organisation Procedures.

145.A.65(c)1, AMC 145.A.65(c)(1), GM 145.A.65(c)(1), 145.A.65(c)2, AMC 145.A.65(c)(2)

This chapter must explain how the audit of internal procedures is organised and managed i.a.w. regulatory requirements. In particular this chapter shall describe how the requirements for system/procedure audit are complied with and the methodology of the audit. Small organisation may choose to subcontract the audits to another organisation or an outside person with satisfactory technical knowledge and satisfactory audit experience (link to chapter 3.6).

- Definition of the "system/procedure" audit[16]
  - Single exercise audit or subdivided over 12 months

- "System/procedure" Audit programme
  - System/procedure audit plan (refer to the example provided at the end of this paragraph)

The audit plan shall ensure that all aspects of BCAR-145 compliance are checked every 12 months. The cross reference table included in the chapter 1.5 of this User guide can be used as a reference of the level of detail expected in the system/procedure audit for compliance check of applicable regulation requirements and MOE chapters.

  - Principles of annual audit procedure planning
  - Grouping of audits
  - Dates and timescales.
  - Audit of the Quality 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 the BCAR-145.A.30 (d) contracted personnel) to perform audits on the quality system procedures. This case does not mean subcontracting the quality system.
  - Audit of contracted organisations /Subcontractors/suppliers, as applicable depending to 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 of the audit programme and management of changes to the programme
  - Follow up of the audit program: scheduled, performed, audit report issued, open/close – link with chapter 3.3

- Company Audit Policy including compliance audit:
  - Audit notification;
  - Audit reports (documents used, writer, issue, points checked and deviations noted, deadline for rectification)
  - Reference can be made to MOE chapter 3.3 detailing the process to manage findings
  - Allocation of resources to the audit (audit team, team leader, etc.)
  - Principles when deviations are noted on a line of product

- Quality audit reports retention
  - Duration (At least duration of 2 years from the date of the findings closure) / location
  - Type of documents (notification, audit reports, check list, audit programs)

An audit report shall be raised each time a system audit is carried out describing what was checked and the resulting findings against applicable requirements, procedures and products

"EXAMPLE"

The purpose of this example is to provide an acceptable audit plan (there is any number of other acceptable working audit plans). The following criteria shall be met:

- *The audit plan is intended to monitor compliance with the applicable requirements and at the same time review all areas of the organisation, where such requirements are applicable;*

- *In order to achieve this objective, as a first element, the organisation needs to identify all the regulatory requirements, AMC and BCAA guidance (Guidance Materials) applicable to the activity and scope of work under consideration, to allow the audit plan to focus on the relevant subject matters. Each subject matter (e.g. facilities, personnel, etc.) should be cross-referred with the relevant requirement and the related organisation procedure in the exposition, where the particular subject matter is described.*

- *as a second element, all functional areas of the organisation in which BCAR-145 functions are intended to be carried out, including subcontracting, need to be listed with the objective of identifying the applicability of any subject matter in each functional area;*

- *a matrix can be used* ***(refer to TABLE 1 below)****, capturing the two above-mentioned elements. This is intended to be a living document to be customised by the particular organisation depending on its scope of work and structure. This matrix would represent the overall compliance of the audit system and would need to be amended, as necessary, based upon any change to applicable regulations, BCAA guidance, organisation procedures and functional areas of the organisation (e.g. change of the scope of work to include line maintenance, etc.);*

- *The audit plan* ***(refer to TABLE 2 below)****, can be finally presented as a simplified schedule, showing the operational areas of the organisation against a timetable to indicate when the particular area is scheduled for audit and when the audit was completed. The number of product audit and subcontractors audit directly depends on the number respectively of product lines and subcontracted organisations in use. The audit plan should also identify some unannounced audits during on-going maintenance (including unannounced audits during the night for those organisations that work at night);*

- *The audit of each operational area will review all the subject matters which are applicable to the relevant functional area. For each subject matter, the audit should check that the particular BCAR-145 requirement is documented in the corresponding exposition procedure and that the exposition procedure is effectively implemented in the operational area subject to the audit. In addition, the audit should also identify any practice/process implemented in the particular operational area which has not been documented in any exposition procedure.*

[16] The internal audit plan shall also take into account the applicable BCAR-M requirements listed in chapter 1.1 "Preliminary considerations" of this User Guide.

The tables below provide an example (to be further completed) of audit matrix and audit plan for an organisation involved in aircraft base maintenance (2 base maintenance hangars) and line maintenance (2 line maintenance locations)

TABLE 1 – audit matrix (Subject matter- Regulatory reference- Exposition- Functional areas)

Subject Matter	Regulation/User Guide reference	Exposition	FUNCTIONAL AREAS					
			Base Maintenance	Line Maintenance	Quality	Receiving and Storage	Subcontracting	…
Facilities	145.25(a)(1)	1.8	X	X		X	X	…
	AMC 145.25(a)	2.22	X	X		X	X	…
	…	…						…
Personnel	145.30(c)	1.4			X			…
	145.30(d)	1.7, 2.22	X	X	X	X	X	…
	…	…						…
Record Keeping	145.55(a)	…	X	X		X	X	…
	…	…						…
Certifying staff	145.35(a) GM-AIR-12	3.8	X	X	X			…
	…	…						…
Fabrication of Parts	145.A.42(b)(iii)	1.9, 2.9	X	X		X	X	…
…	…	…	…	…	…	…	…	…

TABLE 2 – audit plan

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	
Line Maintenance location 1	Line Maintenance	mmm yyyy	dd mmm yyyy	
Line Maintenance location 2	Line Maintenance	mmm yyyy	dd mmm yyyy	
Quality	Quality	mmm yyyy	dd mmm yyyy	
Store 1,2,3	Receiving and Storage	mmm yyyy	dd mmm yyyy	
Receiving Inspection	Receiving and Storage	mmm yyyy	dd mmm yyyy	
Subcontractor 1	Subcontracting	mmm yyyy	dd mmm yyyy	
Aircraft Base Product audit A320	Base Maintenance	*unannounced*	dd mmm yyyy	*during night shift*
Aircraft Line Product audit A380	Line Maintenance	mmm yyyy	dd mmm yyyy	
……		……	……	

3.2 Quality Audit of Aircraft and/or Components.

145.A.65(c)1 , AMC 145.A.65(c)(1) , 145.A.65(c)2 , AMC 145.A.65(c)(2)

This chapter must describe the procedures related to the product audits (aircraft, aircraft component, engine, specialised service) according to BCAR-145.

Small organisation may choose to subcontract the audits to another organisation or an outside person with satisfactory technical knowledge and satisfactory audit experience (link to chapter 3.6).

- Definition of "Product" audit

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

- Company "Product" Audit Policy
  - A dedicated "Product" audit policy may be added, provided it does not conflict with the one describe in the previous chapter. The Company audit procedure shall include the quality audit of aircraft (and/or component)

- "Product" Audit programme
  - Product samples for each line of product (aircraft and / or components and/or engines and/or specialised services)
  - Dates and timescales

- "Product" Auditing methods
  - Sampling
  - "Trail" / "investigation" audits

- Records of "Product" audit reports
  - Duration (At least duration of 2 years from the date of the findings closure) / location
  - Type of documents (notification, audit reports, check list, audit programs, …)

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

3.3 Quality Audit Corrective Action Procedure.

145.A.65(c)2, AMC 145.A.65(c)(2), 145.A.95(a), 145.A.95(b), 145.A.95(c)

This chapter must describe the procedures of follow up of corrective actions.

- Findings classification (ref. BCAR-145.A.95)
  - Notification to the Accountable Manager and BCAA in case of level 1 finding identified by the internal audit and immediate actions to self-limit the approval/privileges as necessary

- Management of finding due dates
  - Alert system, finding database
  - Extension of the due date
  - Procedure describing the organisation actions when the corrective action deadline has to be postponed or when the answer has not been received on time.

- Corrective action process
  - Corrective action planning and follow-up (e.g. notified, answered, corrective action accepted, open/closed)

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

  - The corrective action plan shall be designed in a way which allows identifying and recording the finding, the root cause, the relevant immediate and long term preventive action with the appropriate timescales.
  - Management responsibilities for corrective action and follow-up
  - Process of corrective actions following findings from the BCAA

- Description of the quality feedback reporting system
  - Access to Accountable Manager
  - Review of the Quality system overall results
  - Meeting with the Accountable Manager. (including record of meeting procedure)
  - Regular meetings to check the progress of corrective actions

The quality feedback reporting system cannot be subcontracted.

3.4 Certifying Staff and Support Staff Qualification and Training Procedures.

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(n), 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(n), AMC 145.A.35(o), Appendix IV

This chapter shall describe qualification procedures for the certifying staff and category B1 and B2 support staff qualification. Clear differentiation is expected for each different rating in the scope of work (e.g. aircraft, engines, components, specialised services).

3.4.1 Aircraft Certifying Staff and/or Support Staff.

- The minimum age for certifying staff and support staff is 21 years.
- Experience, training and competence requirements (including compliance with BCAR-145 Appendix IV for staff not qualified to BCAR-66)
- BCAR-145 C/S - S/S individual authorisation *: requirements for initial issue, extension (scope of work), renewal, withdrawal of the authorisation, including, as applicable:
  - "Certification Authorization" for aircraft line/base maintenance certifying staff (cat. A, B1, B2, B3, C as applicable);
  - Individual authorisation for aircraft base maintenance support staff (B1, B2, B3 as applicable)

- Continuation training procedures (Organisation procedures, new technology, human factor issues, etc.)
- 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 2.16)

The competence assessment process for issuance, extension, and renewal of the BCAR-145 C/S - S/S individual authorisation is expected to be described in the MOE 3.14 "Competence Assessment".

Further guidance on how to develop this chapter, refer to the:

- *GM-AIR-12 Guidance on Aircraft certifying staff and support staff*
- *GM-AIR-09 Guidance on Demonstration of 6/24 Months Maintenance Experience*

3.4.2. Components/Engines/APU Certifying Staff.

- The minimum age for certifying staff and support staff is 21 years.
- Experience, training and competence requirements

- BCAR-145 C/S individual authorisation: initial issue, extension (scope of work), renewal, withdrawal procedures.

The competence assessment process for issuance, extension, renewal of the BCAR-145 C/S individual authorisation is expected to be described in the MOE 3.14 "Competence Assessment.

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

Further guidance on how to develop this chapter, refer to the:

- *GM-AIR-09 Guidance on Demonstration of 6/24 Months Maintenance Experience*

3.4.3. Specialised Services (NDT) Certifying Staff.

- The minimum age for certifying staff and support staff is 21 years.
- Internal Experience, training and competence requirements in addition to EN4179
- BCAR-145 C/S individual authorisation: initial issue, extension (scope of work), renewal, withdrawal procedures.
  Note: the competence assessment process for issuance, extension, renewal of BCAR-145 C/S individual authorisation is expected to be described in the MOE 3-14 "Competence Assessment".
- Continuation training procedures (Organisation procedures, new technology, human factor issues, etc.,..)
- Demonstration of 6/24 months maintenance experience

Further guidance on how to develop this chapter, refer to the:

- *GM-AIR-09 Guidance on Demonstration of 6/24 Months Maintenance Experience*

3.5 Certifying Staff and Support Staff Records.

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

This chapter must describe how the certifying staff records are managed.

- Constitution of the records including:
  - Identity, date of birth, BCAR-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 BCAR-145 C/S-S/S individual authorisation, summary sheet, C/S assessment check lists and associated documents / material, ...)
  - Type of record: electronic or paper copy Management of certifying staff records

- Retention of records
  - Duration / location
  - Type of documents

- Format of the BCAR-145 C/S-S/S individual authorisation document and authorisation codes
- procedure to ensure certifying staff may produce their certification authorisation to any authorised person within 24 hours (including line maintenance locations, activities outside the approved locations, etc.)
- Control of certifying staff records
  - Authorized persons
  - BCAA personnel

  - Authorized managers
  - Delivery of a copy of their BCAR-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 shall be given access on request to their personal records
  - upon request, the maintenance organisation shall furnish C/S-S/S with a copy of their personal record on leaving the organization

3.6 Quality Audit Personnel.

145.A.30(e)

This chapter must describe how the Quality system personnel is managed.

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

Note: the competence assessment process for issuance, extension, renewal of the BCAR-145 Authorisation is expected to be described in the MOE 3.14 "Competence Assessment".

- Independence of quality audit personnel when the organisation uses skilled personnel working within another department than that of Quality
- Retention of records
  - Duration / location
  - Type of documents

- Check that the number of quality personnel remains adapted to the maintenance activity to be supervised (relation with 2.22 Man hour planning).
- Allocated man-hours (if not full-time employed) shall be addressed.

3.7 Qualifying Inspectors.

145.A.30(e)

This chapter is dedicated to the qualification and authorisation of the "inspectors" which undertake inspection functions and sign-off the related task(s).

- Identification of the various types of Inspectors in the maintenance organisation

The various types of "inspector" personnel, as applicable to the organisation, need to be addressed (e.g. aircraft inspector, component inspector, engine inspector, store receiving inspector, etc.). Clear differentiation is expected for each different ratings in the scope of work (e.g. aircraft, engines, components, specialised services).

It is recommended that a roster listing all maintenance personnel formally authorised to sign-off tasks as "Inspectors" is available in the maintenance organisation under the control of the Quality Manager

They may be authorised:

"EXAMPLE"

- As Aircraft/component/engine inspectors, in order to sign-off (ref. MOE 2.13 table) the tasks performed under supervision (e.g. work performed by trainees)
- As Aircraft/component/engine inspectors, in order to sign-off (ref. MOE 2.13 table) the independent inspection tasks
- As Store incoming inspectors, to perform and attest the receiving inspection of aircraft components/materials as per MOE 2.2 procedure

An Aircraft/component/engine inspectors is not authorised to issue a release to service for aircraft or component or engine, unless he/she is also holding a "certifying staff privilege".

In the aircraft base maintenance environment the inspectors function does not correspond to the support staff function. After the task sign-off, a further inspection stage is necessary by B1, B2, B3 Support staff as applicable. Support Staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C certifying staff issues the certificate of release to service.

When the staff is holding more than one authorisation (e.g. mechanic, inspector and certifying staff), the different authorisations shall be clearly distinguished. A person may be at the same time:

"EXAMPLE"

- *airframe mechanic on the A320(CFM56), B777 (GE90) and ERJ-170 (GE CF34);*
- *airframe inspector on the A320(CFM56) and B777 (GE90);*
- *holding a certification authorisation as certifying staff only for the B777 (GE90);*

Experience, training and competence requirements

- Aeronautical and practical Experience,
- General Training (FTS, CDCCL, EWIS when needed and Human Factor, MOE, standard practices,…)
- Specific training requirements applicable to the scope of activity (aircraft, engine, store etc.)
- Knowledge of the language in which the maintenance approved data are written.
- Authorizations issue, extension, renewal or withdrawal procedures including scope of authorisation

The competence assessment process for issuance, extension, renewal of the BCAR-145 Authorisation is expected to be described in the MOE 3.14 "Competence Assessment".

- Continuation training procedures including
  - Training Programme (MOE and associated procedures, BCAR-145, HF, special requirements, …)
  - Training setting up
  - Duration, intervals

- Retention of records
  - Duration / location
  - Type of documents

3.8 Qualifying Mechanics.

145.A.30(e)

This chapter shall refer to the different specialities 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 organisation. Those personnel have to be considered authorised by the maintenance organisation approved under BCAR-145 to sign-off[17] tasks that they have personally performed. Consistency shall 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 or component or engine or NDT, unless he/she is also holding a "certifying staff privilege".

- Identification of the various types of Mechanics in the maintenance organisation

It is recommended that a roster listing all maintenance personnel formally authorised to sign-off tasks as "Mechanics" is available in the maintenance organisation under the control of the Quality Manager.

When the staff is holding more than one authorisation (e.g. mechanic, inspector and certifying staff), the different authorisations shall be clearly distinguished.

A person may be at the same time:

"EXAMPLE"

- airframe mechanic on the A320(CFM56), B777 (GE90) and ERJ-170 (GE CF34);
- airframe inspector on the A320(CFM56) and B777 (GE90);
- holding a certification authorisation as certifying staff only for the B777 (GE90);

Clear differentiation is expected for each different rating in the scope of work (e.g. aircraft, engines, components, specialised services)

- Experience, training and competence requirements
- Aeronautical and practical Experience,
- General Training (FTS, CDCCL, EWIS when needed and Human Factor, MOE, standard practices,…)
- Specific training requirements applicable to the scope of activity (aircraft, engine, etc.)
- Knowledge of the language in which the maintenance approved data are written.
- Authorizations issue, extension, renewal or withdrawal procedures including scope of authorisation

The competence assessment process for issuance, extension, renewal of the BCAR-145 Authorisation is expected to be described in the MOE 3.14 "Competence Assessment".

- Continuation training procedures including
  - Training Programme (MOE and associated procedures, BCAR-145, Human Factors, specific technical requirements, …)
  - Training setting up
  - Duration, intervals

- Retention of records
  - Duration / location
  - Type of documents

[17] A "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

3.9 Aircraft or Aircraft Component Maintenance Tasks Exemption Process Control.

145.A.65(b)1, GM 145.A.65(b)(1)

This chapter must describe the procedures of the organisation regarding exceptional authorisations related to maintenance tasks. Deviations have to be requested by the operator to BCAA or granted by the operator in accordance with a procedure acceptable to BCAA. The contract between the operator and the maintenance organisation shall specify the support the BCAR-145 approved organisation may provide to the operator in order to substantiate the deviation request. This chapter is to be considered applicable only under these circumstances.

- System for control and processing with the BCAA which includes:
  - Support to operator/customer for one time extension of task interval due to unavailability of tools, materials, parts, etc.

- Relations with the operator/ customer in case of derogation for an intervention in progress by the workshop
- Supply to the customer/ operator of information enabling to write out requests for exceptional authorisation applications.
- Control of the approval by the BCAA (linked with CRS)

The difference between the activity study/ preparation/ redaction/ submission of exceptional authorisation application related to maintenance tasks on behalf of customers/ operator and the BCAR-145 activity here above should be kept in mind.

3.10 Concession Control for Deviation from the Organisations' Procedures.

AMC 145.A.65(b)

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

It shall be understood that any request for concession to deviate from an MOE procedures shall be anyway in compliance with any regulatory requirement with particular reference to BCAR-145. Under no circumstances this chapter may be used to deviate from regulatory requirements.

- Concession criteria
  - Object, 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 Quality system to BCAA

Note: Any concession shall be approved by BCAA.

3.11 Qualification Procedure for Specialised Activities Such as Non-Destructive Testing, Welding…

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

It is recommended to structure this chapter to provide qualification requirements for each group of specialised services staff in a separate paragraph.

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

- *The specific technique(s) for each NDT method used in the maintenance organisation.*
- *The qualification and authorisation of NDT staff to meet the requirements of EN 4179*

For the purpose of BCAR-145 the following document shall be issued:

- *A document associated to be MOE to be referred as "NDT manual" only detailing the technical compliance of NDT activities/techniques under the control and approval of the responsible NDT level 3 to be referred in the MOE 1.9 chapter. In addition the related approval process is to be described in the MOE 1.11 chapter;*
- *A procedure detailing the qualification and authorisation of the NDT staff to be included directly in the MOE 3.11 chapter.*

3.11.1 NDT personnel

- NDT staff
  - List of non-destructive testing personnel
  - Levels of qualification and authorization
  - Role and privileges of these staff (including responsible level 3 person who shall approve the organisation's NDT Manual

- Experience & qualification
  - Criteria regarding experience, training and skills
  - Experience required by NDT method for each level of authorization
  - Responsible NDT level III shall demonstrate an appropriate knowledge of the manufacturer maintenance Data, BCAR-145 requirements, MOE, Human Factors, FTS and EWIS
  - Level III requires suitable training/examination provided by an organisation under the general control of an EU NDT Board should be addressed in this paragraph
- Training
  - Basic NDT training for each level of authorization
  - Training on the NDT procedures of the organisation
- Examination
  - Procedure of skills assessment (practical assessment and/or 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 authorization
  - Medical examination
  - Eyesight testing
- Continuation training and testing
- Authorizations issue, renewal or withdraw procedures
- Retention of NDT staff records
  - Duration / location
  - Type of documents
- Contract arrangement (this applies in the case of contracted staff as per AMC.145.A.30.(d))

The certifying staff authorised in accordance with subcategory B1 of the BCAR-66 (limited to staff holding an BCAR-66 AML) can carry out and/or control colour contrast dye Penetrant tests.

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

This chapter shall also describe the qualification requirements applicable to NDT Level 3, particularly when he is contracted and/or not Certifying Staff.

Detailed guidance on NDT Level 3 qualification requirements may be found in EN4179

3.11.2 Other specialised activities personnel (e.g. welders, painters, etc.)

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

The organisation shall include the qualification process for each specialised activity (refer to the list of topics indicated for NDT staff qualification procedure). The qualification process should be based on international industry standards and/or manufacturer published standards.

3.12 Control of Manufacturers' and Other Maintenance Working Teams.

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

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

3.12.1 External Team Working under their own BCAR-145 Approval.

In this case at the end of the work, the external team will issue their own CRS for the work done (aircraft CRS or BCAA 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 (tools/equipment, facilities,…) made available to the External Team Working
- Management of the progress of work (meetings, etc.)
- BCAR-145 release to service to be expected from the working team

3.12.2 External Working Team not holding an BCAR-145 Approval.

In this case, the external working team shall be considered as a "Subcontractor" and the applicable procedures developed in MOE chapter 2.1 shall be followed. The Organisation shall be listed in MOE 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 (meetings, etc)
- Certification procedure for work performed by the outside team such as: repair, replacement, modification, overhaul, test, inspection.
- Environmental conditions
- Final certification
- Training on the internal procedures to external staff

3.13 Human Factors Training Procedure.

145.A.30(e), AMC2 145.A.30(e), GM1 145.A.30(e)

This chapter shall refer the human factors training for the organisation personnel[18].

3.13.1 Initial Training (except C/S and S/S)

- Aims and objectives
- Categories of staff to be trained
- Implementation time frame[19]
- Training methods and syllabus: {refer to GM 1 - 145.A.30 (e)} Duration of training
- Validation of the training courses (syllabus and duration)
- Requirements for trainers
- Training Records
    - Duration / location
    - Type of documents

3.13.2 All Maintenance staff Continuation Training

- Aims and objectives
- Categories of staff to be trained
- Training methods and syllabus: GM 1 - 145.A.30.(e) tailored to the audience + audit findings + feedback in relation to relevant quality audit findings and other internal/external sources of

information available to the organisation on human errors in maintenance (link with § 2.25) (AMC145.A.30 (e) 8).

- Duration of training
- Validation of the training courses (syllabus and duration) Requirements for trainers
- Training Records
  - Duration / location
  - Type of documents

Human factors training could be adjusted to reflect the particular nature of the organisation (size, scope of work). Human factors continuation training shall be of an appropriate duration in each two year period.

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[18] Initial training to Human Factors for Certifying Staff and Support Staff is defined in Chapter 3.4

[19] Initial training to be provided to personnel within 6 months of joining the maintenance organisation, but temporary staff may need to be trained shortly after joining the organisation (AMC145.A.30 (e) 6).

3.14 Competence Assessment of Personnel.

145.A.30(a)3, 145.A.30(b)3, 145.A.30(e) , AMC 145.A.30(a), AMC1 145.A.30(e) , AMC3 145.A.30(e) , AMC4 145.A.30(e), GM2 145.A.30(e), GM3 145.A.30(e), 145.A.35(a), AMC 145.A.35(a), Appendix IV to AMC 145.A.30(e)

This chapter 3.14 applies to all maintenance personnel involved in the BCAR-145 activities (management personnel, certifying staff, mechanics, inspectors, quality auditor, engineering staff, production planning staff, store inspectors, tools administrators, purchasers, etc.).

The qualification requirements to be assessed for each category of staff (being different from one to the other staff category) is expected to be found in the relevant MOE chapter (e.g. chapter 3.4 in case of Certifying/Support staff, chapter 3.6 for quality auditor, chapter 3.8 for mechanics, chapter 3.7 for inspectors, etc.)

- Management of competence assessment
  - Assessment procedures for initial , extension and renewal of an authorisation (process/method used)
  - Person responsible for this process on behalf of the Organisation
  - When the assessment shall take place
  - Assessors
  - Commission/ examination
  - Actions to be taken when the assessment is not satisfactory.

- The competence assessment shall include:
  - Verification that all the applicable qualification requirements for the specific category of staff as detailed in the relevant MOE chapter/Job Description (e.g. 3.4 in the case of certifying staff, etc.) are met
  - Verification of the competences listed in the GM2 145.A.30 (e) and include verification of:
    - relevant knowledge skills and experience on the product/technical area as applicable to the job function
    - appropriate attitude towards safety and observance of procedures
    - knowledge of the procedures (e.g. handling and identification of components, MEL use, etc.) as applicable to the job function

- The competence assessment shall be based on:
  - Review of personnel records
  - Interview

- evaluation of competence "On-the-Job performance" and/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, etc.),

- Assessment records
  - Location
  - Type of documents
  - Clear identification of the scope of the assessment (initial, extension or renewal of a BCAR-145 C/S-S/S individual authorisation). This means for example:

"EXAMPLE"

- *For aircraft certifying staff, which is/are the category(s) (e.g. B1 line maintenance certifying staff, B1 base maintenance support staff, C base maintenance certifying staff, A line maintenance certifying staff, etc.) and which is/are the aircraft type (s) being assessed for endorsement in the authorisation (initial or extension of privileges);*
- *For components certifying staff, which is/are the rating(s) (e.g. C14, C6, C5, etc.) and the specific components associated to each rating (e.g. Landing Gears P/N, Battery P/N, etc.) being assessed for endorsement in the authorisation (initial or extension of privileges);*
- *For quality auditor, which is the scope of the auditor authorisation (e.g. system/procedures or product audit)*
- *Etc.,*

  - upon request, the maintenance organisation shall furnish any staff with a copy of their personal records on leaving the organisation (for C/S-S/S also refer to MOE 3.5).

A template is available in GM 3 145.A.30(e) which 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 evidences, such as training certificates/experience logbooks, etc.), and be considered during the competence assessment of the individual in another organisation.

- Procedure to take credit of experience/training for new maintenance personnel joining the maintenance organisation (ref. GM 3 145.A.30(e))
- Procedure to assess the need of EWIS training for the various categories of maintenance personnel, when applicable to the scope of approval of the organisation

Further guidance is provided for EWIS training programme to maintenance organisation personnel in EASA AMC 20-22

- Procedure to assess the need of Fuel Tank Safety 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 organisation

BCAA guidance is provided for training programme in Appendix IV to AMC to 145.A.30(e).

3.15 Training procedures for on-the-job training as per Section 6 of Appendix III to BCAR-66.

This chapter is limited to the case where the BCAA is responsible for the BCAR-145 approval and for the BCAR-66 licence is the same and therefore it is to be considered not be applicable to Foreign BCAR-145 Organisations.

For further guidance please refer to: GM-AIR-04 Guidance on On the Job Training (OJT) for the first type rating in any Category or subcategory of a BCAR-66 Aircraft Maintenance Licence.

3.16 Procedure for the issue of a recommendation to the competent authority for the issue of a BCAR-66 licence in accordance with 66.B.105

This chapter is limited to the case where the BCAA is responsible for the BCAR-145 approval and for the BCAR-66 licence is the same and therefore it is to be considered not be applicable to Foreign BCAR-145 Organisations.

Additionally, this chapter is limited to organisations where the BCAA, for their BCAR-66 Licence, has developed and approved an organisation to issue recommendations for the issue of a BCAR-66 Licence.

PART 4- CONTRACTED OPERATORS.

This MOE Part is to be considered applicable only when the Organisation is holding a maintenance contract for aircraft covered by the Bhutan Air Navigation Regulations and this part is intended to cover any operator peculiar requirement which has to be endorsed in the MOE for the purpose of being used in the performance of maintenance (e.g. how to acquire the necessary information for removal of serviceable components, etc.). It is recommended to have a separate procedure for each customer operator.

When the organisation is performing line maintenance for a customer operator limited to an IATA Standard Ground Handling Agreement, this part is not applicable and the line maintenance procedures to be followed are the one indicated in the MOE Part L2 plus any other line maintenance procedure directly provided by the customer operator (e.g. Operator line station manual).

4.1 Contracting Operators.

145.A.70(a)13

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

4.2 Operator Procedures and Paperwork.

145.A.65(b)1, GM 145.A.65(b)(1), GM 145.A.70(a)

This chapter must describe for each contracting operator, the special mode of operation (procedures/ documents/ exchange of information, planning meetings, technical, quality, reliability) between the organisation and its customer.

- Need to receive training on customer operator procedures
- Procedure to ensure correct completion of customer provided work cards (e.g. training on customer paperwork, etc.)

4.3 Operator Record Completion.

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 chapter must describe (for each contracted operator) how the organisation:

- Completes operator's log books
- Keeps the operator's technical records Retains records on behalf of the operators
- Communicates with the operator

PART 5.

5.1 Sample of Documents.

AMC 145.A.70(a)

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

"EXAMPLE"

- Request to BCAA for approval of an Exposition amendment
- Request to BCAA 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
- BCAA Form 1
- Quality Audit Report Form
- Quality Audit Corrective Action Report Form
- Personnel Training Record
- BCAR-145 C/S-S/S individual authorisation
- Concession Application and Approval

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

145.A.70(a)14

This chapter must list the non-BCAR-145 subcontractors working under of the maintenance organisation quality system (not holding a BCAR-145 approval)- linked with MOE chapter 2.1, 2.2

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

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

This chapter must list the line station locations – linked with MOE chapter 1.8 and 1.9 – (airport and addresses)

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

145.A.70(a)16

This chapter must provide the list of contracted organisation (holding a BCAR-145 approval relevant to the maintenance activity contracted)- linked with MOE chapter 2.1, 2.2.

The lists shown in 5.2, 5.3 and 5.4 whatever included to or associated to the MOE, is an integral part of the approval. This means that it shall be approved (directly by the BCAA or by the organisation, through a procedure which has been previously approved by the BCAA (refers to Chapter 1.10, 1.11).